A STUDY OF THE EFFECT OF FINANCIAL INCLUSION ON ECONOMIC DEVELOPMENT IN ZAMBIA

By

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DECLARATION

I, Chilombo. S. Mweetwa do hereby declare that this work is my original work achieved through personal reading and research. This work has never been submitted to the University of Zambia or any other universities. All sources of data used and literature on related works previously done by others, used in the production of this dissertation have been duly acknowledged. If any omission has been made, it is not by choice but by error.

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CERTIFICATE OF APPROVAL

This dissertation of **Chilombo. S. Mweetwa** has been approved as fulfilling the requirements for the award of the degree of Master of Business Administration in Finance by the University of Zambia.

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ABSTRACT

Financial development enhances human development, and access to financial services makes a positive impact on people's lives, particularly the poor. The importance of an inclusive financial system, across the globe, is widely recognized in the policy circles and has become a policy priority in many countries including Zambia. This research project attempted to show how financial inclusion is correlated with standard measures of economic development in Zambia. The objective of the study was to review existing sources of detailed data on financial inclusion and economic development and establish the relationship between financial inclusion and economic development in Zambia and make recommendations. The study found out that there is a positive relationship between financial inclusion and economic development and an increase in financial inclusion leads to an increase in economic development. This was revealed by the various correlation tests and regression test carried out. The study also revealed that the selected independent variables on financial inclusion explain 97.10% of the variation in the dependent variable (Human Development Index). The study recommended the need for the Zambian Government to identify, develop and implement workable polices to enhance financial inclusion and in turn improve the lives of people.

Key Words: Financial Inclusion, Financial Development, Economic Development

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DEDICATION

To my husband and children for giving me the drive to aspire to be the best person that I can be. To my parents for grooming me all these years and sacrificing so much for me to be where I am and who I am. To my siblings, thank you for always being there and cheering me on regardless of how impossible it may seem sometimes. Thank you all for teaching me unconditional love.

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LIST OF ABBREVIATIONS AND ACRONYMS

ANOVA	Analysis of Variance
BoP	Base of Pyramid
DRC	Democratic Republic of Congo
FAS	Financial Access Surveys
FIS	Financial Inclusion Score
HDI	Human Development Index
IMF	International Monetary Fund
KYC	Know Your Customer
MSME	Micro, Small and Medium Enterprises
SPSS	Statistical Package for Social Sciences
UNDP	United Nations Development Programme

CHAPTER ONE

INTRODUCTION

1.0 Background

Finance is an essential part of the development process, and modern development theories emphasize the key role of access to finance. Greater access to financial services enables poor people to plan for the future and invest in land and shelter, and to utilize productivity. It is widely recognized that the development pathway requires access for families and firms to appropriate financial products, including savings, credit, insurance, and investment instruments. Sustained long-term economic progress at both household and economy- wide levels depends on access to financial products and services. The United Nations Capital Development Fund (UNCDF) report of 2009 illustrates that financial inclusion has been of importance in third world countries since the early 2000's after the research findings about financial exclusion and its direct correlation to poverty in third world countries. Global and national-level policy makers have been embracing financial inclusion as an important development priority (Cull, Ehrbeck & Holle,2014).

Zambia's financial sector is of strategic importance to the country's development as well as to poverty reduction efforts. According to the Finscope (2015) report, broad based access to financial services has remained a challenge in Zambia for many years. The report further indicated the need to do more in order to push the access boundaries further. The government of Zambia has realized the direct correlation between financial inclusion and poverty. As a result of this, the government has come up with various initiatives of including everybody financially as evidenced through the launch of the "National Financial Inclusion Strategy 2017-2022" where the opening statement indicates that the government has recognized the need for a comprehensive National Financial Inclusion Strategy to accelerate progress toward inclusive, stable and competitive financial sector development in Zambia. Enhanced financial inclusion in various countries has been shown to contribute to wealth creation, economic growth and sustainable development. Further, the Bank of Zambia in its strategic plan for the period 2016-2019 has one of its objectives as

"increase formal financial inclusion by 16 percentage points in order to contribute to enhanced living standards". It is clear that the government acknowledges the link between development and financial inclusion.

According to the Finscope Report (2015), formal financial inclusion has increased from 23.1% in 2009 to 38.2% in 2015 while informal financial inclusion has increased from 22.2% to 37.9% during the same period. The report concludes that a lot still needs to be done to ensure low income individuals are included financially. Financial institutions have a very crucial and wider role to play in fostering financial inclusion (Ahmed & Jianguo, 2014).

Financial inclusion is becoming a priority for policymakers, regulators and development agencies globally. Zambia is no exception due to great numbers of "unbanked" people especially in rural areas and among low income individuals. Normally the weaker sections of society are completely ignored by the formal financial institutions in the race of making chunks of profits or the complexity involved in providing finance to the weaker section ((Selvakumar, Mathan & Sathyalakshmi, 2015). Financial Inclusion initiatives are receiving support from governments as well as international bodies including the World Bank, International Monetary Fund (IMF), G20 and African Development Bank (AFDB) among others (Able, Mutandwa & Roux, 2018). To date it still appears that financial services are inadequate to include people in full participation in accessing financial services such as banking, insurance, savings, short and long term credit, pensions and money transfers (Finscope,2015).

Globally, 2.7 billion adults do not have access to formal financial services (Demirguc-kunt, Levine & Ross, 2009). Through its Financial Inclusion 2020 project, the Centre for financial inclusion defines full financial inclusion as a state in which everyone who can use them has access to a full suite of quality financial services, provided at affordable prices, in a convenient manner, with respect and dignity. Through a survey carried out in 2011, the centre expanded the definition to note that full inclusion requires the clients of these services to be financially literate (Gardeva & Rhyne, 2011).

Financial Inclusion can also play an important role in reducing risk and vulnerability for disadvantaged groups, and increasing the ability of individuals and

households to access basic services like health and education, thus having a more direct impact on poverty reduction. It is widely recognized that the development pathway requires access for families and firms to appropriate financial products, including savings, credit, insurance, and investment instruments. Sustained long-term economic progress at both household and economy- wide levels depends on access to financial products and services. Access to financial services is a fundamental driver of increased household income and resilience in an increasingly shock-prone global economy (Claessens, Honohan, & Rojas-Suarez, 2009).

1.1 Statement of the Problem

There is a general consensus among economists that financial development spurs economic growth. Theoretically, financial development creates enabling conditions for growth. Empirical research supports the view that development of the financial system contributes to economic growth (Rajan & Zingales, 2003). Research shows that enhanced financial inclusion in various countries has been able to contribute to wealth creation, economic growth and sustainable development. Despite this, over 40% of Zambian adults are excluded from the financial sector; and nearly 80% do not use financial products and services from regulated providers (Finscope,2015). A localised empirical study is needed so that the recommendations thereof can help policy makers in developing workable financial inclusion initiatives.

1.2 Aim of the study

This study is aimed at identifying the relationship between financial inclusion and economic development. The study will also address the constraints to financial inclusion especially among the excluded groups and how these constraints can be overcome in order to reduce the levels of poverty by increasing access to financial services.

1.3 Research Objectives

i) To establish the effect of financial inclusion on economic development as measured by the human development index.

ii) To determine the nature of the relationship between financial inclusion and economic development as measured by the human development index.
iii) To understand how financial inclusion can enhance economic development as measured by the human development index.

1.4 Research Questions

i) What is the effect of financial inclusion on economic development as measured by the human development index?
ii) What is the relationship between financial inclusion and economic development as measured by the human development index?
iii) How can financial inclusion enhance economic development as measured by the human development index?

1.5 Significance of the Study

Financial inclusion and its importance is a relatively new concept. The relationship between financial inclusion and economic development has been under research for only a decade. This study went on to add to the theory of financial inclusion as it gains pre-eminence as a vital aspect of economic development of any country. This study aimed at examining the current status of financial inclusion in Zambia and analysing the relationship between financial inclusion and economic development which will aid policy makers in making policies that are more inclusive for economic development.

Consequently, the results of the study will be useful in the following manner:

i) Students particularly those pursing postgraduate studies in Finance, Economics and Accounting will find this study useful in their quest to understand financial inclusion and economic development.
ii) Consultants especially in the area of financial inclusion and economic development will find this report useful in their quest to provide appropriate, feasible and informed advice to both public and private sector organizations and players.

iii) In the wake of empirical literature on the influence of financial inclusion on economic development in Zambia, researchers and academics may benefit from the findings of this study as it may form part of their reference material. If need arises, the findings may trigger further research.

1.6 Scope of the Study

The study is descriptive and is limited to secondary data obtained from the International Monetary Fund (IMF), United Nations Development Programme, World Bank and Bank of Zambia. The study covered a period of 14 years from 2004 to 2017.

1.7 Thesis Outline

The research is organized in six chapters; Chapter I describes the introduction that covers the background information, problem statement, objective of the study, research questions and proposition of the study. Chapter II reviews relevant literature related to the study and provides an overview of financial inclusion and human development index. Chapter III discusses the theoretical and conceptual framework. The methodology is covered in Chapter IV while results of the study are discussed in Chapter V. Chapter VI presents the conclusion and recommendations based on the findings.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

Well-functioning financial systems serve a vital purpose, offering savings, credit, payment, and risk management products to people with a wide range of needs. Inclusive financial systems, therefore, allow broad access to financial services, are especially likely to benefit poor people and other disadvantaged groups. Without inclusive financial systems, poor people must rely on their own limited savings to invest in their education or become entrepreneurs and small enterprises must rely on their limited earnings to pursue promising growth opportunities. This can contribute to persistent income inequality and low economic development (Demirguc-Kunt & Levine 2009).

2.1 Overview of Financial Inclusion

According to Asli Demirguc-Kunt (2008) financial inclusion or broad access to financial services is defined as an absence of price and non-price barriers in the use of financial services. When financial inclusion is addressed holistically, it includes extending access to the previously excluded to a range of financial products that they can use safely, affordably and conveniently (Arun & Kamath, 2015). Financial Inclusion means the delivery of financial services at affordable costs to sections of disadvantaged and low income segments of society (Divya, 2013). The World Bank state that Financial inclusion means that individuals and businesses have access to useful and affordable financial products and services that meet their needs that is transactions, payments, savings, credit and insurance which are delivered in a responsible and sustainable way (World Bank, 2018). At its most basic level, financial inclusion starts with having a deposit or transaction account at a bank or other financial institution or through a mobile money service provider which can be used to make and receive payments or to store or save money (Demirguc-Kunt, Klapper & Singer, 2017). Financial inclusion is basically the delivery of banking services at an affordable cost and in a fair and transparent manner to the vast sections of disadvantaged and low income groups (Vashisht & Wadhwa, 2015).

In order for a country to attain full inclusion the following are of great importance. Financial services should be accessible to all: this is often seen as the goal of financial inclusion. Financial services provided should also be of quality: quality financial inclusion includes the following traits: affordability, convenience, product-fit, safety, dignity of treatment, and client protection. Financial inclusion involves provision of the full suite of basic financial services; this refers to group of core financial services that includes basic credit, savings, insurance and payment services (Gardeva & Rhyne, 2011). Financial exclusion has been defined in the context of a larger issue of social exclusion of certain groups of people from the mainstream of the society. Leyshon and Thrift (1995) define financial exclusion as referring to those processes that serve to prevent certain social groups and individuals from gaining access to the formal financial system. Carbo, Gardener and Molyneux (2005) have defined financial exclusion as broadly the inability of some societal groups to access the financial system. According to Conroy (2005), financial exclusion is a process that prevents poor and disadvantaged social groups from gaining access to the formal financial systems of their countries. According to Mohan (2006) financial exclusion signifies the lack of access by certain segments of the society to appropriate, low-cost, fair and safe financial products and services from mainstream providers.

