INFLUENCE OF CREDIT ACCESS REQUIREMENTS ON FORMALIZATION DECISION OF SMALL AND MEDIUM ENTERPRISES IN NAIROBI

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Influence of credit access requirements on formalization decision of small and medium enterprises in Nairobi

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DECLARATION

This thesis is my original work and has not been presented for a degree in any other university.

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This thesis has been submitted for examination with our approval as University Supervisors.

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DEDICATION

This thesis is dedicated to my husband Stephen Muhika, my daughters Ann Wambui and Faith Wanjiku and my parents Patrick Mburu and Zipporah Njoki. They have been a great support especially when I felt overwhelmed. May God bless them all.
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LIST OF ACRONYMS AND ABBREVIATIONS

AGPO: Access to Government Procurement Opportunities
ANOVA: Analysis of Variance
ASCAS: Accumulating Savings and Credit Associations
CBD: Central Business District
ETR: Electronic tax register
EU: European Union
IEA: Institute of Economic Affairs
ILO: International Labour Organization
KENASVIT: Kenya National Alliance of Street Vendors and Informal Traders
KMO: Kaiser-Meyer-Olkin
KRA: Kenya Revenue Authority
KSHS: Kenya Shillings
KWFT: Kenya Women Finance Trust
MDGs: Millennium Development Goals
MFIs: Micro-Finance Institutions
MMR: Moderated Multiple Regression
MSEA: Micro and Small Enterprise Authority
NACOSTI: National Commission for Science, Technology and Innovation
NEMA: National Environmental Management Authority
NGOs: Non-Governmental Organizations
NHIF: National Health Insurance Fund
NISCOF: Nairobi Informal Sector Confederation
NSSF: National Social Security Fund
OLS: Ordinary Least Squares
PIN: Personal Identification Number
ROSCAS: Rotating Savings and Credit Associations
SACCOs: Savings and Credit Cooperatives
SBP: Single Business Permit
**Sig:** Significance of Data

**SMEs:** Small and Medium Enterprises

**SPSS:** Statistical Package for Social Sciences

**TOT:** Tax on Turnover

**UNDP:** United Nations Development Programme

**VAT:** Value Added Tax

**VIF:** Variance Inflation Factor

**VSLA:** Village Savings and Loans Associations
DEFINITION OF TERMS

**Asset collateralization**
Asset collateralization is a situation where a borrower pledges an asset as a remedy to the lender if the borrower defaults on loan repayment (Brumm, Grill, Kubler, & Schmedders, 2015).

**Collateral**
Collateral is an asset pledged by a borrower to a lender until a loan is paid back. If the borrower defaults, then the lender has the right to seize the collateral and sell it to pay off the loan (Gibson & Vaart, 2008).

**Formalization of SMEs**
It is an effort of transitioning informal enterprises to formality through approaches such as reform of business registrations processes, tax laws, social security and labor laws (Otoo, 2014).

**Financial reporting**
Financial reporting is the process of generating accounts that reveal an organization's financial position to interested parties (Aga & Reilly, 2013).

**Guarantee**
A guarantee is an agreement in which the guarantor agrees to satisfy the debt of another (the debtor), only if and when the debtor fails to repay (Karanja & Nyambura, 2014).

**Informal Economy**
Informal finance as that which is not regulated. International Labour Organization defines “informal economy” as all economic activities by workers and economic units that are – in law or in practice – not covered or insufficiently covered by formal arrangements (Kiira, 2013). They normally operate outside the formal reach of the law meaning that the law is not applied or not enforced; or the law discourages compliance because it is inappropriate, burdensome, or imposes excessive costs
Joint liability
Liability that is owed to a third party by two or more other parties together or where members of a group co-guarantee one another in loans acquired from micro financial institution (Maobe, 2010).

Security
Security is an obligation, pledge, mortgage, deposit or lien given by a debtor in order to assure the payment or performance of his debt, by furnishing the creditor with a resource to be used in case of failure in the principal obligation (Campos, Goldstein, & McKenzie, 2015).

