FACTORS AFFECTING FINANCIAL INCLUSION AMONG SMALL AND MEDIUM ENTERPRISES OWNERS IN NAIROBI COUNTY, KENYA

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A Research Project Submitted to the Graduate School in Partial Fulfillment of the Requirements for the Master of Business Administration Degree in Finance of Egerton University

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DECLARATION AND RECOMMENDATION

Declaration

I, the undersigned, declare that this research project is an original work and has never been submitted to any institution of higher learning for the Award of a degree or diploma other than Egerton University.

Signature  Date…19/5/21……

Nancy Kerubo Nyasani CM11/00735/13

Recommendation

This research project has been submitted for examination with my approval as the University Supervisor.

Signature  Date…19/5/2021…….

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DEDICATION

I dedicate this project to my dear husband, Shadrack Isaboke Makori, for his tireless help both financially and emotionally, my daughter Nicole Minage Isaboke, my parents Mr. and Mrs. Joash Nyasani, my parent's in-law Mr. and Mrs. Gikemi, sister Ivy and brothers Gilborne and Enock for their support, follow up on progress and for wishing me well every time we discussed about this project.

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ABSTRACT

The overall objective of the study was to determine factors affecting financial inclusion among owners of small and medium enterprises in Nairobi County, Kenya. Specifically, the study sought to establish the effect of financial literacy, demographic characteristics and information asymmetry on financial inclusion among owners of small and medium-sized enterprises in Nairobi County, Kenya. The analysis adopted descriptive research design. The study population was all of Nairobi County's registered SMEs owners which were 312,981. The sample was 384 SMEs owners who were selected using stratified random sampling. The study used primary data that was collected using structured questionnaires. Data was analysed using descriptive statistics (mean and standard deviation), correlation analysis as well as simple and multiple linear regression analysis. The SPSS software was used to analyse the data. The results also showed that financial literacy and demographic characteristics had a positive correlation with financial inclusion of (r=0.613) and (r=0.552) respectively while information asymmetry was strongly and negatively correlation with financial inclusion (r=0.626). Financial literacy and demographic characteristics were found to have a positive and significant effect on financial inclusion among SMEs owners (adjusted R^2=0.374; F=172.706; β=0.706; P=0.000<0.05), adjusted R^2=0.302; F=125.734; β=0.804; P=0.000<0.05) respectively, while information asymmetry has a negative and significant effect on financial inclusion among SMEs owners (adjusted R^2=0.390; F=184.896; β=-0.751; P=0.000<0.05). Combined, financial literacy, demographic characteristics and information asymmetry were significant (adjusted R^2=0.678; F=202.750; P=0.000<0.05). Based on the results, the study concluded that demographic characteristics have the greatest effect on financial inclusion among SMEs owners in Nairobi County. Based on the findings, the study recommends that SMEs owners should strengthen their financial literacy skills; the County government should ensure that everyone whether old or young has equal access to financial credit; financial institutions should disclose all relevant information pertaining to financial services to business owners. Further studies should also be carried out on other factors affecting financial inclusion not included in the study to determine whether they have a significant influence on financial inclusion among small and medium enterprises owners in Nairobi County, Kenya.

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LIST OF ABREVIATIONS

CBK	Central Bank of Kenya
GDP	Gross Domestic Product
GoK	Government of Kenya
KBA	Kenya Bankers Association
ME:	Micro Enterprise
MFI:	Micro finance institution
OECD:	Organization for Economic Co-operation and Development
SADC:	Southern African Development Community
SMEs:	Small and Medium Enterprises
SPSS:	Statistical Package for Social Sciences
VIF	Variance Inflation Factor

CHAPTER ONE
INTRODUCTION

1.1 Background of the Study

Financial inclusion is a key component of any country's all-inclusive social, political, and economic development. In addition, an all-inclusive financial system helps to reduce the proliferation of informal credit sources, which can not only be exploitative but also undermine the stability of the financial system of a country as a whole. Advancing balanced economic growth and financial inclusion is vital to sustainable development as it encompasses the majority of the population in developing countries, such as the poor and the vulnerable (Agyemang-Badu et al., 2018) communities in both urban and rural populations.

Financial inclusion allows for a country's enhanced and more sustainable economic and social development (Were & Wambua, 2013). This also recognizes the participation of disadvantaged groups, such as poorer portions of the population and low-income families, depending on their degree of access to financial resources such as savings and loan plan, credit protection, pensions, among others (Kathuo et al., 2015). In addition, the goal of financial inclusion is the simple availability of financial resources that require maximum investment in business opportunities, schooling, retirement savings, rural citizens and businesses to insure against risks (Rebei, 2014). Furthermore, the gaps in financial exposure between the wealthy and the poor, men and women, and rural and urban areas have substantially deteriorated. Key drivers of those changes included; mobile money growth, government initiatives and funding, and information and communications technology innovations.

FinAcess (2019) survey recorded a significant reduction in the proportion of adults totally excluded from financial services and products that support government policies, initiatives and reforms, as well as the widespread adoption by financial sector players of digital technology and innovations. These have helped to deepen financial inclusion by enabling people to overcome infrastructural constraints, particularly in rural areas. As much as progress has been made, problems of affordability and consumer protection such as unexplained charges remain obstacles to structured access to the service. The remarkable.

Modesty of the developmental impact of structured financial access is even more noteworthy. Most Kenyans have formal accounts in various forms, but these accounts are seldom used because most families, smaller and micro-scale enterprises and farmers do not solve real day- to-day problems. The use of informal instruments remains considerably dependent.

Kenya has taken measures to raise the level of financial inclusion in the world and to improve trust in the country's financial market in the past decade. The Kenyan government is on a plan to ensure quality financial services particularly for the society's lowest carders. Findings from the FinAcess 2019 and the Kenya Economic Report 2020 survey explicitly indicate that the financial inclusion environment in Kenya has undergone a transition since 2006. Formal financial inclusion has grown to 82.9% from 26.7% in 2006, while overall exclusion has shrunk from 41.3% in 2006 to 11.0% (FinAcess, 2019). Proximity to financial providers, level of trust of financial providers, excessive documentation, financial literacy and the cost of accessing financial services are the main barriers to greater financial inclusion in Kenya. Though these barriers have persisted over the last decade, the mobile-based financial services advent has transformed financial systems in helping more people to access financial services (Kenya Economic Report, 2020).

According to the Govindarajan (2012), the main goals of inclusive finance are; Access at a reasonable cost for all households and enterprises to the range of financial services which are “bankable,” including savings, short and long-term credit, leasing, mortgages, insurance, pensions, payments, local money transfers and international remittances; Sound institutions, guided by appropriate internal management systems, industry performance standards, and performance monitoring by the market, as well as by sound prudential regulation where required; Financial and institutional sustainability as a means of providing access to financial services over time and multiple providers of financial services, wherever feasible, so as to bring cost-effective and a wide variety of alternatives to customers.

1.1.1 Financial Inclusion

The efficiency of any financial system depends on its ability to source funds from surplus units and finance deficit units. When the units that have experienced the deficit do not have access to the formal sources of finance, the challenge becomes more pronounced. Financial inclusion initiatives highlight the concerted efforts undertaken by the financial system or any constituent thereof to bring into its fold sections of the economy that have been

excluded from access to affordable credit and other financial services (Gupte et al., 2012).

In all countries around the world financial inclusion has gained prominence. Studies have shown that financial inclusion not only helps individuals grow strong economically but also helps the nation grow strong economically. Despite so many attempts over the years, the goal of achieving 100 percent financial inclusion remains unfulfilled. Work on solutions that promote financial inclusion is still needed because around two billion people are financially excluded across the globe (Grandolini, 2015).

Even as governments have been exploring innovative methods to help overcome these barriers, the process of transformation is generally long drawn and depends as much on the individual's level of motivation to overcome these barriers. However, the same is not true of constraints triggered by systemic or institutional inadequacies. These are constraints that arise due to the inadequacies and/or shortcomings of the system which result in the inability to provide easy access to financial services. Improving access to financial services would help overcome a host of constraints that have hampered growth both at the level of the individual and that of the country. Constraints identified that need intervention may either be specific to the individuals or may be triggered by systemic or institutional inadequacies and/or shortcomings. Some of the constraints that are specific to individuals are low literacy levels, low level of income, psychological and cultural barriers, place of living, and lack of awareness (Kempson et al., 2004).

Financial inclusion can be measured through the following dimensions; Access is the willingness of formal institutions to use available financial resources and products, or it is the ability to deliver financial services and products to financial institutions (Kavwele et al., 2018). Examining access means recognizing possible obstacles that companies face in providing their services and goods, or that customers encounter in using them. Access metrics display the level of coverage of financial services, such as penetration of the bank branch or point of sale (POS) apps in rural areas (information accessible from supply-side data) or demand-side obstacles that consumers encounter when accessing financial institutions, such as costs or details (Gichana et al., 2014). Access has many dimensions: services must be available when needed, and goods must be customized to specific needs; rates for these services must be affordable, including all non-price expenses, such as having to travel a long distance to a branch of the bank.

Quality is a measure of the financial services' importance that includes the consumer's understanding, his perceptions and views towards the available financial products. This method will be used to assess the nature and scope of the relationship between

the financial service provider and the client, and the choices available and their implications (Mia, 2017). It is the ability of the financial service, or product, to meet the needs of the consumer. Quality metrics reflect the degree to which financial products and services meet consumer's needs, the range of options available to customers, and the customers ' knowledge and understanding of financial products. Quality metrics are: usability, product-fitting, accountability, health, consumer protection and financial capacity (Ntwiga, 2016). Nonetheless, these surveys must provide more complex information to assess the quality, such as specific product attributes, contract terms, or consumer awareness (Cant et al., 2017). Measurement of quality will include the relative cost of credit, women owned SMEs that hold a bank account and that has an outstanding loan.

Usage sheds light on the profundity and variety of financial service or product. It is about regularity, duration, and length of usage over time, and also involves measuring what the household uses as a financial commodity mix (Ntwiga, 2016). It is the way clients use financial services, such as the regularity and length over time of the financial product/service. Companies or households must have access to them for use with financial products (Agyemang-Badu et al., 2018). Usage metrics can be generated from information from the demand side which can also capture financial services provided by informal financial providers. Measurement of usage; usage of deposit accounts for those SMEs that are formally banked, enterprises with outstanding loan facilities hence measuring usage of loan facilities, usage of informal credit for SMEs with loans from informal providers.

1.1.2 Small and Medium Enterprises Owners

This is a business unit with a limited number of workers not exceeding 100 and its sales volume is less than 4 million per annum. Small and medium enterprises are commonly privately owned and operated sole proprietorships, corporations or partnerships. SMEs owners in developing countries face considerable financial challenges (Karlan & Zinman, 2007).

SMEs owners face challenges with regard to financing, disproportionate regulatory burdens and competition failures compared to large entities. A favorable business environment is therefore important to minimize the impact of these barriers and seeks to provide a level playing ground for firms of all sizes. Financial constraints are generally higher but SMEs owners are particularly constrained by financial system gaps such as high operating costs, high collateral requirements and lack of financial intermediary experience (Gichana et al., 2014; Kavwele et al., 2018). Increased access to finance for SMEs owners in

developing countries may improve economic conditions (Mia, 2017). Kenyan constitution was promulgated on 2010 with devolved governance structure that was to mitigate such challenges facing SMEs and deliver in revenue collection or in service delivery.

SMEs have found it easier to obtain credit, and the economic environment in which they work has generally improved in recent years, according to the OECD (2018), as demonstrated by lower bankruptcy rates and shorter payment delays. This has not, however, contributed to more credit flows to SMEs, partially due to weak credit demand and unequal incentives for investment. In addition, due to rigorous prudential rules, banks have modified their business model and adopted more stringent credit selection criteria. Moreover, declining interest rates benefited big business more than small ones, pointing to a persistently higher credit risk for small and medium-sized enterprises. Although credit became easier for some SMEs to access, other segments of the SME population still faced significant difficulties in accessing debt financing. Transaction costs for micro-enterprises, start-ups, young SMEs, creative companies and businesses located in remote and/or rural areas are particularly high in relative terms, potentially excluding them from any established external funding sources (OECD, 2018). However, other groups of entrepreneurs, such as women and youth, often face

One of the main problems facing emerging markets is to shift informal SMEs from the informal sector to the formal sector, allowing them to increase access to financial credit and other government support services. The vast number of SMEs need greater access to finance in both the formal and informal sectors (Rambo, 2013); Improving access to financing for SMEs, thus, will not only improve their capacity to create and prosper, but will also increase policy production and growth, in addition to reducing unemployment (Niskanen, 2010).

Studies have further revealed widespread demand among Micro Small and Medium enterprises for financial literacy, management skills, strategic planning to scale operations, and compliance with legal and regulatory requirements (Kenya Bankers Association, 2019). To fill the capacity gap, Kenya Bankers Association (KBA) in October 2018 launched the Inuka enterprise Programme together with the Kenya Institute of Management, Kenya National Chamber of Commerce and Industry, and the Kenya Association of Manufacturers. Inuka facilitates access to finance through training, networking and coaching opportunities. To fortify these efforts, KBA established an online platform where entrepreneurs access valuable information on how to overcome challenges that may cripple their startups and small businesses. Alongside the Inuka Enterprise Programme, KBA launched the Y-Bizna

(Youth in Business) initiative in 2017 in partnership with the Kenya Community Development Foundation.

1.2 Statement of the Problem

Many studies have in the past been able to establish the impact of availability and access to formal sources of finance on financial inclusion. Despite so many attempts over the years, the goal of achieving 100 percent financial inclusion remains unfulfilled. Work on solutions that promote financial inclusion is still needed because around two billion people are financially excluded across the globe (Grandolini, 2015).

Several studies conducted on factors affecting financial inclusion used different variables while others did not have a clear methodology. Wafula (2017) and Njehia (2014) conducted research in Trans Nzoia and Mumias County on the impact of financial literacy on financial inclusion, respectively. All studies found the relationship between the variables to be positive and important. Similar study conducted by Chepkemoi et al. (2017) to identify the effects of financial literacy training on business profitability by SMEs in the coastal region found all variables to be statistically significant although there were negative relationships between bookkeeping and savings. Maina (2010) also observed that there is no significant difference between those who are financially literate and those who are not. Ramakrishna and Trivedi (2018) found that there was no correlation between age and financial inclusion while Marime and Magweva (2016), Kiai et al. (2016) and Lotto (2018) considered age to be a relevant factor affecting financial inclusion. Several studies conducted on factors affecting financial inclusion gave mixed results while others did not have a clear methodology. It is against this backdrop that the current study attempted to determine the factors affecting financial inclusion among owners of small and medium-sized enterprises owners in Nairobi County.

1.3 Objective of the Study

1.3.1 General Objective

The general objective of the study was to determine factors affecting financial inclusion among small and medium enterprises owners in Nairobi County, Kenya.

1.3.2 Specific Objectives

i. To determine the effect of financial literacy on financial inclusion among small and medium enterprises owners in Nairobi County, Kenya.

ii. To establish the effect of demographic characteristics on financial inclusion among small and medium enterprises owners in Nairobi County, Kenya.

iii. To determine the effect of information asymmetry on financial inclusion among small and medium enterprises owners in Nairobi County, Kenya.

iv. To establish the combined effect of financial literacy, demographic characteristics and information asymmetry on financial inclusion among small and medium enterprises owners in Nairobi County, Kenya.

1.4 Research Hypotheses

$H0_1$: There is no significant relationship between financial literacy and financial inclusion among small and medium enterprises owners in Nairobi County, Kenya.

$H0_2$: There is no significant relationship between demographic characteristics and financial inclusion among small and medium enterprises owners in Nairobi County, Kenya.