According to Cull, Ehrbeck, & Holle (2014), about half of all working-age adults are excluded from financial services while of people across the developing world do not have access to banking services. Faced with barriers related to cost, geography and education, these individuals have no way of securely transferring funds, saving money, insurance or accessing credit (BASA, 2003). These four services serve different needs that each household encounters, and ensuring access to this product range is an important goal of financial inclusion. Credit allows households to use future income to manage current vulnerabilities or to capitalize on investment opportunities. Savings provide a safe and value-retaining place where households can store funds, allowing them to tap into "past income" as needed.

2.2 Overview of Economic Development

According to Sen, (1999) development involves reducing deprivation or broadening choice. Deprivation represents a multidimensional view of poverty that includes hunger, illiteracy, illness and poor health, powerlessness, voicelessness, insecurity, humiliation and a lack of access to basic infrastructure (Narayan, Patel, Schafft, Rademacher, & Schulte 2000). Seers (1979) argues that the purpose of development is to reduce poverty, inequality, and unemployment.

Sampson, (2012) defines economic development in terms of objectives. These are most commonly described as the creation of jobs and wealth, and the improvement of quality of life. Economic development can also be described as a process that influences growth and restructuring of an economy to enhance the economic well-being of a community. In the broadest sense, economic development encompasses three major areas: Policies that government undertakes to meet broad economic objectives including inflation control, high employment and sustainable growth, policies and programs to provide services including building highways, managing parks and providing medical access to the disadvantaged and finally policies and programs explicitly directed at improving the business climate through specific efforts, business finance, marketing, neighbourhood development, business retention and expansion, technology transfer, real estate development and others. The main goal of economic development is improving the economic well-being of a community through efforts that entail job creation, job retention, tax base enhancements and quality of life.

Sen, (1983) generally refers to economic development as the sustained, concerted actions of policymakers and communities that promote the standard of living and economic health of a specific area. It can also be referred to as the quantitative and qualitative changes in the economy. It includes development of human capital, critical infrastructure, regional competitiveness, environmental sustainability, social inclusion, health, safety, literacy, and other initiatives. Economic development is a policy intervention endeavour with aims of economic and social well-being of people. The scope of economic development includes the process and policies by which a nation improves the economic, political, and social well-being of its people (O'Sullivan & Sheffrin, 2003). Broadly speaking, economic development has been

defined in different ways and as such it is difficult to locate any single definition which may be regarded entirely satisfactory.

2.3 Financial Inclusion and Economic Development

The access to financial services can be measured in the form of access to certain institutions such as banks, cooperatives, non-banking finance companies, credit unions, micro finance institutions, insurance companies or in terms of functions that institutions perform or services they provide such as payment services, savings or loans. One of the popular benchmarks employed to assess the degree of financial services to the population of the country is the quantum of deposit accounts held as ratio to the adult population (Beck, Demirgüç-Kunt & Peria, 2010).

Low and moderate income households are especially in need of effective financial products, services, and tools to manage and grow their money in a way that meets their daily needs and allows for future investments. Yet, the financial services currently available to the rural poor are often costly, unsafe, and inefficient. Money kept at home may be subject to theft or temptation, as well as family demands, whereas moneylenders and other intermediaries charge high fees and prohibitive interest rates.

The vital role of the financial system and technology is entrenched in Zambia's development blue print – Vision 2030, which aims at transforming the country into a newly industrialized middle-income country that provides high quality of life to its citizenry by the year 2030. Under Vision 2030's economic pillar, the financial services sector and information, communication and technology are two of the six priority sectors amongst Tourism, Agriculture and Livestock, Wholesale and Retail Trade, Manufacturing, identified to address Zambia 's economic challenges.

Financial inclusion is intended to connect people to banks with consequential benefits. Financial inclusion includes credit facilities, financial awareness and knowledge about banking facilities and most importantly makes them financially literate (Vashisht & Wadhwa, 2015). Financial inclusion is one of the key drivers of economic development. Financial development is not simply a result of economic growth but it is also the driver of economic growth. Financial inclusion is a feature

of financial development and is a process that marks improvement in quantity, quality and efficiency of financial intermediary services (Babajide, Adegboye & Omankhanlen, 2015).

A well-functioning financial system drives economic growth, creates a platform for financial intermediation by providing savings, credit, payment and risk management products to people with a wide range of needs (Babajide, et al., 2015). Financially inclusive systems allow an easy broad based access to financial services by making customized financial products available at an affordable price without stringent documentation, particularly to the poor or other disadvantaged groups within the economy. Bbajide, et al., (2015) state that without financially inclusive systems, the poor would rely on their limited savings for future investments and small enterprises would not be able to pursue promising growth opportunities as they would have to rely on their limited earnings and this is the reason for the persistent income inequality and drag in the economic growth of most developing countries.

2.4 Financial Inclusion Variables

According to Zambia's National Financial Inclusion Strategy (NFIS) 2017 -2022, the vision of Zambia's government is for all individuals to have universal access and usage to a broad range of quality and affordable financial products and services. In achieving this vision, it is expected that all Zambians will reap the full benefits of financial inclusion: that is, individuals will be able to use appropriate savings, credit, payment, insurance and investment services to manage risks, plan for the future, and achieve their goals; and firms will be able to access affordable financing to innovate, grow and create employment.

2.4.1 Savings

Savings according to Keynesian Economics, are what a person has left over when the cost of his/ her consumer expenditure is subtracted from the amount of disposable income earned in a given period of time (Investopedia, 2019). Savings help households manage cash flow spikes and smooth consumption, as well as build working capital (CGAP, 2014). Saving habits are different on the African continent

in comparison to the World. The main motivation for saving in Africa are for "education" and "farm business" while individuals of high income economies save for "old age" (Weill & Zins, 2016). Savings are increasingly recognised as a major component of the poor's livelihood strategies, allowing them to respond to emergencies, smooth consumption and build necessary lump sums. Savings are now a key priority for a number of financial inclusion platforms and programmes, from the Alliance for Financial Inclusion, to the G20 principles for Innovative Financial Inclusion (Faurie, 2014).

2.4.2 Credit

Financial inclusion seems to reduce inequality by disproportionately relaxing the credit constraints on poor people who lack collateral, credit history and connections (CGAP, 2014). According to the randomized impact evaluations to date, two main patterns stand out; small businesses do benefit from access to credit while the linkage to broader welfare is less clear (CGAP, 2014). According to Cull, et al., (2014), microcredit had earned its rightful place as one of the key instruments in the fight against poverty.

2.4.3 Payments

According to CGAP, there have been few randomized evaluations on the impact of payments and mobile money. Two main patterns stand out so far; mobile money reduces households' transaction costs and seems to improve their ability to share risk (CGAP, 2014).

2.4.4 Insurance

Another instrument that can help poor households mitigate risks and manage shocks is insurance. Studies conducted in India and Ghana showed strong positive impact on farmers because the assurance of better returns encouraged farmers to shift from subsistence to riskier crops. Vulnerability to risk and the lack of instruments to cope with external shocks adequately make it difficult for poor people to escape poverty.

2.4.5 Investment Services

Investment Services are focused on helping people (clients) meet predetermined financial goals (Economywatch, 2019). Investment services are normally

customised to a client's income levels, circumstances and objectives. Investment services focus on wealth creation and protection.

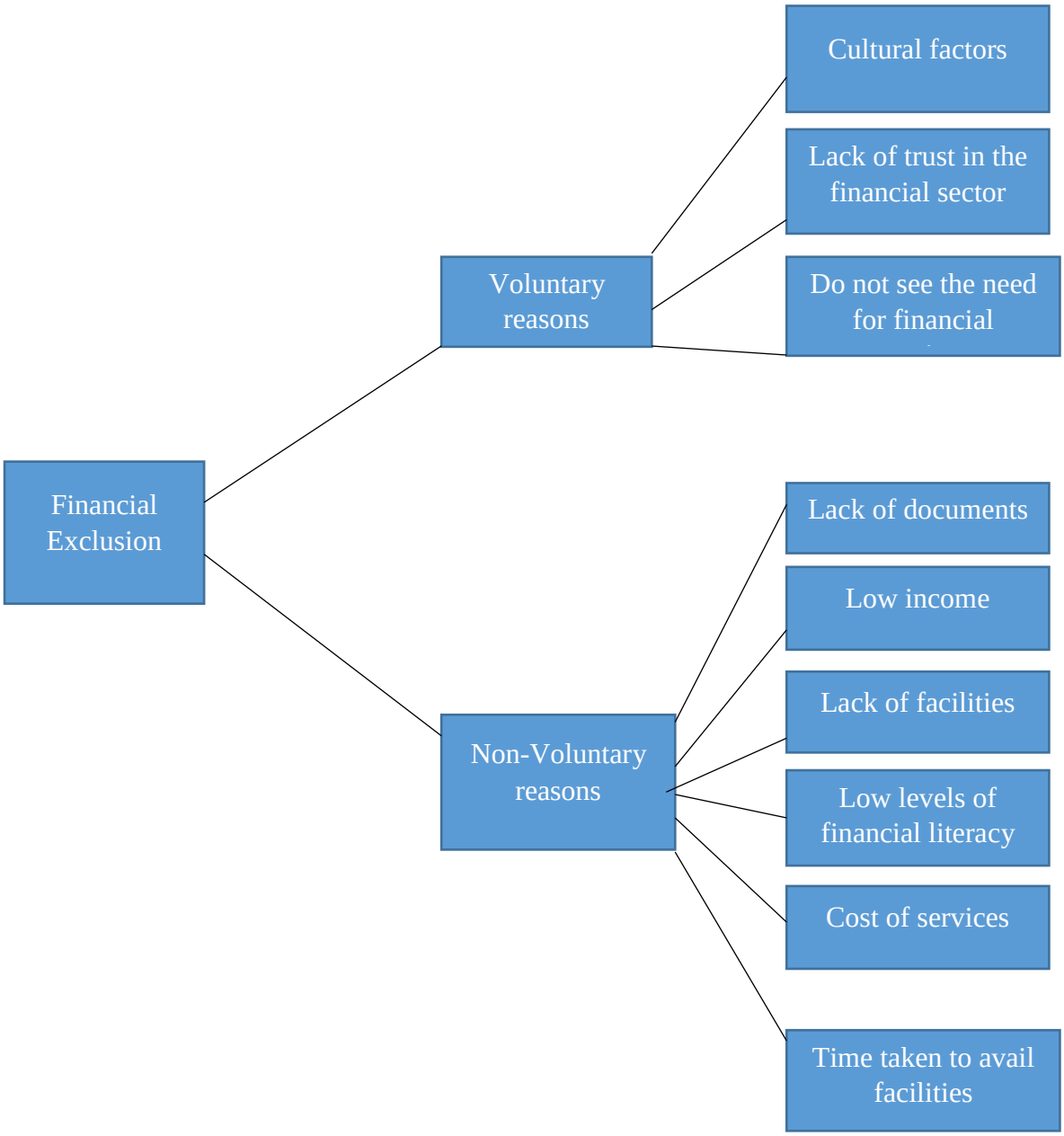
2.5 Financial Exclusion

Financial exclusion refers to those processes that serve to prevent certain social groups and individuals from gaining access to formal financial systems (Leyshon & Thrift, 1996). According to Choudhary and Bagchi (2016), financial exclusion is the lack of access by certain consumers to appropriate low cost, fair and safe financial products and services from mainstream providers. Financial exclusion occurs mainly among people who are at the margins of the society (Pais & Sarma, 2011). Beck, Demirgüç-Kunt & Peria, (2010) have identified the following as primary barriers in expansion of financial services:

i) Non-availability of a bank branch within near distance for physical access;
ii) Banks do not prefer low income people as their clients;
iii) Perceptions of financial services are found as complicated, high charges;
iv) Pnalties attached to banking products and services which make them unaffordable.
v) Other factors include gender, age, legal entity, literacy levels, place of living, physical and cultural barriers, type of occupation, etc.

