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MICRO, SMALL MEDIUM ENTERPRISE (MSMEs) AND FINANCIAL INCLUSION IN ZAMBIA

A Dissertation

presented to

The **Development Finance Centre (DEFIC)**
Graduate School of Business
University of Cape Town

In partial fulfilment
of the requirements for the Degree of
Master of Commerce in Development Finance

by

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March 2021

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ABSTRACT

This study investigated Zambia's current financial inclusion state with specific reference to micro, small and medium enterprises (MSMEs). It also sought to determine the relationship between the age of the owner of MSME, size, literacy, gender, age, the period of operations, asymmetrical information, and financial inclusion in Zambia. The data collected from 70 respondents comprising MSMEs owners were analysed using multiple regression, correlation analysis and descriptive statistics. The research employed dependent variables, notably access, availability, and financial services, as the dependent variable. In contrast, independent variables included the size of MSME, literacy level, income level of the owner of MSME, the period of operations and asymmetrical information.

On the one hand, the empirical findings indicate a positive relationship between usage and availability of financial services, and 'MSME's age of owner, size, literacy, gender, age, operation period, asymmetrical information in Zambia. On the other hand, findings, however, also show a negative relationship between gender and financial inclusion access. Whilst a positive relationship with the remaining independent variables. Accordingly, the study concluded that financial inclusion is evident in Zambia among MSMEs. However, the primary issue is that most MSMEs do not have access to formal funding from formal financial institutions. Therefore, the study calls for policies to be put in place to help MSMEs have access to formal financing. In addition, it also proposes formalising 'women's informal sector, financial literacy roadshows for women in the informal sector, training women in digital skills to enable them to have better access to financial services and giving financial institutions targets to onboard women-led MSMEs.

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LIST OF ACRONYMS

CGAP	Consultative Group to Assist the Poor
DFS	Digital Financial Services
EC	European Commission
EUR	Euro
GPFI	Global Partnership for Financial Inclusion
GDP	Gross Domestic Product
HDI	Human Development Indicators
ICT	Information and communications technology
IFI	Indicator for Financial Inclusion
IMF	International Monetary Fund
MPR	Monetary Policy Rate
MSME	Micro, Small, Medium Enterprise
NFIS	National Financial Inclusion Strategy
OIC	Organisation of Islamic 'Cooperation's Countries
PACRA	Patents and Companies Registration Agency
SME	Small and Medium Enterprises
SPSS	Statistical Package for the Social Sciences
UNDP	United Nations Development Programme
UNIDO	United Nations Industrial Development Organisation
VARS	Vector Auto Regression
VIS	Variance Inflated Factors
ZDA	Zambia Development Agency
ZICTA	Zambia Information and Communications Technology Authority
ZMW	Zambian Kwacha

DEDICATION

To my parents, Grace and Favourite. Thank you for your love and your guidance throughout my life. I love you and appreciate you. I 'wouldn't be who I am today had it not been for your love and care. Thank you for all you do and all you have done for me.

ACKNOWLEDGEMENTS

Thank you so much, God, for everything you have done for me. For leading me by the hand when I felt lost. For carrying me when I felt discouraged. For directing me and putting a smile on my face when I needed you. Thank you for your provision, and I know I could have never done it without your love, grace and favour.

Thank you, Dr Latif, for just being awesome. You are so passionate about research; it is so infectious. Thank you for your patience. Thank you for loving what you do. I stood on the shoulders of a giant.

Special thanks to Chanda Mutale for your swift responses and assistance. I am forever grateful.

I want to thank my husband, Emmanuel Mwase, for being a good friend and motivator. I 'couldn't have done it without you. Thank you for cheering me every day and reminding me that I am smart when I felt I could not do it anymore. Thank you for taking all parenting responsibilities whenever I would go for residential. But most of all, thank you for encouraging me and pushing me to go after the programme when I felt like it was impossible. I am glad to have you in my corner.

To my children, Themba, Khoyanani-Charis and Munashe-Naleli, thank you for being my inspiration and source of encouragement.

Thank you, Apostle Titus Kafwambile, for accepting to be used by God to encourage me through my studies. I appreciate all you did for me.

To my friends on the course, Meamui Muyunda-Kaunda, Nonde Nsomi, Lisema Matsietsi and Ben Mulenga, thank you for being great friends and my source of encouragement always. I could not have done it without you all on my side.

An African proverb says that it takes a village to raise a child. My journey is a true reflection of this proverb. If I had to list everyone that helped get me here, it would end up being a novel. I can not name you all, but I'm grateful to each' ' of you for all your help.

CHAPTER ONE
INTRODUCTION

1.1 Background of the Study

Economic growth remains and continues to be the building block for a sustainable and developed nation. In the recent past, Zambia recorded a tremendous economic growth rate of 7.9% between 2008 to 2017, illustrated by its infrastructural development rate that has arisen (World Bank, 2018). In this regard, it is believed that this 70% growth rate has been primarily contributed by Micro Small and Medium-Sized Enterprises (MSMEs) participation in Zambia's economic growth landmark (Bank of Zambia, 2015; Zambia Invest, 2017). Interesting enough, it has attributed to MSME's being crucial economic development agents for Zambia's economy. Furthermore, observations show MSMEs play a significant role in Zambia's employment sector. Notably, MSMEs contribute 88% of the country's employment market (Bank of Zambia, 2015; Zambian Investor, 2015). Accordingly, Liyanda (2017) states that the MSME sector accounts for approximately 97% of Zambia businesses, with 9 out of every 10 MSMEs operating outside the formal sector.

The developed and developing economies consider the MSMEs sector as a resource that triggers sustainable economic growth through poverty reduction, employment creation and foreign direct investments (Luetkenhorst, 2003). For this reason, a critical evaluation and a deeper understanding of their survival are explored, and various mechanisms are put in place to ensure sustainability. It is thus important to understand how they operate, what playing level field provides their growth concerning financing and financial inclusion, which are vital factors to growth compared to their counterparts who are big corporations or businesses.

According to Kayanula & Quartey (2000), the MSMEs role in developing countries has been very instrumental and has been long recognised. The authors believe that MSMEs play a huge role in economies. Moreover, they interestingly argue that there is no uniformly accepted definition of a small firm. The term is relative depending on which sector the exact size definition has been applied to. Consequently, this has led to multiple definitions existing in the literature.

According to the European Union (2015), balance sheet, employees, and turn over are not the only factors determining whether an enterprise is an MSME. Equally important are significant additional resources available for the company, irrespective of its small size, it might not be

eligible for SME status (European Union [EU], 2015, p.10). Due to this fact, the European Union came up with the term "Small and Medium Enterprises (MSMEs)" and said it is made up of enterprises that employ fewer than 250 persons and which has an annual turnover not exceeding EUR 50 million, and or an annual balance sheet total not exceeding EUR 43 million (EU, 2015, p.10).

Furthermore, the European Union stated that overall economic development and other things like capital investment and employment in most developing countries such as Zambia fall into the following categories to define MSMEs (European Union [EU], 2015, p.11):

- Micro enterprise: Firms with employee levels below 10.
- Small enterprise: Firms with employee levels above 10 to 49.
- Medium enterprise: Firm with employee levels from 50 to 250

From the above definitions, it would be safe to conclude that Zambia's MSMEs are mostly firms whose workforce, unfortunately, or fortunate enough, fall under 250 employees. This gives an interesting statistic and helps narrow the study to this group of businesses. Secondly, it also draws the study to demonstrate how these businesses find their feet in the business environment regarding growth, sustainability, and financial resources. It is safe to conclude that our study will critically examine this group to establish their financial inclusion involvement.

Finally, MSMEs make up a staggering 90% of enterprises globally, accounting for over 50-60% of employment, thus providing a way out for any sector growth in the world (Luetkenhorst, 2005). This provides an exciting phenomenon which strengthens the belief that financial inclusion is imperative for the world's economies to reduce poverty and advance developed and developing economies.

1.2 Statement of Research Problem

Most Micro, Small and Medium-Sized Enterprise's (MSMEs) seek opportunities to grow and remain profitable. This is specifically done by expanding their business operations, increasing their business net worth and searching for ways to do business more innovatively and efficiently. However, as the saying noted by Tobler (1895) goes: not all Rome was built in a day; this is a common cliché whose truth can be seen in the growth of MSMEs. In fact, most of these businesses hardly pass their first three-five years of operation or survive and if they do, they might not be operational in the next ten years.

Several writers have linked the low survival rates to lack of financial services and solutions to finance MSMEs' growth (Kazooba, 2006; Jennings & Beaver, 1995). These low rates could be due to the MSME having expanded the business too fast or could not manage to break even due to operational costs or lack of funding. Undoubtedly, Zambia's National Financial Inclusion Strategy (NFIS) of 2017-2022 indicates that financial inclusion for MSMEs is low. Most businesses are unable to borrow from formal institutions. Furthermore, the strategy states that this challenge has affected the MSMEs business landscape in Zambia. Therefore, the main aim of the NFIS is to increase the current financial inclusion rate from 59 per cent to 80 per cent up to the year 2022 (Ministry of Finance [MoF], 2017).

Although the policy envisions to increase the current financial inclusion rate of 59 per cent to 80 per cent by 2022, some critical steps have not been taken. In particular, the reduction of high-interest rates. Correspondingly, the Zambia Chamber of Small, Medium and Business Association (2012) agrees that Small business owners face higher interest rates for borrowing. Furthermore, the collateral placed by these financial institutions like banks and microfinance institutions are incredibly high, ranging from 35 per cent to 45 per cent for commercial banks and 70 per cent for micro-finance sector annual rates (MoF, 2017).

It is essential not to forget that MSMEs have a considerable role to play in any country's Gross Domestic Product (GDP). For instance, MSME's in Zambia account for 70% of Zambia's GDP and 88% of the employment rate (Zambia Invest, 2017). However, with all this underlying information, there is limited research that focusses on the burden that has continued to affect small players whose overall contribution to Zambia's GDP has remained untapped. In addition to the impact on the country's economy. As a result, this study seeks to contribute to the body of knowledge and establish the status of MSMEs' financial inclusion. Furthermore, the research will recommend possible solutions to this challenge. Consequently, the study seeks to provide an understanding of the following questions.

1. What is the current state of financial inclusion among MSMEs in Zambia?
2. What is the relationship between the size, literacy, age, asymmetrical information, gender and period of business operations of an MSME and financial inclusion in Zambia?

1.3 Research Objectives and Hypotheses

The main objective of this study is to examine the state of financial inclusion among MSMEs in Zambia. The specific objectives are as follows;

- To determine the current state of financial inclusion of MSMEs'
- To examine the determinants of financial inclusion among MSME's

1.4 Justification of the Study

Financial inclusion is an essential factor in economic growth and improves GDP (Sethi & Acharya, 2018; Raza, Tang, Rubab, & Wen, 2019; Kim, Yu, & Hassan, 2018; Sharma, 2016). It can make growth more inclusive. This is achieved through economic participants being able to make investments and take part in long term consumption, productivity, and be able to cope with unexpected shocks. These activities make it possible for the attainment of development in the long run. Therefore, a country that is interested in attaining economic growth must take into account initiatives that increase access to financial services in the long term. Thereby reducing poverty and income inequality among the populous (Raza et al., 2019). Finally, Sarma (2011), argues that financial exclusion reflects social exclusion among countries with low GDP per capita and low literacy rates. Similarly, low urbanisation, poor connectivity, higher levels of income inequality always seem to be less financially inclusive.

Financial inclusion is essential to the development of any country and aids with poverty reduction. For example, Raza et al. (2019) show that the lack of basic financial services can lead to financial exclusion, thereby negatively impacting the low-income groups. Furthermore, Inoue (2019) and Lal (2018) research examined the effect of financial inclusion on poverty reduction. Their studies concluded that financial inclusion helps alleviate poverty and leads to better welfare, income equality, and employment provision.

Also, a study by Gade (2018) emphasised the importance of the MSMEs sector and explained that it is a vibrant and dynamic sector in any economy. MSMEs contribute towards the growth and development of an economy, increase levels of employment at a lower cost compared to large industries. It also contributes to national income and wealth. As a result, the present study also called for a special uniqueness in dealing with this sector to bring about sustainable growth.

According to the World Bank's 2013 Enterprise Survey (Ministry of Finance, 2017), various barriers inhibit MSMEs' growth in Zambia. The most common barrier is the lack of access to credit finance. Rejection of loan applications stood at a staggering 53 per cent of small firms

(5-19 employees) followed by 9 per cent of medium-sized (20-99 employees). In comparison, more prominent firms (100+ employees) enjoyed a 10 per cent rejection rate. Even when credit finance is available, MSMEs experience a high cost of borrowing up to 40 per cent, thereby straining the MSME's capacity to payback while desiring to grow and stay afloat.

In this regard, this study seeks to provide a new perspective on what the current state of financial inclusion is among MSMEs. Furthermore, to assess whether the size, literacy, age, asymmetrical information, income, gender, and period of operations of MSMEs determines the financial inclusion that a firm will have. The literature review highlighted that MSMEs remain a pivotal aspect in any economy, including that of Zambia (Tambunan, 2019; Roopchund, 2020). This study was carried out to ascertain the depth of financial inclusion and offer appropriate recommendations.

1.5 Limitations of the Study

The sample population was limited to MSMEs located in Lusaka because of inadequate resources to include other towns for data collection. Fortunately, Lusaka's demographic business landscape shows that the various players in different sectors are presented to give a general overall view of all nine provinces. Finally, not all MSMEs engaged were interested in offering the necessary support to collect data.

1.6 Organisation of the Study

This dissertation comprises five chapters. Chapter one introduces the background, research problem, justification of the research, questions and objectives of the study. After that, Chapter two will look at the body of knowledge focusing on MSMEs, and financial inclusion. Chapter three outlines the data collection roadmap. Next, Chapter four present the results and discussion of the findings. Finally, Chapter 5 highlights the conclusion, recommendations and proposes other venues of the study.

CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

This section gives an overview of the literature review on financial inclusion and MSMEs. The chapter illustrates the definition of terms and concepts and an overview of the financial sector in Zambia. The theoretical framework on financial inclusion further highlights the sub-sections on determinants of financial inclusion and factors that affect financial inclusion. Finally, the empirical literature on financial inclusion has subsections on MSMEs and Financial inclusion and challenges of MSMEs and financial inclusion.

2.2 Definition of terms and concepts

2.2.1 Definition of Financial Inclusion

According to Aduda & Kalunda (2011; p.96), financial inclusion refers to " the process of availing an array of required financial services, at a fair price, at the right place, form and time and without any form of discrimination to all members of the society." Accordingly, countries that have made the most significant progress in providing financial inclusion have created an enabling environment. These countries' banks and microfinance institutions have developed creative solutions that have further expanded access to financial services. The importance of financial inclusion is evident as it helps to make life easier for both individuals and businesses (World Bank, 2018).

2.2.2 The Definition of Micro, Small and Medium-sized Enterprises (MSMEs)

The term **Micro, Small and Medium-sized Enterprises (***MSMEs)* has several definitions. Firstly, the European Commission (EC) came up with the term "Small and Medium Enterprises (SMEs)". Such an enterprise is known for employing fewer than 250 persons. It has an annual turnover not exceeding EUR 50 million and or an annual balance sheet total not exceeding EUR 43 million (EU, 2015).

Secondly, United Nations Industrial Development Organization (UNIDO) considers the overall economic development and other things like capital investment and employment. Most developing countries fall into the following categories to define SMEs: Microenterprise: firms with employee levels below 10; Small enterprise: firms with employee levels above 10 to 49; Medium enterprise: Firm with employee levels from 50 to 249 (Luetkenhorst, 2005).

Thirdly, the Ministry of Commerce, Trade and Industry [MoCTI] (2008) in Zambia characterises the MSME sector based on total fixed investments, the number of employees, sales turnover and legal status. The Ministry categorises them into micro, small, medium and informal enterprises. Specifically, a microenterprise is a company which is registered with the Registrar of Companies, has an annual turnover of up to One hundred and fifty thousand kwacha (ZMW 150,000). In addition, it employs up to ten persons and has investments of up to Eighty Thousand Kwacha (ZMW 80,000), excluding land and buildings.

Turning to the definition of small enterprise, the company should be registered with the Registrar of Companies. It must have an annual turnover ranging between One Hundred and Fifty-One Thousand (ZMW 151,000) and Three Hundred Thousand Kwacha (ZMW 300,000). The enterprise must employ between 11 and 50 persons. The total investments exclusive of land and building for trading and service providing enterprises is up to One Hundred and Fifty Thousand Kwacha (150,000). Lastly, the total investment amount for manufacturing and processing enterprises is between Eighty Thousand Kwacha and Two Hundred Thousand Kwacha (ZMW 80,000 – ZMW 200,000) (MoCTI, 2008).

A medium enterprise is larger than a small enterprise, and one that is registered with the Registrar of companies. It is one whose turnover lies between Three Hundred Thousand Kwacha and Eight Hundred Thousand Kwacha (ZMW 300, 000 - ZMW 800, 000). It employs between Fifty-One and One Hundred (51 - 100) persons. Total Investments exclusive of land and building in trading and service is between One Hundred and Fifty-One Thousand Kwacha (ZMW 151,000) and Three Hundred Thousand Kwacha (ZMW 151,000 – ZMW 300,000). On the other hand, under manufacturing and processing enterprises, investments are between Two Hundred Thousand and Five Hundred Thousand Kwacha (201, 000 - 500, 000) (MoCTI, 2008).

Finally, an informal enterprise is not registered with the Registrar of Companies and whose total investments exclusive of land and building are up to ZMW 50,000. The enterprise employs less than ten (10) persons (MoTCI, 2008). In all a business qualifies to be called either as a small, micro or medium depending on the legal status and total investment criteria been met, in addition to meeting at least one other criteria as above (MoTCI, 2008).

For the purposes of this study, the definition of the MSMEs by the Ministry of Trade, Commerce and Industry which focusses on total fixed investments, number of employees, sales turnover and legal status was adopted. As illustrated above, MSMEs characterization differs

from author to author. The definition by the Ministry of Trade, Commerce and Industry however, brings more depth as it looks at various factors that really unlocks what a typical Zambian MSME looks like. This definition is best suited to highlight which business falls into the MSME space and whether it can be categorised as a micro, small or medium enterprise.

Most MSMEs are believed to have a positive impact on any economy. MSMEs help contribute to the economic development of a country. According to Gupta & Ranjan (2014), enterprises help to create employment at lower capital expenditure. In addition, MSMEs contribute to job creation and employment in the country. MSMEs remain the largest employers in many low-income countries. Furthermore, they help with the industrialisation of rural and backward areas and act as ancillary units to the large industries. Moreover, they act as suppliers to large enterprises and help in the revamping of industries.

Enhancing financial inclusion increases wealth creation, economic growth and sustainable development (Gade, 2018). The European Union also believe that MSMEs significantly contribute to GDP and job creation. There is a potential for MSMEs to make even, more significant contributions to their respective economies only when they are given the proper funding. Their growth, mostly in developing countries, is limited due to a lack of access to funding (EU, 2019). With the understanding of the importance of the MSMEs and access to financial inclusion, the EU came up with the European Union Initiative for Financial Inclusion (EUIFI). This initiative seeks to support the start-up MSMEs to have access to financial services and have a successful business in the long run.