Tax compliance
Tax compliance is a person’s act of filing their tax returns, declaring all taxable income accurately, and disbursing all payable taxes within the stipulated period without having to wait for follow-up actions from the authority (Olufunso, Herbst, & Lombard, 2010).
ABSTRACT

Many business people operating small and medium enterprises have no access to formal financing, a major reason being their perception of high risk as a result of informality. In order to access financial products, entrepreneurs are required to meet certain conditions such as; collateral, group guarantee, financial reporting and tax compliance. This study sought to examine whether there is a relationship between credit access requirements and formalization of small and medium enterprises in Kenya. The study took the form of a descriptive survey design which is an efficient method of collecting original data and systematic information from a wide range of respondents. The target population was 1200 SME’s operating in Nairobi Central Business District and registered with the Nairobi County government. The sample size was 369 respondents, calculated using Yamane Sampling Formula. The study employed stratified and systematic random sampling to select SME’s from 4 different sectors and also incorporated commercial banks and microfinance institutions in the sampling distribution. Data was collected by use of open and close-ended questionnaires supplemented by an observation checklist. Descriptive and inferential statistics such as mean, standard deviation, correlation and multiple regression analysis were used for analysis. Statistical Package for Social Sciences (SPSS) version 21.0 was used to aid in coding, entry and analysis of quantitative data obtained from the closed-ended questions. The quantitative data was presented in form of percentage tables, graphs and pie charts while qualitative data was presented in form of comments and statements. The study was limited geographically because only SMEs operating in Nairobi were considered. Equally, there was limited literature available to review formalization of SMEs in Kenya. Therefore, the sample size was increased and a larger number of international journals included to curb these limitations. The study findings on asset collateralization and formalization of SMEs showed that lack of business maturity limits the business ability to signal financial institutions of their capacity. Also, lack of adequate formal collateral by SMEs increases perceived credit risk among financiers thus limiting their financial access. On joint liability requirement and formalization of SMEs, findings obtained indicated that joint liability or guarantee from the group allows members to monitor each other easily thus enhancing loan repayment. Further, association to a group was related to a business' ability to access better credit terms since the group acts as the guarantor. On financial reporting requirement and formalization of SMEs, findings showed that availability of financial records eliminate information asymmetry thus allowing for better monitoring. Further, availability of quality and credible financial information enhances business access to loan facilities and better credit terms. Finally, on tax compliance requirement and formalization of SMEs, the study findings indicated that tax compliance is an essential tool in fostering formalization of business operations while enhancing its brand image. The study recommended that the SMEs need to formalize their operations for the businesses to realize growth and improved performance, every financial institution to establish a credit product for the SME segment using the informal associations as an entry point and the government should review business formalization structures such as the tax administration system and business registration to accelerate formalization.
CHAPTER ONE
INTRODUCTION

1.1 Background of the Study

The World Bank defines Small and Medium Enterprises (SMEs) as enterprises with up to 300 employees and total annual sales of up to US$15 million. Equally, the European Union defines the same as enterprises which employ less than 50 employees and with turnover of less than US$10 million (World Bank, 2014). Chepkorir, Osiemo and Wambua (2014) affirm that very small enterprises have six or fewer workers, small enterprises have 7-10 workers, medium sized firms have 11-50 workers while large enterprises have over 50 workers. However, for the purpose of this study SMEs comprised enterprises of up to 50 employees.

1.1.1. Informal Economy in Kenya

In Kenya, the concepts; informal economy, SMEs and Jua Kali (fierce sun) are often used interchangeably (Maengwe, 2014). This study adopted the ILO definition of informal economy as consisting of all economic activities by workers and economic units that are-in law or practice-not covered or insufficiently covered by formal arrangements. Formal arrangements in this case denote all state mechanisms for regulating and protecting economic activities.

Tokman (2007), asserts that the informal economy is characterized by small and medium enterprises (SMEs), with or without hired workers, at a low level of organization and technology. The SMEs account for 98% of all registered businesses in Kenya (Mage, 2012) majority of whom operate informally (Kenya Economic Report, 2013).