The diagram below summarises the key factors that have been cited for financial exclusion and can be summarised in the chart below.

Figure 1: Financial Exclusion Factors



Source: Researcher (2019)

2.6 Determinants of Financial Inclusion

Financial access can broadly be divided into two broad categories; one based on the supply side information from the perspective of credit providers, such as banks and other service providers. The other based on demand side information from the perspective of users-individuals, households or firms. Some of the commonly used

indicators for measuring financial inclusion are: number of bank accounts (per 1000 adult population), number of bank branches (per million people), number of ATMs (per million people), amount of bank credit and amount of bank deposit.

However, these indicators of financial access provide only partial information on the inclusiveness of the financial system of an economy and thus, in turn, fail to capture adequately the overall extent of financial inclusion. Formally included households are considered those who use financial services provided by banks or by other formal financial service providers.

It is desirable to examine the determinants of financial inclusion so as to undertake appropriate policy measures for bringing about a more inclusive society in terms of the access to financial services. Several socio-economic factors simultaneously determine the potentiality of borrowers of formal financial institutions. Broadly, the process of financial inclusion is conditioned upon a numbers of factors: some are social, some are economic, some are demographic and some are institutional. Laha (2011) sought to identify the broad determinants of financial inclusion in some selected districts of west Bengal, India.

Empirical results using Bivariate Probit model showed that asset level of the household, as determined by the operated land holding, significantly enhances the probability of becoming a bank customer and the existence of information asymmetry in financial services acts as an obstacle to the process of financial inclusion. Kumar (2011) assessed the behaviour and determinants of financial inclusion in India. The study found that the factory proportion and employee base were considered as the significant variables indicating that income and employment generating schemes lead the public to be more active, aware, interested with regard to banking activities, which contributes towards financial inclusion. Singh & Kodan (2012) analyzed the relationship between financial inclusion and development to identify factors associated with financial inclusion. With the help of regression, he found that per capita NSDP and urbanization were significant explorers of financial inclusion while the literacy, employment and sex-ratio were not statistically significant explorers/predictors of the financial inclusion.

Chithral and Selvam (2013) in their attempt to identify and analyze the determinants of financial Inclusion carried out empirical analysis that revealed that socio-economic factors like Income, literacy and population were found to have significant association with the level of financial inclusion. Further, physical infrastructure for connectivity and information were also significantly associated with financial inclusion. Among the banking variables deposit and credit penetration were found significantly associated with financial inclusion. Finally, Credit-deposit ratio and Investment ratio were not significantly associated with financial inclusion.

2.7 Financial Inclusion Progress

Financial Inclusion means the delivery of financial services at affordable costs to sections of disadvantaged and low income segments of society (Divya, 2013). The World Bank state that Financial inclusion means that individuals and businesses have access to useful and affordable financial products and services that meet their needs that is transactions, payments, savings, credit and insurance which are delivered in a responsible and sustainable way (World Bank, 2018).

At its most basic level, financial inclusion starts with having a deposit or transaction account at a bank or other financial institution or through a mobile money service provider which can be used to make and receive payments or to store or save money (Demirguc-Kunt, et al., 2017). Financial inclusion is basically the delivery of banking services at an affordable cost and in a fair and transparent manner to the vast sections of disadvantaged and low income groups (Vashisht & Wadhwa, 2015).

Financial inclusion indicates that the majority of the population have access to a portfolio of quality financial products and services which include loans, deposit services, insurance, pensions and payment systems as well as financial education and consumer protection mechanisms (Babajide, et al., 2015).

Financial services markets have struggled to deliver positive outcomes for low income households for a considerable time. Although financial exclusion – whereby lower income households are not engaged by, or do not benefit from, mainstream

financial services – has been a policy concern for many years, significant challenges remain (Gibbons, McCallum & Murphy, 2016).

Several World Bank reports indicate that the level of financial inclusion is generally high in developed countries but low in less developed countries. Recently there's been a growing effort to improve the world population's access to financial services regardless of income, social or cultural status. World leaders especially those from developed countries, have committed to work toward improving financial access for the poor. The G20 leaders at the Pittsburgh summit of 2009 committed to work on promoting regulatory and policy approaches that encourage financial inclusion, developing elaborate standards on financial access, financial literacy and consumer protection.

According to the World Bank, more than 50 countries had made headline financial inclusion commitments as at the end of 2014. The importance of an inclusive financial system is widely recognised in the policy circles. Most financial inclusion initiatives have come from the financial regulators, the governments and the banking industry (Sarma & Pais, 2011). Zambia's financial regulators namely; Bank of Zambia, Pensions and Insurance Authority as well as the Securities and Exchange Commission have to form strong trilateral relationships if the financial inclusion agenda in Zambia is to yield results.

2.8 Financial Inclusion Initiatives

The lack of access of a large percentage of working adults to the formal financial sector is a genuine global policy concern. However, other than the aspect of providing access, financial inclusion includes issues such as helping people manage their resources in a better way and building financial capabilities (Arun & Kamath,2015). The financial capabilities of most Zambians are low in that very few people have access to a wider range of financial services such as insurance policies that cover children's education, funeral policies as well as property insurance. The average Zambian would understand financial inclusion as the opening of an account and having access to credit facilities. Despite BoZ setting financial inclusion initiatives, very little has been done in terms of educating the masses on financial matters especially in areas dominated by the low income earners and rural areas. Some of the financial inclusion initiatives spearheaded by the BoZ have not reached

the targeted audiences. BoZ has been holding the financial literacy week in Lusaka and the Copperbelt in shopping malls. The people who frequent shopping malls are mostly already included financially and the financial literacy week and World Savings day end up not having the intended impact.

According to Bhuvan & Vasantha (2016), the Reserve Bank of India recommended commercial banks to engage business correspondent's/ business facilitators to act as intermediaries in order to provide doorstep financial services for the people from the rural areas. Bank accounts for the illiterate rural customers are opened by the business correspondents using biometrics which ensures the security of transactions and increases the trust level about the banking system (Bhuvan & Vasantha, 2016). The effective delivery models for unbanked areas are opening banking outlets (Bhuvan & Vasantha, 2016).

Normally the weaker sections of the society are completely ignored by the formal financial institutions in the race of making chunks of profits or the complexity involved in providing finance to the weaker section (Selvakumar, et al., 2015). A financially inclusive system helps in reducing the prevalence of informal financial institutions that are in most cases exploitative (Sarma & Pais, 2011). Further, there have been formidable challenges in the area of financial inclusion such as bridging the gap between the sections of society that are financially excluded and the ambit of the formal financial system, providing financial literacy and strengthening credit delivery mechanisms so as to improve financial economic growth.

Financial access facilitates day to day living and helps families and businesses plan for everything from long-term goals to unexpected emergencies. The access to credit, savings and remittance instruments begins with the existence of a bank account (Arun & Kamath, 2015). As account holders, people are more likely to use other financial services such as credit and insurance, start and expand businesses, invest in education or health, manage risk and weather financial shocks all of which can improve the overall quality of their lives (World Bank, 2018).

2.9 Financial Inclusion and Technology

Technology could also play a role in enhancing the financial inclusion agenda especially in sub-Saharan Africa where twelve percent of adults have a mobile money account and forty-five percent of adults rely on mobile phones alone for formal banking services (Arun & Kamath, 2015). Mobile money account charges are normally lower than bank account charges and if well leveraged, mobile money accounts can be used as a financial inclusion tool. Latin America has a well-developed, multi-channel payments system based on financial institutions; Africa does not, which helps explain why some African regulators have been more willing than their Latin counterparts to allow telcos to experiment (Rhyne, 2014). In Sub-Saharan Africa, Middle East and North Africa, a lack of connectivity infrastructure and digital identification systems limits the expansion of digital financial inclusion (Global Microscope, 2018). Facilitating the use of digital identification is also a challenge globally; only India and China have strong digital identification systems that have been effectively combined with automated Know Your Customer Processes (Global Microscope, 2018). The expansion for financial inclusion increasingly relies on digital infrastructure. In terms of connectivity, most countries have substantial room for improvement.

Financial inclusion is critical as increasing the poor's access to financial services is often considered as an effective tool that helps reduce poverty and lower income inequality (Mercado & Park, 2015). Poverty is more than just the lack of money. It involves a lack of access to the instruments and means through which the poor could improve their lives. In developing countries, more than fifty percent of households lack an account with a financial institution while small businesses frequently cite cost and accessibility as major constraints to obtaining financing needed to grow their businesses. When compared to the developed world, the coverage of financial services in Zambia is quite low. This exclusion does not mean that low income earners lack active financial lives. In fact, the fragility of their situation has led to the development of sophisticated informal financial instruments that has led to most of them losing their hard earned money. The use of informal instruments also means that the low income earners are limited in their ability to

save, repay debts as well as access other financial services such as pensions and insurance.

Vashisht & Wadhwa (2015) state that access to finance by the poor and vulnerable groups is a prerequisite for poverty reduction and social cohesion. Financial inclusion has to be an integral part of Bank's efforts to promote inclusive growth. Financial inclusion must attempt to lift the poor from one level to another so that they can come out of poverty. Banks are expected to mitigate constraints to financial inclusion for the poor.

Currently, financial services products generally cater for middle to higher income earners; there are very few products which target lower income earners (Faurie, 2014). The majority of the world's poorest nations are found on the African continent and the unfortunate thing is that Africans lack a culture of savings.

In developing countries, there are very few policies on savings mobilization's compared to credit enhancement policies. However, savings mobilizations are an important catalyst for financial inclusion. Increased savings can be engendered by including the poor and disadvantaged groups in the formal financial system. Given their large numbers, this small savings group represents a means of financial diversification which can enhance financial stability and economic growth of a country (Babajide, et al., 2015).

2.10 Financial Inclusion Policies

Many national governments and international institutions have been leading major policy initiatives to bridge the gap between financial inclusion and the poor (Arun & Kamath, 2015). Reaching full financial inclusion by 2020 will require full supportive policies in every country around the globe (Rhyne, 2013). The importance of an inclusive financial system is widely recognised in the policy circles and recently financial inclusion has become a policy priority in many countries (Pais & Sarma, 2011). An all-inclusive financial system enhances efficiency and welfare by providing avenues for secure and safe saving practices and by facilitating a whole range of efficient financial services (Pais & Sarma, 2011). Legislative measures have been initiated in some countries, for example in the United States, the Community Reinvestment Act (1997) requires banks to offer

credit throughout their area of operation and prohibits them from targeting only the rich neighborhoods (Pais & Sarma, 2011).

Most countries have the regulatory basics down, like prudential supervision and regulation of deposit taking institutions but fewer have mastered areas important for reaching lower income-customers especially electronic payments, supervising smaller financial service providers and protecting consumers (Rhyne, 2013). Regulators face the difficult challenge of identifying the public interest in a setting in which traditional private actors may have political influence, while the intended beneficiaries in the lower income public are generally not heard (Rhyne, 2014). Public and political opinion is often dominated by non-market concerns, such as opinions that the poor should receive services at low prices (or free), or that national pride requires domestic systems. Regulators cannot avoid taking a stand because it is their responsibility to determine who plays the game in the first place through licensing (Rhyne, 2014).