2.3 Overview of the Financial Sector in Zambia

Zambia's financial sector is mainly made up of banks. As shown in Figure 1, banks account for about 69 per cent of the total financial sector assets.

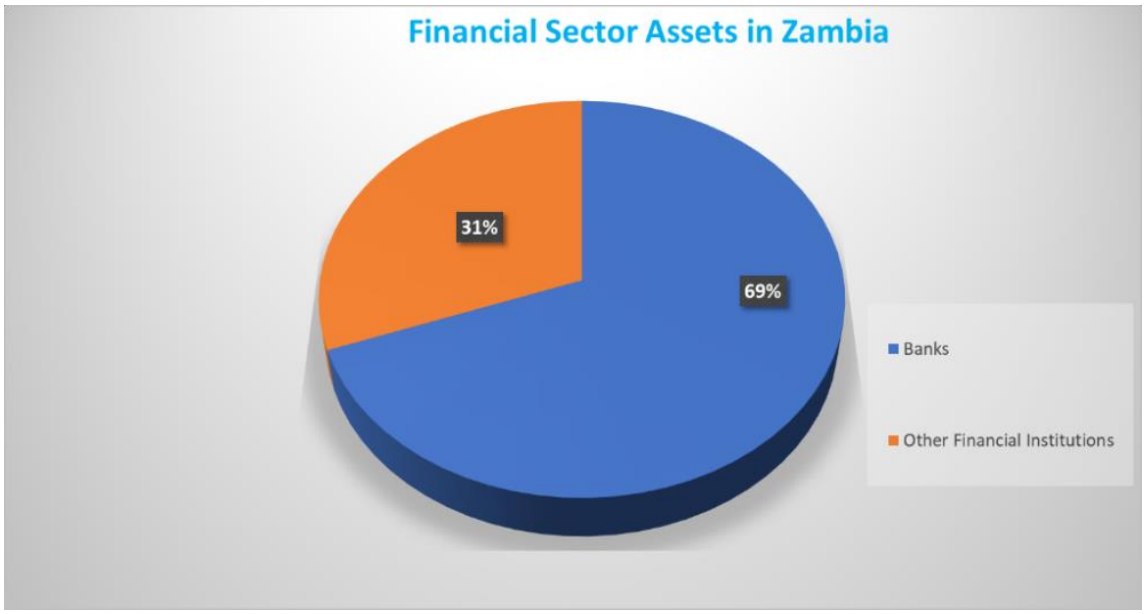


Figure 1: Financial sector assets in Zambia

(Source: Ministry of Finance, 2017. NFIS)

Currently, Zambia has 18 registered commercial banks, inclusive of both local and foreign banks. The majority of the Banks' Financial assets are owned by foreign banks who account for 83 per cent, while local banks account for 17 per cent (Bank of Zambia [BoZ], 2017).

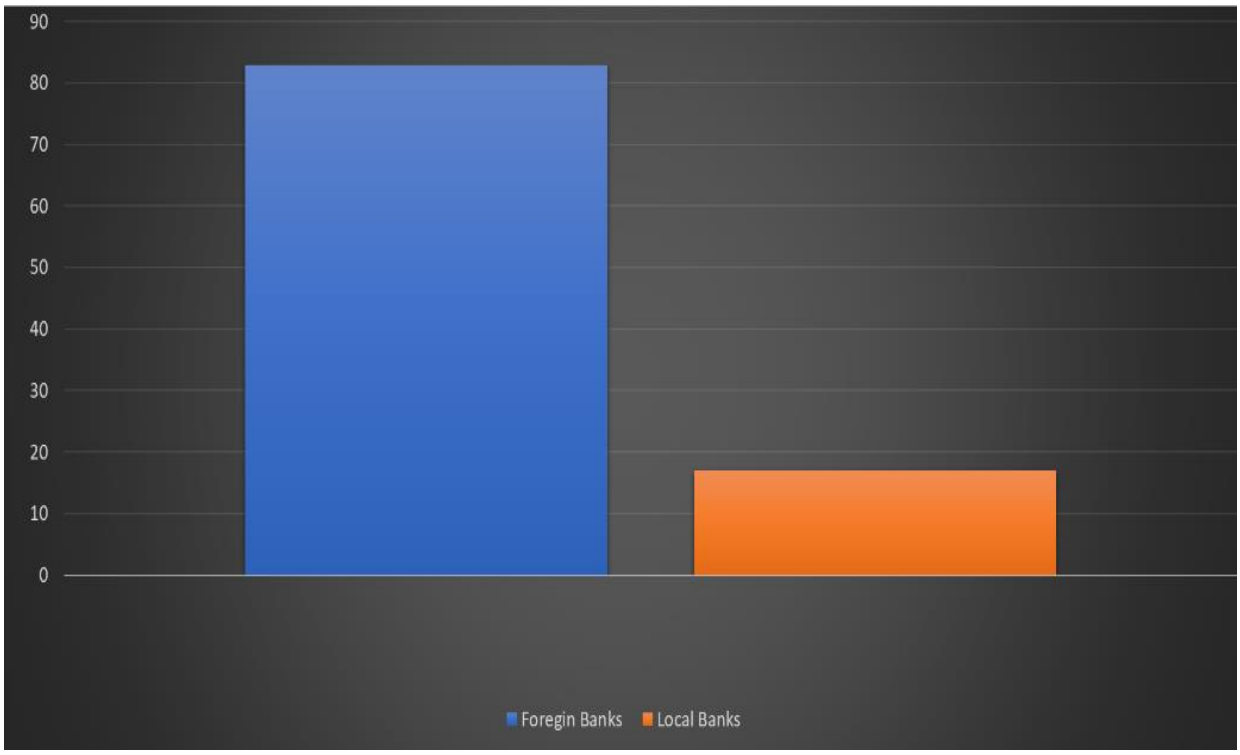


Figure 2: Banking Sector in Zambia

(Source: Ministry of Finance, 2017. NFIS)

According to the Ministry of Finance (2017), Zambia's financial sector remains moderately developed. The industry offers various instruments and formal and informal financial services. The formal sector comprises mainly the banking sector (Table 1), followed by insurance, pensions, microfinance, and capital markets -sub-sectors. The informal financial sector has a vital role in the sector. It comprises money lenders and savings groups such as village banking.

Table 1: List of registered banks in Zambia

	Name of Bank	Foreign/ Local		Name of Bank	Foreign/ Local
1	AB Bank	Foreign	10	First Capital Bank Zambia	Foreign
2	Access Bank Limited	Foreign	11	First National Bank Zambia Limited	Foreign
3	Atlas Mara Zambia Limited	Foreign	12	Indo Zambia Bank	Foreign
4	Bank of China (Zambia) Limited	Foreign	13	Investrust Zambia Limited	Local
5	Barclays Bank Zambia Limited	Foreign	14	Stanbic Bank Zambia Limited	Foreign
6	Cavmont Bank Limited	Foreign	15	Standard Chartered Bank Zambia Limited	Foreign
7	Citibank Limited	Foreign	16	United Bank for Africa	Foreign
8	Ecobank Zambia Limited	Foreign	17	Zambia Industrial Commercial Bank	Local
9	First Alliance Bank Zambia Limited	Foreign	18	Zambia National Commercial Bank PLC	Local

(Source: Bank of Zambia. 2019. Registered Commercial Banks. http://www.boz.zm/registered-commercial-banks.html)

Figure 3 illustrates the non-banking financial institutions. These include four building societies, one government-owned saving and credit institution (NATSAVE Zambia), ten (10) leasing companies, one (1) developing bank (Development Bank of Zambia), 11 savings and credit cooperatives and 74 foreign bureaus (MoF, 2017). Currently, Zambia's Government has expressed a commitment to improving the financial sector's growth through the Financial Sector Development (FSD) policy. The policy highlights the Government's vision and strategic guidance and oversight. The policy's main purpose is to help raise funds for developing and building a good reputation and trust of the broader consumer base. Therefore, the Zambian government came up with the policy after noticing the importance of attracting and mobilising savings and investments (MoF, 2018).

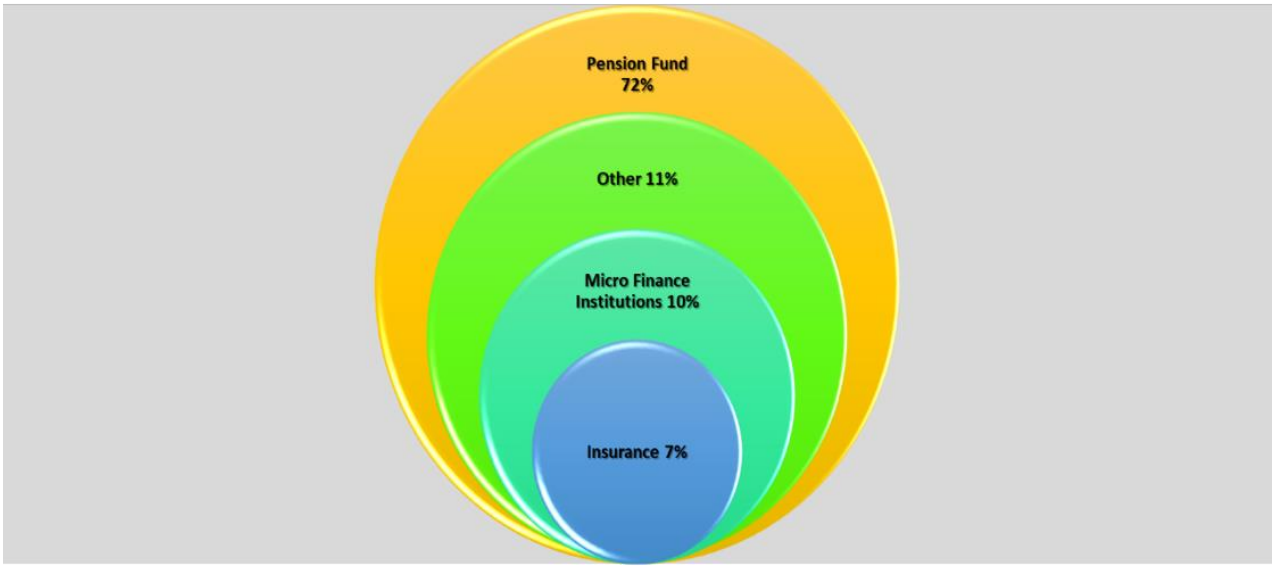


Figure 3: Non- banking financial institutions (Source: MoF, 2017)

Zambia's financial sector comprises various players. Namely, the Government and financial regulators. The Bank of Zambia, the Competition and Consumer Protection Commission (CCPC) and the Zambia Information and Communications Technology Authority (ZICTA). Also, the sector includes users of financial and non-financial products and services. The system's services are achieved through credit to economic agents, provision of access to financial services, international capital flows, efficient payment systems for financial transactions, and the efficiency of investments. The Government of Zambia in 2017 saw a need for a policy that would look at the financial sector development to be supported by another policy called the Financial Sector Development Policy (MoF, 2017).

Digital Finance Services (DFS) refers to the financial services delivered through the digital network and mobile operators. Zambia was one of Africa's earliest countries to adopt Digital Financial Services (MoF, 2017). Despite Zambia's early adoption of DFS in 2002, the country lagged in the implementation or roll-out. Fortunately, there has been an improvement in the DFS. This is evidenced by the increase in the number of agents across the country of 12,000. The DFS helps extend essential financial services to the poor and financially excluded. This is done via mobile money and digital payment platforms. Most governments worldwide agree that DFS plays a vital role as they provide financial services at lower costs and reach underserved and remote populations.

Although the statistic shows an improvement in the usage of DFS, Zambia still records the low cellular penetration and use of mobile money at 74.5 per cent compared to Africa's average rate of 90.8 per cent with other countries such as Ghana at 100 per cent. Data currently shows that there has been a recent uptake among Zambian consumers of 18 per cent in 2016 from 8 per cent in 2015. The DFS is presently facing challenges that include a lack of awareness and access to services (MoF, 2017). The Banking sector comprises 18 licensed commercial banks that are primarily focussing on retail and corporate banking. The banks offer various products that include other accounts and loans and advances dominated by personal loans of about 27 per cent. The non-Banking financial institutions comprise 122 institutions.

The financial sector also includes other providers that include 11 savings and credit cooperatives and local rotating savings referred to as *chilimbas* (MoF, 2017). A *chilimba* is a traditional savings and investment group in Zambia. It operates in the informal sector and usually comprises a group of 3 or more people who contribute a specific amount on a monthly basis (Mubitana, 2020). It rotates every month giving each group member an opportunity to receive funds for that particular month until a full cycle is complete for all group members. Thus, providing a member an opportunity to have received a certain sum of money to invest in their project or business venture throughout the life span of the financial group created.

2.4 Micro, Small, and Medium Enterprises (MSMEs) and Financial Inclusion in Zambia

The MSMEs face several challenges. Most MSMEs' main challenge in Zambia is the lack of access to credit, with 27.5 per cent of firms listing it as the main barrier (MoF, 2017; Tambunan, 2018; Ayadi & Gadi, 2013). It is also essential to realise that MSMEs' challenges are also precipitated by bad financial record-keeping practices. Hence, reducing the chances for MSMEs to gain access to credit institutions (MoF, 2017).

It also has been noticed that the formal financial sector declined at least 53 per cent of small firms' loan applications, and another 9 per cent of medium-sized firms, while none of the larger firms' applications was, rejected (MoF, 2017). Unfortunately, the MSMEs in Zambia incur higher credit costs as interest charged is too high, which strains their capacity to pay back. In particular, Commercial Banks offer the nominal interest rate at 40 per cent, whilst that of microfinance is as high as 70 per cent of annual rates. As a result, most MSMEs do not access loans. Specifically, although 37 per cent of firms reported needing a loan, only 5 per cent of the small firms reported having access to a loan (MoF, 2017). Table 2 bears the comparison

between Zambia and other African countries with regards to access to loans and or credit lines (MoF, 2017).

Table 2: Overview of Financial Inclusion in Zambia and Comparator Countries

Indicator	Zambia	Uganda	Tanzania	Kenya	Namibia
% of firms with a loan or line of credit	9	10	17	36	22
—% of small firms (5–19 employees)	5	9	13	30	19
— % of medium firms (20–99 employees)	14	9	26	42	31

Source: Ministry of Finance 2017

The Credit facilities offered and made available to MSMEs require collateral such as land and buildings. Unfortunately, most MSMEs do not own land and buildings but immovable properties that are not acceptable according to the Formal financial sector. Consequently, they cannot access formal loans (MoF, 2017). Alternative funding such as venture capital, crowdfunding, private equity, and capital markets are lacking to support financial inclusion. These alternative funding opportunities could help close this funding gap.

The lack of access to credit facilities further leads to MSMEs not having adequate working capital. For instance, it has been observed that when most MSMEs are awarded contracts or orders, they most times do not have the funding to carry out their projects. Their poor financial record keeping, no collateral, and bank accounts further disqualify them from accessing working capital (MoF, 2017).

Through a consultative forum with various stakeholders, the Zambian government came up with three documents to strengthen its financial sector: The Financial Sector Development Policy, the National Financial Inclusion Strategy and Financial Capability Survey Report. It is believed that through this effort, the Zambian people will reap the benefits of financial inclusion- which involves people's physical access to financial services such as bank branches, agents and ATMs and other banking-related services. Thereby likely will increasing financial access points per 10,000 adults from the current 7 to 10 (World Bank, 2017). This, therefore, explains the fact that financial inclusion involves the informal and formal sectors having access to affordable financing to foster innovation, growth, and sustainability.

2.5 Theoretical Framework on Financial Inclusion

Access to formal financial services is an essential tool that can help change low-income households' life through consumption, capital, savings and to reduce shocks of uncertainties of life. However, the scenario is that approximately 2.5 billion people do not have access to formal financial services, and most are in the middle to developing countries (King 2014). Most of the people who are financially excluded are in the developing world.

Financial inclusion was first brought up in 1993 by geographers to respond to bank accounts closure in developed countries (World Bank, 2005). The closure had resulted in reduced access to financial services by those excluded (Leyshon & Thrift, 1993). The literature indicates that Financial inclusion refers to access to formal financial services. Correspondingly, the World Bank defines financial inclusion as a means by which individuals and businesses have access to functional and affordable financial products and services that meet their needs – transactions, payments, savings, credit and insurance – delivered responsibly and sustainably (World Bank, 2018). Therefore, the concept of financial inclusion can be explained using the below diagram by the World Bank (Figure 4).

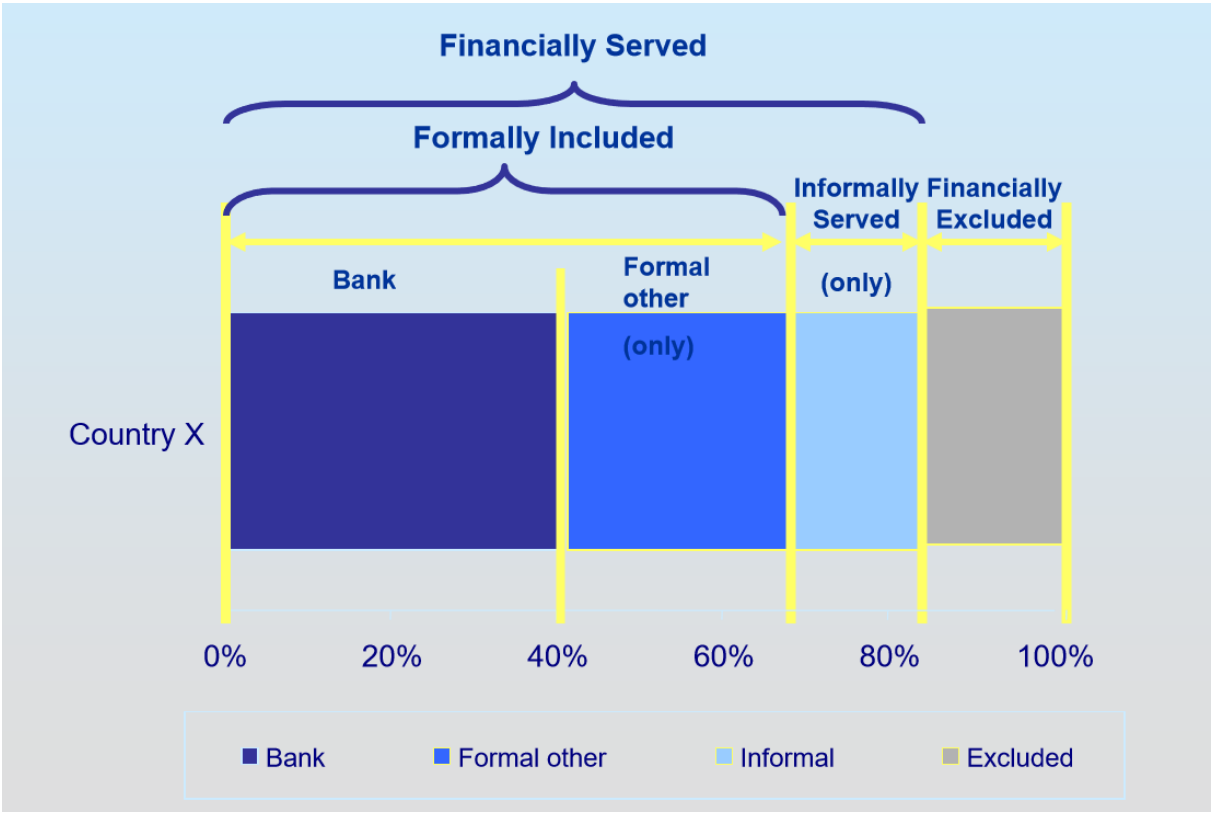


Figure 4: Depiction of Financial Inclusion ***(Source: World Bank (2005)***

Figure 4 illustrates the various terms which best help to explain what financial inclusion is. The bank refers to a proportion of adults who have access to a bank or a bank-like institution. The formally included refers to a ratio of adults with access to a bank or other formal financial institutions' financial service. The financially served refers to a proportion of adults that both use formal and informal financial services. While the financially excluded refers to a proportion of adults who do not have access to formal and informal services. The term financial inclusion somehow added a poverty dimension to the World Bank definitions of the poor. Most of the adults who are financially excluded are found in the bottom quintile income group. The World Bank identifies financial services as payment services, savings and investment services, and loan services (World Bank, 2005).