$H0_3$: There is no significant relationship between information asymmetry and financial inclusion among small and medium enterprises owners in Nairobi County, Kenya.

$H0_4$: Combined, financial literacy, demographic characteristics and information asymmetry have no relationship with financial inclusion among small and medium enterprises owners in Nairobi County, Kenya

1.5 Significance of the Study

This research will be significant to the policy makers, government agencies, such as the Central Bank of Kenya (CBK) and the County governments as they will provide insight and more reliable information on which effective financial inclusion policies; frameworks and programs to be developed and implemented in order to achieve 100% inclusivity among SMEs owners. Commercial banks and other financial institutions will also find this research important as they advance innovative approaches to enhance the involvement of excluded groups like the SMEs by enabling them to establish policies that are consistent with the market.

In addition, the findings of study will also be important to other stakeholders like investors and shareholders as it will create awareness among financial institutions in the importance of usage, access and quality of finances among SME operators which in turn will enable better performance of enterprises. This will definitely have an effect on social inclusion of SMEs owners and better their economic performance since they are the backbone of the country. Finally, the results of the analysis will add greatly to the pool of

current expertise and act as a stimulus for more studies into the financial inclusion of SME owners. The findings of this thesis will be important to academics and other researchers as the starting material for advancing their work. It will assist researchers in finding the void in current studies and therefore, by fostering more interest, will create a study that will address the established studies gaps.

1.6 Scope of the Study

The research was conducted on SMEs in Kenya. The research focused primarily on SMEs registered in Nairobi. In Nairobi County, small and medium-sized businesses were selected because they work in a very competitive climate, coupled with strong competition.

The objective of the study was to identify the factors affecting financial inclusion among owners of small and medium-sized enterprises in Nairobi County, Kenya. The study specifically sought to evaluate the impact of financial literacy, demographics, and information asymmetry and government regulations on the financial inclusion of owners of small and medium-sized enterprises. The research targeted all 312.981 registered SMEs in Nairobi County. The small and medium enterprises owners were the main respondents. The research was conducted between 2019 and 2020.

1.7 Limitation and Delimitations of the Study

The researcher encountered several limitations. First, the study relied on primary data collected from SMEs owners. Since the data was collected based on the perceptions of the respondents, the conservative nature of some SMEs regarding information disclosure was a challenge during data collection. However, the researcher assured the respondents that the data collected would be used for academic purpose only. The researcher also sought an introduction letter from the university, permission from the Nairobi County Council and NACOSTI was also sought.

1.8 Operational Definition of Terms

Demographic characteristics refer to statistically articulated socioeconomic characteristics of owners of SMEs, such as age, gender, educational level and income level.

Information asymmetry refers to when one party is not adequately aware of the other side to make the correct decision i.e. where a SME customer gets more or more knowledge than a financial service provider and vice versa.

Financial inclusion refers to the timely delivery of financial services from a formal financial

institution at an affordable cost to large sections of vulnerable and low-income groups such as SMEs

Financial Institutions refers to institutions that provide financial products and services to the SMEs owners.

Financial literacy refers to the knowledge and understanding of financial principles by encouraging owners of SMEs to navigate the financial world, contributing to the ability to make knowledgeable, confident and successful money decisions and reduce their chances of being deceived on financial matters.

Financial Services include among other things, a range of products such as savings, loans designed suitably, insurance, credit, payments, etc.

Small and Medium Enterprises applies to enterprises in both the formal and informal industries, categorized in the categories farm and non-farm, hiring not more than 100 workers and having a turnover of not more than 4 million Kenya shillings.

CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

The chapter outlines the theories which inform the study. It further elaborates the factors that affect financial inclusion. The chapter further discusses the literature relevant to the key variables and further discusses the research gaps. The chapter further presents the conceptual framework of the study.

2.2 Theoretical Framework

This section provides review of relevant theoretical literature. Specifically, the study is anchored on the financial intermediation theory and informational asymmetry theory.

2.2.1 Financial Intermediation Theory

Gurley and Shaw (1960) developed the principle of financial intermediation, which is based on information asymmetry. We argued that the role of financial intermediaries is explained by the nature of the following types of factors: high transaction rates, lack of full knowledge in reasonable time; and the framework of regulation. The principle explains the mechanism through which surplus units (savers) supply money, i.e. by deposits, to intermediaries including financial institutions such as banks, credit unions, investment funds, and insurance firms that channel funds through return to deficit units (spenders or borrowers).

The theory stresses capital management based on perfect economies, so transaction costs and asymmetric information are essential to understand financial intermediation. They acknowledged that financial intermediaries are putting together depositors and borrowers to satisfy their collateral requirements and provide other resources, thus increasing transaction costs and reducing communication costs. Depositors entrust their funds to those intermediaries who in turn invest them in loans and other investment ventures, enabling the depositors to liquidate their assets at any time (through withdrawals).

Consequently, the relationship between SMEs and the financial institutions can be distilled from the positions they play as financial intermediaries. SMEs may be both depositors and borrowers and are required to receive these services from financial institutions, including investment services, collateral arrangement, financial advice, asset valuation and appraisal, issuance of financial assets, distribution of loans, monitoring, risk management, insurance and other services. The theory also takes into account the interest of the small and medium enterprises owners and for this reason the study finds the theory

applicable in anchoring financial inclusion.

2.2.2 Informational Asymmetry Theory

George A. Akerlof first introduced the concept of Asymmetric information in 1970. The author noted that information imperfection arises when there is more and timely information from one party to a transaction than from another. This difference may lead to one party entering into a contract or making risky decisions (Akerlof, 1970). According to him, knowledge asymmetry is a basic characteristic in all commercial dealings at the point in, for example, making borrowing decisions; a creditor learns better about his creditworthiness than the lender. He concluded that imperfect information will produce detrimental market competition, such that whether an investor or a buyer has imperfect details, a borrower with weak recovery opportunities or a seller with low-quality goods will hamper each other from their business side and thereby impede mutually beneficial transactions.

Furthermore, this principle suggests that banks cannot easily discriminate between borrowers for high risk and low risk loans. The theory is relevant to the study because those financial institutions strive to overcome this barrier through the use of credit scoring techniques and building strong relationships with all relevant stakeholders in the sector and informational asymmetries can occur when there is information gap between the borrowers (SMEs owners included) and finance lending institutions. The theory also takes into account the interest of the small and medium enterprises owners know how and for this reason the study finds the theory applicable in anchoring informational asymmetry.

2.3 Factors affecting Financial Inclusion

This section gives a preview of the main concepts used in the study specifically; financial literacy, demographic characteristics and information asymmetry.

2.3.1 Financial Literacy

Financial literacy refers to understanding how money works and how to handle and save it, as well as investing it and taking the most appropriate decisions (Atakora, 2013). Sound financial decisions enable an individual to plan efficiently for their future and that and avoid financial problems. With the changing financial environment, identifying earnings and ensuring that one does not spend what they do not have is crucial. Relatively, financial education or literacy contributes to stability and growth, affecting socioeconomic levels in the process (Atakora, 2013). Over recent years, concern for financial literacy has increased,

and many countries have embarked on programs and other research initiatives to implement and improve financial literacy among their citizens. Financial literacy is relevant at micro- and macro-level, especially for households, the financial system, the national economy, and monetary policy, as it guides individuals and households to make budgeting and investments correct, conduct their assets and debts well, and make reasonable use of their savings on the financial market. Increasing financial inclusion leads to improvements in the financial markets liquidity, trading size and financial product selection and in turn contributes to the growth of the financial system.

Financial literacy helps exercise discretion while providing access to credit and getting the experience to consider how much or too much is necessary. Financial literacy involves understanding the basic financial principles as well as the willingness and discipline to use that information to make wise personal and financial decisions (Klapper et al., 2015). Such choices include when to invest, when to save, maintain a budget efficiently, choose the right financial items, and preparation to tackle certain life events, such as funding our own or the college and retirement planning for our children.

2.3.2 Demographic Characteristics

The demographic characteristics of the SME owners will include the gender of the owner whether male or female, the age of the SME owner, education level of the SME owner. Some SME owners are highly educated with postgraduate qualification and others have low levels of education. The income levels of the SME owners will show whether they make profit or not and this determines their saving capability.

Gender would mean either male or female in this report. Gender affects financial inclusion even after accounting for individual characteristics such as household size, age, gender, place of residence, marital status, employment status, income and educational level, suggesting that financial services are prejudicial to women (Sulaiman et al., 2015). Research shows that men are generally more financially included than women holding all factors constant (Lusardi et al., 2010). According to Hsu (2011) married women tend to build up financial knowledge later in their lives. Single women also tend to have limited financial knowhow with regards to their own personal finances and thus suffer from financial exclusion. Koenen et al. (2012) points out these differences due to self confidence that differs by sex. Mahnaz and Horton (2012) examined the financial inclusion among US women in a liberal college of arts. Their conclusion was that even well-educated women have less financial inclusion as compared to uneducated men.

Age in this study refers to the age of the entrepreneurs, at the time this study will be conducted who will be the respondents. Studies reveal that the youth are lacking in financial inclusion (Lusardi & Mitchell, 2011). Their level of saving is low compared to the middle age employees. The number of youths in the Saccos and microfinances is also low as compared to the old people. Similarly, Finke et al. (2011) showed that age influences financial inclusion since the old have more savings and this creates confidence in their financial decision. Saleem (2017) pointed out that most entrepreneurs in the United States start business in their 30s and thus are not able to access funding. The study further indicated that age has a positive correlation to the access to credit.

A high degree of financial inclusion at all income levels is possible. Income itself has no effect on someone's ability to acquire information, shape behaviors favorable to their own financial well-being or demonstrate positive behaviours. Low income, however, is often seen as a justification of certain actions such as spending to reach ends, and a rationale for not taking action such as investing or making long-term plans (Potrich et al., 2015). Revenue-related problems such as revenue deficits, inadequate profits and the incapacity to pay for organized financial resources compensate for much of the revenue-related difficulties contributing to financial exclusion. The level of financial inclusion in the African countries is typically very low (Ondieki & Jagongo, 2013). In a Fin Access (2009) survey in Kenya, revenue-related issues such as lack of income, irregular income and the inability to pay for formal financial services accounted for most of the income-related problems that led to financial exclusion.

2.3.3 Information Asymmetry

Mishkin and Eakins (2012) define information asymmetry as a situation in which one group does not know enough about the other side to make the correct decision. Information asymmetry was also described as a situation in which one party to a transaction is told more or better than another (Chege, 2012). The autonomous information produces issues on two sides: before the process-Adverse collection and after the transaction-Moral threat (Mishkin & Eakins, 2012). Adverse selection is an issue that occurs as a result of having more knowledge about one party to a deal than the other before the exchange. The adverse selection problem will arise as the most likely candidates to be selected for applications are prospective applicants who may face credit risk. Borrowers may choose not to make loans because of this problem even though there might be good credit risk on the marketplace

(Mishkin & Eakins, 2012). In comparison, moral hazard is the dilemma created by asymmetric knowledge after the transaction. Mishkin and Eakins (2012) describe moral hazard as the danger the lender faces as a result of abuse by the borrower or improper use of the fund. It's the possibility the creditor would participate in actions that are unethical from the lender's point of view.

The degree to which small companies receive sufficient external financing to exploit productive investments is determined by access to credit knowledge in local lending environments. The degree to which the market climate precludes maximum credit access determines the extent of the financing deficit faced by small companies (Berger, et al., 2004). Access to information is important both from the viewpoint of SMEs, as well as from the viewpoint of financial institutions and suppliers of goods. SMEs need information to classify potential vendors of the financial goods. Such information is required to assess the cost of the financial services and the supplies supplied. At the other hand, suppliers of financial services need information to assess the risk profile of SMEs vying for financing and to analyze market segment opportunities for SMEs. One of the problems encountered by small businesses in attempting to raise funding is knowledge asymmetry so that they cannot show the efficacy of their investment schemes to the financial provider. Managers in small to medium-sized companies frequently lack financial expertise, as they are mostly product or service experts rather than professionals in accounting.

Small to medium-sized businesses are most commonly reluctant to have statistical evidence to validate their annual performance record, and are usually scarce when they do. Alternatively, banks depend on previous financial success as a predictor of potential viability of the ventures (Tucker & Lean, 2003). Additionally, some small business managers appear to be restrictive in providing external financiers with detailed details of the company's center because they assume, in one way or another, that information about their business can leak to competitors (Winborg & Landstrom, 2001).

The challenges faced by banks when they lack the information necessary to differentiate between good and bad borrowers include moral hazards and adverse selection (Jaffee & Russel, 1976); monitoring costs and processing costs when issuing bank debt, such as payment costs, review costs and cost of bankruptcy (Williamson, 2012). Banks do not want to offer credit to small and medium-sized businesses because it is especially difficult to resolve knowledge asymmetries and the related problems of authentication, tracking and enforcement: consumers are weak, have few assets to collateralize, do not keep records and those who retain information quality are inaccurate and cause high transaction costs

(Binswanger, 1986).

2.4 Empirical Studies

This section provides review of literature on studies done by other scholars relating to factors affecting financial inclusion among small and medium enterprises owners in Nairobi County, Kenya.

2.4.1 Financial Literacy and Financial Inclusion

Wafula (2017) carried out a study aimed at identifying the impact of financial literacy on financial inclusion among smallholder farmers in Trans Nzoia County. The target population was the small-scale farmers in Trans Nzoia County and the sample size was 384 farmers randomly picked from the various Trans Nzoia sub-counties. Data was used mainly. The data were analyzed using statistics of both inferential and concise type. The relationship between variables was developed using multiple linear regression model. The data analysed is presented using graphs, frequency tables and percentages. The study found the relationship between saving practices, debt management, investment practices, financial planning services and financial inclusion to be positive and relevant. The study suggested the organization of financial education and awareness programs for small-scale farmers through microfinance institutions and government agencies. Financial education should also be integrated from the primary level into the school curriculum, so that individuals are educated financially early in life.

Njehia (2014) conducted a study to determine the level of financial literacy of employees at Mumias Sugar Company and the impact of financial literacy on saving practices and preparation for social security. Descriptive survey architecture was employed to analyze the relationship between the various variables. The research revealed that the majority of Mumias Sugar Company's employees have good financial expertise and skills experience. The regression results showed that in Mumias Sugar Company, there was a direct connection between financial knowledge and employee personal financial planning. The report suggested that financial literacy services concentrate on how financial education programs would better be targeted to clients.

Chepkemoi et al. (2017) conducted a study designed to identify the impact of financial literacy training on corporate competitiveness by SMEs in the coastal region using Kwale County as case study. The study utilized a sample of 74 SMEs from the 3 Kwale Sub-Counties. The method used for the study was descriptive survey. The population included

SMEs that benefitted from World Bank training through the Kenya Coastal Development Project in Kwale County. The sample size was calculated using a simple, random sampling process. The findings showed that financial literacy training positively influenced SME efficiency and, ultimately, profitability. The research discussed the following variables; expertise in the management of working capital, investments, bookkeeping and financial usability, productivity being the dependent variable. The findings for all variables were found to be statistically significant, although with negative relationship with bookkeeping and savings.

Maina (2010) undertook a review to assess whether financial literacy has any impact on personal financial administration. The study population included all employees who regarded financial institutions listed on the Nairobi Stock Exchange as having training in finance. A second set of data was gathered from non-financial institutions to determine whether there is a difference between the two groups as regards personal financial management practices. For selecting respondents from each organization, easy random sampling technique was used. The study revealed that those financially educated and those not show nearly the same patterns of personal financial management. The results showed, in turn, that financial literacy had a positive influence on personal financial activities.

Kariuki (2012) studied effect of financial literacy on financial decisions of microfinance institution clients in Embu County. The study showed that financial infrastructure literacy, financial management literacy, and financial literacy on financial media had an impact on the financial decision-making of clients at Micro Finance Institution. The study also found that the level of financial literacy on MFI operations had made people poorer, while most were relying on their friends and group members to make financial decisions.