Formal financial institutions such as banks are best suited to take forward the mission of financial inclusion (Arun & Kamath, 2015). In 2008, the Alliance for Financial Inclusion (AFI) was founded as a peer exchange body for regulators from developing countries. The AFI created the Maya Declaration process through which governments announce specific national financial inclusion commitments. As a result of these global movements and many local factors, several governments around the world have developed financial inclusion strategies (Arun & Kamath, 2015). The question that needs to be answered is whether these efforts have progressed beyond high level rhetoric (Arun & Kamath, 2015).

As governments signal intent by launching financial inclusion strategies with concrete goals, governments actively pursue financial inclusion by ensuring that their regulatory and supervisory capacity adequately covers the institutions that serve the poor (Arun & Kamath, 2015). A global microscopic study conducted in 2018 by The Economist which covered 55 countries revealed that the top performing countries demonstrate government and policy support for financial inclusion, prioritise financial stability and integrity, and foster inclusion through a variety of products and services. The countries in the top two spots are Peru and Colombia. The majority of countries in the 2018 Microscope have a financial

inclusion plan but the strategies in Peru and Colombia stand out because they are backed by commissions with members from a number of government entities as well as specific inclusion goals. A common trend among top ranked countries is the ease with which customers can access a variety of financial products and outlets. Customers do not face disproportionate requirements to open bank or e-money accounts in any of the top five countries and remote account opening is limited only in Colombia where customers must visit a bank to complete the account opening process. Access to inclusive insurance products is facilitated by specific regulatory frameworks in Peru, India and the Philippines where low income populations have access to life, health and other insurance products (Global Microscope, 2018).

2.11 Summary

From the above literature reviewed, a number of researchers are agreed on the following;

i) Income and literacy levels have a significant association with the level of financial inclusion in a given country;
ii) Physical infrastructure in some cases plays a vital role in improving access to financial services;
iii) Financial Inclusion is one of the key drivers of economic development;
iv) Financial inclusion is higher in developed countries indicating that financial inclusion and development trends move hand in hand;
v) Financial Inclusion has been evidenced to improve the overall quality of people's lives;
vi) Financial Inclusion is an effective tool that helps reduce poverty and lower income inequality;
vii) Access to Finance by the poor and vulnerable groups is a prerequisite for poverty reduction and social cohesion;
viii) Technology has proved to be a major tool for advancing financial inclusion especially in Africa;
ix) Well-functioning financial systems are drivers for economic growth;
x) Policy initiatives are key in bridging the gap between financial inclusion and the poor; and

xi) Deliberate efforts to reach the lower income individuals are needed.

2.12 Review of Similar Studies

2.12.1 Latin American Studies

A study by Rojas-Suarez and Amado (2014) on Understanding Latin America's Financial Inclusion Gap analysed Latin America's Financial Inclusion Gap, the difference between the average financial inclusion for Latin America and the corresponding average for a set of comparator countries. At the country level, they assessed four types of obstacles to financial inclusion: macroeconomic weaknesses, income inequality, institutional deficiencies and financial sector inefficiencies. A key finding of their study was that although the four types of obstacles explain the absolute level of financial inclusion, institutional deficiencies and income inequality are the most important obstacles behind the Latin America's financial inclusion gap.

In Peru, financial inclusion is a central priority for the government, and policy makers have been pioneers in developing regulation to facilitate it. Peru's strategy includes a goal to provide financial services coverage in all districts by 2021. However, consumer uptake has been cited as slow. In 2015, Peru issued the National Strategy for Financial Inclusion. Some of the priorities in the plan include interoperable systems, financial literacy, consumer protection, micro-insurance and corporate governance. Regional disparities are significant as currently more than 30% of districts lack the presence of a financial institution or agent. In rural areas, it takes an average of 1.5 hours to reach a financial access point. The 2017 Global Findex showed that the three main reasons people cited for not having an account were that services are too expensive, insufficient funds and lack of trust. Stakeholders are realizing that they need to have a deeper understanding of the cost-benefit frameworks that poor people and those in the informal sector rely upon when making financial decisions (Global Microscope, 2018).

Furthermore**,** financial inclusion in Colombia is enabled by a sound government strategy that is actively coordinated with the private sector. Colombia's financial inclusion strategy sets targets for both access and use of financial products and is supported by an advisory body comprising private-sector businesses and trade associations. Financial inclusion is also underpinned by a favourable regulatory

environment that protects consumers and incentivises more players to provide financial services to low and middle income populations. The National Development Plan approved in 2015 set financial inclusion targets for 2014-2018 including increases in the share of adults with access to a financial product (72% to 84%) and with an active savings account (from 53% to 65%) as well as a reduction in the use of cash (from 11.5% to 8.5%). According to the government, the first two goals were practically met by mid- 2018 but cash use remains notably high at around 80% of total transactions.

One of the key enablers of financial inclusion in Colombia is the promotion of financial education as well as adopting programmes and incentives. Reducing the use of cash remains the biggest challenge for the government's financial inclusion strategy. Several issues stand in the way of this objective, including obstacles to access the payments infrastructure, some regulatory distortions, and lack of sufficient knowledge about the demand of financial products by small firms and low- and middle -income individuals. A national financial education strategy launched in 2017 to foster use of financial products will take time to deliver results (Global Microscope, 2018).

2.12.2 North American Studies

A study by Nash-Stacey and Karp (2015) on Technology, Opportunity & Access: Understanding Financial Inclusion in the U.S. revealed that although the United States is regarded as having a well-developed and deep financial system, financial inclusion continues to be a challenge for many communities and households. Using four databases with over 4 million data points and a Principal Component Analysis (PCA) methodology, they developed the Financial Inclusion Metropolitan Index (FIMI) for 251 Metropolitan Statistical Areas, to help them identify the main determinants behind financial inclusion. The results from the multi-dimensional index (FIMI) showed that technology is the most important contributor to financial inclusion in U.S. metropolitan areas, specifically mobile, internet and computer access, as well as digital account access and use. Results from a separate individual-level analysis confirm the importance of technology, race, citizenship and inequality as key determinants of financial inclusion in the U.S.

However, they also found that they are less apt at explaining other financial outcomes such as uptake of savings accounts, being a lasting participant of formal financial sector or using alternative financial services.

Another study by the Council of Economic Advisers (2016), on Financial Inclusion in The United States revealed that financial inclusion has increased in the United States over the past 25 years across multiple demographic and geographic categories, most notably race and income. However, many households still lack access to the financial system. The impact of a lack of access to formal finance is substantial. It can cost families anywhere from $220 to $1,100 in extra fees simply to cash pay checks when they lack transaction accounts—and these families often have fewer resources available. In contrast, banked households pay an average of $104 annually, according to some estimates. In addition, unbanked households face further costs to the extent that they rely on small-dollar credit products in order to meet their liquidity needs, which often come with high interest payments and late fees and can raise consumer protection concerns. Nonetheless, these non-traditional financial products do provide services and a source of credit, especially for unexpected expenses, that unbanked households and those with poor credit histories may not be able to access elsewhere.

Financial sector innovations and policies show promise for addressing financial inclusion. However, online lenders and other financial technology innovations may not fit neatly into existing policymaking frameworks and could potentially benefit from greater clarity, including regulatory clarity (which need not always imply additional regulation). Regulatory clarity–whether in the form of regulations per se, other types of regulatory and policy guidance or statements of principle, or further engagement with policy makers and regulators, could help provide important additional information, especially given the trend towards disaggregation of traditional banking services. Moreover, this disaggregation suggests that, in the future, measures of financial inclusion that rely on counts of "unbanked" or "underbanked" customers may miss that many customers can receive the services they need via multiple, disaggregated providers.

However, simply expanding the financial sector may not be the best way to reach those that are still currently unbanked, and there are limits to the ways in which fintech alone can address financial inclusion. The digital divide—less than 50 percent of households in the bottom income quintile have adopted the Internet at home—limits the extent to which online payment and lending solutions will help address the needs of unbanked households in the lowest income quintile. Thus, the Administration is pursuing initiatives aimed at closing the digital divide, including ConnectALL, which aims to connect 20 million more Americans by 2020.

More broadly, both technology and non-technology oriented solutions can help to address financial inclusion. Other solutions include fostering financial capability, continuing the Administration's support of CDFIs, and encouraging partnerships between fintech firms and private or public sector organizations that focus on financial inclusion. There is also more work to be done by researchers, to better understand the mechanisms through which financial inclusion affects individual outcomes, including replication of country-specific findings in other settings, including the United States.

2.12.3 European Studies

Jérôme Coffinet and Christophe Jadeau (2017) undertook a study on Household financial exclusion in the Eurozone. They used the data of the Euro-system's Household Finance and Consumption Survey (HFCS) in order to analyse the factors determining financial exclusion in the euro area. They found that the information content of that database was extremely useful to the definition and the understanding of financial inclusion in the Eurozone. As regards the household individual characteristics, they showed that older, unemployed, lower-income, lower-educated and less wealthy households of the euro area are less likely to own a current account. But the definition of financial exclusion matters: savings accounts discriminate less by age, while access to credit is more probable for younger and lower-income people. As far as country specificities are concerned, they found a strong heterogeneity across the euro area.

A study by Piotr Korynski, and Justyna Pytkowska (2016) on Measuring Financial Inclusion in the EU shows that there is substantial variation among the member states in terms of financial inclusion score (FIS) although overall the majority of the countries are fairly advanced in their efforts to make the financial system inclusive. The FIS scores allow to classify the states into four categories: leaders, high performers, aspiring performers and laggards, with the leaders serving as the performance benchmarks for others to follow.

As with every method, FIS has its limitations. It is sensitive to inputs and outputs, and other versions of the index should be tested to find the most appealing and accurate measure of financial inclusion that captures the phenomenon in the EU context. It also provides a synthetic measure of financial inclusion that shows how the financial system as a whole performs but it does not specify which individuals or groups may be excluded, or to what extent, or why such exclusion may be occurring. Therefore, the study recommended that a composite measure should be treated as a general indicator that needs to be supplemented with more specific review of potential exclusion cases. The findings help to operationalize the measure of financial inclusion and offer a simple composite index that is easy to understand, monitor and implement. The key added value of this research lied in clear definition of financial inclusion and the development of a unique composite index using data envelopment analysis method that assigns weights to inputs and outputs endogenously without prior arbitrary specification of the values of the weights.

Ampudia and Ehrmann (2017) conducted a study on Financial inclusion. Their paper analysed the determinants of being unbanked in the euro area and the United States as well as the effects of being unbanked on wealth accumulation. Based on household-level data from the euro area Household Finance and Consumption Survey and the U.S. Survey of Consumer Finance, it first documents that there are, respectively, 3.6% and 7.5% of unbanked households in the two economies. Low-income households, unemployed households and those with a poor education are the most likely to be affected, and remarkably more so in the United States than in the euro area. At the same time, there is a role for government policies in fostering financial inclusion. Using a propensity score matching approach to estimate the effects of being unbanked, it was found that banked households report substantially

higher net wealth than their unbanked counterparts, with a gap of around €74,000 for the euro area and $42,000 for the United States. A potential reason for this wealth difference is that banked households are considerably more likely to accumulate wealth via ownership of their main residence.

2.12.4 Asian Studies

A study by Gebrehiwot and Makina (2015) examined the determinants of financial inclusion across 26 Asian countries using GMM dynamic panel data analysis. The GMM dynamic panel estimators utilized are specifically designed to deal with the problems plaguing past studies of determinants of financial inclusion, namely, simultaneity bias and unobserved country specific effects. The model shows that financial inclusion is significantly and positively related to its lagged value, economic development, and negatively but not significantly related to government borrowing and the percentage of rural population (a proxy for remoteness). The positive relationship between financial inclusion and mobile penetration has important policy implications in supporting technological initiatives to achieve financial inclusion. In Cambodia, for example, formal institutions meet only 16% of the demand for savings facilities from people in the financial inclusion target segment.