The Global Partnership for Financial Inclusion (GPFI) and the Consultative Group to Assist the Poor (CGAP) define financial inclusion as a situation in which all workers have access to financial services, namely, finance, savings, payments and insurances from financial institutions (Mylenko, 2010). The two institutions believe that there should be easy access to financial services and that the cost should be affordable. Additionally, Sarma (2011, p 3) defines financial inclusion as a process that ensures the ease of access, availability and usage of the formal financial system for all economy members.

For some time, financial inclusion has been referred to as the ease of access to financial services. However, the definition of financial inclusion by Sarma (2011) goes deeper and encompasses access, availability and usage of financial services. For one to truly study financial inclusion and give an extensive comprehension of the status of financial inclusion, there is need to monitor all three factors. It is for that reason that this study adopted Sarma's definition of financial inclusion.

An inclusive financial system helps with the efficient allocation of limited productive resources and, in the long run, helps reduce the cost of capital. It is believed that there must also be an improvement in the day to day management of resources when there is adequate access to financial services (Sarma, 2011). A financial system that is sufficient helps reduce the informal sources of credit (Sarma, 2011). Most of these relationships between lender and borrower are very exploitive. Overall, a well-developed operating financial system brings about efficiency and allows individuals to borrow and save in a safe and secure environment (Sarma, 2011).

An inclusive financial system has several advantages as it facilitates efficient allocation of productive resources and, in the long term, could potentially reduce the cost of capital. Also, access to appropriate financial services can significantly improve the day-to-day management of finances. Furthermore, an inclusive financial system could reduce the growth of informal credit sources (such as money lenders) that are exploitative (Sarma, 2011). Thus, an all-inclusive financial system enhances efficiency and welfare by providing avenues for secure and safe saving practices and facilitating a whole range of efficient financial services (Sarma, 2011).

Most countries have identified how crucial financial inclusion is and has become a policy priority. For this reason, some countries have initiated measures to ensure financial inclusion. For instance, France passed the statute of exclusion in 1998. The law stated that an individual has a right to have a bank account (Sarma 2011). Likewise, the United States passed the Community Reinvestment Act in 1997 to direct banks to offer credit not only to the rich, affluent neighbourhoods but also throughout all their operation areas (Sarma 2011). Finally, the United Kingdom in 2005 setup the financial inclusion task force whose aim is to monitor the development of financial inclusion (Sarma, 2011).

2.5.1 Determinants of Financial Inclusion

The concept of measuring financial inclusion is a new one, but there has been growing literature. Various researchers have used other indicators to measure financial inclusion. For instance, Nandru & Rentala (2019) focused on the demand-side analysis of India's financial inclusion. Results indicate five dimensions of financial inclusion, including ease of access availability, affordability, physical proximity, and usage dimensions. When ranked according to importance, the study showed that ease of access was the most important determinant of India's financial inclusion.

Also, Honohan (2008) used econometrics to measure financial inclusion. Survey-based information and secondary data was used with a focus on the number of bank accounts. the study used econometrics to determine the number of bank accounts that adults had access to in 160 countries. The approach, however, focused on the proportion of banked adults and thereby ignored other essential variables such as availability and use of the financial system. One of the limitations of the econometric approach of financial inclusion is that it is not valid for understanding changes over time and only provides a one-time measure of financial inclusion (Sarma, 2012). Measuring financial inclusion becomes a difficult task if only one indicator is used.

Another initiative by the World Bank called the Global Financial Index database provided financial inclusion indicators (Demirguc-Kunt & Klapper, 2013) and was provided with the first Global Financial Inclusion Database analysis. The study was based on primary surveys of over 150,000 adult individuals in 148 countries. Indicators used to measure financial inclusion included the proportion of adults with accounts with a formal institution, the proportion of adults who borrowed and saved using a formal account, used informal methods to save and borrow, owned credit cards and debit cards, and had access to insurance. Findings indicated that overall, 50 per cent of people worldwide had access to a bank account. However, Sarma (2012) argues that although the above-mentioned indicators provided useful information on a system's inclusiveness, it nevertheless provided incomplete information when used individually.

Given the limitations of the Honohan and World Bank studies mentioned above, Sarma (2012) suggests an alternative measure of financial inclusion known as the index of financial inclusion (IFI). The index attempted to combine various banking sector indicators, thereby enabling the index to incorporate information such as usage of banking services, availability and accessibility. The IFI is read on a scale of 0 to 1, with 0 indicating complete financial exclusiveness and 1 (one) complete financial inclusion in an economy. Sarma used a similar multidimensional index construction approach like the United Nations Development Programme (UNDP) Human Development Index. Currently, the IFI is used to make comparisons between the extent of financial inclusion and diverse economies. In all, the index could be used to monitor the progress of financial inclusion in these economies.

2.5.2 Demand and Supply Side Constraints to Financial Inclusion

Financial inclusion growth at both individual and national level has been hampered due to several constraints to accessing financial services. These constraints may either be specific to the individuals (demand-side) or are caused by systemic or institutional inadequacies. In other words, these constraints can be divided into demand-side constraints and supply-side constraints of financial inclusion.

2.5.2.1 Demand Side Constraints

Demand-side constraints refer to the challenges that individuals face when they try to access financial services. According to (Sekantsi & Motelle, 2016), the demand-side factors of financial inclusion include:

(i) Lack of trust in Financial Institutions (some people do not trust financial institutions and keep away from them)
(ii) Inaccessibility to financial stations
(iii) Inappropriate product design (some financial products are designed for the financially excluded individuals)
(iv) Religious and cultural barriers (some cultures keep certain individuals from the financial sector. Gender also is a factor because most females financially excluded)
(v) Inability to reach eligibility criteria (not having enough assets)
(vi) Cumbersome documentation and procedure
(vii) Low literacy levels
(viii) Low level of income
(ix) Information asymmetry due to lack of awareness (Sekantsi & Motelle, 2018)

A study by Lal (2018) in India focused on the impact of financial inclusion on alleviating poverty. The study looked at the constraints that individuals face when accessing financial services. It found that there was a lack of awareness among people with regard to the importance of financial products and services. The inappropriate credit terms and administration kept most people from accessing financial services. Other constraints included cumbersome account opening norms and distance to bank branches.

According to Osano & Languitone (2016), information asymmetry occurs when two parties are making a transaction, but one party has more information about the transaction than the other party. This leads to the informed party having power over the transaction than the uninformed party. Information asymmetry remains a stumbling block between MSMEs and funding institutions. The relationship between MSMEs and the funding institutions have worsened due to asymmetrical information. The borrowers have had more information than the lenders, which has led to moral hazard issues.

Moreover, Stiglitz and Weiz (1981) linked credit rationing to asymmetries of information. They showed that credit rationing is connected to both adverse selection and moral hazard. Under adverse selection, this occurs when signing the contract with asymmetrical information reflected when the banker does not ideally detect the project's quality being financed. The borrower's interest at the time of signing is to have access to funds. The borrower at the time has secret information on the characteristics of the project. Moral hazard occurs when the party who has more information takes risks, given that they assume the final cost of the risk. Moral

hazard appoints asymmetrical information after the agreement of the credit. In all, this asymmetrical information prevents the banker from controlling the project manager effectively after signing the contract.

Some MSMEs have in the past borrowed money that has been diverted into other ventures. There have also been some MSMEs that have also been funded but did not have a proper business plan and hence failed to make their business thrive. Because the financial institutions cannot identify the honest borrowers from dishonest borrowers, funding institutions have become more vigilant and put in stringent measures such as the provision of collateral for borrowing. This has, unfortunately, crowded out the genuine borrowers (Osano and Languitone, 2016). There is a gap in the relationship as more funding projects emerge, but MSMEs have also shied away from trying to access funding because they feel their application would be declined.

The study by Chakrabarty (2012) identifies (three) 3 demand-side factors of financial inclusion. These include:

(i) Lower-income and or asset holdings: Income is an essential factor in financial inclusion. Individuals with lower income are usually excluded from the financial sector. Turning to asset holdings, they are necessary to access credit. Financial institutions typically require their loans to be backed with security which serves as collateral such as land. As a result, individuals who lack asset holdings are not eligible to borrow from the financial sector.

(ii) Financial literacy awareness issues: Financially illiterate Individuals do not have access to financial services as they do not understand the procedures.

(iii) Lack of trust in formal banking institutions and cultural obstacles (e.g., gender and cultural values):

Most MSMEs fail to secure credit from formal institutions. Thus, this trend has led to the loss of trust in the banking sector. This thereby leads to most MSMEs using their personal savings to invest in activities, namely, health, education, housing as well as entrepreneurial activities. In this regard, the study calls on banks to be a catalyst for bringing an end to the current status quo of MSMEs failure to access credit. Turning to culture obstacles, some cultures inhibit people from accessing financial services. Also, gender issues regarding financial inclusion, with women being excluded due to cultural issues.

2.5.2.2 Supply-Side Constraints

Supply constraints are caused by systemic or institutional inadequacies of the financial sector. These are usually difficult to overcome by the individuals as the inadequacies of the financial sector cause these constraints. Consequently, making it, difficult for the financial industry to offer access to financial services to all.

The challenges faced by those trying to access financial services include high transactional costs, products that do not suit people's needs, stiff regulation rules, and cumbersome procedures. Therefore, most financial players are kept away from the financial sector due to these challenges (Gupte, Venkataramani, & Guptac 2012). Mercy Corps (2019) highlights that low-income clients are perceived to be of high risk in most cases. Hence, most people who are financially excluded do not have access to appropriate financial services that consider the uniqueness of their problems. Most of those affected by financial exclusion is not able to meet financial institutions requirements, such as legal documents covering cash flow and credit history. To overcome the constraints, Gupte et al. (2012) recommended changing complicated procedures into simple ones, reducing the cost of financial services and lenient terms and conditions.

Chakrabarty (2012) also identifies six (6) supply-side factors that lead to financial exclusion, namely:

(i) Outreach: Financial institutions always consider the area before a branch is opened. Banks and other financial institutions usually open branches in areas with high density instead of low-density areas. This is because high-density areas are financially sustainable under their banking business models, while low-density areas are financially unsustainable.

(ii) Regulation: Most of the policies and regulation adopted by governments do not consider the local conditions and hence are not best suited for the local conditions. Particularly, these frameworks and policies are not always adapted to local contexts.

(iii) Business models: Service producers have limited resources and cannot have branches in every area. Most service producers must consider their available resources and costs associated with maintaining the branches. As a result, some areas will not have branches due to limited resources and hence are excluded.

(iv) Services: Most financial services are for high income populations and are not best suited to those with low income.

(v) Age Factor: Most of the products offered by financial providers are for the middle-age population. There is usually a gap in design appropriateness for older customers such as pensioners and the younger population as well. This also applies to businesses as recently opened businesses are not lent money to.
(vi) Bank charges: The bank charges are usually high and make maintenance of the account hard for the low-income group.

2.5.3 The Role of Mobile Money and Financial Inclusion

The past decade saw the rise of digitalised financial services. According to OECD (2018), technology and digital have transformed how the financial sector is operating. Accordingly, the study shows that digitalisation has impacted financial markets, insurance, and private pensions. Digitalisation has increased access to retail clients' financial services. Specifically, through affordable and accessible low-cost passive investments by relying on user-friendly digital platforms and algorithms.

Furthermore, Chikumbi & Siame (2018) agrees that there has been an increase in the provision of Mobile money in Zambia. Thereby making it possible for mobile owners to easily receive and send funds at a small fee. Mobile money is a service offered by telephone providers that provide financial services to mobile phone owners. The service was introduced because telephone providers realised the gap which exists in the financial market. Specifically, the banking sector in developing countries has failed to offer financial services, thus leading to exclusion in the sector. The lack of access indirectly exposes those excluded to poverty as they cannot save, repay debts and manage their risks.

Additionally, in most instances, banks prefer to deal with the wealthy in society (urban areas) due to their high transactional, infrastructural and operational costs. Such investment is not possible in rural areas. Thus, in bridging the gap, banks use mobile money services as most people in rural areas have access to mobile phones. The services provided include a mobile money account, remittance, and credit. To sum up, this shows that technology is taking an important role in increasing financial inclusion.

Olaniyi (2018) investigated the impact that the internet and mobile phones on Africa's financial inclusion. The study used panel data of 44 African countries for the period 2000-2016. Results indicated that the internet and mobile phones are an essential factor in financial inclusion in Africa. It also showed that the increased usage of mobile phones and internet usage has led to

increased financial inclusion. Given the challenges that most rural areas face around financial exclusion due to lack of infrastructure, mobile money services can reduce transactional costs for financial services providers. Thereby increasing financial inclusion. Additionally, the study highlighted digital finance regulation as a crucial aspect of financial inclusion. Accordingly, poor regulation could lead to financial exclusion, and hence policymakers should look at adopting a regulation that will enable mobile money. Another study by Okello, Bongomin, Ntayi, Munene, & Malinga, (2018) in rural Uganda, which researched financial inclusion, showed that mobile money usage heightened financial inclusion. Finally, Okello et al. (2018) revealed that social networks promoted financial inclusion in these areas.

Kenya is an example of an African country that has embraced mobile money and improved financial inclusion in the long term. For example, M-PESA is the Kenyan mobile money service that has been in operation since March 2007 (Mas & Morawczynski, 2009). It currently connects over 70 per cent of Kenyan households to the financial system, with 13.3 million people (Mas & Morawczynski, 2009). The M-PESA system handles more transactions annually than Western Union does globally, with the value of transactions representing a little over 15 per cent of Kenya's GDP (Kendall, Maurer, Machoka & Veniard, 2012). The service is easily accessed, with several agents growing parallel to its customer base. It currently has nine thousand retail outlets nationwide, both in urban and rural areas. The procedures of using M-PESA includes registration at an M-PESA retail agent outlet, and immediately Safaricom opens an electronic money account. Safaricom, in turn, deposits funds from clients into a pooled account at a regulated bank (Mas & Morawczynski, 2009). Therefore, customers can use their mobile phones to remit cash to registered and non-registered users, check their balances, buy mobile airtime, and pay bills. M-PESA also allows customers to make deposits and withdrawals through an authorised M-PESA agent (Ignacio & Morawczynski, 2009).

The advantages of using M-PESA include easy accessibility with easy reach of access points. Thereby making makes it easy for individuals to have access to a financial service. It also helps build trust and promotes savings and repayment behaviour due to real-time remittance transactions and feedback. Furthermore, the service makes it easy for customers to have all their financial relationships and transactions available with one device, their phone. Nevertheless, one major disadvantage to the customers is erroneously sending mobile money to an incorrect beneficiary by inputting the wrong number or transposing a number (Kendall et al., 2011).

Most suppliers see the benefits of keeping transactions in electronic form as the risk of theft and misappropriation by employees (Kendall et al., 2011). The challenges that mobile money providers face include the cost of the transaction being too high (Kendall et al., 2011). Mobile money is not free, and hence this bars the poor to access it. There are also challenges of building and maintaining relationships with clients, given that the service they offer is an indirect one. Lastly, some poor people who do not have access to a mobile phone will not have access to mobile money (Kendall et al., 2011).

2.5.4 Factors that affect Financial Inclusion

Micro, Small, and Medium Enterprises (MSMEs) access to finances, and financial service is affected by several factors. These include gender, age of business, literacy of owner of the company, size of the firm, and age of the MSME owner.

2.5.4.1 Age of Business (Period of Business Operations)

The age of the business refers to the number of years that an MSME has been in operation. There is a notion that older companies tend to perform much better than younger enterprises. For instance, Watson and Everett, (1999) show that older businesses have a lower mortality rate. Older firms carry within them immense experience and laid out procedures. They are also financially included and hence have access to funding which helps keep the business operational (Pandula, 2011). Correspondingly, Stinchcombe & March (1965) indicate a linear relationship between the age of business and performance, with firms' performance increasing with age. However, other studies indicate that older firms have become static due to old ways of doing things (Marshall, 2004). Some old businesses have become stuck due to using their old operating models and thus have stopped growing. However, a study by (Huynh & Petrunia, 2010) indicates that newer firms perform better than older firms and thereby grow faster. This is because owners of the new firms are more motivated and energetic hence achieve optimal growth.

2.5.4.2 Owners of MSME Characteristics, Size of MSME and Financial Inclusion

According to Modigliani and Miller's (1963) theory of capital structure, the firm value increases with leverage used, implying that the firms with access to financing and funding grow faster and reach optimal size than firms without funding and financing.

Characteristic of the MSME owner has a bearing on the size and overall performance of an MSME. These include gender, age of the owner of the MSME and literacy level of the MSME owner. Each factor is discussed in further detail below.

Firstly, gender and MSME performance studies have shown that male-owned MSMEs perform better than female-owned (Koch, Stupnytska, MacBeath, Lawson, & Matsui, 2014; Boden & Nucci, 2000). This could be attributed to female-owned MSMEs inability to have access to funds. Also, Demirguc-Kunt & Klapper (2013) analysed the individual gender differences in the use of financial services among 98 developing countries. The study results showed significant gender gaps in ownership of accounts and usage of savings and credit products. The cross-country variation in access to finance, particularly for women, resulted from legal discriminations. Furthermore, the study cites that women were less likely to have accounts specifically in countries where they faced legal restrictions on work, heading a household, and choosing where to live.

In comparison to men, women were less likely to own an account, save and borrow money. The authors further indicated that vices such as early marriages and gender-based violence against women explained the difference in access to finances between men and women. Similarly, Cliff (1998) explains that male-owned MSMEs outperform women-owned MSMEs because females lack funding and business acumen. Also, women are tied to their domestic role and hardly expand their businesses (Jiggins, 1989; Joekes, 1999).

On the contrary, other researchers believe that when women are given equal opportunities and have access to funds, they perform like their male counterparts (Unger & Crawford, 1992; Inmyxai & Takahash, 2010). Agreeably, other writers believe that women women-owned firms outperform their man-owned counterparts (Watson, 2002). Correspondingly, Chirwa (2008) found that women-owned firms outperform their male counterparts because women-owned firms have more access to finance via microfinance institutions and perform better than men-owned firms.