The Small and Medium Enterprises (SMEs) play a significant role in the development of any economy more so in the developing world (World Bank, 2014). Terungwa (2012) observes that SMEs are actually the foundation of any economically stable nation. Report of the Economic Survey (2015) revealed that 83% of Kenyan workers were in the informal economy. Furthermore, the informal economy is said to create about 90%
of all new jobs annually and generally contribute about 34.3 per cent to the GDP (IEA, 2012; Republic of Kenya, 2014). Certainly, SMEs have proved to be a dependable source of employment even during periods of crisis (Maengwe, 2014).

Recognizing the critical role small businesses play in the Kenya economy, the Government through Kenya Vision 2030 envisages the strengthening of SMEs to become the key industries of tomorrow by improving their productivity and innovation (Ministry of Planning, National Development & Vision 2030, 2007; Maengwe, 2014). The Kenya government has also initiated finance schemes such as the Youth and Women Enterprises Fund and Uwezo Fund with a view of financing SMEs as lack of access to credit is a major constraint to their growth (Atieno, 2009).

1.1.2. Informality and Financial Limitations
Financing constraint is one of the biggest concerns impacting potential entrepreneurs around the world (Kerr and Nanda, 2009; Brown, Garguilo & Mehta, 2011). A World Bank Enterprise Surveys on 130,000 firms in 135 countries identified access to finance as one of the major obstacles of SMEs growth (World Bank, 2014). Only 30% of the small firms in Sub-Saharan African countries have access to affordable and proper financial capital (World Bank, 2005). In Kenya, over 60.4% SMEs do not have access to credit markets (Mwangi & Ouma, 2012). Lack of collateral requirements, low-income, problems in filing tax repayment reports and unsound business plans are some of the major reasons for the unwillingness of the formal bank’s lending credit, to majority of entrepreneurs who own small and medium enterprise (SMEs) (Sacerdoti, 2005; Gichuki, Njeru & Tirimba, 2014).

The banking sector in Kenya is composed of 42 commercial banks and one mortgage finance company. Each of these commercial banks have their own tailor-made appraisal techniques that are applicable when lending to various customers including the small and medium-sized enterprises (Chepkorir et al., 2014). Feakins (2005) and Fatoki (2014) claim that commercial banks are one of the major sources of finance to new
SMEs in Kenya. Informal financial support services include Merry-Go-Rounds (MGRs) and Rotating and Services Credit Associations (ROSCAS) which have roots in traditional mutual guarantee systems (Central Bank of Kenya, 2006; Mwobobia, 2012). The Youth Fund, Women Enterprises Fund and UWEZO fund are a government's intervention for financial inclusion of SMEs (Atieno, 2009).

The Basel II requirements oblige banks to accurately quantify the risk of their applicants (Ollo, 2009). The SMEs need to meet specific requirements in order to access Business Development Services (BDS) and credit services offered by financial institutions (Bosibori, 2012) but rarely meet the conditions (Gichuki et al., 2014). The most common credit access requirements include; evidence of asset ownership such as a title deed to act as security, financial reports revealing financial position, profitability and liquidity level of the business, proof of compliance with certain state regulations and sometimes association to an informal group.

A study by Gichuki, Mutuku and Kinuthia (2014) found out that lack of collateral was particularly a greater hindrance to credit accessibility by women entrepreneurs due to lack of tangible assets like land, which are used as assets to secure credits. To benefit from social capital, SMEs have organized themselves into associations and informal groups. In this context, financial institutions get an entry point to provide loans at subsidized interest rates (Omolo, Kimani, Ngugi and Orwa, 2014). A majority of small-scale traders have also become members of informal microfinance groups that provide unsecured loans but at high-interest rates (Wanyoro, 2012). At times, microfinance acts as a group scheme where the group members form themselves into a joint liability group and take loans under the social collateral while the group members are responsible to repay any default loan (Samer et al., 2014).