Their findings suggest that digital financial solutions could play a significant part in closing gaps in financial inclusion. They could address about 40% of the volume of unmet demand for payments services and 20% of the unmet credit needs in the BoP and MSME segments. Digital finance alone cannot entirely close the gaps in financial inclusion. For the population earning less than $2 a day, a 10% increase in income is anticipated once they are included financially in Indonesia and the Philippines while an increase of around 30% in income is anticipated in Cambodia.

2.12.5 Australian Studies

A study on Financial Resilience in Australia (2016) by Centre for Social Impact, revealed that, over 1 in 10 (12.1%) adults in Australia experienced very low or low levels of financial products and services in 2016, compared to 1 in 16 in 2015 (5.6%). People with low levels of financial products and services do not have

adequate access to a bank account, credit and insurance, leaving them more at risk of not being able to recover from a financial shock. People with low levels of financial products and services were also more likely to experience difficulties accessing financial products and services than their counterparts who had high levels of resources in this component of financial resilience 40.2% compared to 12.1% respectively, or the general population (25.7%). In a context of rising financial stress, increased insurance premiums, limited wage growth, higher costs of living and more people reporting using of high-cost fringe credit, these results highlight a need for appropriate, accessible and affordable financial products, particularly for low-income households. With a growing number of adults in Australia experiencing some level of financial stress, it is important to find ways to increase access to affordable and appropriate financial products and services and to ensure that adequate safety nets, responsible lending and financial guidance and counselling are in place.

Another study by Arashiro (2010) on focused on assets-based welfare and the development of financial capabilities as components of the broad financial inclusion policy agenda. These are undoubtedly positive steps to address financial exclusion, but they are not sufficient. As policy instruments, if they are used to individualise the problem of financial exclusion, they will at best provide some relief. A transformative approach to financial inclusion in Australia, one that is able to deal with individual and systemic causes for exclusion, will combine:

i) Correction of the distorted distribution of tax benefits, which maintains the disparity in opportunities for assets accumulation and privileges wealthier citizens;
ii) Sustained work to achieve effective and fair access to financial products and services for the financially disadvantaged;
iii) Financial education and free advice services, supporting people to maximise their income, optimise their financial decisions and exercise their legal rights;
iv) Both private and public savings and asset-building initiatives;
v) Partnerships among the public, corporate and community sectors to reach scale and sustainability in existing financial inclusion programs.

Since the financial inclusion agenda is a politically constructed project, its outcomes are not predetermined. It is possible for Australia to pave the way to link financial inclusion with fairness. In order to avoid viewing social and economic systems as static blocks in which individuals have a fixed place, financial inclusion needs to be seen as a process which explicitly recognises the human dignity of those who have been excluded, through a dynamic interaction in which the mainstream itself is transformed. Promoting dignifying conditions for financial participation for all members of society will not solve all the challenges of the social policy agenda, but it is certainly a requirement if we are committed to social justice.

2.12.6 African Studies

A study by Wang'oo on the relationship between financial inclusion and economic development in Kenya examined critically financial inclusion and economic development in Kenya. The objective of the study was to review existing sources of detailed data on financial inclusion and economic development and establish the relationship between financial inclusion and economic development in Kenya and make recommendation. The study found out that there is a positive relationship between financial inclusion and economic development and an increase in financial inclusion leads to an increase in economic development.

The World Bank Development Research Group (2012) paper summarizes financial inclusion across Africa. The authors find that less than a quarter of adults in Africa have an account with a formal financial institution and that many adults in Africa use informal methods to save and borrow. Similarly, the majority of small and medium enterprises in Africa are unbanked and access to finance is a major obstacle. Compared with other developing economies, high-growth small and medium enterprises in Africa are less likely to use formal financing, which suggests formal financial systems are not serving the needs of enterprises with growth opportunities.

A study by Ayoki (2009) on Promoting Financial Inclusion in Africa reviewed the African experience in fostering financial inclusion. It examines two aspects of

financial inclusion access by enterprises and households to affordable and appropriate formal financial services and the actual usage of financial services and products, how this has been helped with financial deepening. Empirical evidence does not point to a clear, definite relationship between financial deepening and access to affordable financial services or usage of financial services. This underscores the importance of paying attention to all dimensions of financial inclusion and innovations that meet the firms and households' needs. Financial inclusion is part of the solution to the serious problem of financial access/usage gaps that exist in many African countries, but not of itself a panacea.

Zins and Weill, (2016) conducted a study on the determinants of financial inclusion in Africa. The objective of their study was to examine the determinants of financial inclusion in Africa. They used the World Bank's Global Findex data base on 37 African countries to perform probit estimations. They found that being a man, richer, more educated and older favoured financial inclusion with a higher influence of education and income.

The Rwandan government continues to implement its commitments made in the 2011 Maya declaration**,** and in the development and roll-out of a national strategy to promote financial inclusion. The government has been consistently promoting financial inclusion, with a Financial Inclusion Programme for 2016-2020 driven by the Ministry of Finance and Economic Planning. The National Financial Education Strategy is being implemented by the Ministry of Finance and Economic Planning to improve the country's levels of low financial literacy. Despite these efforts, a large portion of the population remains unbanked (Global Microscope, 2018). According to the World Bank, in 2017, only 36% of the adult population had bank accounts at financial institutions and 31% had mobile money accounts. A large portion of the population is still unbanked, and only a small portion had e-money accounts. There is still a shortage of products that cater to the low-income market. There are no data or privacy laws, and because the country is one of the fastest-growing economies in the area of information technology, personal information is at risk. Financial literacy is also a big barrier to financial inclusion (Global Microscope, 2018).

In Tanzania, authorities allowed the mobile money sector to operate for a time without regulation and when regulations were imposed, they continued to foster the growth of the sector (Global Microscope, 2018). The Tanzanian government has recently updated its Financial Inclusion Strategy to focus on the next five years (2018-2022). The strategy is a public-private partnership which includes a digital approach (Global Microscope, 2018). According to the World Bank, the adult population with access to a bank account increased from 40% in 2014 to 47% by 2017. Use of mobile money accounts has also reflected encouraging growth from 32% in 2014 to 39% in 2017. Regulations surrounding financial services are proportionate, and this has helped the successful adoption of mobile money networks such as M-pesa. The central bank is leveraging technology to improve digital reporting and modernize banking infrastructure. There is full interoperability across mobile networks which enables an inclusive payments market. Anyone can send and receive money from any mobile operator across Tanzania, Rwanda and Kenya. However, financial literacy remains low in Tanzania. High transaction costs coupled with physical distance to access points were cited as some of the reasons why the adult population do not have bank accounts (Global Microscope, 2018).

The central bank of Nigeria is responsible for the promotion of financial inclusion. However, Nigeria has fallen behind in meeting its financial inclusion targets. Efforts have been made to improve the offer of financial products through close coordination with the private sector. However, strict regulation represents a barrier for new market entrants, and also restricts operations. Nigeria developed a National Financial Inclusion Strategy in 2012 which was updated in July 2018. There is a very high level of participation and coordination between government agencies and the private sector to promote financial inclusion which has resulted in a number of successful ventures. Overall, advances in financial inclusion have been slow and even reversing in some areas. According to the World Bank, only 39.7% of people had access to a bank account in 2017 which was a drop from 44.4% in 2014. Only 5.6% of the population had a mobile money account in 2017. National ID coverage in Nigeria is very low with the result that many cannot even satisfy basic KYC requirements for traditional bank accounts.

Ghana’s enabling environment for financial inclusion has been enhanced by the commitment of the government to mainstream the topic and the development of a

comprehensive financial inclusion strategy. Greater focus on improving digital literacy, efforts to bring down high operational costs and the further strengthening of interoperability are needed to widen access and support the development of products tailored towards low-and middle-income customers. Ghana is targeting an increase in access to formal financial services for the adult population from 58% to 75% by 2020. It will build on positive policy and regulatory developments which include a renewed commitment to working closely with commercial banks to widen access to finance in Ghana (Global Microscope, 2018). Although e-governments initiatives were first introduced in 2015, they are underused by citizens who for the most part, use accounts to deposit and withdraw cash. The on-going roll out of a biometric national identification card when fully implemented will address compliance with KYC regulations (Global Microscope, 2018). Under the current administration, the government has been proactive in mainstreaming financial inclusion into an array of government initiatives. The creation of a National Financial Inclusion Strategy is designed to build on improved coordination with the private sector. Low levels of financial literacy particularly around digital financial services have persisted in rural areas acting as a barrier to financial inclusion. E-payment portals are underused with many users of financial services depositing or withdrawing cash at the first available opportunity, rather than using accounts to pay for services. The government is keen for mobile companies to provide banking services but has done little to incentivise providers to innovate in the development of financial products and services low-and middle-income persons.

Mozambique's government has taken large strides towards financial inclusion since the implementation of the 2016-2022 Financial inclusion strategy through strong collaboration within both the public and private sectors. There has been a push to promote financial literacy including the 2017-2019 financial literacy programme launched by the Institute for the Supervision of Insurance and the Stock Exchange. Mozambique is in the process of implementing full interoperability as part of the Financial Inclusion Strategy, starting with interoperability directly between banks and mobile money platforms, and eventually moving to interoperability among different mobile money platforms. As of 2015, 20% of the population is banked, and more innovations in the financial sector necessary to expand access to different financial services throughout Mozambique (Global Microscope, 2018).

The enabling environment for financial inclusion in the Democratic Republic of Congo (DRC) has been hindered by economic and monetary crisis, and other political and security challenges. The government has launched the road map to financial inclusion 2016-2021 to promote financial inclusion. The government represented by the Ministry of Finance, the Central Bank and the National Statistics Agency has pledged to partner with selected financial service providers, industry associations, development agencies and donors to promote financial inclusion. More work and resources are needed to further develop and enforce regulation, strengthen the capacity of the Central Bank and develop infrastructure. The roadmap sets out six priorities; to improve household welfare, increase economic efficiency, and support growth by increasing the percentage of adults with access to at least formal financial services. Extreme infrastructure, political, monetary, economic and security challenges continue to distract the DRC government from focusing on financial inclusion. A lack of financial literacy and education too remain obstacles to adoption of the few digital services that are available (Global Microscope, 2018).

South Africa does not have an overarching National Financial Inclusion Strategy but has a series of strategies to promote and encourage financial inclusion, which currently incorporate a digital transformation approach (Global Microscope, 2018). Since 2016, the legal framework of the South African financial services sector has been undergoing major reform as the country moves toward a "Twin Peaks" model for supervision. This has seen the creation of a prudential regulator, the Prudential Authority while the Financial Service Board is being transformed into a dedicated market conduct regulator called the Financial Sector Conduct Authority. Financial literacy is considerably higher than in most African countries with most training being private-sector driven. South Africa uses an online portal to manage all government e-services and receive payments digitally (Global Microscope, 2018). South African banks' fee structures are unusually high. This limits financial inclusion among low-income groups. Financial services also require an excess of paperwork, response times are slow and registration fees are often prohibitively expensive for small business owners. Financial inclusion across Africa is largely driven by e-money but regulation in South Africa states that e-money can be issued

only by South African banks. This has dramatically limited the development of the e-money sector and acts as a barrier to further inclusion (Global Microscope, 2018).