Secondly, studies have also been carried out on firm literacy level and size (Nunoo and Andoh, 2011; Adomako and Danso, 2014). Accordingly, the various research shows that firms run by literate owners tend to outperform those who have not. The educational training helps entrepreneurs make sound decisions in their operations and provides awareness about the

funding and financial services available. In all, education also helps MSMEs to increase productivity and profitability.

Similarly, Olaniyi and Adeoye (2016) found a positive relationship between literacy and financial inclusion. Literate owners of the business are likely to be financially included, and vice versa. The higher the literacy level, the higher the MSMEs' performance and the bigger the size level. In their study, Robinson and Sexton (1994) showed that entrepreneurs' general education and experience have a strong positive impact on firm success. Sanderson, Mutandwa, & Le Roux (2018) shows that owners of MSMEs that are educated are able to encompass financial services and have a higher chance of having access to financial services.

Finally, the age of the owner also has an impact on financial inclusion. According to studies done by Musa (2015) and Akudugu (2013) in Nigeria and Ghana, respectively, age was a determinant of financial inclusion. Equally, Sanderson. et al. (2018) study indicates a positive relationship between financial inclusion and age. The study explains that financial inclusion increases with age until it reaches a certain point in which it begins to reduce. Hence, people become more knowledgeable about financial products the older they grow. This is mostly from 18 years old up until retirement when they show less interest.

However, various views exist with other researchers that show that age has an impact on financial inclusion. For instance, Zins and Wil (2016) show that the older one gets, the more financially included they are. This can lead to older entrepreneurs being able to source funding and running their businesses more effectively. Kangasharju (2000) however, indicate that younger entrepreneurs are more innovative and, can increase their size and performance faster than their older counterparts.

2.6 Empirical Literature on Financial Inclusion

2.6.1 Micro, Small, and Medium Enterprises (MSMEs) and Financial Inclusion

Financial inclusion remains an essential factor in the running of any business. The growth and success of MSMEs are dependent on access to finance. Most of the MSMEs do not have access to funding (Roopchand, 2020). MSMEs that have access to finances are likely to thrive compared to those without access. Correspondingly, Gine and Townsend (2004) highlight financial intermediation as a positive catalyst to greater productivity and income. They indicate that regions with better financial services always saw an increase in productivity and revenue in the long term. Furthermore, Cagetti and Nardi (2016) show that better financial

intermediation led to the rise in entrepreneurship, increased wages, productivity, and investments.

Governments play a crucial role in helping MSMEs have access to funding and thrive after that. Specifically, it leads to an improvement in terms of exports, sales, and employment. For instance, the World Bank (2013) in Turkey helped with the export capacity of small firms through the expansion of export capacity via US$ 1.7 billion in Export Finance Intermediation Loans. This resulted in the firms introducing new products, increasing sales, increasing exports, and employing more than those that did not take part. There was significant growth in terms of exports, sales, and jobs. Exports grew from 0 to 10.4 per cent, sales from 6.2 per cent to 11.7 per cent and employment from 2.5 per cent to 8.9 per cent. This is a success story that shows us the importance of supporting MSMEs through funding.

Most studies on financial inclusion and stability have tried to establish if the two are substitutes or complements. They have been attempting to answer the question of whether financial inclusion can increase or reduce financial stability. Most studies have concentrated on the negative and positive ways financial inclusion affects economic stability. A survey by Morgan and Pontines (2014) measured financial inclusion by estimating the effects of various financial inclusion measures on some efforts of financial stability. Their findings showed that increasing lending to MSMEs helped with financial stability by reducing non-performing loans and defaults. Besides, the study indicates a positive relationship between financial inclusion and stability, especially of the MSMEs. In brief, studies conducted by (Chauvet & Jacolin, 2015; Zhang, 2015) found a significant positive correlation between credit facility from formal financial institutions and MSMEs' performance. The paper encourages MSMEs to pursue these services. Khan and Sani (2016) agree with the view.

2.6.2 The Challenges of Micro, Small, and Medium Enterprises (MSMEs) and Financial Inclusion

Finance is an essential catalyst in the growth and life of MSMEs. However, Africa currently has a financing gap of over $136 billion (Vanguard, 2017). Most MSMEs in developing countries face various challenges regarding financing that different people have captured worldwide.

Accordingly, it is essential first to identify the sources of financing in the African context. According to Ewiwile, Azu., & Owa (2011), MSMEs funding mainly comes from personal

savings as close family and friends who may or may not purchase shares in the company. This is usually cited as the most common funding option for MSMEs (Lahiri, 2012). Some MSMEs, however, look to shareholders and partners to join and finance the venture. Microfinance institutions such as banks and lending institutions are another source of funding for MSMEs. Lack of collateral and high-interest rates, however, keep most MSMEs from borrowing from formal institutions. Some MSMEs look for financing from small business investments companies. Whilst some MSMEs are members of trade organisations that have clients who prepay contracts and suppliers of materials. Other funders include other businesses, local capitalist sales financiers, village banking and others Ewiwile et al. (2011).

A study by Gulani & Usman (2012) in Nigeria revealed that most MSMEs use personal savings to start and run their businesses. The study aimed to assess the difficulties MSMEs face when accessing finance from various sources and evaluated Micro Finance Institutions (MFI) awareness by MSMEs. The research was an exploratory study that used both primary and secondary data. The population included MSMEs operating in Gombe State. The results showed that personal savings were the most popular source of funding. Results also showed that it was difficult for the MSMEs to access formal funding from the Banks and MFIs. They therefore borrowed from their savings and family and friends to meet their needs. There was also a lack of awareness of Banks and MFIs by the MSMEs.

According to The World Bank (2018), lack of external finance access is cited as the main challenge MSMEs face. The study focused on South Africa, but this is a challenge that is common to most African countries. The study also reveals that in South Africa, access to formal credit ranges from 3 per cent to 22 per cent. This is unfortunate because South Africa has over 90 per cent of formal businesses that cater to employment to about 50 per cent to 60 per cent of the working force. Its contribution to the GDP is 34 per cent. Lack of access to funding inhibits MSMEs set up and growth. The study also reveals that it is difficult to access credit in South Africa, with over 75 per cent of MSME credit applications rejected. Only 2 per cent of MSMEs can access bank loans. There is acute constrained access to finance, especially for companies that are too small for microfinance but too big for traditional financing. This, in the long run, makes this group underserved. This is primarily due to regulation, MSMEs specific characteristics, and lack of basic financial skills. A particular study by World Bank (2019) on Bangladeshi shows that MSMEs viewed access to finance as the third most crucial obstacle.

Political instability and electricity are on the top of the list. The study also reveals that Bangladeshi has a financing gap for MSMEs of about US$2.8 billion.

The other major constraint faced by MSMEs is they rarely qualify for formal financing from financial institutions. The loans and credit access regulations come with conditions that most MSMEs are not able to meet. Financial institutions lend to businesses that are solvent and can give collateral in exchange for loans. The collateral serves as a guarantee that ensures the financial institutions can sell off the asset and realise its funds in case of a repayment of loan default. However, most of the MSMEs in Africa do not know their solvency position because they do not keep financial records. For instance, Banks in Zambia will only lend to a business after an economic analysis of audited financials. This is done to give the financial institution a clear picture as to whether the company is solvent or not. Most MSMEs also do not have collateral hence do not have a guarantee to cover their borrowing. Other constraints include bank accounts maintenance costs and the cost of borrowing funds. The above constraints force MSMEs to look to internal sources of funding to spur growth. According to Triki and Faye (2013), about 80 per cent are financed by internal sources, 8 per cent by banks and 3 per cent by supplier credit. MSMEs also use informal savings and loan associations.

Bernard's (2019) study on Ghana shows the challenges that Ghana faces regarding MSMEs and Financial Inclusion. These include the lack of access to formal funding and lack of government strategy to improve financial inclusion. The study carried out in Kenya by Otiato (2016) highlights inappropriate financing and financial services as financial inclusion barriers. The study states that most of the MSMEs fail due to a lack of appropriate funding and financial services. Most of the MSMEs in Kenya cannot access funding through the formal sector despite their high potential. What stops the MSMEs from accessing credit is the inability to offer collateral on the back of their borrowing and not having appropriate operational experience. A study in Nigeria by Ibor, Offiong & Mendie (2017) also shows that MSMEs face the same challenges. The MSMEs remain underserved as they lack access to formal financial services. Nigeria also faces infrastructural deficiency, which affects the fast and effectiveness of services by MSMEs.

Nuwagaba (2015) study sought to explore the state of MSMEs in Zambia and understand the MSMEs' contribution to Zambia's economic development. The research used primary (interview and questionnaires) and secondary data gathered (past articles and previous literature) from the Zambia Development Agency (ZDA) and Entrepreneurs' Financial Center

(EFC), covering a period of 2012 to 2014. The study used a purposive sampling technique with EFC selected as a source of feedback. The results indicate that most of the MSMEs are small, with features of the sole proprietor. Also, the research found that about 90 per cent of the MSMEs operate in the informal sector. Thus, making it impossible for the government to plan for the enterprises. The study also advocated for free registration with patents and the company's registration agency (PACRA), tax exemptions for MSMEs with three to five (3-5) employees, and tax holidays.

Other writers disagree that lack of funding affects businesses in any way. For example, Arasti et al. (2014) found that lack of financial resources did not affect Iran's small businesses. The study believes that small and big businesses companies have been exposed to business failure due to not accessing a loan on time. However, the writer agrees that an entrepreneur with a proper business strategy and appropriate investment will succeed despite all the challenges they might experience. The study goes further to attribute business failure to inappropriate policies and the entrepreneur's lack of skill.

Furthermore, Ropega (2011) believes that while it is much easier to see business failure's financial symptoms; one must look deeper at the non-financial signs. The study also reveals that small businesses must focus on non-financial symptoms to understand why a company might not be doing well. It calls for a deeper analysis of the non-financial symptoms. Non-financial symptoms are more challenging to measure than financial symptoms. Still, they should be aligned with the study of fundamental indicators such as the reduction in turnover, profit, or loss of liquidity. The enterprise must act quickly to correct the symptoms to avoid business failure.

2.6.3 The Demand and Supply Side Factors and Financial Inclusion

Globally, the large financing gap that affects the Micro, Small, and Medium Enterprises (MSMEs) can be explained by both the demand and supply sides. Under the demand side, key challenges include low levels of formalization and MSMEs lack of financial capability. Most of the MSMEs cannot access formal trading because their businesses are not registered with the local authorities (World Bank Group, 2019). As a result, banks will not lend to an unrecognized business. However, some MSMEs are formalized in some cases but do not have soft skills in financial capabilities.

Most MSMEs also face financing costs that are too high for them to bear. On the one hand, The authors (Triki & Faye, 2013) identify the lack of credit information systems, capacity building and business development services at the firm level. On the other hand, supply-side constraints include lack of credit infrastructure, risk-averse financing institutions which will not lend to MSMEs, and credit appraisal policies which do not favour MSMEs. There is also usually a crowding-out effect with commercial banks only lending to the government and public sector organizations (World Bank Group, 2019). Other constraints include information asymmetry and other operational challenges which make financial services institutions deny service to the MSMEs (Triki & Faye, 2013) because they are conceived unprofitable.

Additionally, Triki and Faye (2013) states that micro and small firms and informal businesses face acute financing constraints compared to bigger companies. The study also highlights that MSMEs owned by women face more barriers to have access to the right financing that would bring about growth. There is also an understanding that the development of a woman-owned business goes beyond these small loans. Thus, there is a need for a strategy that aims to tackle this challenge's unique characteristics.

The challenges highlighted above are similar to the challenges that Zambia is currently facing. For instance, the Zambia Development Agency (ZDA, 2019) has singled out a lack of information as the main reason why MSMEs in Zambia fail to access funding. The data from funders is usually vague but with strict rules which are unfavourable to the MSMEs. Most of the funds seldom put specific details on how the MSMEs can have access to the funds.

Ultimately, Osano and Languitone (2016) looked at the impact of the size of an MSME and access to finance in Mozambique. The study used both descriptive and inferential research design. A simple and stratified sampling was used to select the SMEs from the population. The sample included Bank staff of Standard Bank, BCI Bank, and BIM bank and Small and medium enterprises (SMEs). Questionnaires were administered to both the banks' employees and the SMEs. Results showed that the respondents agreed that small business support services could help them have improved access to finance. Specifically, most small MSMEs did not have access to finance as they lacked the skills to write proper funding proposals. Some MSMEs do not keep an appropriate book of accounts and do not have soft skills in proposal writing, thus having no access to the financial market for funding. Other findings were that SMEs need to incorporate ICT to become relevant in their field. The MSMEs were not aware of funding programs and financial schemes provided by the government and private sector. In all, the study

recommends putting in place small business support services to help improve access to finance for MSMEs.

2.7 Chapter Summary

Financial inclusion is determined by ease of access, usage and availability of financial services. Many MSMEs in developing countries face challenges that include lack of access to formal financing from financial institutions and asymmetrical information regarding funding. The lack of access to funding is due to MSMEs inability to keep records of their accounts and lack of collateral. There is usually a crowding-out effect with most microfinance institutions and banks' lending out to corporates and the government, who seem to be more stable than MSMEs. This is unfortunate as MSMEs contribute to a country's Gross Domestic Product (GDP), poverty reduction and employment creation. Most of the studies indicate that MSMEs source funding from personal savings and grants from friends and family. There is a need to increase access to the financing for a trickle-down effect to be felt on any economy.

CHAPTER THREE
METHODOLOGY

3.1 Introduction

This section outlines the methodology used in this research. The chapter highlights the research design, population sample and sampling procedure, model specification, measurement and description of variables, dependent variables of financial inclusion, independent variables, data analysis, research validation and reliability and ethical considerations.

3.2 Research Design

A research design is the layout of different parts of a study set up logically, which shows how a study shall be carried out. It is a road map that shows us the process to address a research problem effectively (Kirshenblatt-Gimblett, 2006). Similarly, Lavrakas (2008) defines a research design as a laid down strategy that helps determine a particular study to answer specific questions. In other words, a research design is a systematic approach that a researcher uses to carry out scientific research. It constitutes an in-depth written procedure on collecting, measuring, and analysing collected data without compromising ethical considerations whilst keeping costs at a minimal.

Saeed (2009) states that there are four research designs, namely, descriptive, exploratory, explanatory, and evaluation research designs. Descriptive research design targets to answer the what and how and involves an in-depth analysis of a research problem. According to Dulock (1993), illustrative research designs allows the researcher to get an almost exact account of a situation and endeavours to find new information about various topics. Exploratory research design explores the subject matter and answers what and how, while the explanatory research design seeks to answer what, why, and how and, thus, explain the subject's reason. The evaluation research design is comprehensive and aims to test the effectiveness of a scheme or a program.

This study adopted a quantitative, explanatory cross-sectional design. In a short period, relevant variables are identified from a sample population. Ochieng (2009) states that a quantitative type of research is empirical and is also known as the scientific research paradigm. It is a paradigm that ensures validity through rigorous clarification, definition or use of pilot experiments. The advantage of quantitative research is that reliability is checked via statistical tests. Therefore, it addresses the problem that qualitative research has of not being able to test concepts. As for cross-sectional studies, Hulley, Cummings, Browner, Grady, & Newman (2007) point out that

one is better off using it because there is no need to wait for an outcome to occur, swift, cost-effective and require no follow up loss. They give a clear description of the outcome and the characteristics related to the outcome at a specific time.

3.3 Population, sample and sampling procedure

A population refers to an entire group of people who share specific characteristics, whilst a sample is a purposefully chosen smaller portion from a population (Hanlon & Largwt, 2011). The sampling procedure entails the steps taken to ascertain and test specified hypotheses about a total population. It involves coming up with the number of participants interviews used in the research process. It is the method by which part of a population is determined to test hypotheses about the entire population (Etikan & Bala, 2017). The sampling procedure is used to choose the number of participants, interviews, or work samples used in the assessment process.

The main business centre of Zambia is Lusaka which is the capital city. Therefore, Lusaka was chosen because most of the MSMEs are in this district and hence reflected an accurate picture of the state of the MSMEs and financial inclusion in Zambia. The group population was the number of MSMEs in Zambia that is registered with the Patents and Companies Registration Agency (PACRA). Accordingly, 100 respondents were chosen to be part of the sample via systematic sampling. Systematic sampling is relevant to use when the population is large and available. The risk when using this sampling method is that one might end up with a biased sample. A randomly ordered list was used to avoid bias (Leacock, Rose, Warrican, & Joel, 2009). This sample was the subgroup that reflected the character of the whole MSME population in Zambia.

Primary data was collected using self-administered survey questionnaires from the 100 respondents. According to Taherdoost (2016), a survey questionnaire is a cost effective way of collecting data from a large number of widely dispersed participants in a short amount of time. Costs include designing, printing, and distribution costs. The questionnaire allows for wider geographical coverage than face to face interviews. Furthermore, the use of questionnaires helps reduce biasing error, which the interviewer's skills can exacerbate. Self-administration of the questionnaire provides the respondent with anonymity when answering sensitive and personal questions. It thereby increases the response rate.

Some disadvantages of the survey questionnaires include the following. Firstly, the researcher not knowing whether the right person completed the questionnaire or not. Secondly, if the

questions are not clear enough, there is no chance for probing and clarifying the respondent's misunderstandings. Therefore, the questionnaire's questions were simple, easy to understand, straight forward and easy to complete as there were no interviewers to assist the respondent.

3.4 Model Specification

Multiple regression was used to determine the relationship between financial inclusion and the independent variables. The independent variables include the size of MSME, literacy level of the business owner, age of the business owner, income, gender, period of operations and asymmetrical information of the MSME. The logistic regression model is as shown below. In this model, more independent variables and one dependent variable taking binary value is taken. It is the maximum likelihood method that could be employed to estimate the binary logit function using the SPSS software (Poonam, 2019).

$$fi_i = \beta_0 + \beta_1 SZ_i + \beta_2 LT_i + \beta_3 AGI_i + \beta_4 INC_i + \beta_5 GND_i + \beta_6 POP_i + \beta_7 ASI_i + \varepsilon_i$$

Where $_i$ represents MSMEs; fi represents financial inclusion, which is measured by usage of, availability of, and access to financial services.

- SZ_i = Size of MSME
- LT_i = Literacy of owner of MSME
- AGI_i = Age of the owner of MSME
- INC_i = Income of MSME
- GND_i = Gender of the owner of MSME
- POP_i = Period of operations of MSME
- ASI_i = Asymmetrical Information
- Σt= error term
- Such that the expected sign are: β_0, β_1, β_2 , β_3, β_4, > 0 and β_2 < 0.

3.5 Measurement and Description of Variables

Financial inclusion is a crucial factor in sustainable long term economic growth, and so it is cardinal to ensure that individuals and communities are not financially excluded. Therefore, it is a hot topic amongst governments, researchers, and policymakers (Cáamara & Tuesta, 2014). Several models were developed to measure financial inclusion. For this study's sake, the model proposed by Cáamara & Tuesta (2014), which focuses on three dimensions, namely usage, access, and barriers, considers both the demand side and supply side indicators. The demand

size indicators focus on usage and barriers issues whilst the supply side indicators concentrate on access issues.