2.4.2 Demographic Characteristics and Financial Inclusion

Ramakrishna and Trivedi (2018) conducted an overview of the connection between financial inclusion and demographic factors. A survey was conducted by the researchers and the study employed variance analysis and independent sample test techniques. The analysis revealed that Financial Inclusion depends on education, jobs, household income, household savings and bank size. The study found no link between age and financial inclusion, while gender was found to be more significant. The study concluded that literacy and levels of income are main parameters of financial inclusion.

Otiato (2016) conducted a study in Nairobi City County to determine the determinants of financial inclusion and success of SMEs. The study focused on the performance determinants among SMEs in Nairobi City County that included; product/service costs, volume levels exchanged, profit margins, levels of human resources and levels of productivity. It employed descriptive research design. The target population in the city was 236 SMEs from which a sample of 30 respondents was interviewed using questionnaires to get data. The regression results demonstrated a strong correlation between the rates of SME success and financial inclusion. Furthermore, the study findings also indicated that technology included channels such as mobile money transfers, ATMs and agency banking to encourage and ensure inclusion.

Marime and Magweva (2016) studied the main demographic factors that have a significant impact on financial exclusion. The researchers tested the variables using Chi-Square Association Test and Logit Model. The primary data was used, and the sample size was 350 respondents from Masvingo District in Masvingo Province of Zimbabwe. Variables of concern were; age, income level, class, educational level and employment status. Researchers noticed that age, class, educational level and job status were statistically important while income was not considered to be statistically significant in impacting on the levels of financial exclusion.

In Nyeri and Kirinyaga Counties, Kiai et al. (2016) conducted a study to investigate the impact of demographic characteristics on investment among financially inclusive young people. Young Kenyans from Kirinyaga Counties and from Nyeri Counties were the target population. The report used a concise survey of analysis type, where the sample size was 463. The data where gathered through a questionnaire. The researchers found that gender, sex, marital status and level of education were statistically important in financially impacting youth including investment. The place of residence, while affecting, was not statistically important.

Lotto (2018) conducted a study that explored the determinants of financial inclusion in Tanzania with a primary motive. The research was using secondary data from a TWAWEZA- led household survey. The Regression of Probit was hired. Study findings revealed that the relevant factors affecting financial inclusion in Tanzania were gender, education, age and income. The study recommended that banks create more distribution channels while using the mobile telecommunication network as an interface to expand financial access and meet more unbanked people than compete with mobile network operators. Policymakers should also place greater emphasis on women and youth who are

often left behind in government efforts to reach the entire population with regard to financial inclusion.

Zins and Weill (2016) used the World Bank's Regional Findex network of 37 African countries to examine determinants of financial inclusion in Africa. They evaluated the three key financial inclusion measures: bank account ownership, bank account withdrawals and the use of bank credit. The work employed the probit estimation method. The findings showed that being a male, affluent, more educated and older benefits financial inclusion with greater educational and income control to a degree. When it comes to loans, becoming a woman also reduces informal credit and therefore has little effect on formal credit. Training has been positively correlated with formal and informal lending but when it comes to investing, only positive correlation with formal savings has been noticed. The results indicated financial inclusion is decided by the higher economic and income impact of gender, sex, and economic rates.

Botric and Broz (2017) carried out a study on the gender differences in financial inclusion: Central and South-Eastern Europe. Data used for the analysis included data from the World Bank Global Sample Report on Financial Inclusion 2014. Three age ranges were examined; youth, and older working age. The gender effect is examined in various age groups: the youth, those of their most productive working age and the older generations. Results showed that financial participation varies across countries and age classes, but males are generally more financially involved than females, as measured by holding an account with a financial institution. Job was the largest positive factor in the gender divide, indicating that labour market isolation contributes to financial isolation. Although secondary education also describes the essence of the difference, tertiary education aims to reduce the difference among young people.

2.4.3 Information Asymmetry and Financial Inclusion

Mutinda et al. (2019) conducted a research on financial factors affecting credit availability among SMEs in the sub-county of Machakos town. The study sought to determine the impact of collateral requirements, the effect of credit cost on access to credit and the effect of asymmetry of financial information among SMEs on access to credit in Machakos Town Sub-county, Kenya. The research used descriptive architecture for analysis. It has implemented stratified sampling technique. Results revealed that the cost of credit and market risks were main determinants of small and medium-sized enterprises accessing credit in Kenya. The report also concluded that financial information asymmetry between lenders

and loan borrower's affects small and medium-sized enterprises in Kenya that have access to credit. The study recommended that financial institutions ensure that applications for loans are easy and that the repayment process is flexible for SMEs.

Odero (2017) conducted a study to determine whether the adoption of information asymmetry, pre-and post-impact debt factoring as work capital funding for SMEs. The main objectives were to assess the impact of negative selection and moral hazard on the adoption of debt factoring by SMEs. The main communities in Kakamega County were SMEs. The study made use of primary data, using descriptive statistics. The study found that there was a strong relation between information asymmetry and factoring adoption as a source of working capital funding.

Huang et al. (2014) conducted a study to analyze financing difficulties for SMEs due to Asymmetric Information. Financing theories of knowledge dissymmetry for small and medium-sized enterprises and credit rationing theories are used to examine the financing difficulties for small and medium-sized enterprises and to finance approaches to address funding difficulties. The study found that asymmetry of knowledge contributes to adverse selection and a moral hazard.

Salehi et al. (2014) published a report exploring the relationship between knowledge asymmetry and finance strategies (debt and equity funding). The study population consisted of all the companies listed on the Tehran Stock Exchange which operated during the period 2006–2010. Goal sampling which selected a sample of 61 companies was used. The study found no significant link between information asymmetry and debt funding. There was however a significant positive relationship between information asymmetry and equity funding.

2.5 Summary of Literature and Research Gap

Judging from the theoretical, empirical, and local research, it is clear that there is a gap in the knowledge that scholars are yet to fill. This is in regards to the effects of financial literacy, demographic factors and information asymmetry on small and medium business owners' financial inclusion. Most of the sources of literature reviewed put an emphasis on the problem more than to the solutions. Similarly, most of them do not investigate the relationship of the same. Although they touch on it, they do not deeply evaluate it.

Table 2.1 Summary of the Literature Gaps

Author/s	Research topic	Research finding	Research gaps	Focus of current study
Chepkemoi et al. (2017)	The Effects of Financial Literacy Training on Business Profitability in Coastal Region: A Case of Kwale County SMEs.	It was established that financial literacy training Positively influenced the performance of SMEs and hence profitability.	The study was a case study of SMEs that benefited from training offered by the world bank in the coastal region and the results might not be implicated to other SMEs that did not benefit from the training. The study also focused on working capital management, savings, bookkeeping, financial accessibility, skills and profitability and not on financial inclusion of SMEs owners.	This study will be a survey of all the SMEs operating in Nairobi. The study will focus on demographic characteristics and information asymmetry factors that affect financial inclusion among SMEs owners.

Wafula (2017)	The Effect of Financial Literacy on Financial Inclusion among Small-Scale Farmers in Trans Nzoia County.	The study found that there was a positive and significant relationship between saving practices, debt management, investment practices, financial planning services and financial inclusion.	The study focused on the effects of financial literacy on financial inclusion among small-scale farmers in Trans Nzoia County.	The study will focus on demographic characteristics and information asymmetry on financial inclusion among SMEs owner's in Nairobi County. Target population will be for all sectors of SMEs owners registered in Nairobi County.
Otiato (2016)	Determinants of financial inclusion and performance of Small Medium Enterprises in Nairobi City County.	The study established that determinants of performance among the SMEs in Nairobi City County included; product/service costs, volume levels traded, profit margins, human resource levels and efficiency levels. The results also identified technological innovations such as MPESA, Mshwari and Agency banking as	The study focused on determinants of performance among SMEs in Nairobi City County. The study focused on SMEs as a company and not on the owners of the SMEs.	The study will focus on effects of Financial literacy, demographic characteristics, and information asymmetry on financial inclusion among SMEs owners in Nairobi County.

		the most crucial technology factors which played a crucial part in improving their business.		
Ramakrishna and Trivedi (2018)	Impact of Demographic Factorson Financial Inclusion: An Empirical Study.	The study established that Financial Inclusion is dependent on education, occupation, household income, household savings and type of bank. The study found that there was no association between age and financial inclusion.	The study focused on the impact of demographic factors on financial inclusion. The study employed Analysis of Variance and Independent Sample Test techniques in the study. The study was conducted in India.	The study will be wider in scope to include effect of financial literacy and information asymmetry on SMEs owners financial inclusion. The study will employ descriptive research design. Age will be tested to determine if it has an association with financial inclusion. The study will be conducted in Nairobi, Kenya.
Marime and Magweva (2016)	Influence of Demographic Factors on Financial Exclusion in Zimbabwe: An Empirical Analysis.	The study established out that age, gender, education level and employment status were statistically significant while income was found	The researchers focused on the Influence of demographic factors on financial exclusion and used Chi-Square Test of Association and Logit Model to test the variables. The	The study will be wider in scope to include other determinants such as financial literacy and information asymmetry. Multiple regression model will be used. Target population will

		not to be statistically significant in impacting on the level of financial exclusion.	target population comprised of marginalized populations in Masvingo District including, the youth, women, informal traders and farm laborers. The study was conducted in Zimbabwe.	be for all registered SMEs in Nairobi. The study will be conducted in Nairobi, Kenya.
Lotto (2018)	Examination of the Status of Financial Inclusion and Its Determinants in Tanzania.	The study revealed that gender, education, age and income were the pertinent factors that affect financial inclusion in Tanzania.	The study used secondary data from a household survey conducted by TWAWEZA. Probit regression was employed and the study was conducted in Tanzania and limited to demographic factors.	The study will use primary data From SMEs owners. Multiple regression will be employed and the study will include other factors such as financial literacy and information asymmetry. The study will be conducted in Nairobi, Kenya.
Mutinda et al. (2019)	Financial Factors Affecting Access to Credit Among Small and Medium Enterprises in Machakos Town Sub-County, Kenya.	The study established that cost of credit and business risks were key determinant to access credit among small and medium enterprises in	The study focused on financial factors affecting access to credit among SMEs in Machakos County.	The study will focus on factors affecting financial inclusion among SMEs in Nairobi County. Specifically, the study will seek to determine the effect of financial literacy, demographic

		Kenya. The study also concluded that financial information asymmetry between lenders and borrowers of credit affects access to credit by small and medium enterprises in Kenya.		characteristics, and information asymmetry on financial inclusion. The respondents will be the owners of SMEs.
Odero (2017)	Information Asymmetry and Factoring in Providing Working Capital to Small and Medium Enterprises in Kakamega County, Kenya	The study established that there was a strong relationship between information symmetry and adoption of factoring as a source of working capital financing.	Focus was limited to information asymmetry and factoring in providing working capital on SMEs in Kakamega County.	The study will focus on SMEs in Nairobi County. Additionally, the study will be wider in scope and focus on financial literacy, information asymmetry and demographic factors and its effects on financial inclusion of SMEs owners.
Huang et al. (2014)	Analysis on Financing Difficulties for SMEs due to Asymmetric Information.	The study found out that information asymmetry lead to adverse selection and moral hazard that cause banks and other	The study focused on SMEs in China. The study used financing theories of SMEs information dissymmetry and credit rationing theories to	The study will focus on SMEs owners in Nairobi County. The study will use primary data obtained from the SMEs owners to analyze financing difficulties.

	financing institutions reluctant to lend to SMEs.	analyze the financing difficulties for SMEs.	Additionally, the study will be wider in scope to study factors affecting financial inclusion.

2.6 Conceptual Framework

The research study was designed to determine the factors affecting financial inclusion among owners of small and medium-sized enterprises in Nairobi County, Kenya. The independent variables included financial literacy, demographics and information asymmetry. The moderating variable was government regulation while the dependent variable was financial inclusion.

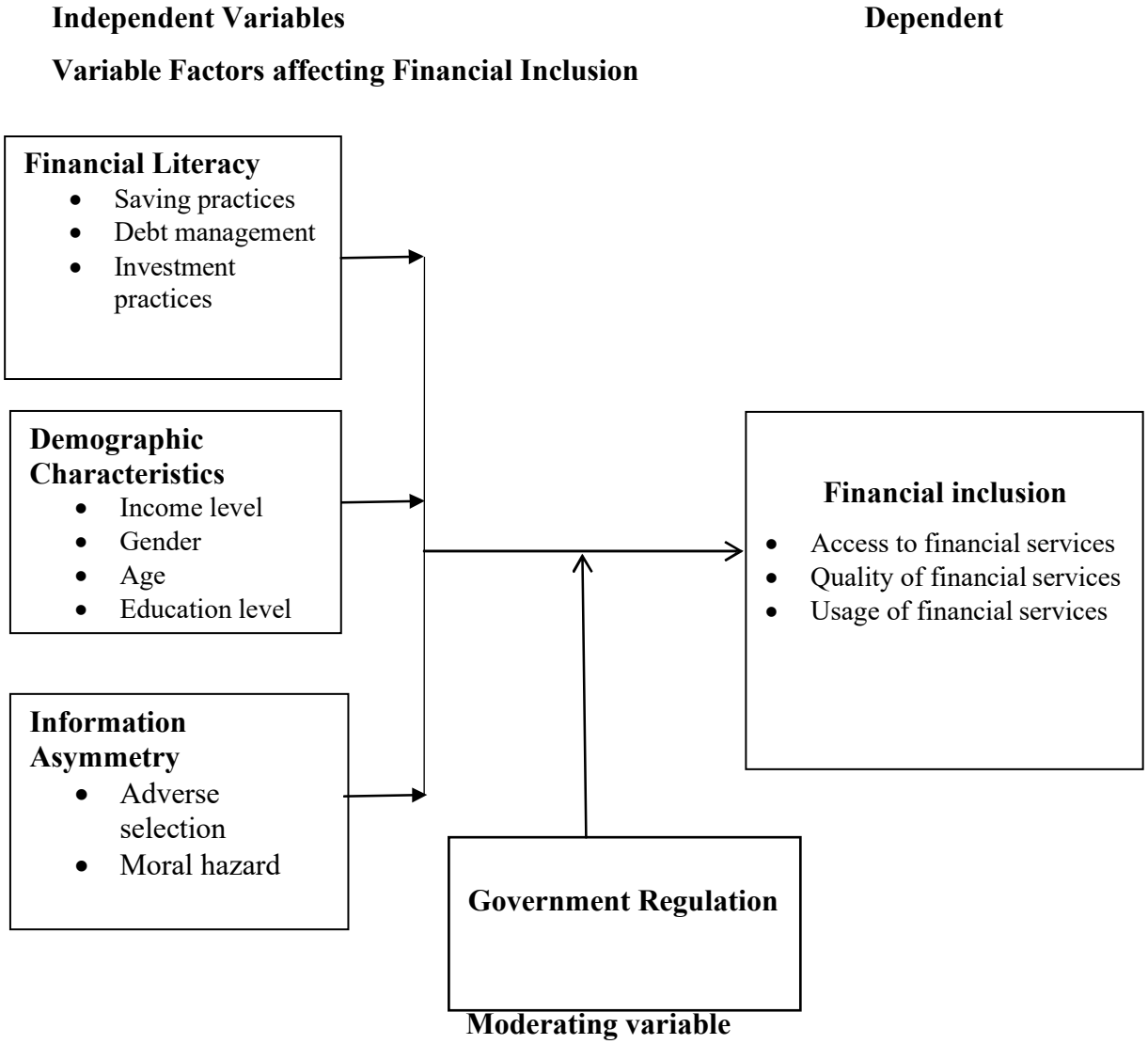

Figure 2.1: Conceptual Framework

The conceptual framework shown in figure 2.1 reflects the expected relationship of factors affecting financial inclusion among owners of small and medium-sized enterprises in Nairobi County. In the conceptual framework, the independent variable, factors affecting financial inclusion are operationalized through: financial literacy which involves saving, debt and investment practices. It is anticipated that financial literacy has a direct relationship with financial inclusion such that when financial literacy increase among SMEs owners, their level of financial inclusion increases too. Demographic characteristics involve characteristics of SMEs owners such as age, gender, income and education level and the study anticipates it to have a direct relationship financial inclusion.