2.13 Summary

From the above literature reviewed, a number of researchers are agreed on the following;

i) Financial Inclusion is a central priority for governments worldwide;

ii) Policy makers have been key pioneers in countries that have high levels of financial inclusion;

iii) Governments must create favourable regulatory environments that protect consumers if financial inclusion is to have the desired impact of improving people's lives;

iv) Some governments have incentivized financial sector players to provide financial services to low and middle income people;

v) Financial education is critical in promoting financial inclusion;

vi) Technology is one of the most important contributors to financial inclusion;

vii) There is a positive relationship between financial inclusion and economic development.

2.14 Critique of Existing Literature and Lessons Learnt

Many studies have been undertaken focusing on the relationship and impact of financial inclusion on economic development with regards to poverty alleviation in both developed and developing countries. However, there are very few, if any, studies done, in Zambia to determine and explore the influence of financial inclusion on economic development. There is vast literature on financial inclusion and its benefits to people in both developed and developing nations. Many studies

used secondary data mainly from the IMF, World Bank and UNDP to try to understand the effects and benefits of financial inclusion on a society. A study that uses primary data would add more value to the existing research.

2.15 Chapter Summary

Many financial inclusion promoters now agree that direct access to financial services can improve individual livelihoods amongst the poor by enabling them to manage scarce resources more efficiently, thereby smoothing consumption and protecting against economic shocks (Collins, Murdoch, Rutherford & Ruthven, 2009). Financial inclusion is of great importance for economic development of a country. However, the arguments for financial inclusion and its relationship to economic development both theoretical and empirical are relatively recent and fragile. From the literature reviewed, most studies indicate that financial inclusion positively influences economic development.

CHAPTER THREE

THEORETICAL AND CONCEPTUAL FRAMEWORK

3.0 Introduction

The theoretical and conceptual frameworks explain the path of a research and grounds it firmly in theoretical constructs. The overall aim of the two frameworks is to make research findings more meaningful and acceptable to the theoretical constructs in the research field. They assist in stimulating research while ensuring the extension of knowledge by providing both direction and impetus to the research inquiry. They also enhance the empiricism and rigor of a research. Thus, it is no exaggeration for Imenda (2014) to say that both the theoretical and conceptual frameworks give life to a research.

The theoretical framework offers several benefits to a research work. It provides the structure in showing how a researcher defines his/her study philosophically, epistemologically, methodology and analytically (Grant & Osanloo, 2014). Ravitch and Carl (2016) concur that the theoretical framework assists researchers in situating and contextualizing formal theories into their studies as a guide.

3.1 Theoretical Framework

Theoretical framework is the 'blueprint' or guide for a research (Grant & Osanloo, 2014). It is a framework based on an existing theory in a field of inquiry that is related and/or reflects the hypothesis of a study. It is a blueprint that is often 'borrowed' by the researcher to build his/her own house or research inquiry. It serves as the foundation upon which a research is constructed. Sinclair (2007) as well as Fulton and Krainovich-Miller (2010) compare the role of the theoretical framework to that of a map or travel plan. Thus, when travelling to a particular location, the map guides your path.

Likewise, the theoretical framework guides the researcher so that s/he would not deviate from the confines of the accepted theories to make his/her final contribution scholarly and academic. Thus, Brondizio, Leemans, and Solecki (2014) concur that

the theoretical framework is the specific theory or theories about aspects of human endeavour that can be useful to the study of events. The theoretical framework consists of theoretical principles, constructs, concepts, and tenants of a theory (Grant & Osanloo, 2014).

3.1.1 Classical Economics Theory

The earliest proponent of free market economy was first discussed in the Classical 1776 wealth of nations by Adam Smith. He advocated for the ―invincible hand in the economic set-up where the economy was to be left to operate on its own where forces of supply and demand interact to bring about an equilibrium state in the economy of a country. According to Adam smith the classical economic theory is rooted in the concept of a laissez- faire economic market. Laissez-faire also known as free-market requires little to no government intervention. It also allows individuals to act according to their own self-interest regarding economic decisions. This ensures economic resources are allocated according to the desires of individuals and businesses in the marketplace. Schumpeter (1912) is very explicit on this score: ―The banker, therefore, is not so much primarily the middleman in the commodity ―purchasing power as a producer of this commodity. He argued that the services provided by financial intermediaries –Mobilizing savings, evaluating projects, managing risks, monitoring managers and facilitating transactions are essential for technological innovation and economic development.

3.1.2 Keynesian Economic Theory

Keynes (1930) in his treatise on money also argued for the importance of the banking sector in economic growth. He suggested that bank credit ― is the pavement along which production travels, and the bankers if they knew their duty, would provide the transport facilities to just the extent that is required in order that the productive powers of the community can be employed at their full capacity‖. In the same spirit Robinson (1952) argued that financial development follows growth, and articulated this causality argument by suggesting that ―where enterprise leads finance follows. Both, however, recognized this as a function of current

institutional structure, which is not necessarily given. Keynesian economic relies on government spending to jumpstart a nation economic growth during sluggish economic downturns. Similar to classical economists, Keynesians believe the nation economy is made up of consumer spending, business investment and government spending.

Keynesian economics often focuses on immediate results in economic theories. Policies focus on the short-term needs and how economic policies can make instant corrections to a nation ‘s economy. During economic recessions and depressions, individuals and businesses do not usually have the resources for creating immediate results through consumer spending or business investment. The government is seen as the only force to end these downturns through monetary or fiscal policies providing in aggregate demand and that will increase the level of output.

3.2 Conceptual Framework

A conceptual framework is a structure which the researcher believes can best explain the natural progression of the phenomenon to be studied (Camp, 2001). It is linked with the concepts, empirical research and important theories used in promoting and systemizing the knowledge espoused by the researcher (Peshkin, 1993). It is the researcher’s explanation of how the research problem would be explored. The conceptual framework presents an integrated way of looking at a problem under study (Liehr & Smith, 1999). In a statistical perspective, the conceptual framework describes the relationship between the main concepts of a study.

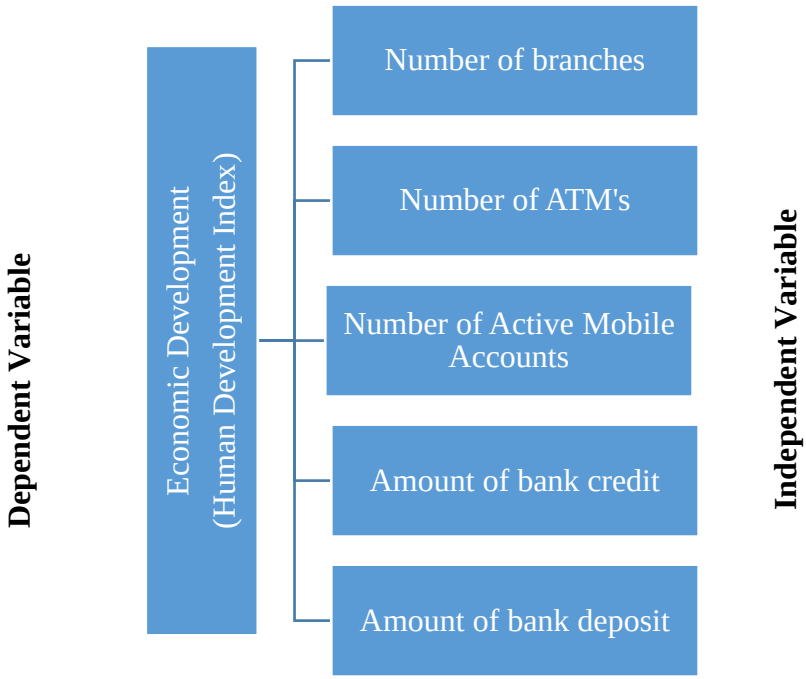
The conceptual framework offers many benefits to a research. For instance, it assists the researcher in identifying and constructing his/her worldview on the phenomenon to be investigated (Grant & Osanloo, 2014). It is the simplest way through which a researcher presents his/her asserted remedies to the problem s/he has defined (Liehr & Smith, 1999; Akintoye, 2015). It accentuates the reasons why a research topic is worth studying, the assumptions of a researcher, the scholars s/he agrees with and disagrees with and how s/he conceptually grounds his/her approach (Evans, 2007). Akintoye (2015) posits that the conceptual framework is mostly

used by researchers when existing theories are not applicable or sufficient in creating a firm structure for the study.

In this study, I narrated variables as dependent and independent variables which assisted me to form a foundation for the entire research. Dependent and Independent variables are important because they drive the research process. The dependent variable used was development while the independent variables were number of active mobile accounts (per 1000 adult population), number of branches (per 100,000 people), number of ATM's (per 100,000 people), amount of credit and amount of bank deposit (Per 1000 people).

3.2.2 Conceptual Model

Figure 2: Conceptual Model



Source: Researcher (2019)

3.3 Research Hypothesis

I further developed the hypothesis as follows;

H_0 = There is no positive relationship between Financial Inclusion indicators and Economic development indicators in Zambia.

H_a = There is a positive relationship between Financial Inclusion indicators and Economic development indicators in Zambia.

CHAPTER FOUR

RESEARCH DESIGN AND METHODOLOGY

4.0 Introduction

This chapter describes the methods of research to be applied to objectively establish the influence of financial inclusion on human development.

According to Asika (2008), research methodology is the particular method or means by which a particular research work is carried out. It comprises of the procedures and activities involved in drawing logical conclusions on the research study. This section deals with research design, characteristics of the study population, sample and sampling techniques, data collection schedule and statistical tools used in this study.

4.1 Research Design

Research design is "the structuring of investigation aimed at identifying variables and their relationships to one another (Asika, 2008). The descriptive research design was adopted to enable the researcher to define the relationship between financial inclusion and economic development. Through the adopted design, the researcher was able to clearly describe the variables under study and also understand the relationship that exists between them. Cooper and Pamela (2006) stress that understanding the causal relationship eases the explanation, prediction and control of the variables being studied.

Quantitative as well as qualitative sampling, data collection, and analytic methods are considered to be appropriate. The mixed methods study design as a method, focuses on collecting, analysing, and mixing both quantitative and qualitative data in a single study or series of studies. Its central premise is that the use of quantitative and qualitative approaches, in combination, provides a better understanding of research problems than either approach alone.

4.2 Sampling Technique

Purposive sampling techniques were used in this study. The benefit of this type of sampling is that it enables the researcher to describe the major impact their findings have on the population. Purposive sampling is said to be a popular method among researchers due to the fact that it is extremely time and cost effective when compared to other sampling methods.

The Global Findex database was extracted from the world bank as this comprises the world's most comprehensive financial data with over 700 categories. The researcher used typical case sampling to arrive at five of the independent variables to measure financial inclusion.

Further, the researcher used the Human Development Report issued by the United Nations Development Programme to extract the Human Development Index figures for Zambia.

4.3 Data Collection

Data collection is gathering empirical evidence in order to gain new insights about a situation and answer questions that prompt undertaking of the research (Kothari, 2004). This study utilised secondary data from the World Bank, International Monetary Fund and United Nations Development Program (UNDP) for a period of 14 years from the year 2004 to 2017. Secondary data is data that has been collected, analysed and made available from sources other than you (White, 2010). The following specific datasets in the period of interest were collected;

i) Number of ATM's per 100,000 people
ii) Number of Bank Branches Per 100,000 People
iii) Active Mobile Money Account per 1,000 adults
iv) Deposit account with commercial bank per 1000 adults
v) Number Loan accounts with commercial banks per 1000 adults
vi) Human Development Index

4.4 Data Analysis

Data was sorted, classified, coded and then tabulated for easy analysis. Collected secondary data was analysed using both descriptive and inferential statistics. The SPSS Version 23 Computer software was used to analyse data because it is more user friendly than other econometric packages such as E-views. The data was entered in the SPSS and examined using correlation and regression analysis, and also descriptive analysis. In descriptive statistics, the study used the mean and standard deviation. In the inferential statistics, the study used multivariate regression analysis to determine the relationship between the dependent and independent variables. Secondary data from various developmental and financial annual reports will be reviewed for completeness and consistency. According to Mugenda (1999), data must be cleaned, coded and properly analysed in order to obtain a meaningful report.