This model approaches financial inclusion measurement using a dual approach. The first approach measures the usage of financial services by focusing on the banked. The second approach assesses barriers that people face when trying to use financial services but from the unbanked viewpoint. Accordingly, Sarma (2012) breaks this model down by stating the indicators which measure financial inclusion. In particular,**access to financial services**, **availability of financial services** and **usage of financial services**. Thus, this study uses this model in relation to the state of financial inclusion as regards MSMEs in Zambia. Measurement descriptions of the dependent and independent variables are given below, and an illustration of these variables shown in Table 3. The questionnaire used the indicators of financial inclusion to determine whether the demand factors affect Zambia's financial inclusion.

3.5.1 DEPENDENT VARIABLE (FINANCIAL INCLUSION)

3.5.1.1 Access to financial services

An inclusive financial system is one that has as many users as possible. The system should ensure that financial services are made accessible to individuals and companies that need them. Therefore, Investopedia (2019) describes financial service as a process in which a consumer or business acquires an economic good. For instance, a system for payments provides a financial benefit when it accepts and transfers funds from the remitter to the beneficiary.

Commercial banking services are the foundation of the financial services group. These services include safekeeping of deposits, issuance of debit and credit cards, lending of money, investments, and remittance of funds. However, the banking services do not cover other financial institutions and the services they offer. Financial services look at a broader range of services that encompass banking, investment, and insurance. Therefore, it would not be suitable to measure financial inclusion by looking only at the opening of bank accounts but measuring whether the MSMEs are using other financial services. The financial sector is broad and includes banks and other financial institutions like microfinance, insurance companies and investment agencies. Therefore, the questionnaire included questions on investments and insurance to ascertain that the MSMEs have access to other financial services other than a bank account.

Turning to the accessibility of financial services, Irene, Charles, & Japhet (2015) point out that MSMEs performance is dependent on whether they have access to credit or not. Roy (2015), however, observes that banks have shown reluctance to extend credit to small enterprises. Some reasons for not extending credit to MSMEs include high administrative costs of small-scale lending, asymmetric information, high-risk perception, and lack of collateral. Therefore, questions regarding MSMEs access to credit, such as whether MSME owners have ever taken out loans for their business and what may have been the reason for not acquiring a loan(s) were asked. Among other questions to do with financial inclusion, the questionnaire included questions that helped infer whether MSMEs in Zambia have access to credit or not.

It is essential to note that financial inclusion related to MSMEs and individuals cannot be measured solely by the number of businesses or people who use or have access to financial services. Specifically, Cáamara & Tuesta (2014) highlights that it is imperative to know why people are financially excluded in the financial system. Knowing this reason in the long term adds important information about the degree of inclusiveness of a financial system and indicates the perceived reasons why people fail to use formal financial services. This, therefore, means that finding out the barriers faced by micro, small and medium enterprises is also vital in determining the state of financial inclusion among these business owners. The study also included questions about perceived obstacles or barriers to financial inclusiveness in the questionnaire in such a way that MSME owners were able to pick from multiple reasons as to why they, for example, had no bank accounts.

3.5.1.2 Availability of financial services

The access of financial services to MSMEs, requires that these services are first made available. The various financial institutions have an important role to play in ensuring that these services are available for enterprises and business owners who might need them. For instance, mobile money agents' emergence and presence in booths across central business districts and residential neighbourhoods around the country have made some financial services more accessible. Primarily to businesses or groups of people who may have constrained access to formal financial services.

Oumaa, Odongob, & Wereb (2017) state that mobile financial services heighten financial inclusion. Especially among the poor and those who earn a low income. This is because mobile providers have now widened their boundaries with services that now include agency banking,

various financial products, and mobile banking. Mobile banking has become popular because it is inexpensive, easily accessible, dependable, and safe to use (Oumaa et al., 2017).

The authors' further state that mobile money is being used on a larger scale in Sub-Saharan Africa as mobile subscribers enlarge their footprint in unserved remote areas and do not have any banking services. The wide-spread use of mobile phone technology has opened new markets across Sub-Saharan Africa. It has necessitated financial services to reach consumers in remote areas where banking services lack. These advances in technology such as mobile money transfer, payments, savings and credit, and the creation of new delivery channels such as mobile branches or banking services through third-party agents are currently playing an essential role in making financial services available to different people and businesses.

Hence, this study measured the availability of financial services by the proximity of the place(s) where financial services could be obtained to the area where respective MSMEs were located. The availability of financial services was also measured by how such services were made remotely available to MSME owners.

3.5.1.3 Usage of financial services

Financial inclusion also entails individuals and firms usage of financial products and services. However, the World Bank (2013) noted that differences exist between use and access to financial services. Measuring usage is easy. Utilising financial services and products are sometimes shunned by those who might have access to financial services. Some individuals and businesses may have access to services but choose not to use some financial products. It is vital to note that financial inclusion does not end at one having a bank account. It encompasses various aspects and looks at whether the bank account is used for other banking financial services (Sarma, 2008). Thus, to measure respondents' use and access, the questionnaire asked participants how frequently they use their banking accounts and whether they use their account for other financial banking services.

3.5.2 INDEPENDENT VARIABLES

This study was based on several variables from empirical literature that have been recognized to have a correlation with the state of financial inclusion regarding micro, small and medium enterprises, in Zambia (Chirwa, 2008; Inmyxai & Takahash, 2010). Several theoretical models, which include the theory of capital structure, have been developed to explain this relationship (Modigliani & Miller, 1963; Cliff, 1998; Watson & Everett, 1999)

Size of MSME: Small businesses and start-up companies often seem to struggle to access finances. According to Mcmahon (2001), a firm's performance is affected by its size. For example, Burkart et al. (2004) call to attention that the firm's size will impact the funding that a firm gets. MSMEs with diverse origins get a more significant chunk of budget. Similarly, larger MSMEs stand a better chance at succeeding in business as they have broader finance access. On the one hand, several studies have shown that smaller firms face challenges when accessing formal funding. On the other hand, larger firms quickly access formal funding (Beck, 2007; Fatoki & Odeyemi, 2010; Pandula, 2011).

According to a business survey conducted in Zambia in 2010, lack of funding was the major constraint that firms were facing in their daily operations (International Labour Organization, 2012). In all, the firm size can therefore determine the state of financial inclusion amongst micro, small, and medium enterprises.

The literacy level of MSME owner: A high literacy level often entails a more knowledgeable and enlightened individual. Moreover, if a micro, small, and medium enterprise owner is financially literate, they are more likely to make sound financial decisions that will benefit the business. For instance, Belle-Isle (2017) highlights the importance of literacy to MSME owners by stating that adequate literacy, and specifically financial literacy, can assist with everyday functions in the workplace as it enables micro, small, and medium business owners evaluate financial information to make decisions while understanding the consequences of those decisions.

Level of income: Emoluments can serve as an indicator of financial inclusiveness. Low levels of income often entail limited financial access and hence exclusion. An enterprise owner whose income is sufficient finds it easier to access financial services such as opening a bank account and applying for a loan for his or her business. In determining an applicant's maximum loan amount, lenders consider debt-to-income ratio, credit score, credit history, and financial profile (Kagan, 2020).

Gender: For a long time, women and particularly female business owners have lamented that they have been financially excluded, especially by the formal financial lending sector. This can be attributed to various factors; for example, laws against women can harm women's demand for financial services. For example, a study by the World Bank Group (2018) found that most

women do not have collateral and cannot access loans. This is because they usually do not own property, and in cases where they have property, they have little control over it. Additionally, the IFC estimated that over 70 per cent of women-owned small and medium enterprises (SMEs) had little to no access to financial services (Koch et al., 2014). Finally, Demirguc-Kunt & Klapper (2012) agree that the gender gap continues to widen even though indications are that there is an increase in the number of people financially included globally. Women are 28 per cent less likely to have access to a formal bank account.

Age of MSME owner: The age of an MSME owner can influence the level at which their business can access finance. For instance, Oxera (2009) found that younger people are more likely to have lower credit scores due to not having a credit history and unpredictable lifestyles. Older people tend to be more attractive with their higher credit scores, especially if their credit history is satisfactory. As a result, older people are likely to be given lower interest rates than their younger counterparts. Younger people thereby end up with higher interest rates and a lack of funding. Unfortunately, most financial institutions do not tailor their packages according to the client's age because age could be an essential factor for a business owner seeking motor or travel insurance.

Period of Operations: Regarding MSMEs period of operations, older firms usually have access to funding than their more contemporary counterparts. For example, Pandula (2011) establishes that a firm that has been in operation longer will have developed a reputation that makes it easier for them to access funding. On the contrary, the newer firms' reputation is unknown by funders, thereby lacking access to funding. Furthermore, the newer business also usually do not have adequate assets, which bars them from accessing loans as they do not have collateral to back up their loans.

Asymmetrical Information: Some MSMEs may lack specific information, affecting their relationship with some financial institutions. To build credibility, MSMEs should ensure that they maintain proper records. Similarly, after acquiring a loan, a business may be impacted by the adverse effects of a failing economy, loss through theft or natural disaster. These businesses would now be in desperate need of insurance but face poor information distribution and lack suitable insurance products. However, a study conducted by Asongu, Nwachukwu, & Tchamyou (2016) concludes that reducing information asymmetry does not always enhance

financial allocation efficiency nor facilitate the availability of credit as there may also be other factors at play.

Table 3: Descriptions of Variables

VARIABLES	MEASUREMENTS	EXPECTED SIGN
Dependent Variable: Financial inclusion		
Access	The number of MSMEs which are able to access financial services	
Availability	For financial services to be utilised, they first have to be made available. Availability can be measured in several ways; for example, by the locality of banks or microfinance lending institutions to that of MSMEs and how these financial services are made available to those in remote areas	
Usage	The number of MSMEs who actually make use of the financial services that are accessible to them	
Independent Variables		
Size of MSME	This is determined or measured by the number of employees, sales turnover and, of course, the asset size as it relates to a particular MSME	**Positive**
Literacy Level of MSME Owner	Variable takes on a value 1 = No Education, 2 = Primary Education, 3 = Secondary Education, 4 = College/University Education	**Positive**
Gender	Dummy variable in this regard takes on a value of 1 = Male and 2 = Female	**Positive**
Age of MSME Owner	Variable takes on a value of 1 = 18-30, 2 = 31-40, 3 = 41-50, 4 = 51 and above	**Positive**
Period of Operations	Variables take on the following forms of 1 = 1-5 years, 2 = 6-10 years, 3 = 11-15 years and 4 = above 16 years	**Positive**
Asymmetrical Information	Assess information MSME owners possess regarding the various financial products and services available to them	**Positive**

3.6 DATA ANALYSIS METHODS

3.6.1 Descriptive Analysis and Diagnostics Tests

This study used descriptive statistics to analyse the data through the Statistical Product and Service Solutions (SPSS) version 26.0 software. According to Keller (2015), descriptive statistics deal with organizing, summarizing, and presenting data conveniently and informatively. Therefore, the mean, coefficient of variation for the data, standard deviation, and variance was calculated to help with the data's basic description. The study by Zunguze (2016) *Defying the Odds: Understanding the Critical Success Factors for Financing Independent Power Producers in Zimbabwe* used descriptive statistics to make use of their data. This study made use of descriptive statistics to determine whether the MSMEs were included financially. This was done by looking at the percentages of those with bank accounts, access to financial services, and credit access. This helped to determine whether the MSMEs involved in the study were financially included or not.

3.6.2 Normality and Homoscedacity of data

Diagnostic tests was used to check on the normality and homoscedasticity of data—specifically, the multicollinearity diagnostic test and Shapiro- Wilk test.

3.6.2.1 Multicollinearity

According to Keller (2015), multicollinearity refers to a condition in which the independent variables are correlated with one another. The impact on the study if there is multicollinearity is that the estimated regression coefficients of independent variables lead to significant sampling errors. The study, therefore, tested for multicollinearity to ensure that the regression model was a good fit. Multicollinearity test uses the tolerance and variance of inflated factors (VIFs) of the predictor and or independent variables. When the tolerance value is greater than 1, and the VIF values are in excess of 1, there is evidence that multicollinearity exists.

3.6.2.2 The Shapiro-Wilk Test

The Shapiro-Wilk test is a common normality test used for testing the normality assumption in parametric statistics. It tests the normality of a dependent variable across all levels of an independent variable. The Shapiro-Wilk test assumes that a variable’s values are a simple random sample from a normal distribution. The Shapiro-Wilk test's null hypothesis is that a variable is normally distributed in some population (Shapiro & Wilk, 1965).

The guidelines as to what skewness and kurtosis levels are acceptable when evaluating the normality of distribution include the following:

1. The skewness value's absolute value cannot exceed 1, whereas the kurtosis's absolute value cannot exceed 2.
2. The absolute value of skewness should not exceed the standard error multiplied by two (2). This also applies to the absolute value of kurtosis.

This study used the Shapiro-Wilk test to determine normality in the statistics.

3.6.3 Correlation Analysis

The study used both the Pearson Correlation and *p*-value to determine the relationship between the dependent variables and independent variables. Keller (2005) points out that correlation analysis is used to determine the relationship between the independent and dependent variables.

3.6.4 Multiple Regression

The study used multiple regression to test the hypothesis of this study. The r-square and p-value helped determine the relationship between the independent and dependent variables and whether to accept the hypothesis.

3.7 Research Validation and Reliability

Reliability seeks to determine how far a tool; process or questionnaire will produce similar results in different scenarios assuming nothing has changed. It mostly looks at the closeness of what we seek to measure to what we believe we are measuring. (Roberts & Priest, 2006). This study used constructive validity to ensure the validity and reliability of the data collected. Construct validity entails drawing inferences about scores that are related to the concept being studied. The study used theory evidence as a construct validity tool. Theory evidence measures behaviour similarity to theoretical propositions of the construct measured in the instrument. Therefore, the questionnaire was constructed with the view that it should reflect a relationship between the theory and constructs measured.

3.8 Ethical Considerations

Deductive disclosure, also known as internal confidentiality, happens when individuals' characteristics make them identifiable in a research paper (Kaiser 2009). The effects of deductive disclosure are that it could bring harm to respondents and, in the long run, damage the public's trust in researchers (Allen 1997). However, this study took the dominant approach

in which data was collected, analysed, and reported without the identities of the respondents compromised. To ensure respondents confidentiality, the questionnaires were coded during data entry. Also, a letter accompanying the questionnaire explained that this study was a mere academic exercise and that any answers given would be treated with the utmost confidentiality. The Informed consent was explained in the letter, and the respondents had the right to discontinue completion of the questionnaire at any time (Kaiser, 2009). All respondents had to sign the informed consent form before answering the questions. The questionnaires were only administered upon getting ethical clearance from the University of Cape Town.

CHAPTER FOUR
DATA PRESENTATION AND ANALYSIS

4.1 Introduction

This chapter presents findings based on information gathered through questionnaires regarding the state of financial inclusion of MSMEs in Zambia. It focuses on the presentation, interpretation and analysis of information obtained from the study. The presentation of the data is in the form of tables and charts. Furthermore, the interpretation of statistical tests conducted is explained. The presentation of results has been organized following the study objectives.

4.2 Demographic Responses

4.2.1 Total number of respondents

As indicated in the previous Chapter three (3), each of the randomly selected 100 Micro, Small, and Medium Enterprises (MSMEs) received a questionnaire. However, 30 questionnaires were not included in the analysis because twenty (20) questionnaires were not fully completed. The other ten (10) questionnaires had no responses to critical questions. As a result, the study recorded 70 respondents, representing a high response rate of 70 per cent (Table 4) among the MSMEs.

Table 4: Total number and age Distribution of Respondents

Age Range	Frequency	Valid Percentage (%)
18 – 30	10	14.3
31 – 40	29	41.4
41 – 50	14	20.0
51 and above	17	24.3
Total	**70**	**100**

Source: Research estimate from research data

4.2.2 Age distribution of respondents

Table 4 also shows that most MSMEs respondents' ages ranged from 31 – 40 years of age, representing 41.4 per cent of the participants' total number. They were followed by 51 years and above, representing 24.3 per cent, whereas 20 per cent and 14.3 per cent of the respondents' age was 41-50 and 18-30 years old, respectively.

4.2.3 Gender

Turning to gender, the majority (60 per cent) of the respondents were male, whereas 40 per cent were female (Table 5)

Table 5 Gender of respondents

Gender	Frequency	Valid Percentage (%)
Male	42	60
Female	28	40
Total	**70**	**100**

Source: Research estimate from research data

4.2.4 Education level of respondents

Table 6 illustrates the level of education of the participants. In particular, the majority (38.6%) of respondents received an undergraduate degree, 28.6 % had attained a Masters, and 21.4% possessed a Diploma. The remaining 10% and only 1.4% had attained an education level of up to Certificate and Secondary, respectively. Interestingly, none of the respondents reported to having only reached primary, Doctorate or Professor Levels of Education or no education at all

Table 6: Educational level of respondents

Educational Level	Frequency	Valid Percentage
Secondary	1	1.4
Certificate	7	10
Diploma	15	21.4
Degree	27	38.6
Masters	20	28.6
Total	**70**	**100**

Source: Research estimate from research data

4.2.5 Monthly personal income

The majority (38 per cent) of respondents reported having a monthly personal income ranging from ZMW 5,001 – ZMW 10, 000, 00 followed by 20 per cent whose monthly personal income went from ZMW 2,001 – ZMW 5,000 (Figure 5). Another 19 per cent and 17 per cent earned ZMW 10,001 – ZMW 15,000 and ZMW 15,001 or above monthly, respectively. Lastly, only 6% of the respondents indicated that their monthly personal income was below the ZMW 2,000 (Figure 5).

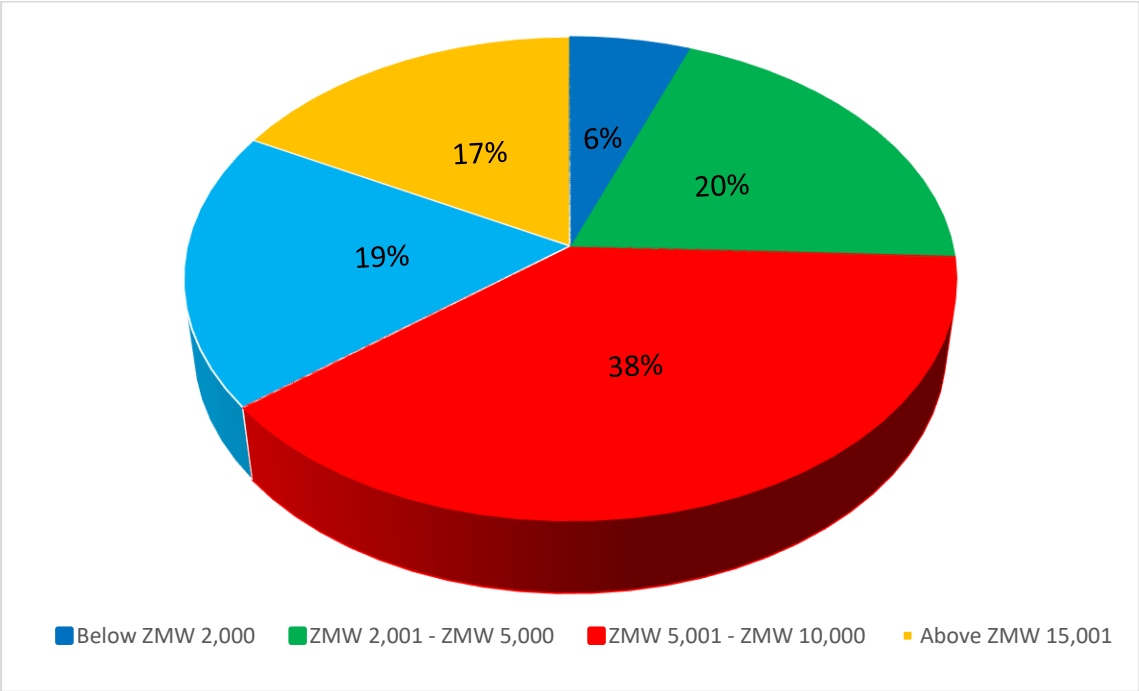


Figure 4: Monthly personal income (*Source: Research design from research data)*

4.3. Micro, Small, and Medium Enterprises (MSME) independent variable concerning financial inclusion in Zambia4.3.1 Period of business operation.