In addition, the study anticipates that information asymmetry has an inverse relationship with financial inclusion among SMEs owners. The moderating variable is government regulation that involves government support and infrastructure. The study anticipates government regulations to affect the strength of the relationship between a dependent and independent variable. The dependent variable is financial inclusion that involves access to financial services, quality of financial services and usage of financial services.

CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction

The adopted research design is mentioned and explained in this section. Furthermore, it also addresses the target population, sampling technique, instrumentation, process of data gathering and analysis. The section goes on to explain how the findings of the study are discussed.

3.2 Research Design

The study adopted explanatory research design which primarily aims to provide precise and valid representation of the determinants that are relevant to the research hypotheses or objectives (Kothari, 2008). Further, the design allows for investigation of the factors affecting financial inclusion among SMEs owners in Nairobi County as it involves gathering data over a short period of time in order to answer a research question.

3.3 Target Population

Kothari (2008) described population as the aggregate individuals or subjects sharing common features to which the findings of the study will be generalized. The target population in statistics, according to Mugenda and Mugenda (2013), is the actual population about which information is sought. The study population for this research was all registered SMEs in Nairobi County which are 312,981. These are SMEs from all categories. The survey respondents were owners of the SMEs, as they were familiar with the research subject matter.

Table 3.1: Target Population

Sector	Population
General trade, wholesale and retail	199,600
Transport, storage and communication	13,685
Agriculture, forestry and natural resources	946
Accommodation and catering	21,681
Professional and technical services	49,125
Private education, health and entertainment	6,999
Industrial plants, factories and workshops	20,945
TOTAL	**312,981**

Source: Nairobi City Council office (2019)

3.4 Sample Size

A sample is a subset of a population. Kothari (2008) suggested where that where the population is more than 10,000 units, Cochran equation can be used to determine the sample size as shown below.

$$n = \frac{z^2\, p\, (1-p)}{e^2}$$

Where;

n = sample size

z = the standard deviation value for the level of confidence, for instance 95% level of confidence = 1.96

e = margin of error (level of precision set at 5% in the study)

p = since the proportion of the population with the characteristic is not known, then 50% will be used. P=0.5

Therefore, the sample size was derived as follows;

$$n = \frac{(1.96^2)\,(0.5)\,(1 - 0.5)}{(0.05)^2}$$

$$n = 384$$

3.5 Sampling Procedures

Cooper and Schindler (2003) have defined sampling procedure as the method of selecting population-representing items. It is the scientific procedure of selecting those units that would generate estimates needed to represent the population characteristics. Stratified sampling method has been employed to ensure that there is no bias in determining sample size. SMEs were divided into seven sectors that formed seven strata. Stratified random sampling method was used to determine the sample per stratum of the 384 owners of SMEs based in Nairobi County.

For example,

General trade = 199600/312981 * 384

= 245

Table 3.2: Sample Size

sector	population	Sample
General trade, wholesale and retail	199,600	245
Transport, storage and communication	13,685	17
Agriculture, forestry and natural resources	946	1
Accommodation and catering	21,681	27
Professional and technical services	49,125	60
Private education, health and entertainment	6,999	6
Industrial plants, factories and workshops	20,945	25
TOTAL	**312,981**	**384**

Source: Nairobi City Council Office (2019).

3.6 Data Collection Methods and Procedure

According to Kothari (2008), data collection main purpose is to obtain information needed to keep records, to make decision about subject issues, to pass information on to others. The research utilized data collected for the first time. Questionnaire was prepared for data collection. The questionnaire had section A-E. Section A contained questions relating to personal information while Section B-E had questions relating to the study variables according to the research objectives, where participants were expected to show the weight they attach to each factor perceived to be affecting financial inclusion among SMEs owners. The questionnaire was closed ended.

3.6.1 Validity of the Instrument

The validity of the research tool aims at evaluating whether the inferences from the data are true and correct (Csikszentmihalyi & Larson, 2014). After a pilot study the findings were used to determine how accurate the research instrument was. On 10 per cent of the sample, which was 38 participants, pre testing was conducted. These respondents were owners of SMEs that operate in neighboring Kiambu County. The study used validity construct as well as validity of content. The questionnaire was split into several parts for construct validity to ensure that knowledge was analyzed for a different reason by each section, and to ensure that the same was tightly connected to the conceptual framework. To ensure content validity, two randomly selected SMEs chief executive officers subjected the questionnaire to thorough examination. They were asked to determine the validity of the Questionnaire statements and whether they were relevant, simple and respectful. Based on

the evaluation, the instrument was properly modified before being subjected to the final data collection exercise.

3.6.2 Reliability of the Instrument

Reliability refers to data consistency, steadiness, or reliability. The reliability of a research instrument is how well, when tested under the same conditions, it produces the same results on different instances. It's how easy it is to calculate what it was supposed to measure (Tomioka et al., 2011). Reliability is determined by the degree of error in testing. The questionnaire was the subject of an overall internal consistency reliability analysis. The alpha (α) from Cronbach was used to assess the efficiency of the current research instrument. If the alpha coefficient of Cronbach is at or above 0.7, that would be calculated as sufficient reliability (Field, 2009). The researcher in the current study aimed for a coefficient of 0.7 or higher which was considered satisfactory. Reliability results are provided in Table 3.3.

Table 3.3: Reliability Results

Variable	No of items	α=Alpha	Comment
Financial Inclusion	6	0.716	Reliable
Financial Literacy	13	0.721	Reliable
Demographic Characteristics	13	0.811	Reliable
Information Asymmetry	11	0.745	Reliable
		0.745	Reliable

The findings in Table 3.3 reveal that financial inclusion items had an alpha coefficient of 0.716; financial literacy, 0.721; demographic characteristics, 0.811 and information asymmetry, 0.745, The overall alpha coefficient was 0.745, which was greater than the threshold of 0.7. This means that all the sub-variables were regarded as reliable.

3.7 Operationalization of Variables

Table 3.4: Operationalization of Variables

Variable	Operationalization	Type of analysis	Measure
Financial Inclusion	Access to financial Services, Quality of financial Services, Usage of financial Services.	Descriptive and Inferential statistics.	Frequencies, percentages and multiple linear regression (likert scale)
Financial Literacy	Saving practices, Debt management, Investment practices	Descriptive and inferential statistics.	Frequencies, percentages and simple linear regression (likert scale)
Demographic Characteristics	Income, Gender, Age Education level	Descriptive and inferential statistics	Frequencies, percentages and simple linear regression (likert scale)
Information Asymmetry	Adverse selection, Moral hazard.	Descriptive and inferential statistics	Frequencies, percentages and simple linear regression (likert scale)

3.8 Data Analysis

Cooper and Schindler (2003) defined data analysis as a method of data processing, modeling and transformation with the goal of highlighting valuable knowledge, bringing forward assumptions and promoting decision-making. All collected data were reviewed and cleaned to determine incorrect, incomplete, or unacceptable data and then improve the quality by correcting found errors and omissions to be analyzable (Mugenda & Mugenda, 2013). The collected data was analyzed using quantitative techniques with the help of Statistical Package for Social Sciences (SPSS vs 24.) and tables and charts were used to present the results.

The study employed descriptive statistics such as means to analyze the data. To

determine the significance associations among the study variables, inferential statistics including regression and correlation were used to test the study significant effect. Correlation was used to determine the connection between the constructs. Multiple regression model was used to assess the effect of the predictor variables on dependent construct. The following models were used.

$Y = \beta_0 + \beta_1 X_1 + \varepsilon$.....3.1

Where; Y = Financial Inclusion B_0= y-intercept or constant, B_1=Beta coefficient

X_1= Financial literacy ε = Error term

$Y = \beta_0 + \beta_2 X_2 + \varepsilon$.....3.2

Where; Y = Financial Inclusion B_0= y-intercept or constant, B_2=Beta coefficient

X_2= Demographic characteristics ε = Error term

$Y = \beta_0 + \beta_3 X_3 + \varepsilon$.....3.3

Where; Y = Financial Inclusion B_0= y-intercept or constant, B_3=Beta coefficient

X_3= Information Asymmetry

ε = Error term

$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$. 3.4

Where; Y = Financial Inclusion B_0= y-intercept or constant,

B_1- β_3=Coefficients beta for each variable. X_1= Financial literacy

X_2= Demographic characteristics X_3= Information Asymmetry

ε = is the error term or residual that cannot be explained by the model.

3.9 Diagnostic Tests

The following diagnostic tests were conducted to ensure that the study data was accurate and can be used for analysis.

3.9.1 Normality Test

This assumption assumes the residuals are normally to be distributed. The test for normality was carried out using the Shapiro Wilk test and the Q-Q plots. The rule in statistics is that probability value >0.05 implied that data was normally distributed and vice versa.

3.9.2 Multicollinearity Test

Multicollinearity occurs when there is high correlation between the independent variables (r>0.8). This is a problem, as it can be difficult to separate which of them better describes any mutual variation with the outcome. It also implies that the two variables could

in fact be the same underlying factor. This research used the Variance Inflation Factor (VIF) and Multicollinearity Tolerance test. According to Hair et al. (2010), there is no multi-collinearity if the VIF value of less than 10 and a tolerance of less than 1 is observed.

3.9.3 Test of Autocorrelation

Autocorrelation testing was done using the Durbin Watson test. It provides a test statistic, with a value of 0 to 4 where: 2 denotes no autocorrelation; 0 to 2<2 denotes a positive autocorrelation; while > 2 denotes a negative autocorrelation. The rule of decision is that test statistical values within the range of 1.5 to 2.5 are relatively normal.

CHAPTER FOUR
RESULTS AND DISCUSSION

4.1 Introduction

This chapter discusses empirical conclusions from data collection, as well as describing and analyzing the outcomes. Aim of the research was to identify factors affecting financial inclusion among the owners of small and medium-sized enterprises in Nairobi County, Kenya. The results are reported according to the research objectives.

4.2 Response Rate

Table 4.1: Response Rate

Response	Frequency	Percent (%)
Returned	289	75.3%
Unreturned	95	24.7%
Total	**384**	**100%**

A total of 384 questionnaires were administered to the target respondents based on Table 4.1, out of which 289 were filled out and returned accordingly. This represent 75.3% response rate. The remaining 95 questionnaires were either unreturned or no valid. A return rate above 50 per cent is sufficient for study, according to Mugenda and Mugenda (2003). This indicates that the 75.3 per cent response to the study was satisfactory.

4.3 Demographic Results

4.3.1 Sector

The participants were asked to indicate the sector in which their businesses belong and Table 4.2 illustrates the results

Table 4.2: Sector

Sector	Frequency	Percent (%)
General trade, wholesale and retail	120	41.5
Transport, storage and communication	53	18.3
Agriculture, forestry and natural resources	1	0.3
Accommodation and catering	31	10.7
Professional and technical services	46	15.9
Private education, health and entertainment	4	1.4
Industrial plants, factories and workshops	34	11.8
Total	**289**	**100**

The findings imply that most of the participants for this study belong to General trade, wholesale, retail, stores. This was expected given that majority of SMEs owners operate in that sector. Nonetheless, results show that there were representatives from all the sectors. This means that views from different sectors were captured.

4.3.2 Registration Status

Figure 4.1 captures result on registration status of the respondents' businesses.

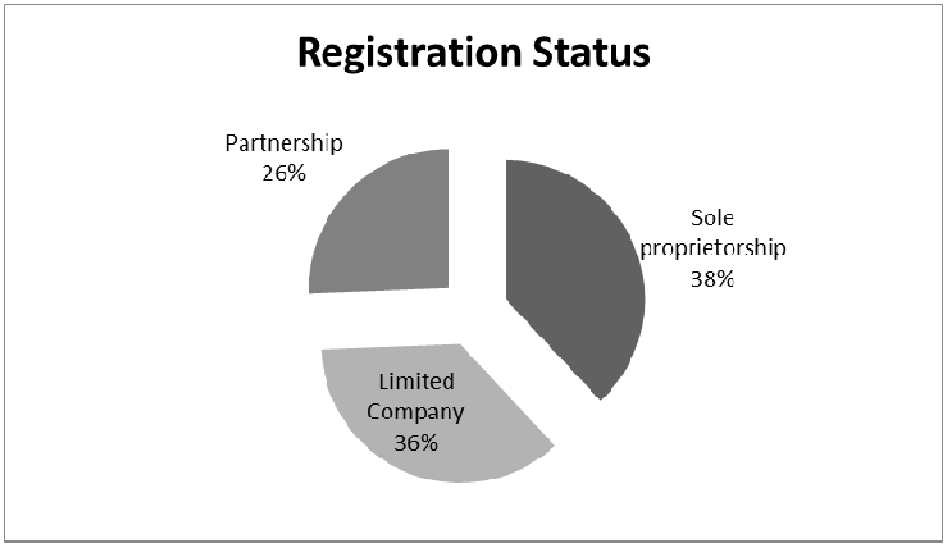

Figure 4.1: Registration Status

The findings indicate that a bigger number (38%) of the SMEs owners are sole proprietorship, which means that they owned by individuals and there is no legal distinction between owners and the businesses. Further, 36% of the businesses are limited companies,

while 26% are partnership. The type of business registration is important as it determines the legal obligation of the owners and also the nature of decisions that the owner makes.

4.3.3 Business Duration

The respondents stated the period of time their business had been in operation and results were as presented in Figure 4.2.

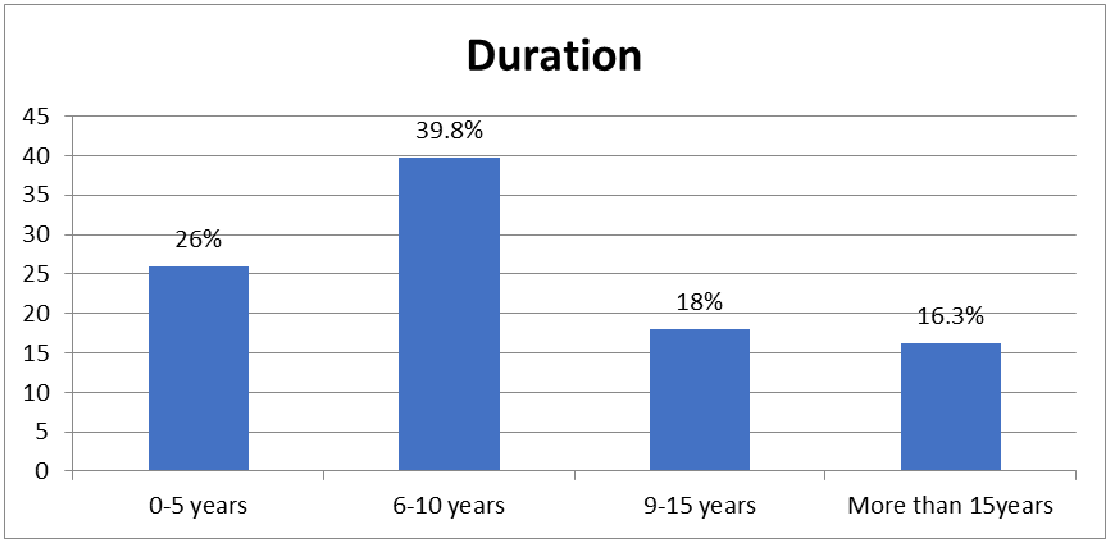

Figure 4.2: Business Duration

The findings above reveal that most of the businesses have been operating a period of 6-10 years. This means that the owners of these businesses have had time to study the sector and make prudent financial decisions. Having experience in business is important and this comes with time.