4.5 Model Specification

Using the collected data, the researcher conducted a regression analysis so as to establish the extent of the relationship between financial inclusion and economic development. The study applied the following regression model;

$$\mathbf{Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \varepsilon}$$

Where,

β_0= y intercept of the regression equation

$\beta_1, \beta_2, \beta_3, \beta_4$ and β_5= are the slopes of the equation

Y= Dependent variable is (Economic Development). The most widely used development index is the Human Development Index (HDI) developed by United Nations development program encompassing various aspects of development.

X= Independent variable (Financial inclusion) whereby as measured by the various indicators of financial inclusion i.e measures of penetration, access and usage.

X_1 = Number of active mobile money accounts (per 1000 adult population),

X_2 = Number of bank branches (per 100,000 people),

X_3 = Amount of bank credit to amount of bank deposit as a percentage

X_4= Number of ATM's

X_5 = Amount of bank deposit

ε = error term

4.6 Tests of Significance

In order to test the statistical significance, the F-test were used at 95% confidence level. The F statistic was utilised to establish a statistical significance of regression equation while the t statistic was used to test the statistical significance of study coefficients. 2 tailed T-test will be performed to test the significance of the coefficients on the hypothesis *H0* = There is no relationship between Financial inclusion and Economic development indicators in Zambia *Ha* = There is a relationship between Financial inclusion and Economic development indicators in Zambia.

CHAPTER FIVE

DATA ANALYSIS, FINDINGS AND INTERPRETATION

5.0 Introduction

This chapter focused on the analysis of the data collected from the IMF, World Bank, UNDP and the Bank of Zambia to help establish the influence of financial inclusion indicators on economic development in Zambia. Using descriptive statistics, regression analysis and correlation analysis, the results of the study are presented in table forms as shown in the next sections.

5.1 Diagnostic Tests

The study looked for the data that would suit and meet the objective of the study. The data was collected from various sources including the IMF and the World Bank. Then it was cross checked for errors to test the validity of the data sources. The researcher assumed a 95% confidence interval or 5% percent significant levels. These values helped to verify the truth or falsity of the data. The researcher carried out normality test on the data collected. The null hypothesis for the test was that secondary data was not normal. If the p-value recorded was more than 0.05, the researcher would reject it. The result of the test is as shown in Table 1 below.

Table 1: Normality Test

Tests of Normality						
	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Human Development Index	.142	14	.200*	.937	14	.377
Number ATM's per 100,000 people	.127	14	.200*	.916	14	.192
Number of Bank Branches Per 100,000 People	.154	14	.200*	.898	14	.105
Active Mobile Money Account per 1,000 adults	.315	14	.001	.587	14	.000
Deposit account with commercial bank per 1000 adults	.256	14	.013	.777	14	.003
Number Loan accounts with commercial banks per 1000 adults	.144	14	.200*	.932	14	.324

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Source: Research Findings (2019)

Both Kolmogorov-Smirnova and Shapiro-Wilk test record o-value greater than 0.05 which implies that the research data was normally distributed and therefore the null hypothesis was rejected. The data was appropriate for the use of conducting parametric tests such as Pearson's correlation and regression analysis of variance.

5.2 Descriptive Analysis

Table 2: Descriptive Statistics

Descriptive Statistics			
	Mean	Std. Deviation	N
Human Development Index	.4675	.08098	14
Number of ATM's per 100,000 people	6.536629	3.7749553	14
Number of Bank Branches Per 100,000 People	3.877267	.6872635	14
Active Mobile Money Account per 1,000 adults	21.537272	41.9803420	14
Deposit account with commercial bank per 1000 adults	179.6697929	72.37853583	14
Number Loan accounts with commercial banks per 1000 adults	21.7440	9.21407	14

Source: Research Findings (2019)

Descriptive statistics gives a presentation of the minimum, maximum and mean values of variables applied together with their standard deviations in this study. Table 2 above shows the descriptive statistics for the variable applied in the study. An analysis of all the variables was obtained by the use of SPSS software for the period of 14 years (2004-2017) on an annual basis. Human Development Index had a mean of 0.4675 with the standard deviation of 0.08098**.** Number of ATMs per 100,000 people had a mean of 6.536629 with standard deviation at 3.7749553. Number of bank branches per 100,000 recorded a mean of 3.877267 with standard deviation of 0.6872635. Active mobile money account per 1,000 adults had a mean of 21.537272 and standard deviation 41.9803420. Deposits account with commercial banks per 1,000 adults had a mean of 179.6697929 and standard deviation of 72.378535583 while Number of loan accounts with commercial banks per 1,000 people had a mean of 21.7440 and standard deviation of 9.21407.

5.3 Correlation Analysis

Table 3: Correlation Analysis

Correlations							
		Number of ATM's per 100,000 people	Number of Bank Branches Per 100,000 People	Active Mobile Money Account per 1,000 adults	Deposit account with commercial bank per 1000 adults	Number of Loan accounts with commercial banks per 1000 adults	Human Development Index
Number ATM's per 100,000 people	Pearson Correlation	1	.987**	.630*	.810**	.843**	.944**
	Sig. (2-tailed)		.000	.016	.000	.000	.000
	N	14	14	14	14	14	14
Number of Bank Branches Per 100,000 People	Pearson Correlation	.987**	1	.548*	.841**	.885**	.899**
	Sig. (2-tailed)	.000		.043	.000	.000	.000
	N	14	14	14	14	14	14
Active Mobile Money Account per 1,000 adults	Pearson Correlation	.630*	.548*	1	.360	.317	.718**
	Sig. (2-tailed)	.016	.043		.207	.270	.004
	N	14	14	14	14	14	14
Deposit account with commercial bank per 1000 adults	Pearson Correlation	.810**	.841**	.360	1	.842**	.807**
	Sig. (2-tailed)	.000	.000	.207		.000	.000
	N	14	14	14	14	14	14
Number Loan accounts	Pearson Correlation	.843**	.885**	.317	.842**	1	.755**
	Sig. (2-tailed)	.000	.000	.270	.000		.002

with commercial banks per 1000 adults	N	14	14	14	14	14	14
Human Development Index	Pearson Correlation	.944**	.899**	.718**	.807**	.755**	1
	Sig. (2-tailed)	.000	.000	.004	.000	.002	
	N	14	14	14	14	14	14
**. Correlation is significant at the 0.01 level (2-tailed).							
*. Correlation is significant at the 0.05 level (2-tailed).							

Source: Research Findings (2019)

Correlation analysis is used to establish if there exists relationship between two variables which lies between (-) strong negative correlation and (+) perfect positive correlation. In this study, Pearson correlation was used to analyse the level of association between Human Development Index Number of ATMs per 100,000 people, Number of Bank branches per 100,000 people, Active Mobile Money Account per 1,000 adults, Deposit account with commercial bank per 1,000 adults and the Number of loan account with commercial banks per 1,000 adults

From the correlation analysis, the results showed the existence of a strong positive correlation between Human Development Index and Number of ATMs per 100,000 people of 0.944 (this showed that the prevailing Number of ATMs in Zambia had an association with Human Development Index and the association was significant). The relationship between Number of Bank Branches per 100,000 people and Human Development Index was found to be strong and positive at 0.899). This implies that changes in Number of Bank Branches per 100,000 people are positively correlated to Human Development Index and in a significant manner. The study also showed that there exists a strong correlation between the Number of Active Mobile Money users per 1,000 people and Human Development Index of 0.718 and the correlation is significant. The study also showed that there exists a strong correlation between the Number of Deposit accounts in commercial banks per 1,000 adults and Human Development Index of 0.807 and the correlation is significant. Lastly, the number of loan accounts with commercial banks per 1,000 adults has a strong and positive

relationship with Human Development Index of 0.755 and the relationship is strong. Although the independent variables had an association to each other, the association was not too strong to cause multicollinearity as most of the R-value was less than 0.80.

5.4 Regression Analysis

Table 4: Model Summary

Model Summary[b]									
				Change Statistics					
R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
.985[a]	.971	.952	.01773	.971	52.649	5	8	.000	2.448
a. Predictors: (Constant), Number Loan accounts with commercial banks per 1000 adults, Active Mobile Money Account per 1,000 adults, Deposit account with commercial bank per 1000 adults, Number ATM's per 100,000 people, Number of Bank Branches Per 100,000 People									
b. Dependent Variable: Human Development Index									

Source: Research Findings (2019)

Human Development Index was regressed against five predictor variables namely; Number of ATMs per 100,000 people, Number of Bank branches per 100,000 people, Active Mobile Money Account per 1,000 adults, Deposit account with commercial bank per 1,000 adults and the Number of loan account with commercial banks per 1,000 adults. The regression analysis was undertaken at 5% significant levels. The critical value obtained from the F-value table was compared with one of the tables obtained from regression analysis. The results are shown in the above model summary.

R squared, being our major coefficient of the determinant indicates the deviations in the response variable that is the result of changes in the predictor's variables. From the above table 4, the value of R square was **0.971**, this showed that **97.10 percent** of the deviations in Human Development Index in Zambia are caused by changes in Number of ATMs per 100,000 people, Number of Bank branches per 100,000 people, Active Mobile Money Account per 1,000 adults, Deposit account with

commercial bank per 1,000 adults and the Number of loan account with commercial banks per 1,000 adults while **2.90 per cent** are explained by other variables not included in this study. The results show that there exists a strong relationship among the selected independent variables and the Human Development Index as shown by the correlation coefficient (R) which equals to 0.985. A Durbin-Watson statistic of 2.448 indicates that the variable residuals show that there were not serially correlated since there was more than 1.6.

5.5 Analysis of Variance

Table 5: Analysis of Variance

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.083	5	.017	52.649	.000[b]
	Residual	.003	8	.000		
	Total	.085	13			
a. Dependent Variable: Human Development Index						
b. Predictors: (Constant), Number Loan accounts with commercial banks per 1000 adults, Active Mobile Money Account per 1,000 adults, Deposit account with commercial bank per 1000 adults, Number ATM's per 100,000 people, Number of Bank Branches Per 100,000 People						

Source: Research Findings (2019)

The significant value is 0.000 which is less than P=0.01. This implies that the model was not statistically significant in predicting how Number of ATMs per 100,000 people, Number of Bank branches per 100,000 people, Active Mobile Money Account per 1,000 adults, Deposit account with commercial bank per 1,000 adults and the Number of loan account with commercial banks per 1,000 adults affects Human Development in Zambia. Given 0.00% level of significant, the critical value from the table is 2.91. Table 5 above shows computed F-value as 52.649. This confirms that overall multiple regression models are not statistically significant.