Figure 5 shows that 30 MSMEs respondent operational for 6 – 10 years and that about the same number (29) have been in business for 1 – 5 years. Also, 9 and 2 of the MSMEs participants have had their business running for 11 – 15 and over 16 years, respectively.

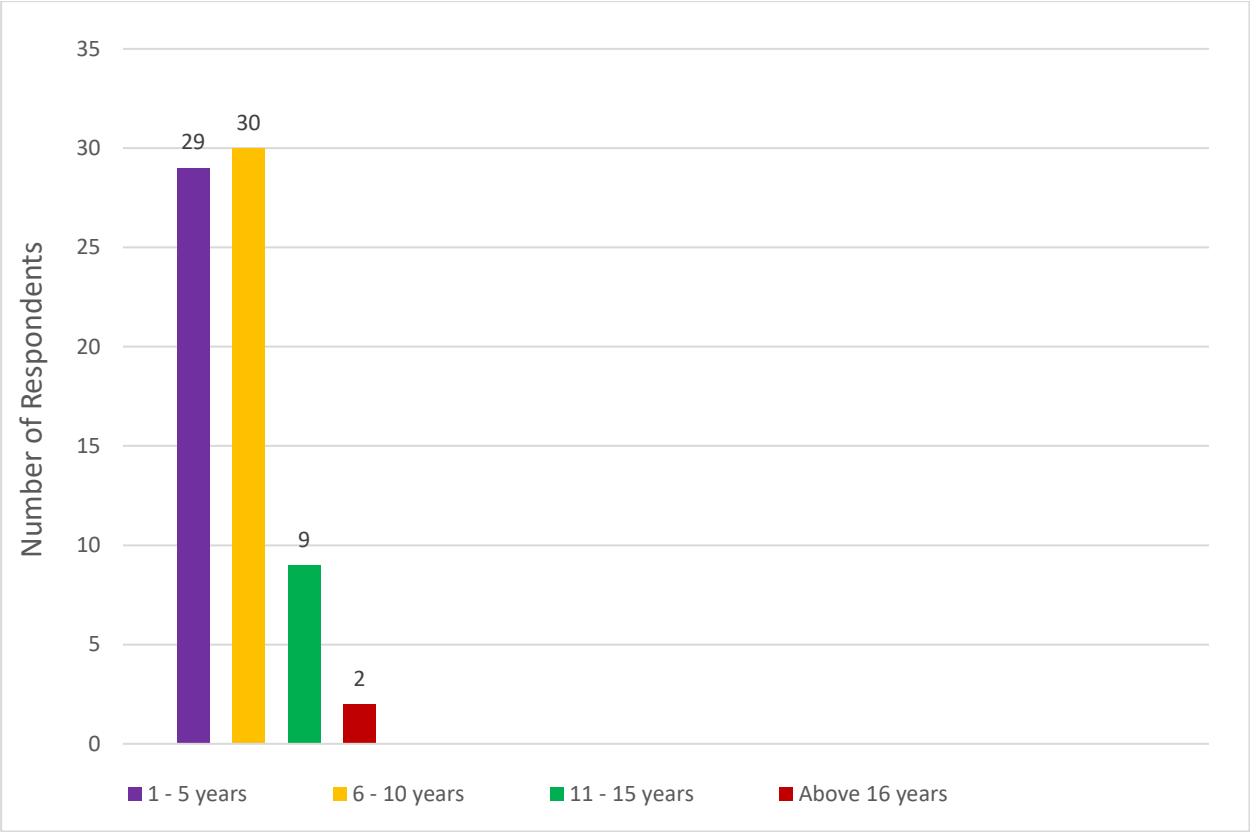


Figure 5: Period of business operation (*Source: Research estimate from research data*)

4.3.2 Annual turnover

The majority (52 out of the total 70) MSMEs revealed a monthly turnover of ZMW 0 – 15,000. Interesting, 9 of them had ZMW 151,000 – 300,000, and another 9 further reported a monthly turnover ranging from ZMW 301,000 – 800,000. Also, survey data obtained through the questionnaires also indicated that 64 out of the total 70 MSMEs in this study were involved in the Trading and Service industry compared to only six (6) whose businesses were categorized under the Manufacturing and Processing industry.

4.3.3 Number of employees

Table 7 highlights that 61 out of the total number of MSMEs had between 0 – 10 employees. Whereas only 8 and 1 had 11 – 50 employees and 51 – 100 employees, respectively. No MSMEs in this study reported having more than 100 employees.

Table 7: Number of Employees

No of Employees	Frequency	Valid Percentage (%)
0 - 10	61	87.2
11 - 50	8	11.4
51 - 100	1	1.4
Total	**70**	**100**

Source: Research estimate from research data

4.3.4 Availability of a bank account

As illustrated in **Figure 6**, 77.1 per cent (54 out of 70) of MSMEs owners indicated having a company account, whereas representing 22.9 per cent (16 out of 70) had no company account. On the one hand, the businesses with company accounts gave various reasons for having opened them. These included receiving payments from customers (18), receiving remittances (16), saving (14) and requesting a loan (6).

On the other hand, most companies (6) without a bank account indicated that they were concerned there may be too many charges. Others cited the lengthy processes and cumbersome account opening norms (5), no availability of a bank in their area (2) and anticipated credit rejection (2). Finally, only one (1) respondent indicated that they tried to open an account but that were denied for some unknown reason.

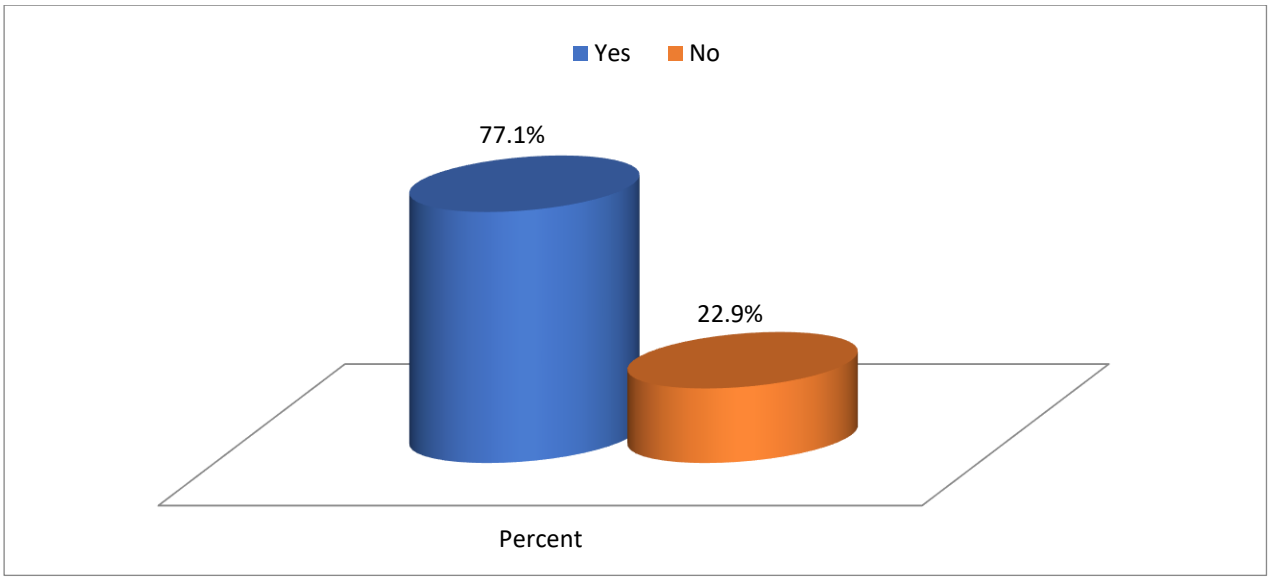


Figure 6: Availability of a bank account ***(Source: Research estimate from research data)***

4.3.5 Acquisition of a loan for the business

Table 8 shows that the majority of (87 per cent) of the business owners had never obtained a loan for their respective business. In contrast, only 13 per cent of the survey population had acquired a loan for their enterprises. Varying reasons were provided why most MSME owners had not sought a loan for their business, especially from a formal institution like a bank or microfinance lending institution. The reasons included the high-interest rates (32), followed by tedious procedures (21), lack of audited financial reports (6) and not being creditworthy (2).

Table 8: Acquisition of a loan for the business

Response	Frequency	Valid Percentage (%)
Yes	9	13
No	61	87
Total	**70**	**100**

Source: Research estimate from research data

4.3.6 Micro, Small, and Medium Enterprise (MSME) Owners who have borrowed from Village Banking

According to Figure 7, the majority (81.4 per cent) of MSMEs indicated that they had never borrowed from village banking, whilst the remaining (18.6 per cent) stated that they had. The MSMEs that borrowed money from village banking indicated that they found that it was easy to borrow (7), had low interest rates (4), no tedious paperwork (1) and requested funds are released fast (1).

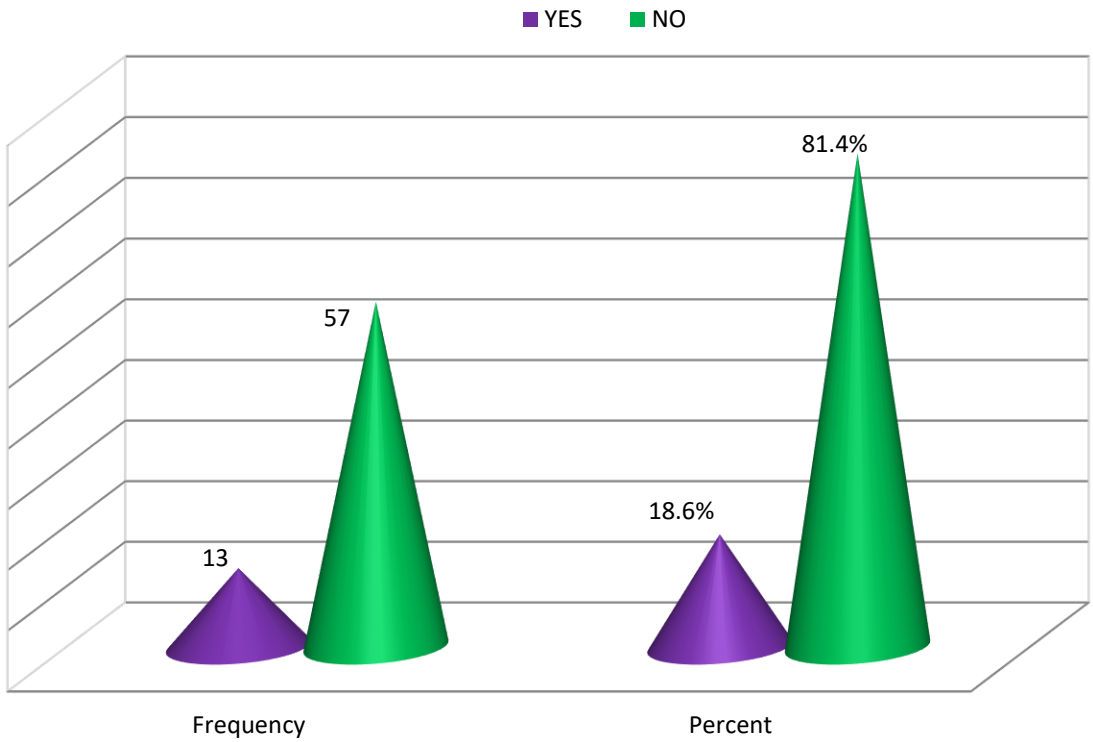


Figure 7: MSMEs owners who have borrowed from village banking ***(Source: Research estimate from research data)***

4.3.7 Access to financial services

Table 9 illustrates the findings with regards to MSME owners' access to financial services. Accordingly, Table 9 table shows that 42, representing 60 per cent of the total number of respondents, have access to several forms of financial service or products. Whereas 28, representing 40 per cent of the total number of MSME owners, have no access to any other form of financial services or products.

Focussing on the 42 MSME owners who have access to several financial services, the study revealed that 29 (69 per cent) participants had access to insurance. In contrast, 13 (31 per cent) had no access to insurance. Another 35 (83.3 per cent) had access to payments as a service for local transfers whereas, 7 (16.7 per cent) had no access to such payments.

Turning to access to forex transfers, 27 (64.3 per cent) had access, while 15 (35.7 per cent) did not. Finally, 36 (85.7 per cent) had access to a savings account, whereas 6 (14.3 per cent) had no access to a savings account.

Table 9: Access to financial services

	Response	Frequency	Valid Percentage (%)
Do you have access to any other form of financial service or product?	Yes	42	60
	No	28	40
	Total	**70**	**100**
Do you have access to Insurance?	Yes	29	69
	No	13	31
	Total	**42**	**100**
Do you have access to payments as a service for local transfers?	Yes	35	83.3
	No	7	16.7
	Total	**42**	**100**
Do you have access to Forex Transfers?	Yes	27	64.3
	No	15	35.7
	Total	**42**	**100**
Do you have access to a savings account?	Yes	36	85.7
	No	6	14.3
	Total	**42**	**100**

Source: Research estimate from research data

Turning to access to investment, 37 (53 per cent) out of the total number of respondents had access, whereas 33 (47 per cent) had no access.

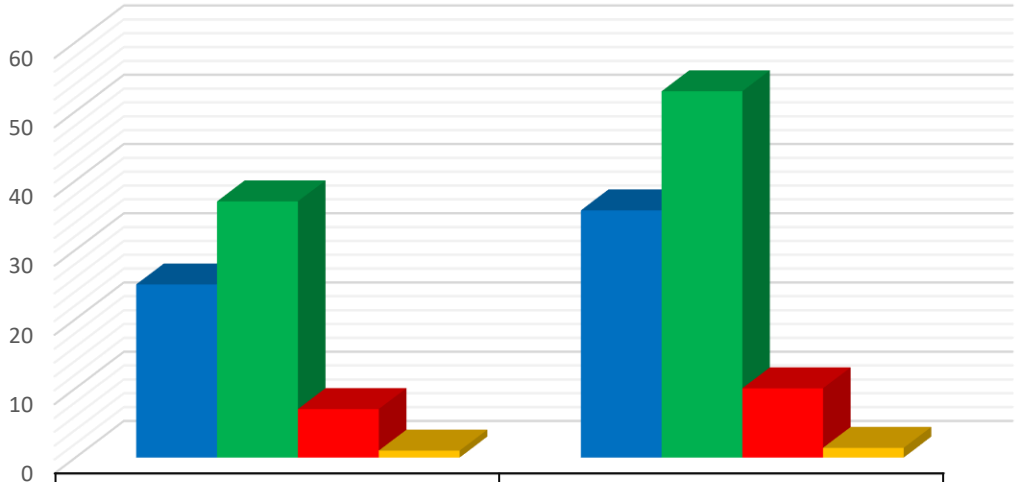
4.3.8 Awareness and access to Government-funded programmes

Table 10 and Figure 8 revealed that the majority (37) of respondents, representing 52.9 per cent of MSME business owners, were aware of Government Funded Programmes such as the Citizen Economic Empowerment Commission (CEEC) Programme for SMEs. However, the remaining 25 (35.7 per cent), 7 (10 per cent), and 1 (1.4 per cent) were strongly aware, unaware and strongly unaware, respectively.

Table 10: Access to investment services

Response	Frequency	Valid Percentage (%)
Yes	37	53
No	33	47
Total	**70**	**100**

Source: Research estimate from research data



	Frequency	Percent
Strongly Aware	25	35.7
Aware	37	52.9
Unaware	7	10
Strongly Unaware	1	1.4

Figure 8: Awareness of government-funded programmes *(Source: Research estimate from research data)*

Furthermore, data gathered from this research, on the one hand, showed that 65 (92.9 per cent) out of 70 respondents had never applied for funding for their business as an SME under government-funded programmes such as the CEEC for SMEs. The reason for this, especially when it comes to the CEEC Programme for MSMEs, could well be the fact that some of these business owners were operating at the micro-level. On the other hand, 5 (7 per cent) reported to have applied for government funding.

The research further explored why some MSMEs did not try to access government-funded programmes. Table 11 highlights various reasons. Most (42.9 per cent) indicated that the process was tedious to acquire funds. While 27.1 per cent, 17.1 per cent and 12.9 per cent did not believe that they could be awarded, did not know how to apply and did not qualify to be given funding, respectively.

Table 11: Reasons for lack of access to government funds

Response	Frequency	Valid Percentage (%)
Tedious process	30	42.9
I don't know how to apply for one	12	17.1
I do not believe I can be awarded the funding	19	27.1
I do not qualify to be given funding	9	12.9
Total	**70**	**100**

Source: Research estimate from research data

4.3.9 Knowledge of funding available SMEs under the private sector

Table 12 shows that the majority (51.4 per cent) of respondents were unaware of funding projects for SMEs in the private sector. Furthermore, 24.3 per cent were aware, 20 per cent were strongly aware, whereas 4.3 per cent were strongly unaware.

Table 12: Knowledge of funding available for SMEs under the private sector

Response	Frequency	Valid Percentage (%)
Strongly Aware	14	20
Aware	17	24.3
Unaware	36	51.4
Strongly Unaware	3	4.3
Total	**70**	**100**

Source: Research estimate from research data

4.3.10 Knowledge on how to write proposals

Turning to knowledge on how to write proposals, Figure 9 shows that the majority (74 per cent), being 52 of the total number of respondents, knew how to write a proposal to access funding. While 18 respondents (26 per cent) did not know how to write a proposal to access funding.