4.3.4 Average Annual Turnover

Table 4.3 present results on participants' average annual turnover.

Table 4.3: Average Annual Turnover

Annual Turnover	Frequency	Percent (%)
0 – 500,000	81	28
500,001 – 1,000,000	87	30.1
1,000,001 – 2,000,000	43	14.9
2,000,001 – 3,000,000	29	10
3,000,001 – 4,000,000	31	10.7
Over 4,000,000	18	6.2
Total	**289**	**100**

The findings show that majority of the small and micro businesses in Nairobi have annual turnover of up to 1,000,000. This means that most of these businesses make less than one million per year. This is expected given that most of the SMEs owners operate on limited capital.

4.3.5 Main Finance Source

The participants were requested to state their business finance sources. Results were s shown in Figure 4.3.

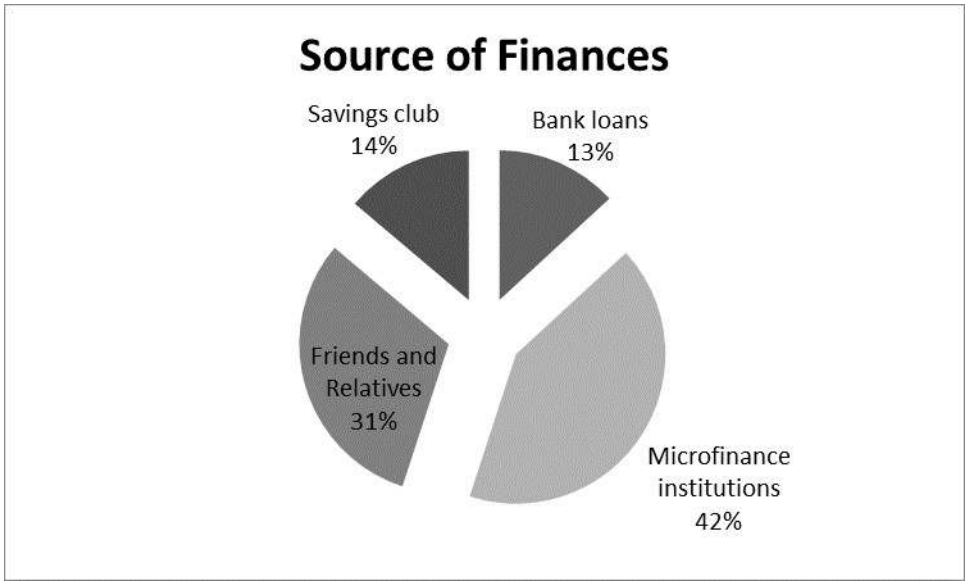

Figure 4.3: Source of Finance

The results indicate that most of the SMEs owners in Nairobi County rely on MFIs for financing. Friends and relatives also help in providing finances to the business owners as well as personal savings. Further, some businesses get loans from banks though the percentage is small compared to other main sources of business finance.

4.3.6 Level of Education

Results on participants' education level are presented in Figure 4.4.

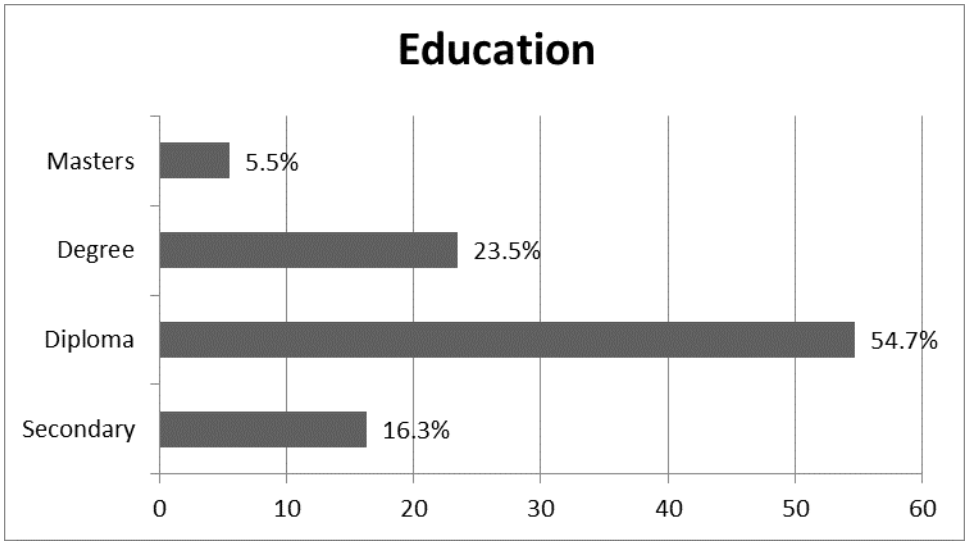

Figure 4.4: Level of Education

Majority of the business owners revealed that they had attained diploma level; this was followed by degree and secondary level respectively. This means that most of the SMEs owners have adequate educational attainment and can therefore run their businesses effectively. This also implies that the business owners are able to make decisions that can help them attain financial inclusion.

4.3.7 Respondent Gender

The following figure shows results on participants' gender.

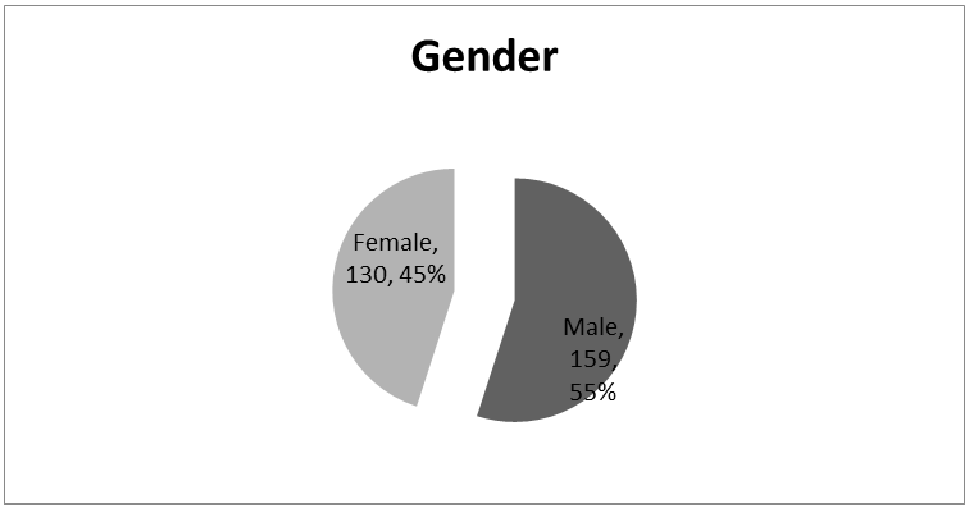

Figure 4.5: Gender

Results in Figure 4.5 indicated that most of the SME owners in Nairobi County are men. However, the number of women who own small businesses is also big. This means that both men and women are involved in entrepreneurships with Nairobi.

4.3.8 Respondent Age Bracket

The participants stated their age bracket. The outcomes are captured in Table 4.4.

Table 4.4: Respondent Age Bracket

Age	Frequency	Percentage (%)
18-20	28	9.7
21-24	26	9
25-34	50	17.3
35-44	96	33.2
45-54	56	19.4
Above 55	33	11.4
Total	**289**	**100**

The findings reveal that a large number of the SME owners are aged 25-54 years. This means that both the young and middle age individuals are involved in entrepreneurship in Nairobi. This implies that entrepreneurship is not restricted to a certain age but anyone with the passion and idea can venture into business.

4.4 Diagnostic Tests

Findings on the following diagnostic tests: normality, multicollinearity and autocorrelation tests as presented in this segment.

4.4.1 Normality Test

Normality of the data was conducted using Shapiro-Wilk test and the Q-Q plots. The Shapiro Wilk results are illustrated in Table 4.5.

Table 4.5: Shapiro-Wilk Test

Variable	Statistic	df	Sig.
Financial inclusion	0.967	289	0.122
Financial literacy	0.993	289	0.155
Demographic characteristics	0.979	289	0.132
Information asymmetry	0.989	289	0.061

a. Lilliefors Significance Correction

The findings indicated Sig. values greater than 0.05 at 95% confidence interval for all the research constructs. This meant that the Ho of normal distribution was accepted. Therefore, the variable data was normally distributed.

The Q_Q plots results are as shown in figures 4.6. 4.7, 4.8 and 4.9.

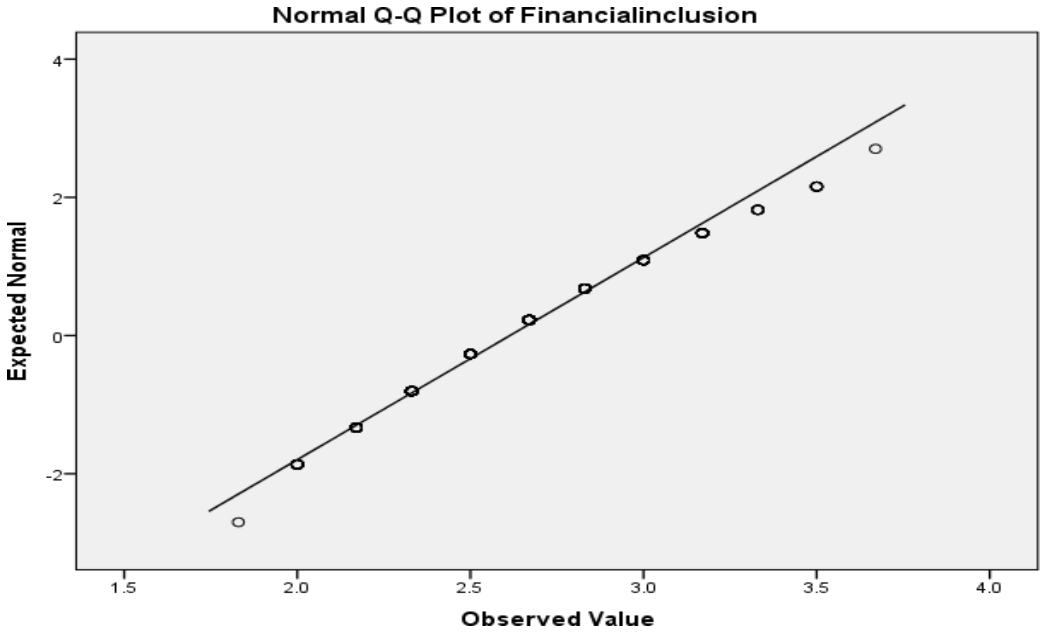

Figure 4.6: Normal Q-Q Plot for Financial Inclusion

Finding in figure 4.6 indicates that data for financial inclusion was normally distributed. This is indicated by majority of observations being distributed close to the line of best fit.

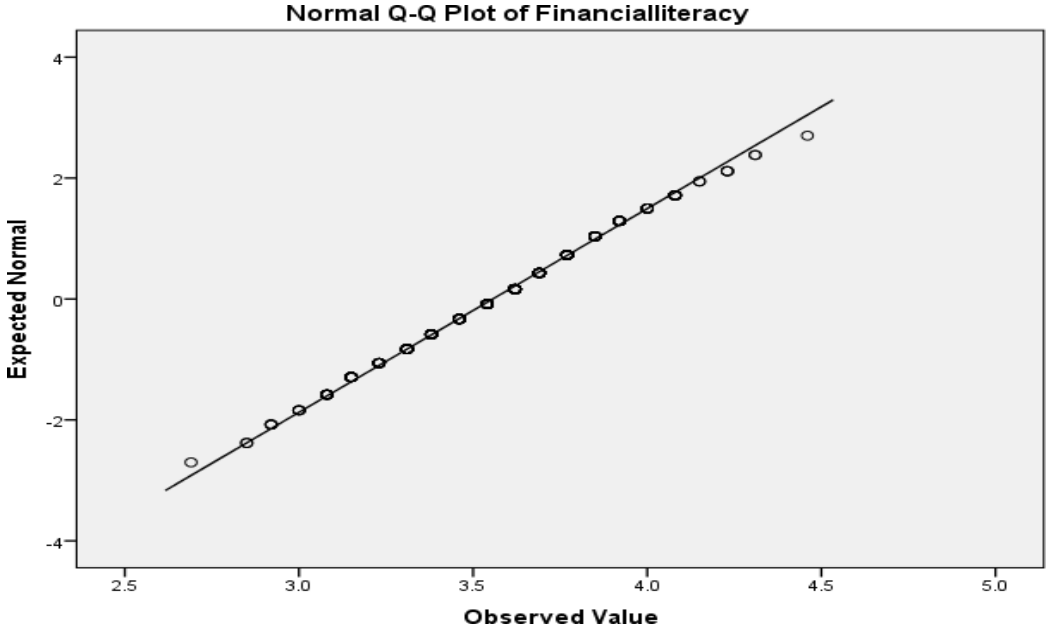

Figure 4.7: Normal Q-Q Plot for Financial Literacy

The results in Figure 4.7 indicate that data for financial literacy was normally distributed. This is indicated by majority of observations being distributed close to the line of best fit.

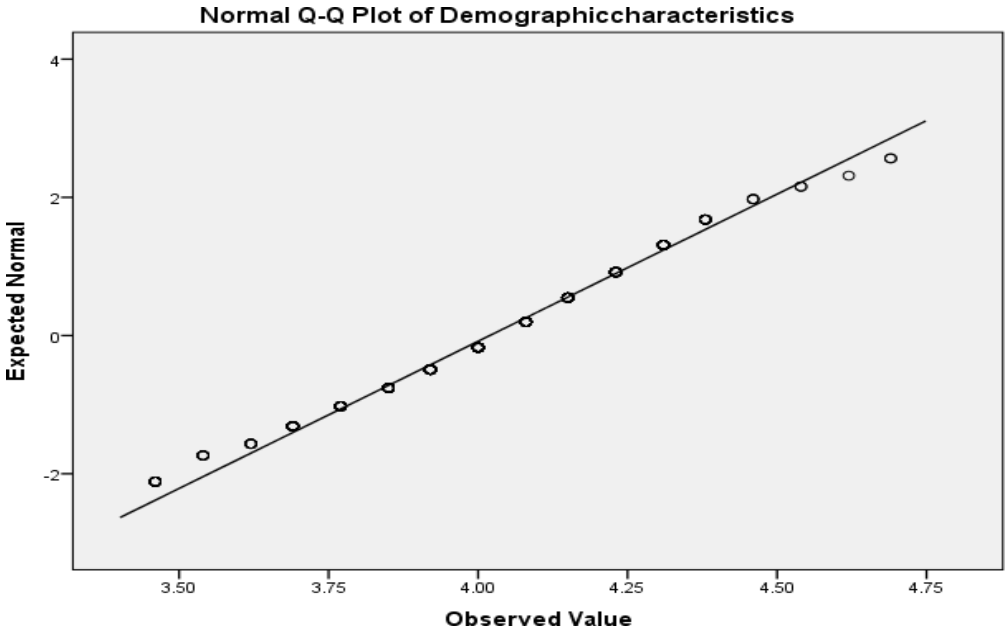

Figure 4.8: Normal Q-Q Plot for Demographic Characteristics

Figure 4.8 outcome indicate that data for demographic characteristics was normally distributed. This is indicated by majority of observations being distributed close to the line of best fit.