Finally, informality comes at a price to both firms and governments. Most firms suffer from adverse selection by lenders due to their informality, hence limiting their growth. Governments on the other hand suffer both from lack of formal entrepreneurship that
can drive economic growth and the loss of tax revenues to pay for public goods and services (Akelentera, 2011). Currently, there are concerted efforts to make it easier for firms to formalize through various policy and regulatory reforms (Bruhn & McKenzie, 2014).

However, various studies report that some of these reforms have had limited effects, with the majority of existing informal firms not formalizing after it became easier to do so (Campos et al., 2015). Given the importance the informal economy plays in the development of the country, it is important to hasten its formalization in order to enhance job creation, social protection and conformity to set laws and regulations. Formalizing efforts include; complying to statutory regulations, organizing the workers into associations, trade unions and Savings and Credit Cooperatives. It also encompasses registration of business, compliance to relevant authorities and inclusion into finance and social protection systems.

1.1.3. Small and Medium Enterprises

It is globally recognized that there is no universally admissible definition for small and medium enterprises (SMEs) (European Commission, 2005), possibly due to varying regional economic conditions and subsequent gross domestic products. Consequently, a specific country may categorize an enterprise with less than 300 employees as medium-sized while another country may set the cut-off to be 100 employees. This disparity is gradually being resolved by regional and international organizations, including the African Development Bank, World Bank, United Nations Development Program, and International Monetary Fund (Gibson & Vaart, 2008).

In Kenya, the definition of SMEs is varied and borders on the number of staff employed by the business to revenues generated annually by the businesses. The Micro, Small and Medium Enterprise (MSME) Act of the year 2009 has used three criteria to define MSMEs in general: the number of employees; company’s annual turnover; and investment in plant, machinery, and registered capital. In this bill, an MSME is defined
as an enterprise comprising of a maximum 100 employees with an annual turnover not exceeding 800 million shillings and/or plants, machinery and registered capital not greater than 50 million shillings (KAM, 2009).

Small and Medium-sized Enterprises (SMEs) and the informal sector in Kenya play a major role in the economic development by creating employment opportunities. However, SMEs demand for credit facilities and their numbers and size have outgrown the capacity of microfinance institutions, which offer small, short loans through group lending methods (FSD Kenya, 2008). According to Financial Services Deepening (FSD) Kenya (2008) survey on the potential for credit scoring for SME lending in Kenya, “fewer than twenty percent of SMEs in Kenya had ever received credit from formal financial institutions in 2008”. The limited access is attributed to challenges in assessing credit risk when lending to SMEs in a cost effective manner.

1.2 Statement of the Problem

The International Labour Organization posits that close to two billion people worldwide are employed in the informal economy (ILO, 2018). This constitutes nearly 60 percent of the world's working population, most of whom are in developing world (Petrova, 2018). In Kenya the informal economy, which is characterized by Micro, Small and Medium Enterprises (MSMEs), is the biggest employer accounting for over 83% of the labor force and contributing about 34% of Kenya GDP (Republic of Kenya, 2015). Despite their significance, past statistics indicate that 3 out of 5 businesses fail within the first few months of operation and those that continue, 80 percent fail before the fifth year (Kenya National Bureau of Statistics, 2007; Gichuki and others (2014).

One of the most significant challenge is the negative perception towards SMEs (Kenya National Bureau of Statistics, 2007; Amyx, 2005; Mwobobia, 2012). The informal economy is sometimes criminalized and termed as "illegal", “black market” or even "hidden economy” (Kuria, 2013). The businesses in it may include counterfeit products, illegal arms and drugs. It is also a social challenge because informal employment is
often associated with low earnings, low-quality jobs and poverty (Jütting & de Laiglesia, 2009; OECD, 2012).