5.6 Model Coefficients

Table 6 Model Coefficients

S

Coefficients[a]										
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
	B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
(Constant)	.828	.166		4.994	.001					
Number ATM's per 100,000 people	.047	.011	2.179	4.135	.003	.944	.825	.251	.013	75.294
Number of Bank Branches Per 100,000 People	-.193	.064	-1.636	-3.012	.017	.899	-.729	-.183	.012	80.048
Active Mobile Money Account per 1,000 adults	.000	.000	.106	1.057	.321	.718	.350	.064	.365	2.739
Deposit account with commercial bank per 1000 adults	.000	.000	.342	2.801	.023	.807	.704	.170	.247	4.047
Number Loan accounts with commercial banks per 1000 adults	.000	.001	.044	.283	.785	.755	.099	.017	.153	6.539
a. Dependent Variable: Human Development Index										

1

9)

Coefficients of determinant were used as indicators of the direction of the relationship between Number of ATMs per 100,000 people, Number of Bank branches per 100,000 people, Active Mobile Money Accounts per 1,000 adults, Deposit accounts with commercial banks per 1,000 adults and the Number of loan accounts with commercial banks per 1,000 adults and Human Development in Zambia. The p-value under sign. Column was used as an indicator of the significance of the relationship between the dependent and the independent variables. At 95% confidence level, the p-value was less than 0.05 interpreted as a measure of statistical significance. The p-value above 0.05 indicates a statistical insignificant relationship between the independent variables and dependent variables. The results are shown in table 6 above.

From the above results we can see that the Number of ATMs per 100,000 people, Number of Bank branches per 100,000 people, Active Mobile Money Accounts per 1,000 adults, Deposit accounts with commercial banks per 1,000 adults and the Number of loan accounts with commercial banks per 1,000 adults are all significant determinants of Human Development in Zambia as indicated by a p-value that is greater than 0.05.

The following regression equation was used to estimate:

$$\mathbf{Y=0.828+0.470\ X_1.-0.193\ X_2+0.000\ X_3+0.000\ X_4+0.000\ X_5}$$

Where,

β_0= y intercept of the regression equation

$\beta_1, \beta_2, \beta_3, \beta_4$ and β_5= are the slopes of the equation

Y= Dependent variable is (Economic Development). The most widely used development index is the Human Development Index (HDI) developed by United Nations development program encompassing various aspects of development.

X= Independent variable (Financial inclusion) whereby as measured by the various indicators of financial inclusion i.e measures of penetration, access and usage.

X_1 = Number of bank accounts (per 1000 adult population),

X_2 = Number of bank branches (per 100,000 people),

X_3 = Amount of bank credit to amount of bank deposit as a percentage

X_4= Number of ATM's

X_5 = Amount of bank deposit

ε = error term.

The estimated regression model above shows that the constant=0.828 and this shows that if the selected independent variables (the Number of ATMs per 100,000 people, Number of Bank branches per 100,000 people, Active Mobile Money Accounts per 1,000 adults, Deposit accounts with commercial banks per 1,000 adults and the Number of loan accounts with commercial banks per 1,000 adults) were related to zero, Human Development Index would be 0.828. A unit increase the Number of ATMs per 100,000 people would lead to an increase in Human Development Index by 0.470 while a unit decrease in Number of Bank branches per 100,000 people would lead to a decrease in Human Development Index by -0.193, respectively.

5.7 Summary of Research Findings

The study sought to determine the extent to which financial inclusion indicators influence economic development in Zambia. The independent variables were the Number of ATMs per 100,000 people, Number of Bank branches per 100,000 people, Active Mobile Money Accounts per 1,000 adults, Deposit accounts with commercial banks per 1,000 adults and the Number of loan accounts with commercial banks per 1,000 adults as measured by the IMF, World Bank, UNDP and BOZ annually. Human Development Index was the dependent variable as measured by the UNDP annually. The effect of the independent variables on the dependent variable was analysed in terms of strength and directions.

Pearson correlation coefficient between the variables revealed the existence of a strong positive correlation between the Number of ATMs per 100,000 people, Number of Bank branches per 100,000 people, Active Mobile Money Accounts per 1,000 adults, Deposit accounts with commercial banks per 1,000 adults and the Number of loan accounts with commercial banks per 1,000 adults) and Human

Development Index. This goes to show that prevailing financial inclusion indicators in Zambia have an association with economic development and the association is very significant.

From the correlation analysis, the study showed the existence of a strong positive correlation between Human Development Index and the Number of ATMs per 100,000 people of 0.944. The relationship between the Number of Bank Branches per 100,000 people and Human Development Index was found to be strong and positive at 0.899. This implies that changes in Number of Bank Branches per 100,000 people are positively correlated to Human Development Index and in a significant manner. The Study also showed that there exists a strong correlation between the Number of Active Mobile Money users per 1,000 people and Human Development Index of 0.718 and the correlation is significant. The study also showed that there exists a strong correlation between the Number of Deposit accounts with commercial banks per 1,000 adults and Human Development Index of 0.807 and the correlation is significant. Lastly, the number of loan accounts with commercial banks per 1,000 adults had a strong and positive relationship with Human Development Index of 0.755.

5.8 Hypothesis Statements Tests and Findings

In chapter three (3) of this study, the researcher further developed the hypothesis as follows;

H_0 = There is no positive relationship between Financial Inclusion and Economic development indicators in Zambia.
H_a = There is a positive relationship between Financial Inclusion and Economic development indicators in Zambia.

From the above tests performed at 95% confidence level or 5% level of significance, we can see that all the selected independent variables have a strong positive relationship with Human Development Index, which represents the measure of economic development in Zambia. As such, we reject the null hypothesis and accept the alternative hypothesis.

5.9 Chapter Summary

The model summary revealed that the independent variables; the Number of ATMs per 100,000 people, Number of Bank branches per 100,000 people, Active Mobile Money Accounts per 1,000 adults, Deposit accounts with commercial banks per 1,000 adults and the Number of loan accounts with commercial banks per 1,000 adults accounted for **97.10%** of changes in the dependent variable (Human Development Index) as indicated by the value of $\mathbf{R^{2.}}$

The model was found to be fit at 95% levels of confidence interval since the F-value of 52.649 is higher than the critical values. This implies that the overall multiple regression models are statistically significant, in the sense that it suits the prediction model for explaining economic development in Zambia.

CHAPTER SIX

CONCLUSION AND RECOMMENDATIONS

6.0 Introduction

The study sought to investigate the influence of financial inclusion on economic development in Zambia. The independent variables for the study were the Number of ATMs per 100,000 people, Number of Bank branches per 100,000 people, Active Mobile Money Accounts per 1,000 adults, Deposit accounts with commercial banks per 1,000 adults and the Number of loan accounts with commercial banks per 1,000 adults. The study adopted a descriptive research design. Secondary data was obtained and analysed using SPSS software version 25. The study used annual data covering a period of 14 years from 2004 to 2017.

From the results of correlation analysis, strong positive correlation was found to exist between the Number of ATMs per 100,000 people, Number of Bank branches per 100,000 people, Active Mobile Money Accounts per 1,000 adults, Deposit accounts with commercial banks per 1,000 adults and the Number of loan accounts with commercial banks per 1,000 adults and Human Development Index. The coefficient of the determinant R-square value was **0.9710** which means that about **97.10% percent** of the variation in HDI can be explained by the selected independent variables. ANOVA results show that the F statistic was significant at 5% levels with a P=52.649. Therefore, the model was fit to explain the relationship between the selected variables.

The regression results showed that when all the selected independent variables (Number of ATMs per 100,000 people, Number of Bank branches per 100,000 people, Active Mobile Money Accounts per 1,000 adults, Deposit accounts with commercial banks per 1,000 adults and the Number of loan accounts with commercial banks per 1,000 adults) are related to zero, the Human Development Index would be 0.828. A unit increase in the Number of ATMs per 100,000 people would lead to an increase in Human Development Index by 0.470 while a unit decrease in Number of Bank branches per 100,000 people would lead to a decrease in Human Development Index by -0.193, respectively. Analysis of model

coefficients revealed that all the selected independent variables are statistically determinants of Human Development Index.

6.1 Conclusion

From the findings, the study concluded that economic development in Zambia has a positive association with all the selected independent variables. This therefore means that the higher the financial inclusion systems in Zambia, the more economic development we are likely to see. Therefore, the study concludes that the independent variable's selected for the study influence economic development in Zambia and account for 97.10% of the changes in Human Development Index. Overall, the model was found to be significant as explained by F-statistics. It is therefore sufficient to conclude that these variables significantly influence economic development in Zambia as shown by the p-value in ANOVA summary.

Along with various poverty eradication and employment generation programmes, the governments focus should also be on financial inclusion policies as a means of alleviating poverty as this can be viewed from the use of Human Development Index which is a composite measure of health, education and income. The analysis showed that by increasing financial inclusion in Zambia, we are also likely to increase Human Development Index which is a measure of both social and economic development.

6.2 Recommendations

Financial inclusion plays a vital role in development and it is important that the government recognizes the vital role played by financial inclusion and develops policies to encourage financial inclusion. The following recommendations are made:

- The government should through its role in regulation create a regulatory framework that encourages financial inclusion. Efforts are already underway as evidenced through the various initiatives being undertaken. However, as has been shown in this study, more efforts are still needed to enhance financial inclusion in Zambia.

- Data collection is vital for measuring the most effective financial inclusion initiatives and their effects as well as helping to shape financial inclusion policies. This study would recommend that more data is collected on the various indicators of financial inclusion as well as disaggregated data on the provinces and districts to allow effective measures and policies to be adopted to encourage financial inclusion.
- Innovative technology has proved to be the most effective measure of financial inclusion initiatives in Zambia. These initiatives should be encouraged and expanded to offer more value added financial services to the recipients to enhance availability of the full set of financial services which lead to full financial inclusion.
- Financial inclusion involves the delivery of banking services at an affordable cost to the vast sections of disadvantaged and low income groups. Currently one of the major hindrances to expansion of financial services to the poor rural areas is the cost involved in financial institutions setting up branches in the rural areas. Incentives should be availed to banks and other financial institutions to increase their rural area branch network through the government or central bank.
- Growing theoretical and empirical evidence as outlined above suggests that financial systems that serve low-income people promote economic development. The banking sector can also be encouraged to adopt banking initiatives that are aimed at increasing the number of people who hold bank accounts and in turn access other financial services such as insurance through these bank accounts.

6.3 Limitations of the Study

Like all studies, this study had its own significant problem limitations. The scope of this research was based on a 14-year period from 2004-2017. The study could not determine if the results would hold for a longer study period. Furthermore, it is uncertain whether similar findings would result beyond 2017. A longer study period is more reliable as it will take into account major economic conditions such as booms and recessions.

It is also difficult for the researcher to ascertain whether access to a broad range of services improves household ability to make appropriate financial choices.

One of the limitations of the study is the quality of the data. It is difficult to conclude from this research whether the findings present the true fact about the situation. The data that has been used is only assumed to be accurate. The study

utilized secondary data, which had already been obtained and was in public domain, unlike the primary data which is first-hand information. The measures used may keep on varying from one year to another subject to prevailing conditions.

For data analysis purposes, the researcher applied a multiple linear regression model. Due to the shortcoming involved when using regression models such and misleading result when the variable values change, the research cannot be able to generalize the findings with certainty, if more and more data is added to the functional regression model.

6.4 Suggestions for Further Research

The study focused on financial inclusion and economic development. The study was desktop research and relied on secondary data. A research study where data collection relies on primary data such as in-depth interviews and questionnaires is recommended to compliment this study.

Admittedly, this study was not exhaustive of the independent variables influencing economic development in Zambia and this study recommends that further studies should incorporate other variables. Establishing the financial inclusion indicators influencing economic development in Zambia will enable policy makers to know what tool to be used when forming policies and other initiatives.

The study concentrated on the last 14 years because it was the most available data and also that was most consistent. Due to shortcoming of regression analysis model, other models such as vector Error Correction Model (VECM) or the Granger causality model can be used to explain the various relationships between variables and robust methods.

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Research Data

2015						
25%						
14%						