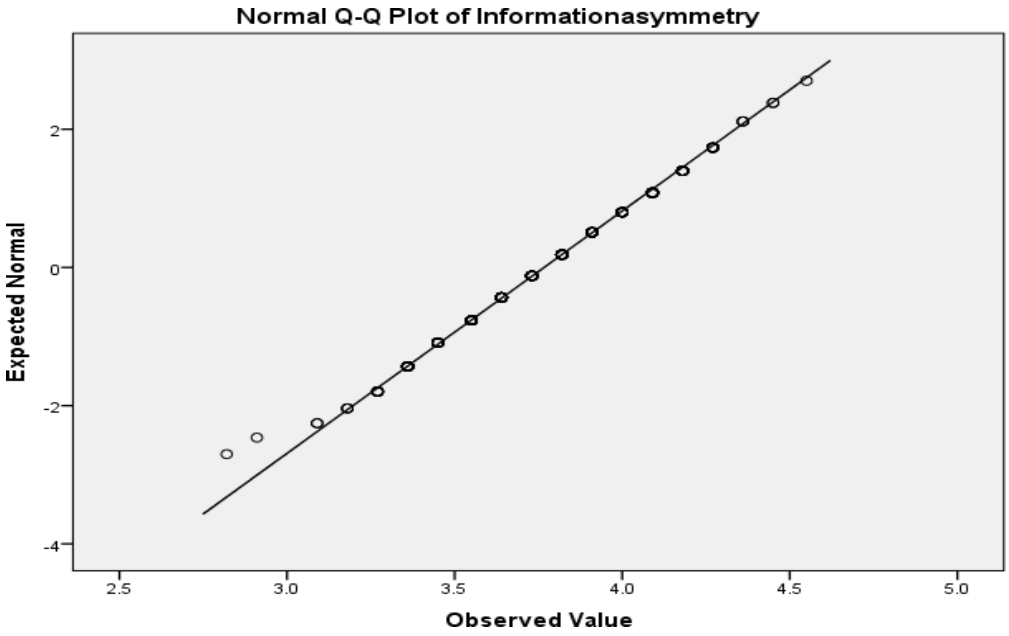

Figure 4.9: Normal Q-Q Plot for Information Asymmetry

Figure 4.9 results indicate that data for information asymmetry was normally distributed. This is indicated by majority of observations being distributed close to the line of best fit.

4.4.2 Multicollinearity Test

Table 4.6: Multicollinearity Test Using VIF

Variables	Tolerance	VIF
Financial literacy	0.703	1.422
Demographic characteristics	0.953	1.049
Information asymmetry	0.724	1.381

a. Dependent Variable: Financial inclusion

Results in Table 4.6 indicate that the variables financial literacy, demographic characteristics and information asymmetry had tolerance values of 0.703, 0.953 and 0.724 and VIF of 1.422, 1.049 and 1.381 respectively. According to Hair et al. (2010) VIF value of less than 10 and a tolerance of less than 1 indicates no multi-collinearity. Thus, the research established that the explanatory constructs were not highly connected.

4.4.3 Autocorrelation Test

Durbin Watson test was used in checking for autocorrelation. The results are shown in Table 4.7

Table 4.7: Autocorrelation Results

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.825[a]	0.681	0.678	0.19412	1.724

a. Predictor: (Constant), Information Asymmetry, Demographic Characteristic, Financial Literacy

b. Dependent Variable: Financial Inclusion

Results in table 4.7 indicate a Durbin-Watson value of (1.724 which is approximately 2). The value indicates that there was no autocorrelation in the sample.

4.5 Descriptive Statistic Results

The following section presents descriptive results relating to the research constructs.

4.5.1 Financial Literacy

Table 4.8: Financial Literacy

Statement	Strongly disagree	Disagree	Not sure	Agree	Strongly agree	Mean	Std. dev
I have an alternative source of income in the event of an extended disability.	24.2%	27.7%	21.8%	22.5%	3.8%	2.54	1.19
I utilize the various tax relieves/rebate that I am entitled to when I am filling in my tax returns.	1.4%	9.3%	30.8%	28.7%	29.8%	3.76	1.03
I use a spending plan or budget.	1.0%	11.1%	30.1%	28.0%	29.8%	3.74	1.04
Holding a strong cash position is necessary for my financial pursuit.	1.0%	12.1%	22.8%	34.6%	29.4%	3.79	1.03
I systematically save for life's eventualities.	14.2%	21.5%	21.8%	22.1%	20.4%	3.13	1.35
I have determined how much income I can expect on retirement.	18.7%	21.1%	16.3%	20.8%	23.2%	3.09	1.45
I have an insurance cover for my business.	1.7%	10.4%	30.4%	28.7%	28.7%	3.72	1.04
Buying a single company stock usually provides a safer return than a stock mutual fund.	21.1%	35.3%	22.8%	17.6%	3.1%	2.46	1.10
I regularly check my credit card.	0.3%	2.8%	29.8%	28.7%	38.4%	4.02	0.91
I keep close personal watch on my finances.	0.0%	0.0%	34.3%	30.4%	35.3%	4.01	0.84
I set long term goals and try to achieve them.	0.0%	0.0%	31.8%	35.3%	32.9%	4.01	0.81
Before I buy something I carefully consider if I can afford it.	0.0%	0.0%	31.8%	32.5%	35.6%	4.04	0.82
I abstain things today so that I will be able to afford more tomorrow.	0.0%	4.8%	31.1%	32.5%	31.5%	3.91	0.90
Aggregate mean						**3.56**	**1.04**

The overall mean of 3.56, with a standard deviation of 1.04 as seen in Table 4.8, shows that in most financial literacy statements, the majority of respondents were in agreement.

The study aims to create the connection between the financial literacy and financial inclusion of SME owners. It is expected that businesses whose owners have high financial literacy have more access to financial services. Notably, most of the respondents stated that they utilize the various tax relieves when filling tax returns, use a spending plan or budget, holding a strong cash position is necessary for financial pursuit, have insurance cover for their business, regularly check their credit card, keep close personal watch on their finances, establish and aim to accomplish long-term targets, avoid impulse buying and abstain things today so that they can afford more tomorrow.

4.5.2 Demographic Characteristics

Table 4.9 provides descriptive statistic results for the variable demographic characteristics.

Table 4.9: Demographic Characteristics

Statement	Strongly disagree	Disagree	Not sure	Agree	Strongly agree	Mean	Std. dev
I can distinguish the different types of insurance policies offered in the market.	3.5%	23.5%	25.6%	24.6%	22.8%	3.4	1.17
Young people have Difficulties securing credit from financial institutions.	0.0%	0.0%	5.9%	42.6%	51.6%	4.46	0.61
Both men and women have equal chances of accessing finances provided they meet the requirements.	0.3%	5.9%	2.1%	47.8%	43.9%	4.29	0.80
I have knowledge of personal finance management.	0.0%	1.4%	6.2%	44.3%	48.1%	4.39	0.67
Most SMEs owners have low income and this acts as a hindrance to accessing financial aid from financial institutions.	0.0%	0.0%	0.0%	50.2%	49.8%	4.5	0.50
I am able to differentiate the loan products offered by the financial institutions.	0.3%	2.4%	3.5%	47.8%	46.0%	4.37	0.70
I contribute to a registered retirement benefit scheme.	24.6%	31.8%	23.2%	20.1%	0.3%	2.4	1.08
I have set money aside to take care of emergencies	21.1%	20.4%	23.2%	29.1%	6.2%	2.79	1.25
I read about money management.	0.0%	2.4%	5.2%	45.7%	46.7%	4.37	0.70
I have goals for managing money.	0.3%	2.4%	7.3%	47.1%	42.9%	4.3	0.74
I have invested in stocks, bonds or mutual.	0.0%	4.8%	2.4%	46.0%	46.7%	4.35	0.75
I track some or all of my expenses.	0.3%	9.7%	2.1%	37.4%	50.5%	4.28	0.93
I discuss money management with my family.	0.0%	5.5%	3.5%	38.8%	52.2%	4.38	0.80
Aggregate mean						**4.02**	**0.82**

The overall mean of 4.02, with a standard deviation of 0.82, shows that majority of the respondents were in agreement in most of the statements relating to demographic characteristic. The research sought to determine the link between SMEs owners' demographic characteristics and financial inclusion. Notably, most of the respondents noted that young people have difficulties securing credit from financial institutions; both men and women have equal chances of accessing finances provided they meet the requirements; have knowledge of personal finance management; have low income and this acts as a hindrance to accessing financial aid from financial institutions and read about money management.

4.5.3 Information Asymmetry

Table 4.10 provides descriptive statistic results for the variable information Asymmetry.

Table 4.10: Information Asymmetry

Statement	Strongly disagree	Disagree	Not sure	Agree	Strongly agree	Mean	Std. dev
I compare prices for financial products and services.	0.3%	6.9%	28.0%	32.2%	32.5%	3.90	0.95
I maintain a current list of my assets and liabilities.	0.0%	4.5%	32.2%	31.8%	31.5%	3.90	0.90
I have a good credit profile as reported by public credit registries.	0.0%	8.0%	31.1%	32.5%	28.4%	3.81	0.94
I achieve my money management goals.	0.7%	6.9%	31.1%	28.0%	33.2%	3.86	0.98
There are hidden charges on loans.	1.4%	5.5%	36.0%	24.6%	32.5%	3.81	1.00
Credit bureaus are reliable sources of information on individuals credit worthiness.	0.7%	6.2%	34.3%	30.4%	28.4%	3.80	0.95
It is easy to differentiate between risky and safe financial products and services.	21.5%	23.2%	27.7%	27.7%	0.0%	2.62	1.11
It is really difficult to comply with credit conditions regarding provision of financial information of the business.	0.0%	3.8%	33.9%	33.9%	28.4%	3.87	0.87
I often spend more than I can afford.	0.3%	3.1%	28.0%	33.2%	35.3%	4.00	0.89
Financial information is required in identifying the potential suppliers of credit.	0.0%	6.6%	29.1%	34.6%	29.8%	3.88	0.92
I repay money that I owe on time.	0.0%	3.8%	27.3%	35.3%	33.6%	3.99	0.87
Aggregate mean						**3.77**	**0.94**

The aggregate score of 3.77, with a spread of 0.94 reveal that most of the participants agreed with majority of the statements relating to information asymmetry. The study seeks to establish the link between SMEs owners' information asymmetry and financial inclusion. In particular, most of the respondents noted that they compare prices for financial products and services; maintain a current list of assets and liabilities; often spend more than they can afford; repay loans on time and rely on financial information to identify potential suppliers of credit.

4.5.4 Financial Inclusion

Table 4.12 provides descriptive statistic results for the variable financial inclusion.

Table 4.12: Financial Inclusion

Statement	Strongly disagree	Disagree	Not sure	Agree	Strongly agree	Mean	Std. dev
I am able to access finances from my financial institution every time I require it.	47.8%	43.9%	2.8%	4.8%	0.7%	1.67	0.81
Loan repayment period is flexible.	42.6%	49.1%	2.1%	4.2%	2.1%	1.74	0.86
There is transparency in my financial institution when accessing funding.	0.0%	4.5%	3.1%	45.0%	47.4%	4.35	0.75
It is easy to open a deposit account and save.	0.0%	2.1%	3.1%	49.1%	45.7%	4.38	0.65
It is easy to get an insurance premium financing from a financial institution.	46.0%	41.9%	1.0%	8.3%	2.8%	1.80	1.01
It is easy to get a short-term loan and long-term loan.	43.6%	48.1%	1.0%	5.2%	2.1%	1.74	0.88
Aggregate mean						**2.61**	**0.83**

The aggregate score of 2.61, with a spread of 0.83 reveal that a large number of the participants did not agree with most claims about financial inclusion. Most of the respondents disagreed with the view that they are able to access finances from my financial institution every time they require it, loan repayment period is flexible, it is easy to get an insurance premium financing from a financial institution and it is easy to get a short-term loan and long-term loan. However, the respondents agreed that there is transparency in their financial institution when accessing funding and it is easy to open a deposit account and save.

4.6 Inferential Analysis Results

The study conducted inferential analysis through correlation and regression analysis to establish the association of the study variables and relationship between the independent variables and the dependent variable.

4.6.1 Correlation Analysis Results

The study conducted Pearson correlation coefficient analysis to determine the association between the study variables. The direction and strength of the relationship existing between the study variables was determined with the assumption that the data obtained from the study is normally distributed and continuous. The correlation analysis results were as shown in table 4.13.

Table 4.13: Correlation Results

		Financial inclusion	Financial Literacy	Demographic characteristics	Information Asymmetry
Financial Inclusion	Pearson Correlation	1			
	Sig. (2-tailed)				
	N	289			
Financial Literacy	Pearson Correlation	.613**	1		
	Sig. (2-tailed)	.000			
	N	289	289		
Demographic characteristics	Pearson Correlation	.552**	.215**	1	
	Sig. (2-tailed)	.000	.000		
	N	289	289	289	
Information Asymmetry	Pearson Correlation	-.626**	-.525**	-.134*	1
	Sig. (2-tailed)	.000	.000	0.023	
	N	289	289	289	289

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

The findings in Table 4.13 indicate that there is positive and significant correlation between financial literacy and financial inclusion (r=0.613, P value = 0.000). The findings also show that demographic characteristics and financial inclusion have a strong and meaningful correlation (r=0.552, P value =0.000). Furthermore, the results reveal a negative and significant correlation between the asymmetry of information and the financial inclusion (r=- 0.626, P value=0.000).

The findings suggest that increase in demographic characteristics and financial literacy is related to an increase in financial inclusion among owners of small and medium-sized enterprises in Nairobi County, Kenya. On the other hand, a rise in information asymmetry is correlated with a decrease in financial inclusion among small and medium-sized business owners.

4.6.2 Regression Analysis

The study used both simple and multiple regression analysis to determine the effect of financial literacy, demographic information and information asymmetry on financial inclusion without factoring in the moderating role of government regulations. Fitness of the model decision was based on F-statistic and the associated P-values. The decision on whether to reject or accept the null hypothesis was based on P-values at 0.05 significance level. The statistical analysis, interpretations and discussions are presented in this section.

4.6.2.1 Effect of Financial Literacy on Financial Inclusion

The first objective of the study was to determine the effect of financial literacy on financial inclusion of small and medium enterprises owners in Nairobi County. The study used simple linear regression to test the hypothesis which stated that there is no significant relationship between financial literacy and financial inclusion of small and medium enterprises owners in Nairobi County and results were as shown in the tables; 4.14, 4.15 and 4.16.

Table 4.14: Model Summary for Financial Literacy

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.613[a]	0.376	0.374	0.270596

a. Predictors: (Constant), Financial literacy

Table 4.15: ANOVA[a] for Financial Literacy

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12.646	1	12.646	172.706	.000[b]
	Residual	21.015	287	0.073		
	Total	33.661	288			

a. Dependent Variable: Financial Inclusion

b. Predictors: (Constant), Financial Literacy

Table 4.16: Regression Coefficients[a] for Financial Literacy

Model		B	Std. Error	t	Sig.
1	(Constant)	0.104	0.192	0.541	0.589
	Financial literacy	0.706	0.054	13.142	0.000

a. Dependent Variable: Financial Inclusion

From the results shown in model summary table 4.14, it was observed that adjusted R^2 for the model was 0.374 suggesting that financial literacy predicted 37.4% of differences in financial inclusion among Small and Medium Enterprises owners in Nairobi County while 62.6% of all variations in financial inclusion among Small and Medium Enterprises owners in Nairobi County were instigated by other factors other than financial literacy, though not included in this model.

Based on the ANOVA results in table 4.15, the F-statistic for the model was 172.706 and the P-Value=0.000<0.05. The study thus established that the model is a good fit for the data and hence was used to determine the effect of financial literacy on financial inclusion among small and medium enterprises owners in Nairobi County.