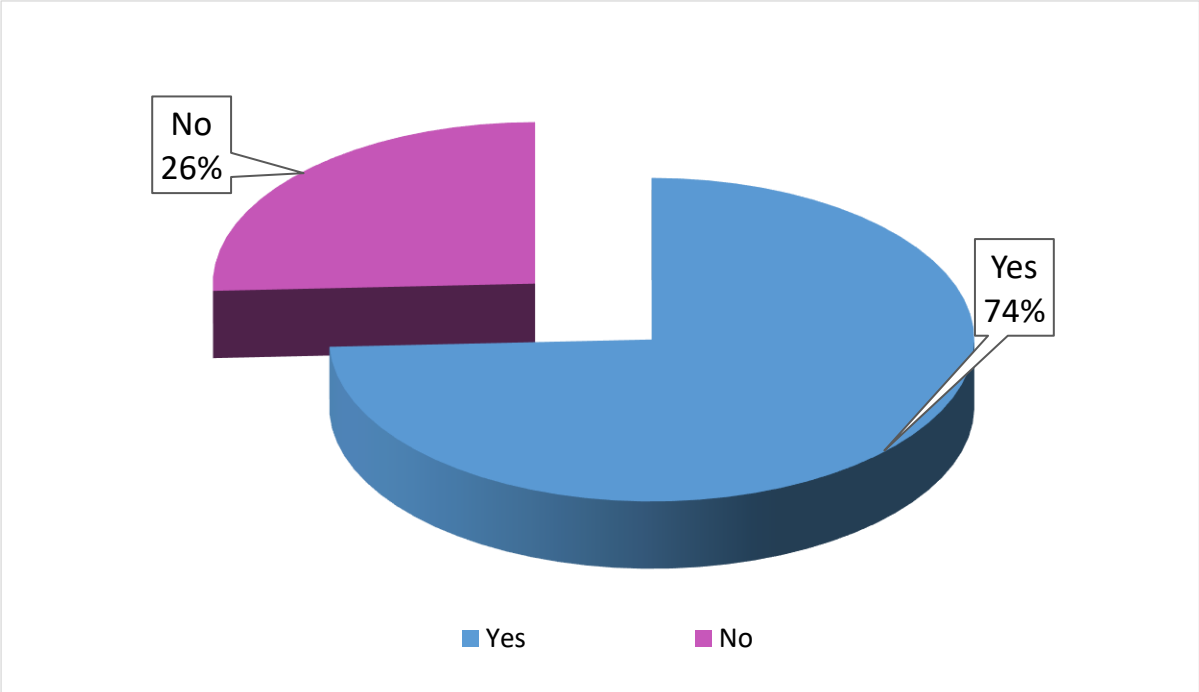


Figure 9: Knowledge of how to write proposals (Source: Research estimate from research data)

4.4 Diagnostic Tests and Descriptive Analysis

The Multicollinearity Diagnostic Test and Shapiro-Wilk Test was conducted to ensure the normality and homoscedasticity of data.

4.4.1 Multicollinearity Diagnostic Test

Multicollinearity occurs whenever two or more independent variables in a multiple regression model are highly or moderately correlated. This affects the multiple regression model. It skews the results and can also raise the coefficients estimates variance and make them very sensitive to minute changes in the model (Field, 2009). The more independent variables in a model, the more one is likely to experience multicollinearity issues. Therefore, it was cardinal to test for multicollinearity in this study to ensure that the regression model is a good fit.

Multicollinearity was evaluated using Tolerance and Variance Inflated Factors (VIFs) of the predictor or independent variables. A Tolerance value greater than 1 and VIF values over 10

shows that multicollinearity exists. The Tolerance in Table 13 is < 1, and the mean of the VIFs is 8.616, which indicates that there is no multicollinearity in this study.

Table 13: Test for Multicollinearity

	Tolerance	VIF
MSME Size		
Literacy Level	.610	1.099
Level of Income	.271	1.491
Gender of MSME Owner	.454	1.244
Age Range of MSME Owner	.941	1.063
Period of Operations	.530	1.205
Asymmetrical Information	.697	1.255
	.494	1.259

Note: Dependent Variable is Financial Inclusion

4.4.2 The Shapiro-Wilk Test

The test results displayed in Table 14 could be used to determine whether the dependent variable and, the independent variables were normally distributed or not. According to the results, the skewness value of the dependent variable as pertains to access is .515. The standard error is .228. .458 and .162 is the skewness value and standard error of usage, respectively. The skewness value of availability is 1.043, and the standard error is .424. Kurtosis has an absolute value of 1.717, 1.954, and 1.823 with the standard error of .664, .702, and .705 for access, usage and availability, respectively.

We can, therefore, see that all the variables were normally distributed. Furthermore, when it comes to the Shapiro-Wilk test, the non-statistical significant result of .804 for access, .753 for usage, and .714 for availability is all more significant than .05, assumes that the data in these specific financial inclusion variables are normally distributed. The same is true of the predictor variables, as shown in Table 14. We, therefore, retain the null hypothesis of population normality.

Table 14: Descriptive Statistics

		FI (Access)	MS	LL	LI	GMO	ARMO	PO	AI
Access	Mean	1.79	1.18	5.83	3.21	1.40	2.56	1.66	3.23
	Std. Deviation	1.792	0.811	1.007	1.184	0.481	1.908	0.720	1.503
	Minimum	1	1	1	1	2	1	1	1
	Maximum	4	3	9	5	2	4	4	5
	Skewness (Pearson)	0.515	0.930	0.592	0.589	0.504	0.294	0.093	0.430
	Standard Error	0.228	0.328	0.252	0.211	0.203	0.074	0.035	0.182
	Kurtosis (Pearson)	1.717	1.824	2.455	2.169	1.820	2.017	1.715	2.363
	Standard Error	0.664	0.821	1.171	1.001	0.521	0.842	0.607	0.981
	Shapiro-Wilk	0.804	0.482	0.523	0.501	0.625	0.138	0.842	0.081
Usage		**FI (Usage)**	**MS**	**LL**	**LI**	**GMO**	**ARMO**	**PO**	**AI**
	Mean	2.73	2.52	4.31	2.11	1.32	2.35	1.98	3.44
	Std. Deviation	1.895	0.218	0.478	1.054	0.525	2.051	0.885	1.781
	Minimum	1	2	1	1	2	1	1	2
	Maximum	6	4	9	5	2	4	4	6
	Skewness (Pearson)	0.458	0.501	0.620	0.220	0.198	0.377	0.074	0.942
	Standard Error	0.162	0.204	0.281	0.054	0.085	0.104	0.031	0.415
	Kurtosis (Pearson)	1.954	1.547	1.941	1.905	2.154	2.415	1.524	2.152
	Standard Error	0.702	0.582	0.415	0.824	1.010	0.911	0.457	1.005
	Shapiro-Wilk	0.753	0.551	0.461	0.095	0.875	0.274	0.713	0.149
Availability		**FI (Availability)**	**MS**	**LL**	**LI**	**GMO**	**ARMO**	**PO**	**AI**
	Mean	2.49	1.47	4.25	2.75	1.78	1.85	2.25	3.12
	Std. Deviation	1.924	0.851	0.437	1.054	0.531	2.046	0.943	1.862
	Minimum	1	1	1	1	2	1	1	1
	Maximum	5	3	9	5	2	4	4	5
	Skewness (Pearson)	1.043	0.581	0.748	0.258	0.242	0.415	0.148	1.144
	Standard Error	0.424	0.141	0.281	0.102	0.055	0.201	0.041	0.308
	Kurtosis (Pearson)	1.823	0.976	1.726	3.981	1.992	2.058	1.128	1.984
	Standard Error	0.705	0.462	1.075	1.092	1.342	0.923	0.089	0.871
	Shapiro-Wilk	0.714	0.508	0.488	0.410	0.981	0.112	0.907	0.413

Note: FI=Financial Inclusion; MS=MSME Size; LL=Literacy Level; LI=Level of Income; GMO=Gender of MSME Owner; ARMO=Age Range of MSME Owner; PO=Period of Operations; AI=Asymmetrical Information. Significance level alpha=0.05. Source: Authors Own Computation

Table 14 also shows the descriptive variables for the dependent and predictor variables. In relation to access, results show that there is a significant mean difference between the literacy level of an MSME owner (M = 5.83, SD = 1.007). In comparison to the size of such an enterprise (M = 1.18, SD = 0.811). This can also be seen as regards availability (M = 4.25, SD = 0.437). This means that an MSME owner's literacy level has more bearing on financial inclusion than the MSME size. In other words, educational level is a higher determinant of financial inclusion than is MSME size. This brings to the fore a statement highlighted by the Bank of Zambia (2012), which attributes some financial exclusion cases to low financial literacy among some individuals and enterprises.

Turning to the difference between asymmetrical information (M = 3.44, SD = 1.781) and the gender of the MSME owner (M = 1.32, SD = 0.525) with regards to usage. This infers that the latter is more of a determining factor when it comes to the use of financial services and or products than is the gender of the MSME owner.

Another observation from Table 14 on access is that the mean score of the gender of the MSME owner is clustered more closely than that of the other variables. Findings indicate that gender of the MSME owner has a standard deviation of .481, which is the least among that of the others. This is also the case with availability, with gender having the least standard deviation of .531. For usage, the mean score of the MSME size is clustered more closely than that of the other variables as it has the most negligible standard deviation value of .218. Standard deviation measures variation and looks at how the data changes from the mean. However, it is essential to note that the standard deviation is sometimes affected by outliers, which are very low or high.

4.5 Regression Results

The summary in Table 15 illustrates the multiple linear regression of both usage and access. The multiple linear regression results for usage and access, which both include seven independent variables, are statistically significant. Usage: ($F_{(7, 63)} = 16.573$, $p = .009$), Access: ($F_{(7, 63)} = 14.924$, $p = .018$). This means that the linear regression model line slope for both usage and access was not equal to zero. Furthermore, the model summary shows the coefficient of determination (R^2) values of 0.657 and 0.634, meaning that taken as a set, the predictor variables account for 65.7% and 63% of the variance in usage and access to financial services respectively. To examine the individual contribution of predictor variables with regards to outcome variables, multiple linear regression analysis was used. The following two interpretations are based on the standardised regression coefficients (β), which demonstrate the effect of predictor variables on the dependent variable, usage and access to be specific.

Accordingly, Table 15 shows that MSME size had a significant positive relationship with usage ($\beta = .231$, $t = 0.673$, $p = .042$) whereas MSME size had a significant positive relationship with access ($\beta = .192$, $t = 1.073$, $p = .048$). This indicates that the larger an MSME becomes, the more likely it uses financial services and products. It thus finds itself within the bracket of those MSMEs considered to be financially included. Bose, Bhattacharyya, & Islam (2016) note that larger businesses are more visible and attract greater public and government scrutiny. Thus, it is expected that they would be engaged in more financial activities, such as usage and access. However, the results of a study conducted by Lakuma, Marty, & Muhumuza (2019) suggest

that micro, small, and medium enterprises in Uganda benefit more from financial access than large firms. These effects are stronger and more sustained among medium firms.

The results also show a significant and positive relationship between the literacy level of the MSME owner and financial inclusion for usage (β = .268, t = 2.653, *p* = .004) and access (β = .281, t = 3.566, *p* = .002), respectively. Thus, indicating that highly literate MSME owners have higher access and usage of financial services. Concurring with this, empirical results of a study by Mzobe (2015) indicated that education has a positive and statistically significant effect on an individual's perspective of the value that comes with utilizing and thus having access to financial services. In all, one's literacy level is, therefore, a significant predictor of financial inclusion.

The relationship between the MSME owner's monthly income also showed a significant and positive relationship with financial inclusion. Specifically, the effect of usage (β = .173, t = 1.101, *p* = .021) and access (β = .205, t = 1.358, *p* = .032) both significant at 5 per cent . This means that the higher the MSME owner's personal monthly income, the higher the access and usage of financial services. This can be explained by the fact that the best outcome would be sought for a particular business by its owner and/or partners. An outcome of which would include reaping the full benefits of financial inclusion.

The coefficient of gender of the MSME owner and financial inclusion shows a positive and significant relationship with usage (β = .103, t = 1.081, *p* = .046) while a significant negative relationship is observed for access (β = -0.058, t = -0.966, *p* = .045). This indicates that despite the challenges faced in accessing financial services and products, especially by women, those MSME owners who have access to these services and products use them. The findings of a study conducted by Ghosh & Vinod (2016) highlighted a significant imbalance in both the usage and access to formal funding by gender. The study highlights that male-headed households had a better chance of accessing formal funding than female-headed households. Female-headed households were 8 per cent less likely to access formal funding and 6 per cent more inclined to accessing informal funding. The said study further states that the pattern is similar to using financial services as male-headed households use 20 per cent more cash loans than female-headed households. However, Ambition, hard work and determination know no gender and the pursuit of financial prosperity, financial inclusion included, is sought after by everyone, whether male or female. The distribution of gender-related to financial inclusion in this study is presented in Table 20 A & B (see Appendix section).

The results further revealed that the age range of the targeted MSME owners had a positive and significant relationship with financial inclusion (β = .226, t = 2.218, *p* = .011) for usage whereas with access, the age range of the targeted MSME owners showed a positive relationship with financial inclusion (β = .163, t = 0.924, *p* = .047). Financial inclusion should cater across all age groups as entrepreneurship is a venture undertaken by both the young and old. However, success in the business world may be a challenge for some youth, for as Banking on Change (2013) observes, they are among the most financially excluded in society.

A significant positive relationship between the period of business operations and financial inclusion was again seen for both usage (β = .183, t = 2.602, *p* = .005) and access (β = .132, t = 2.360, *p* = .006) as revealed in Tables 4.8.1 and 4.8.2, respectively. It indicates that businesses that have been in operation longer have higher access and usage of financial services. This can be attributed to the fact that overtime, MSME owners learn and adopt new and better entrepreneurship ways, including making better financial decisions and considering new financial options. Finally, a positive and significant relationship is also indicated between asymmetrical information and financial inclusion for usage (β = .375, t = 2.164, *p* = .017) as well as for access (β = .385, t = 2.061, *p* = .010). t=This implies that MSMEs with access to information regarding funding and financial services have higher access and usage of financial services. For instance, the MSME owner who is aware that there are government or private sector funded projects available for such businesses and can write a proposal to access funding greatly reduces the chances of financial exclusion (OCED, 2013).

Table 15: Regression of Coefficients – Usage & Access

	Usage					Access				
	Unstandardized Coefficients		Standardized Coefficients			Unstandardized Coefficients		Standardized Coefficients		
	B	SE	Beta	t	Sig.	B	SE	Beta	t	Sig.
Constant	0.831**	0.364		2.374	0.009	0.658**	0.578		1.138	0.018
MSME Size	0.240**	0.361	0.231	0.673	0.042	0.189**	0.195	0.192	1.073	0.048
Literacy Level	0.265***	0.098	0.268	2.653	0.004	0.275***	0.075	0.281	3.566	0.002
Level of Income	0.174**	0.158	0.173	1.101	0.021	0.194**	0.119	0.205	1.358	0.032
Gender of MSME Owner	0.092**	0.085	0.103	1.081	0.046	-0.056**	0.058	-0.058	-0.966	0.045
Age Range of MSME Owner	0.232**	0.105	0.226	2.218	0.011	0.173**	0.074	0.163	0.924	0.047
Period of Operations	0.176**	0.067	0.183	2.602	0.005	0.125**	0.055	0.132	2.36	0.006
Asymmetrical Info.	0.384**	0.185	0.375	2.164	0.017	0.401**	0.194	0.385	2.061	0.01
F test	16.573					14.924				
Prob >F	0.000**					0.002**				
R-squared	0.657					0.634				
Observations	70					70				

Notes: ***, ** denotes significance at 1% and 5% respectively.

4.5.2 Availability of Financial Services

Table 16 shows the regression output for the determinants of the availability of financial services for MSMEs. The multiple linear regression result shows that it is statistically significant Availability: ($F_{(7, 63)} = 14.815$, $p = .000$). This indicates that the slope of the estimated linear regression model line for the variable was not equal to zero. The model summary in Table 4.6.1 shows the coefficient of determination (R^2) value of 0.522, meaning that taken as a set, the predictor variables account for 52% of the variance. To examine the individual contribution of predictor variables in relation to outcome variables, multiple linear regression analysis was used. The following interpretation is based on the standardised regression coefficients (β), which demonstrate the effect of predictor variables on the dependent variable, availability to be specific.

Table 16:Regression of Coefficients - Availability

	Availability				
	Unstandardized Coefficients		**Standardized Coefficients**		
	B	**SE**	**Beta**	**T**	**Sig.**
Constant	0.831**	0.364		2.654	0.006
MSME Size	0.289**	0.043	0.208	0.558	0.039
Literacy Level	0.291***	0.017	0.242	2.801	0.005
Level of Income	0.151**	0.102	0.130	0.903	0.033
Gender of MSME Owner	0.086**	0.041	0.078	1.037	0.048
Age Range of MSME Owner	0.154**	0.056	0.063	1.094	0.023
Period of Operations	0.163**	0.072	0.174	2.489	0.008
Asymmetrical Info.	0.245**	0.069	0.261	2.110	0.024
F test	14.815				
Prob >F	0.000**				
R-squared	0.522				
Observations	70				

Additionally, Table 16 shows that MSME size had a significant positive relationship with availability (β = .208, t = 0.558, $p = .039$). This indicates that the larger an MSME, the more aware it becomes of financial services and products at its disposal or available. This could be a determining factor as to how well the business does. It makes it easier and more convenient to operate a business, especially related to its day-to-day financial transactions. To run a business

effectively, one must be cognizant of available financial services; this is especially true for a business that has or will have one or more employees (Shaw, 2014). For example, consulting a financial professional about questions to do with business structure, payroll, taxes, medical insurance, and even retirement packages can deliver valuable benefits.

The results also show a significant and positive relationship between the MSME owner's literacy level and financial inclusion ($\beta = .242$, $t = 2.801$, $p = .005$). This indicates that highly literate MSME owners are more likely to use the financial services and or products available to them. As earlier stated, empirical results of a study by Mzobe (2015) indicated that education has a positive and statistically significant effect on the importance of financial inclusion and how it can benefit both the individual and their enterprise.

The relationship between the personal monthly income obtained also showed a significant and positive relationship with financial inclusion, specifically availability ($\beta = .130$, $t = .903$, $p = .033$). This indicates the possibility that the level of income obtained may have been arrived at upon consultation as to what salary scale or range was acceptable for one offering skills and services in a particular job. Thus, the availability of financial services was made use of in setting salary scales.

The coefficient of the gender of the MSME owner and financial inclusion, particularly availability, shows a positive and significant relationship with financial inclusion ($\beta = .078$, $t = 1.037$, $p = .048$) as well. This contrasts with numerous literature that seems to highlight a disparity between those financial services and or products that males can easily access and thus are easily available to them compared to females, especially those in Third World countries. However, with more and more women being educated, they too could undertake any business venture and run it as well as men do. This also includes taking advantage of financial services and or products that are available to them.

The results further revealed that the targeted MSME owners' age range had a positive and significant relationship with financial inclusion, availability in particular ($\beta = .063$, $t = 1.094$, $p = .023$). This indicates that the youth, even though marginalized, are more conversant with technology and hence can make use of internet banking, for instance. Being energetic, they can also move or travel to where financial services and or products are offered. The older business owners, in most cases, are experienced and have better judgement; they can make well-

informed financial decisions that ensure that they are not financially excluded, which ultimately works to prosper their businesses.

A significant positive relationship between the period of business operations and financial inclusion was again seen for availability (β = .172, t = 2.489, *p* = .008). Experience is the best teacher; over time, business owners get to understand and learn more hence avoiding certain mistakes made either by themselves or others. The longer a business has been in operation, the more likely the owner is able to recognize and appreciate the need to be financially included. Last but not least, a positive and significant relationship is also indicated between asymmetrical information and financial inclusion for availability (β = .281, t = 2.110, *p* = .024). This indicates that the degree to which information is available to parties involved in a transaction may determine the extent to which a business deal or venture succeeds. Therefore, the more information the MSME owner has regarding his or her business's growth and prosperity, the less likely they will be categorized among those who are considered to be financially excluded.