The regression coefficients results shown in table 4.16 showed un-standardized beta coefficients of; β=0.104; P-value=0.589>0.05 constant and β=0.706; P-value=0.000<0.05 financial literacy, Therefore the simple regression model for financial literacy was summarised as follows;

$Y = 0.104 + 0.706\ X_1$

From the model, holding financial literacy constant at zero, financial inclusion would be equal to 0.104 while holding all other factors constant, a unit increase in financial literacy would lead to a 0.706 increase in financial inclusion among small and medium enterprises owners in Nairobi County.

Since P-value=0.000<0.05 for financial literacy indicate a statistical significant relationship of financial inclusion among small and medium enterprises owners in Nairobi County, The null hypothesis ($H0_1$) which states that, there is no significant relationship between financial literacy and financial inclusion among small and medium enterprises owners in Nairobi County, Kenya was rejected and the alternative hypothesis which states that, there is significant relationship between financial literacy and financial inclusion among small and medium enterprises owners in Nairobi County, Kenya failed to be rejected. The findings of the study coincided with those of Wafula (2017), Njehia (2014) and Maina (2010), who also concluded that financial literacy had a positive and significant effect on financial inclusion.

4.6.2.2 Effect of Demographic Characteristics on Financial Inclusion

The second objective of the study was to determine the effect of demographic characteristics on financial inclusion of small and medium enterprises owners in Nairobi County. The study used simple linear regression to test the hypothesis which stated that there is no significant relationship between demographic characteristics and financial inclusion of small and medium enterprises owners in Nairobi County and results were as shown in the tables; 4.17,4.18 and 4.19.

Table 4.17: Model Summary for Demographic Characteristics

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.552[a]	0.305	0.302	0.2855786

a. Predictors: (Constant), Demographic Characteristics

Table 4.18: ANOVA[a] for Demographic Characteristics

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10.254	1	10.254	125.734	.000[b]
	Residual	23.406	287	.082		
	Total	33.661	288			

a. Dependent Variable: Financial Inclusion

b. Predictors: (Constant), Demographic Characteristics

Table 4.19: Regression Coefficients[a] for Demographic Characteristics

Model		B	Std. Error	t	Sig.
1	(Constant)	-.616	.289	-2.136	.034
	Demographic Characteristics	.804	.072	11.213	.000

a. Dependent Variable: Financial Inclusion

From the results shown in model summary table 4.17, it was observed that adjusted R^2 for the model was 0.302 suggesting that demographic characteristics predicted 30.2% of differences in financial inclusion among Small and Medium Enterprises owners in Nairobi County while 69.8% of all variations in financial inclusion among small and medium enterprises owners in Nairobi County were instigated by other factors other than demographic characteristics.

Based on the ANOVA results in table 4.18, the F-statistic for the model was 125.734 and the P-Value=0.000<0.05. This means that demographic characteristics are a good predictor of financial inclusion and the study thus concluded that the model was a good fit for the data and hence was used to determine the effect of demographic characteristics on financial inclusion among small and medium enterprises owners in Nairobi County.

The regression coefficients results shown in table 4.19 showed un-standardized beta coefficients was; β=-0.616; P-value=0.034<0.05 constant and demographic characteristics coefficient was β=0.804; P-value=0.000<0.05. Therefore, the simple regression model for demographic characteristics was summarised as follows;

$$Y= -0.616 + 0.804\ X_1$$

This means that, holding demographic characteristics constant at zero, financial inclusion among small and medium enterprises owners in Nairobi County would be equal to -0.616. On the other hand, holding all other factors constant, a unit increase in demographic characteristics would lead to a 0.804 increase in financial inclusion among small and medium enterprises owners in Nairobi County, though not included in this model.

Since the regression coefficients results show a statistical significant relationship between demographic characteristics and in financial inclusion among small and medium enterprises owners in Nairobi County, as indicated by P-value=0.000<0.05. The null hypothesis (*H02*) that states that there is no significant relationship between demographic characteristics and financial inclusion among small and medium enterprises owners in Nairobi County, Kenya was rejected because (P<0.005) and the alternative hypothesis which

states that, there is significant relationship between demographic characteristics and financial inclusion among small and medium enterprises owners in Nairobi County, Kenya failed to be rejected. From the results it was concluded that, demographic characteristics have a significant relationship with financial inclusion among small and medium enterprises owners in Nairobi County, Kenya. The findings of this study was consistent with those of Marime and Magweva (2016), who performed a research to discover the key demographic factors that have a big effect on financial exclusion. Variables of concern were; age, income level, class, educational level and employment status. Researchers noticed that age, class, educational level and job status were statistically important while income was not considered to be statistically significant in impacting on the levels of financial exclusion.

4.6.2.3 Effect of Information Asymmetry on Financial Inclusion

The third objective of the study was to determine the effect of information asymmetry on financial inclusion of small and medium enterprises owners in Nairobi County. To achieve the objective, the hypothesis that information asymmetry has no significant relationship on financial inclusion among small and medium enterprises owners in Nairobi County was tested using simple linear regression and the results were as shown in Table 4.20, 4.21 and 4.22.

Table 4.20: Model Summary for Information Asymmetry

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.626[a]	0.392	0.390	0.2670780

a. Predictors: (Constant), Information Asymmetry

Table 4.21: ANOVA[a] for Information Asymmetry

	Model	Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	13.189	1	13.189	184.896	.000[b]
	Residual	20.472	287	.071		
	Total	33.661	288			

a. Dependent Variable: Financial Inclusion

b. Predictors: (Constant), Information Asymmetry

Table 4.22: Regression[a] Coefficients for Information Asymmetry

Model		B	Std. Error	t	Sig.
1	(Constant)	5.442	.209	26.094	.000
	Information symme	-.751	.055	-13.598	.000

a. Dependent Variable: Financial Inclusion

The results in the model summary, table 4.20 indicated that the value of adjusted R^2 was 0.390 suggesting that information asymmetry only predicted 39% of all variations in financial inclusion among SMEs owners in Nairobi County. The results imply that 61% of all variations in financial inclusion among SMEs owners in Nairobi County were explained by other variables other than information asymmetry.

The ANOVA results in table 4.21 indicated that F-statistic for the model was 184.896; P= 0.000<0.05. The model was found to be a good fit for the data and hence was used to determine the effect of information asymmetry on financial inclusion among small and medium enterprises owners in Nairobi County.

Based on the regression coefficient table 4.22, the constant had a coefficient of β=5.442; P=0.041<0.05 while the coefficient for information asymmetry was β=-0.751; P=0.000<0.05. The simple regression equation was summarised as follows;

$Y= 5.442 - 0.751 X_1$

This indicates that, holding information asymmetry constant at zero, financial inclusion among SMEs owners in Nairobi County would be equal to 5.442. On the other hand, holding all other factors constant and increasing information asymmetry by one unit would lead to a 0.751 decrease in the level of financial inclusion.

Coefficients of regression showed that information asymmetry had a negative and significant effect on financial inclusion among SMEs in Nairobi County. A coefficient of -0.751 and a p value of 0.000<0.05 supported this. The null hypothesis (*H03*) that states that there is no significant relationship between information asymmetry and financial inclusion among small and medium enterprises owners in Nairobi County, Kenya was rejected and the alternative hypothesis which states that, there is significant relationship between information asymmetry and financial inclusion among small and medium enterprises owners in Nairobi County, Kenya failed to be rejected. The research outcome is in line with that of Mutinda et al. (2019) who concluded that the asymmetry of financial information between lenders and loan borrowers affects access to credit by Kenya's small and medium-sized enterprises.

4.6.2.4 Combined effect of Financial Literacy, Demographic Characteristics and Information Asymmetry on Financial Inclusion

The fourth objective of the study was focused on determining the combined effect of financial literacy, demographic characteristics and information asymmetry on financial inclusion among small and medium enterprises owners in Nairobi County, Kenya. To achieve the objective, the study tested the hypothesis that combined, financial literacy, demographic characteristics and information asymmetry have no significant effect on financial inclusion among small and medium enterprises owners in Nairobi County, Kenya

The study conducted a multiple regressions analysis to measure the composite effect of factors affecting financial inclusion among SMEs owners in Nairobi County. The regression model was specified as follows:

$$Y= \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + €$$

The multiple regression analysis results are as shown in tables 4.23, 4.24 and 4.25.

Table 4.23: Model Summary for Combined Effect

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.825[a]	0.681	0.678	0.1941218

a. Predictor: (Constant), Information Asymmetry, Demographic Characteristic, Financial Literacy

Table 4.24: ANOVA for Combined Effect

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	22.921	3	7.640	202.750	.000[b]
	Residual	10.740	285	.038		
	Total	33.661	288			

a. Dependent Variable: Financial Inclusion

b. Predictor: (Constant), Information Asymmetry, Demographic Characteristic, Financial Literacy

Table 4.25: Regression Coefficients for Combined Effect

Model		B	Std. Error	t	Sig.
1	(Constant)	.672	.345	1.948	.052
	Financial Literacy	.353	.046	7.684	.000
	Demographic Characteristics	.628	.050	12.592	.000
	Information Asymmetry	-.488	.047	-10.354	.000

a. Dependent Variable: Financial Inclusion

The model summary table 4.23 results show that there is a strong relationship between factors affecting financial inclusion among SMEs owners in Nairobi County (R=0.825). The adjusted R square for the model was 0.678 implying that 67.8% of the variations in factors affecting financial inclusion among SMEs in Nairobi County were explained by changes in financial literacy, demographic characteristics and information asymmetry. The remaining 32.2% of the variations in financial inclusion were explained by other factors not considered in the study.

The ANOVA findings in table 4.24 indicate that the model is reliable (a good fit for data) as supported by 202.75 F statistics and p value of 0.000<0.05. This means that the model was fit to predict the combined effect of financial literacy, demographic information and information asymmetry on financial inclusion among SMEs owners in Nairobi County. Further, based on the ANOVA results, the P-value =0.000<0.05 indicating a statistical significant relationship between financial literacy, demographic information and information asymmetry on financial inclusion among SMEs owners in Nairobi County hence the null hypothesis ($H0_1$) which states that combined, financial literacy, demographic information and information asymmetry have no significant relationship with financial inclusion among SMEs owners in Nairobi County was rejected and the alternative hypothesis which state that combined, financial literacy, demographic information and information asymmetry have significant relationship with financial inclusion among SMEs owners in Nairobi County failed to be rejected.

The regression coefficient results in table 4.25 indicated that the constant, β=0.672; P=0.052<0.05, coefficient for financial literacy, β=0.353; P=0.000<0.05, coefficient for demographic characteristics, β=0.628; P=0.000<0.05, information asymmetry β=-0.488; P=0.000<0.05. Therefore, the multiple regression equation was summarised as follows;

$Y= 0.672 + 0.353X_1 + 0.628X_2 - 0.488X_3$

This implies that if all variables were held constant at zero, financial inclusion among SMEs owners in Nairobi County would be 0.331. Also if all factors were held constant and financial literacy increased by one-unit, financial inclusion among SMEs owners in Nairobi County would increase by 0.353. Similarly, if all factors were held constant and demographic characteristics increased by one unit, financial inclusion among SMEs owners in Nairobi County would increase by 0.628. Moreover, information asymmetry had a negative coefficient implying that if all factors were held constant and information asymmetry increased by one unit, financial inclusion among SMEs owners in Nairobi County would decrease by 0.488.

CHAPTER FIVE
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary of Findings

The general objective of the study was to determine factors affecting financial inclusion among small and medium enterprises owners in Nairobi County. The study came up with a number of key findings on factors affecting financial inclusion among small and medium enterprises owners in Nairobi County. The findings are summarized as per the research objectives.

5.1.1 To Determine the Effect of Financial Literacy on Financial Inclusion among Small and Medium Enterprises owners in Nairobi County

The first objective of the study was to determine the effect of financial literacy on financial inclusion among small and medium enterprises owners in Nairobi County, Kenya. The findings of the analysis showed a direct and significant link between financial literacy and financial inclusion. Furthermore, the findings of the regression showed that financial literacy had a direct and substantial effect on financial inclusion among owners of SMEs. The null hypothesis was rejected on the basis of the regression findings, and this indicates that financial literacy had a significant relationship with financial inclusion.

5.1.2 To Determine the Effect of Demographic Characteristics on Financial Inclusion among Small and Medium Enterprises owners in Nairobi County

The second objective of the study was to determine the effect of demographic characteristics on financial inclusion among small and medium enterprises owners in Nairobi County, Kenya. The correlation findings showed a direct and important relationship between the demographic characteristics and financial inclusion. Furthermore, the findings of the regression showed that demographic characteristics had a positive and significant effect on financial inclusion among owners of SMEs. Rejection of the null hypothesis was done based on the regression results and this denoted that demographic characteristics have a significant connection with financial inclusion.

5.1.3 To Determine the Effect of Information Asymmetry on Financial Inclusion among Small and Medium Enterprises owners in Nairobi County

The third objective of the study was to determine the effect of information asymmetry on financial inclusion among small and medium enterprises owners in Nairobi County,

Kenya. The correlation results revealed a negative and significant association between information asymmetry and financial inclusion. Moreover, the results of regression showed that information asymmetry had a negative and significant effect on the financial inclusion among owners of SMEs. The null hypothesis was rejected on the basis of the regression results, and this implied that information asymmetry had a significant relationship with financial inclusion.

5.1.4 To Determine the Combined Effect of Financial Literacy, Demographic characteristics and Information Asymmetry on Financial Inclusion among Small and Medium Enterprises in Nairobi County, Kenya

The fourth objective of the study sought to determine the combined effect of financial literacy, demographic information and information asymmetry on financial inclusion among small and medium enterprises owners in Nairobi County, Kenya. The corresponding null hypothesis was that: combined, financial literacy, demographic information and information asymmetry have no significant relationship with financial inclusion among SMEs owners in Nairobi County. The study found that when combined the three factors had significant relationship with financial inclusion among SMEs owners in Nairobi County.

5.2 Conclusions

The study concluded that financial literacy has a significant relationship with financial inclusion among owners of SMEs in Nairobi County. These conclusions are in line with the existing literature which shows that improvement in financial literacy of SMEs owners will increase in their financial inclusion. It is noted that the findings of this study are in line with those of other scholars which implies that the findings can be generalised in other studies.

The study also concluded that demographic characteristic had a direct and significant relationship with financial inclusion among owners of SMEs in Nairobi County. The conclusions on these variables were in line with the conclusions from the existing literature which indicated that the different attributes of business owners have a significant contribution to their financial inclusion. The empirical findings reviewed from other sectors had corresponding conclusions with the current study. Therefore, the conclusions reached in this study can be generalised to other enterprises other than SMEs owners.

The study also concluded that that information asymmetry had an inverse and significant relationship on financial inclusion among SMEs owners in Nairobi County. The

conclusions on these variable was in line with the conclusions from the existing literature which indicated that lack of adequate information by SMEs owners is a hindrance to their financial inclusion. The empirical findings reviewed from other sectors had corresponding conclusions with the current study. Therefore, the conclusions reached in this study can be generalised to other enterprises other than SMEs owners.

The study also concluded that when combined, financial literacy, demographic characteristics and information asymmetry had significant relationship with financial inclusion among SMEs owners in Nairobi County. It was thus concluded that combined, financial literacy, demographic characteristics and information asymmetry had significant relationship with financial inclusion among SMEs owners in Nairobi County. Since, these findings were consistent with findings in other studies conducted in different context, the study concluded that the findings can be generalised to other contexts such as large businesses or unregistered enterprises.

5.3 Recommendations for Policy and Practice

Based on the findings, the study makes several recommendations. The study established a significant direct influence of financial literacy on financial inclusion among owners of small and medium-sized enterprises in Nairobi County. This means that financial literacy is a critical factor in attaining financial inclusion. Based on these findings, it is recommended that the SMEs owners should strengthen their financial literacy skills. In particular, they should focus on the following aspects: use of spending plan, increase their liquidity, have insurance cover for the business, monitor their cash flows and avoid impulse buying.

The study also established a significant direct influence of demographic characteristics on financial inclusion among owners of small and medium-sized enterprises in Nairobi County. Based on these findings, it is recommended that the government should ensure fair access to financial credit for everyone, whether old or young. In Kenya, most people, especially, the youth have difficulties accessing credit from financial institutions.

Further, the study established a significant indirect influence of information asymmetry on financial inclusion among owners of small and medium-sized enterprises in Nairobi County. This means that information asymmetry is a hindrance to financial inclusion. Based on these findings, it is recommended that financial institutions should disclose all relevant information pertaining to financial services to business owners. With the right information, SMEs owners will be able to make sound financial decisions.

Also, the study concluded that combined, financial literacy, demographic characteristics and information asymmetry had significant relationship with financial inclusion among SMEs owners in Nairobi County. Based on these findings, it is recommended that the owners of the SMEs in Kenya and the government should seek to ensure that all SMEs are financially included in order to enable them access credit easily and make sound financial decisions.

Finally, the study established that government regulation has an overall negative effect on financial inclusion among owners of small and medium-sized enterprises in Nairobi County. Based on these findings, it is recommended that the government should review regulations governing SMEs sector and ensure that they are favorable.

5.4 Suggestions for Further Research

Findings of this study were based on 384 SMEs in Nairobi County. The study therefore suggests that other studies should be conducted focusing on SMEs in other counties to see whether the same results would be obtained since factors affecting financial inclusion could vary from one county to another given that most counties have unique characteristics. This would help in comparing results from different counties. Additionally, a study could be carried out to compare the level of financial inclusion between formal and informal sectors. This will provide information which could be useful in influencing policy in both sectors.

The current research looked at factors that affect financial inclusion among owners of small and medium-sized enterprises in Nairobi County, Kenya. The factors included financial literacy, demographic characteristics and information asymmetry, which explained 68% of changes in financial inclusion. Future studies can consider other factors that may account for the remaining 32% of the variations not included in the study. Some of these factors could include culture, assets and income. Therefore, since the studies conducted to this point are not inclusive enough, there is need to conduct further research to determine the factors that explain the 32% of the variations in financial inclusion among owners of small and medium-sized enterprises in Nairobi County.

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APPENDICES

Appendix I: Introduction Letter

EGERTON UNIVERSITY, NAKURU TOWN CAMPUS,

DEPARTMENT OF FINANCE, ACCOUNTING & MANAGEMENT SCIENCE,

P.O BOX 13357.

Dear Sir/ Madam,

RE: DATA COLLECTION FROM SMEs WITHIN NAIROBI COUNTY

My name is Nancy Kerubo Nyasani, and I am a student at Egerton University, Nakuru Town Campus Undertaking a Master's Degree in Business Administration. I am conducting an academic research to study ***the factors affecting Financial Inclusion among Small and Medium Enterprises owners in Nairobi Count, Kenya.*** The findings will help to understand the contribution of Interest Rate Cap on Financial Inclusion of Small and Medium Enterprises. Permission has been sought from the relevant authorities. Any information provided by you will be used solely for research purposes and will be treated with utmost confidentiality.

Thank you for taking your time to participate in this study.

Yours faithfully

.....

Nancy Kerubo Nyasani.

Appendix II: Questionnaire

SECTION A. BACKGROUND INFORMATION

From the following questions provided, please tick (√) where appropriate.

Provide the following information

1. Pease indicate the SME SECTOR you belong to.

   i. General trade, wholesale, retail, stores [ ]
   ii. Transport, storage and communication [ ]
   iii. Agriculture, forestry, and natural resources [ ]
   iv. Accommodation and catering [ ]
   v. Professional and technical services [ ]
   vi. Private education, health, and entertainment [ ]
   vii. Industrial plants, factories and workshops [ ]

2. What is the registration status of your business?

   Sole proprietorship [ ] Limited Company [ ]

   Partnership [ ] Other [ ].....

3. How long has your business been in operation?

   0-5 [ ] 6-10 [ ] 11-15 [ ] More than 15years [ ]

4. Please indicate your average annual turnover (kshs)

   0 – 500,000 [ ]
   500,001 – 1,000,000 [ ]
   1,000,001 – 2,000,000 [ ]
   2,000,001 – 3,000,000 [ ]
   3,000,001 – 4,000,000 [ ]
   Over 4,000,000 [ ]

5. Our main source to finance business is

   Bank loans [ ]
   Microfinance institutions [ ]
   Friends and relatives [ ]
   Savings club [ ]
   Shareholder [ ]

Government agencies [ ] Development agencies and NGOs [ ]

6. Please indicate the highest level of education you attained.

None [ ] Primary [ ] Secondary [ ] Diploma [] Degree [ ] Master [ ]

Other [ ] .....

7. Kindly indicate your

gender Male ( )

Female ( )

8. Age in Years;

18-20 [ ] 21-24[ ] 25-34 [ ] 35-44 [ ] 45-54 [ ] Above 55[ ]

SECTION B: FINANCIAL LITERACY

9. For the following statements below, kindly indicate in the column provided by using a tick [√] the extent to which you agree to these statements on financial literacy.

Where; 1=Strongly Disagree, 2= Disagree, 3=Not sure, 4=Agree, 5=Strongly Agree

Statement	**1**	**2**	**3**	**4**	**5**
I have an alternative source of income in the event of an extended disability.					
I utilize the various tax relieves/rebate that I am entitled to when I am filing in my tax returns					
I use a spending plan or budget					
Holding a strong cash position is necessary for my financial pursuit					
I systematically save for life's eventualities					
I have determined how much income I can expect on retirement					
I have an insurance cover for my business					

Buying a single company stock usually provides a safer return than a stock mutual fund.					
I regularly check my credit card					
I keep close personal watch on my finances					
I set long-term goals and strive to achieve them					
Before I buy something I carefully consider if I can afford it					
I abstain things today so that I will be able to afford more tomorrow					

SECTION C: DEMOGRAPHIC CHARACTERISTICS

10. For the following statements below, kindly indicate in the column provided by using a tick [√] the extent to which you agree to these statements on demographic characteristics. Where; 1=Strongly Disagree, 2= Disagree, 3=Not sure, 4=Agree, 5=Strongly Agree

Statement	**1**	**2**	**3**	**4**	**5**
I can distinguish the different types of insurance policies offered in the market					
Young people have difficulties securing credit from financial institutions					
Both men and women have equal chances of accessing finances provided they meet the requirements					
I have knowledge of personal finance management					
Most SMEs owners have low income and this acts as a hindrance to accessing financial aid from financial institutions					

I am able to differentiate the loan products offered by the financial institutions					
I contribute to a registered retirement benefit scheme					
I have set money aside to take care of emergencies					
I read about money management					
I have goals for managing money					
I have invested in stocks, bonds or mutual					
I track some or all of my expenses					
I discuss money management with my family					

SECTION D: INFORMATION ASYMMETRY

11. For the following statements below, kindly indicate in the column provided by using a tick [√] the extent to which you agree to these statements on information asymmetry.

Where; 1=Strongly Disagree, 2= Disagree, 3=Not sure, 4=Agree, 5=Strongly Agree

Statement	**1**	**2**	**3**	**4**	**5**
I compare prices for financial products and services					
I maintain a current list of my assets and liabilities.					
I have a good credit profile as reported by public credit registries					
I achieve my money management goals					
There are hidden charges on loans.					
Credit bureaus are reliable sources of information on individuals credit worthiness					
It is easy to differentiate between risky and safe financial products and services.					
It is really difficult to comply with credit conditions regarding provision of financial information of the business.					

I often spend more than I can afford					
Financial information is required in identifying the potential suppliers of credit.					
I repay money that I owe on time					

SECTION E: FINANCIAL INCLUSION

13. For the following statements below, kindly indicate in the column provided by using a tick [√] the extent to which you agree on financial inclusion.
Where; 1=Strongly Disagree, 2= Disagree, 3=Not sure, 4=Agree, 5=Strongly Agree

Statement	**1**	**2**	**3**	**4**	**5**
I am able to access finances from my financial institution every time I require it					
loan repayment period is flexible					
There is transparency in my financial institution when accessing funding					
It is easy to open a deposit account and save					
It is easy to get an insurance premium financing from a financial institution					
It is easy to get a short-term loan and long-term loan					

Appendix III: List of registered SMEs in Nairobi County

1)	General trade, Wholesale and Retail	199,600
2)	Transport, Storage and Communication	13,685
3)	Agriculture, Forestry and Natural Resources	946
4)	Accommodation and Catering	21,681
5)	Professional and Technical Services	49,125
6)	Private Education, health and Entertainment	6,999
7)	Industrial plants, Factories, Workshops	20,945

Source: Nairobi City Council office (2019)

Appendix IV: Key Data analysis output

Correlations

		Financial inclusion	Financial literacy	Demographic characteristics	Information asymmetry
Financial inclusion	Pearson Correlation	1	.613**	.552**	-.626**
	Sig. (2-tailed)		.000	.000	.000
	N	289	289	289	289
Financial literacy	Pearson Correlation	.613**	1	.215**	-.525**
	Sig. (2-tailed)	.000		.000	.000
	N	289	289	289	289
Demographic characteristics	Pearson Correlation	.552**	.215**	1	-.134*
	Sig. (2-tailed)	.000	.000		.023
	N	289	289	289	289
Information asymmetry	Pearson Correlation	-.626**	-.525**	-.134*	1
	Sig. (2-tailed)	.000	.000	.023	
	N	289	289	289	289

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.825[a]	.681	.678	.1941218

a. Predictors: (Constant), Information asymmetry, Demographic characteristics, Financial literacy

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	22.921	3	7.640	202.750	.000[b]
	Residual	10.740	285	.038		
	Total	33.661	288			

a. Dependent Variable: Financial inclusion

b. Predictors: (Constant), Information asymmetry, Demographic characteristics, Financial literacy

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.672	.345		1.948	.052
	Financial literacy	.353	.046	.307	7.684	.000
	Demographic characteristics	.628	.050	.432	12.592	.000
	Information asymmetry	-.488	.047	-.407	-10.354	.000

a. Dependent Variable: Financial inclusion

Appendix V: Abstract page of paper published from this work

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FACTORS AFFECTING FINANCIAL INCLUSION AMONG SMALL AND MEDIUM ENTERPRISES OWNERS IN NAIROBI COUNTY, KENYA

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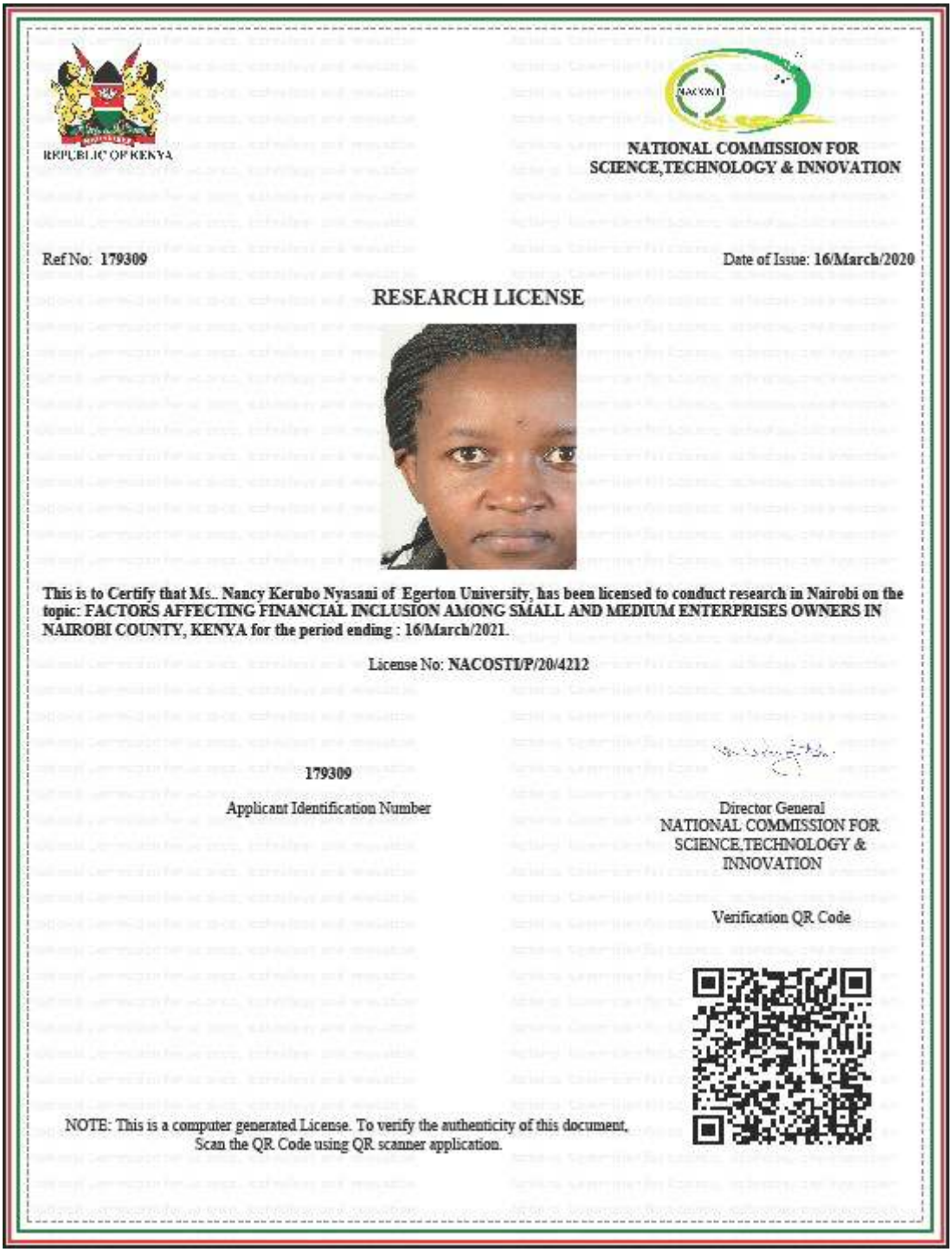
Abstract

The study sought to identify factors affecting financial inclusion among owners of small and medium-sized enterprises in Nairobi County, Kenya. The specific objectives were to: determine the effect of financial literacy, demographic characteristics, and information asymmetry on financial inclusion among small and medium enterprises owners in Nairobi County, Kenya. The analysis adopted a descriptive research design and targeted all of Nairobi County's registered SMEs which were 312,981. The respondents included owners of the SMEs. The sample was 384 owners who were selected using stratified random sampling. The study used primary data that was collected using structured questionnaires. Findings indicated that financial literacy has a positive and significant effect on financial inclusion among SMEs owners (β= .353, P =.000), demographic characteristics have a positive and significant effect on financial inclusion among SMEs owners (β= .628, P = .000), information asymmetry has a negative and significant effect on financial inclusion among SMEs owners (β= -.488, P = .000) and combined, financial literacy, demographic characteristics, and information asymmetry were significant (adjusted R2=0.678; F=202.750; P=0.000<0.05). The study concluded that demographic characteristics have the greatest effect on financial inclusion, followed by financial literacy and lastly information asymmetry. Based on the findings, the study recommended that SMEs owners should seek financial knowledge; the government should pass a statute that requires financial institutions to publish information regularly; and should ensure that all SMEs are financially included to enable them access credit easily and make sound financial decisions.

Keywords: Demographic characteristics, Financial Inclusion, Financial Institutions, Financial Literacy, Information Asymmetry, Small and Medium Enterprises

Appendix VI: Research License



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