CHAPTER FIVE
CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This research aimed to assess the state of financial inclusion in Zambia and determine the relationship between financial inclusion and the size, literacy, age, asymmetrical information, gender and period of business operations of micro, small, and medium enterprises Zambia. The analysis of the findings was presented in chapter four. This chapter provides a summary and draws a conclusion based on the research findings. Lastly, this chapter also gives various policy recommendations and recommends other avenues for further research.

5.2 Summary

This research analysis was based on data collected from 70 respondents comprising MSME owners. To determine the relationship between financial inclusion and the size, literacy, age, asymmetrical information, gender, and period of business operations of micro, small, and medium enterprises in Zambia, descriptive statistics, multiple regression, and correlation analyses (Pearson correlation and the p-value) were employed.

On the one hand, the results obtained indicate a positive and significant relationship between the dependent variable and the independent variables. The dependent variable, financial inclusion, was measured by usage, access, and availability of financial services and products. On the other hand, the independent variables included MSME size, the MSME owner's literacy level, age range of the MSME owner, the period within which the enterprise has been in operation, and asymmetrical information. However, when it comes to the gender of the MSME owner, a negative but significant relationship is particularly shown concerning access to financial services and products. This is because accessing financial services and products is more of a challenge for female enterprise owners than their male counterparts. However, most MSMEs run by women in this study fully utilized financial services and products upon accessing them.

Data obtained from this study also indicates that only 13 % of the respondents have had access to a loan from the formal financial sector, with the rest opting for other means. The major reason why the MSMEs do not borrow from the formal financial sector is mostly because of high-interest rates and tedious procedures. Access to funding is relevant to the growth of MSMEs. Most of the respondents fell in the micro-segment of MSMEs, which employs about 0-10

employees with a turnover of ZMW 300,000. This is a segment that is active in the Zambian economy and is a significant employer.

The results also show that most of the MSMEs are aware of both the public and private funding opportunities. However, only 7.1 % of the respondents have ever applied for funding from government-funded projects. The small proportion of applicants was as a result of MSME noting that the process to acquire financing is tedious. Whereas 17.1 per cent acknowledged, that they did not believe that they could be awarded the funding and did not know how to apply for such Government Funding. Also, they did not qualify to be given funding. This shows that there is a gap between the funder and the borrowers.

Findings of the study further indicate that 77.1 per cent of the MSMEs have company accounts. This shows us that most MSMEs have access to financial services. The MSMEs that do not have company accounts attributed not having a bank account to high bank charges and lengthy processes, and cumbersome account opening norms. Forty-two (60 per cent) MSMEs indicated that they have access to various forms of financial services or products that they make use of them. While the remaining twenty-eight (40 per cent) have no.

When it comes to the availability of financial services and products, data obtained found that there are 19 different banks in Lusaka with branches in Lusaka itself as well as in other parts of the country. There was a minimum of at least two (2) automated teller machines (ATMs) per branch. In addition to this, various microfinance lending institutions are situated in cities and towns across the country, including rural areas. These microfinance lending institutions tend to be vital in providing finance to low-income earners and, in this case, MSME owners, especially those who may be seeking a small but significant capital boost for their business. Additionally, the study found that most banks and institutions offering financial services were continually working to ensure that the number of bank employees per 1000 clients was sufficient. No customer or potential customer was left unattended.

Furthermore, mobile money or mobile wallet is another relatively new phenomenon that is available to many MSME business owners across the country. With this technology, these business owners can receive, store and send money using a mobile phone. The study found that all the three (3) main telecommunication services companies in the country, namely Zamtel, Airtel and MTN) have contributed significantly to ensuring that people and companies, not only in cities but also in far-flung areas, have got some sort of banking service available to them.

This has been done by distributing mobile money agents, who can be usually found in booths located in strategic areas, usually where they may be needed the most in Lusaka and across the country.

5.3 Conclusion

This study aimed to determine the state of financial inclusion in Zambia with specific reference to micro, small, and medium enterprises (MSMEs). The study found that financial inclusion exists amongst most MSMEs in the country, with most MSMEs having access to accounts. However, the findings indicate that most MSMEs do not have access to formal funding. Most MSMEs are unable to access formal financing from financial institutions due to high-interest rates and tedious procedures. There is a need for more to be done to ensure that these groups of people who tend to be marginalized are not left out in access to various financial services and products that may help them grow their businesses. It was also found that others needed more education on the importance of financial inclusiveness for themselves and their businesses and more information on the financial decisions they were thinking of making.

This study also aimed to determine if there was a relationship between financial inclusion and the MSME size, literacy level of the MSME owner, the age range of the MSME owner, gender, the period within which the enterprise has been in operation for and asymmetrical information. Statistical results obtained in this study show that there is indeed a significant relationship between each independent variable and financial inclusion, meaning that the independent variables are a determinant factor of the level by which MSME owners experience financial inclusiveness. However, it is also cardinal to note that other possible factors that may also impact financial inclusiveness amongst MSMEs, and stakeholders need to pay attention to them as well. There is no argument that the MSME sector needs to see more and more financial inclusiveness as it helps drive the nation's economy.

5.4 Policy Recommendations

The major finding is that most MSMEs do not have access to formal credit and funding. There is, therefore, a need for formal financial institutions to make a conscious decision of lowering bank charges and interest rates for MSMEs to help out MSMEs who contribute significantly to Zambia’s GDP. There is also a need for financial institutions to have financial literacy and awareness campaigns and classes which will help MSMEs cope with the tedious procedures surrounding accounting opening and applying for credit.

Findings indicate that there is a negative relationship between gender and access to financial inclusion. This is mainly due to women not being able to access financial services. Therefore, there is a need for policies to be put in place that encourage more women to have access to financial services. As proposed by Mnodolwa (2017), this can be done by formalising women's informal sector and having financial literacy roadshows for women in the informal sector. Also, training women in digital skills to help enable them to have access to financial services on their devices. Finally, giving financial institutions targets to onboarding women-led MSMEs.

5.5 Other Avenues of Further Research

Lusaka, the capital city of Zambia, was chosen to be the study location because it is the country's business hub. In addition, the city has a high population density and many MSMEs. Therefore, it was chosen as it was the best place to show a true reflection of what the current state of financial inclusion in Zambia is and the independent factors that affect financial inclusion. This study, however, encourages similar research to be done to cover Lusaka, Copperbelt (mining hub) and Livingstone (the tourist town). All these three provinces contribute significantly to Zambia's GDP, and it would be beneficial to see the state of financial inclusion in all three regions.

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APPENDIXES

APPENDIX I: LETTER OF CONSENT

P. O. Box 36187
Lusaka

7th January, 2020.

TO WHOM IT MAY CONCERN

Dear Sir/Madam

RE: QUESTIONNAIRE

I am a student pursuing a Masters in Development Finance at the University of Cape Town in South Africa.

I am carrying out research to assess **The State of Financial Inclusion in Zambia** with specific reference to Micro, Small and Medium Enterprises. You have therefore, been identified as a participant. Please take note of the following: -

- This is a mere academic exercise, and any answers you give will be treated with the utmost confidentiality.
- The Commerce Faculty Ethics has approved this research in Research Committee.
- Your participation in this research is voluntary. You can choose to withdraw from the study at any time.
- The questionnaire will take approximately 30 minutes to complete
- You will not be requested to supply any identifiable information, ensuring the anonymity of your responses.
- Should you have any questions regarding the research, please feel free to contact the researcher on Phone number…… and email address……

Yours faithfully

Nalumino Masialeti
Research Student

A. PARTICIPANT INFORMATION SHEET

1. Introduction: I am a student pursuing a Master's Degree in Development Finance at the University of Cape Town, South Africa.

2. I am carrying out research to assess **The State of Financial Inclusion in Zambia** with specific reference to Micro, Small and Medium Enterprises (MSMEs) in Lusaka.

3. **Purpose of the Study:** MSMEs are a crucial agent of economic development in Zambia. It has been observed that MSMEs play a significant role in the employment sector, and Zambia is no exception where it has been observed that MSMEs contribute 88% of its employment market. Whether developed or developing, the majority of enormous economies consider the MSMEs sector as a resourcefulness and trigger mechanism for sustainable economic growth. This research, therefore, aims to ascertain the state of financial inclusion and the relationship between MSMEs size and financial inclusion.

4. **Procedures:** You have, therefore, been identified as a participant to fill in the questionnaire within your business area or premises.

5. **Confidentiality and Privacy:** This is a mere academic exercise, and any answers you give will be treated with the utmost confidentiality.

6. **Benefits and risks:** The benefit of participating in this research is that your responses in accordance with the questionnaire will help the study to assess the state of financial inclusion in Zambia with particular reference to the MSMEs.

7. **Voluntariness:** Your voluntariness is most appreciated**.**

8. **If the need for questions or clarification, do not hesitate to contact:**
   Name: Nalumino Masialeti
   Phone number:
   Email:

B. INFORMED CONSENT EXPLAINED

I have read (or have had explained to me) the information about this research as contained in the Participant Information Sheet. I have had the opportunity to ask questions about it, and any questions I have asked and been answered to my satisfaction. I now consent voluntarily to be a participant in this project and understand that I have the right to end the interview at any time or to choose not to answer any particular questions, and to decline to be recorded. My signature below states that I am willing to participate in this research.

Participant's Names: ……

Participant's Signature / Thumb Print: ……Consent Date: ……..

APPENDIX II: QUESTIONNAIRE

MICRO, SMALL AND MEDIUM ENTERPRISE IN ZAMBIA

QUESTIONNAIRE

INSTRUCTIONS:

1. Do not write your name on this paper.
2. Answer questions by either crossing [x] or writing brief notes in the space provided.
3. Use pen only.

Part One

Personal Information

1 Age

18-30 [ ] 31- 40 [ ] 41-50 [ ] 51 and Above [ ]

2. Gender

Male [ ] Female [ ]

3. Qualifications

No Education [ ] Primary [ ] Secondary [ ] Certificate [ ] Diploma [ ]

Degree [ ] Masters [ ] Doctorate [ ] Specify other……

4. Period of business operation

1- 5 Years [ ] 6-10 Years [ ] 11-15 Years [ ] Above 16 Years [ ]

5. Monthly Personal Income

Below ZMW 2000 [ ] ZMW 2001 – ZMW 5,000 [ ] ZMW 5001 - ZMW 10,000 [ ]

ZMW 10,001 - ZMW 15,000 [ ] Above ZMW 15,001 [ ]

Demographic Profile: Size of MSME

6. Is your business registered with the Registrar of Companies (PACRA)?

Yes [ ] No [ ]

7. How many employees do you have?

0-10 [ ] 11-50 [ ] 51-100 [ ] Above 100 [ ]

8. What is your monthly turnover?

ZMW 0 - ZMW150, 000 [ ] ZM 151, 000 - ZMW 300,000 [ ]

ZMW 301,000 - ZMW 800,000 [ ]

Investments into the business excluding land and building

9. Please tick which industry your business falls in

   Manufacturing and Processing [ ] Trading and Service [ ]

   If your business is in Manufacturing and Processing, please proceed to answer question 10.

   If your business is in Trading and Service, please proceed to answer question 11.

10. Please state investment exclusive of land and building

    ZMW 0 - ZMW 80,000 [ ] ZMW 80,000 – ZMW 200,000 [ ]

    ZMW201, 000 – ZMW 500,000 [ ]

11. Please state investment exclusive of land and building

    ZMW 0 - ZMW 80,000 [ ] ZMW 81,000 – ZMW 150,000 [ ]

    ZMW 151,000 –ZMW 300,000 [ ]

Usage of Banking Services

12. Do you have a company account?
    Yes [ ] No [ ]

    If you answered No to question 12, please skip to Question 15.

    If you answered yes to question 12, please answer questions 13,14.16 and 17.

13. What were the reasons for opening an account?
    for receipts from clients [ ] For receiving remittances from suppliers [ ]
    For Keeping money [ ] To request a loan [ ] If other, (Please specify)……

14. How frequently do you use your bank account?

    Seldom [ ] once in 30 days [ ] Less than once in 30 days[ ]
    Only when I can [ ] Nothing in the past 1 year [ ]
    I only opened the account but no deposits since [ ]
    If others, please specify……

15. Reasons for not having a bank account
    No money to deposit [ ] No bank in this area [ ]
    high bank charges [ ] Tried to open but was refused [ ]
    Tedious account opening process [ ] Anticipated rejection [ ]
    If others, (please specify)……..

16. Do you use other financial services with your bank?

    Yes [ ] No [ ]

17. Name at least one financial service that you access at your bank.
    ……

Access to Credit

18. Have you ever taken a loan for your business?

    Yes [ ] No [ ]

    If you answered *No* to question 13, please skip to question 21 and 22
    If you answered *Yes*, please answer questions 19, 20, 21, and 22.

19. If yes, from where?

    Banks [ ] Microfin [ ] Relatives [ ] Friends [ ] Moneylenders [ ]
    If others (Please specify)……

20. Have you ever applied for a loan at a formal micro financial institution?
    Yes [ ] No [ ]

21. What would you do if you needed money in an emergency?

    Ask family or friends [ ] Take out a bank loan or overdraft [ ] Draw on Savings [ ]

    Take out loan from other sources [ ] If others, (please specify)…….

22. If you have never taken out loan from a formal institution like a bank or microfin,

    what is the reason behind you not accessing credit? Tick all that apply

    Interest rates are too high [ ] Not creditworthy [ ] Lack of audited financials [ ]
    Tedious process [ ] If others, (please specify)……

Access to Financial Services

23. Do you have access to any other form of financial service or product?

    Yes [ ] No [ ]

24. If yes, then please answer the below questions.

    Do you have access to Insurance?

    Yes [ ] No [ ]

25. Do you have access to payments as a service for local transfers?

    Yes [ ] No [ ]

26. Do you have access to Forex Transfers?

Yes [ ] No [ ]

27. Do you have access to a savings account?

Yes [ ] No [ ]

28. How do you pay your suppliers?
Zoona [ ] Bank transfer via DDACC and RTGS [ ] Mobile Money [ ] Cash [ ]
If others, please specify……

29. Do you have access to investment services?
Yes [ ] No [ ]

Asymmetric Information

30. Are you aware of any Government Funded programmes such as the Citizen Economic Programme for SMEs?

Strong aware [ ] Aware [ ] Unaware [ ] Strongly Unaware [ ]

31. Do you know of any Funding projects for SMEs under the Private Sector?

Strong aware [ ] Aware [ ] Unaware [ ] Strongly Unaware [ ]

32. Have you ever applied for funding for your business as an SME under Government Funded Programmes such as the Citizen Economic Commission Programme?

Yes [ ] No [ ]

33. If you answered No to question 31, why have you not tried to access the Government Funded programmes?.....

34. Do you know how to write a proposal to access funding?

Yes [ ] No [ ]

APPENDIX III: SUMMARY OF THE ANOVA

Table 17:ANOVA – Usage

Model		Sum of Squares	*df*	Mean Square	F	*p*
1	Regression	38.272	7	5.467	16.573	.000
	Residual	19.968	62	0.322		
	Total	58.240	69			

a. Dependent Variable: Financial Inclusion (Usage)

b. Predictors: (Constant), Asymmetrical Information, Period of Operations, MSME Size, Gender of MSME Owner, Level of Income, Age Range of MSME Owner, Literacy Level

Table 18: ANOVA - Access

Model		Sum of Squares	*df*	Mean Square	F	*p*
1	Regression	36.134	7	5.162	14.924	.000
	Residual	20.817	62	0.336		
	Total	56.951	69			

a. Dependent Variable: Financial Inclusion (Usage)

b. Predictors: (Constant), Asymmetrical Information, Period of Operations, MSME Size, Gender of MSME Owner, Level of Income, Age Range of MSME Owner, Literacy Level

Table 19: ANOVA - Availability

Model		Sum of Squares	*df*	Mean Square	F	*p*
1	Regression	28.472	7	4.067	14.815	.000
	Residual	26.071	62	0.421		
	Total	54.543	69			

c. Dependent Variable: Financial Inclusion (Availability)
d. Predictors: (Constant), Asymmetrical Information, Period of Operations, MSME Size, Gender of MSME Owner, Level of Income, Age Range of MSME Owner, Literacy Level

Table 20: Financial inclusion frequency table across gender

QUESTION	GENDER	FREQUENCY (PERCENTAGE)	
		Yes	***No***
Access to Investment Services	*Male*	*21 (30.0%)*	*21 (30.0%)*
	Female	*16 (22.9%)*	*12 (17.1%)*
	Total	***37 (53%)***	***33 (47%)***

Note: Total Number of Respondents = 70; Male=42, Female=28

VARIABLE	GENDER	FREQUENCY (PERCENTAGE)	
Usage of Banking Services *Company Account*		***Yes***	***No***
	Male	*35 (50%)*	*7 (10%)*
	Female	*19 (27%)*	*9 (13%)*
	Total	***54 (77%)***	***16 (23%)***
Use Of Any Other Financial Services With Bank	*Male*	*16 (22.8%)*	*24 (34.3%)*
	Female	*13 (18.5%)*	*17 (24.3%)*
	Total	***29 (41%)***	***41 (59%)***
Access to Credit		***Yes***	***No***
Ever Taken A Loan For Your Business?	*Male*	*5 (7.1%)*	*37 (52.9%)*
	Female	*4 (5.7%)*	*24 (34.3%)*
	Total	***9 (13%)***	***61 (87%)***
Ever Applied For A Loan At A Microfin?	*Male*	*4 (5.7%)*	*38 (54.3%)*
	Female	*1 (1.4%)*	*27 (38.6%)*
	Total	***5 (7%)***	***65 (93%)***
Ever Borrowed From Village Banking?	*Male*	*7 (10%)*	*35 (50%)*
	Female	*6 (8.6)*	*22 (31%)*
	Total	***13 (19%)***	***57 (81%)***
Access to Financial Services		***Yes***	***No***
Access To Other Financial Service Or Product?	*Male*	*28 (40%)*	*14 (20%)*
	Female	*14 (20%)*	*14 (20%)*
	Total	***42 (60%)***	***28 (40%)***
Access To Insurance?	*Male*	*19 (45.2%)*	*5 (11.9%)*
	Female	*10 (23.8%)*	*8 (19.4%)*
	Total	***29 (69%)***	***13 (31%)***
Access To Payments As A Service For Local Transfers?	*Male*	*20 (47.6%)*	*4 (9.5%)*
	Female	*15 (35.7%)*	*3 (7.1%)*
	Total	***35 (83%)***	***7 (17%)***
Access To Forex Transfers?	*Male*	*15 (35.7%)*	*9 (21.4%)*
	Female	*12 (28.6%)*	*6 (14.3%)*
	Total	***27 (64%)***	***15 (36%)***
Access To A Savings Account?	*Male*	*22 (52.4%)*	*1 (2.4%)*
	Female	*14 (33.3%)*	*5 (11.9%)*
	Total	***36 (86%)***	***6 (14%)***

Note: Total Number of Respondents = 70; Male=42, Female=28