Informality is also an economic challenge, as it affects public revenues and firm productivity. Taxation gives professionals and entrepreneurs significant incentives to work “under the radar” (Koettl and Weber, 2012; UNIDO, 2008). In spite of the informal economy growing at a very fast rate in Kenya, the collection of taxes has been a great challenge (Simiyu, 2013). Generally, if these businesses remain untaxed, and as more people transition into the economy, the government is likely to continue losing billions of shillings. Such a scenario will impact on government’s ability to meet its income targets and consequently affect its service delivery (IEA, 2012).

For lenders in Kenya to hedge against the perceived high credit risk of SMEs, certain credit access requirements such as collateral, group guarantee, audited financial statements among others are imposed (Nasr, 2010). Majority of related studies observe that informality increases credit access to SMEs. For instance, a study, 'factors influencing access to finance by SMEs', Nangaki (2014) found a relationship between asset collateralization, financial information and credit access. A similar work by Chepkorir (2014) concluded that strength and quality of financial statements was a vital attribute for SME lending. In addition, Musamali and Tarus (2013) and Gichuki and others (2014) observed that inability to meet the lender's credit access requirements as a result of informality increases SME's credit constraint. It was therefore imperative to explore financing as an approach that can heighten formalization of this sector so that it’s players can benefit from sustainable growth and decent work arrangements. For that reason, the researcher sought to find out whether credit access requirements such as; collateral, joint liability, financial statements and tax compliance as imposed by financial institutions had a role in transitioning the informal enterprises to formal.
1.3 Objectives of the Study

1.3.1 General Objective
The general objective of this study was to determine the influence of credit access requirements on formalization decision of small and medium enterprises in Kenya.

1.3.2 Specific Objectives
The study was guided by the following questions;
1. To determine the influence of asset collateralization on formalization decision of small and medium enterprises in Kenya.
2. To establish the influence of joint liability on formalization decision of small and medium enterprises in Kenya.
3. To determine the influence of financial reporting on formalization decision of small and medium enterprises in Kenya.
4. To examine the influence of tax compliance on formalization decision of small and medium enterprises in Kenya.
5. To determine the moderating effect of firm size on the influence of credit access requirements and formalization decision of small and medium enterprises in Kenya.

1.4 Research Hypotheses

$H_{01}$: There is no significant influence of asset collateralization on formalization decision of small and medium enterprises in Kenya.

$H_{02}$: There is no significant influence of joint liability on formalization decision of small and medium enterprises in Kenya.

$H_{03}$: There is no significant influence of financial reporting on formalization decision of small and medium enterprises in Kenya.

$H_{04}$: There is no significant influence of tax compliance on formalization decision of small and medium enterprises in Kenya.

$H_{05}$: Firm size does not significantly moderate the influence of credit access requirements and formalization decision of small and medium enterprises in Kenya.
1.5 Significance of the Study

1.5.1 Government

This study contributes to on-going research globally and in Africa on the transition from informal to formal enterprises. Recently, governments have sought effective means of formalizing SMEs operating in the informal economy with a view of enhancing their economic impact especially revenue collection and job creation. Government officers, lawmakers and other small business policy makers will find the results of this study useful in understanding the challenges of informality both at macro and microeconomic level and find appropriate approaches to overcome them. The findings will inform proper policy making and implementation that could spur the growth of small enterprises into medium and large-sized firms and consequently spur the economy into the middle income as stipulated in Kenya's Vision 2030.

1.5.2 Labour Market Players

The study is very important to trade unions in Kenya whose membership is dwindling as a result of the shrinking formal employment, and who are exploring means of unionizing the informal workers. It is also significant to the Ministry of Labour and other relevant stakeholders who have the mandate of ensuring decent work in all sectors of the economy.

1.5.3 Financial Institutions

The financial institutions are also interested in such a study to assist them customize their products and enhance efficiency in the SME segment. The report will also inform development partners such as United Nation Development Program on areas of intervention in an effort to achieve some of the sustainable development goals especially poverty reduction.
1.5.4 Business and Academic Researchers
To the Academicians and researchers, the study will be a source of reference material for future research on other related topics. The findings will stimulate further research and bridge information gaps related to formalization of SMEs in Kenya and especially through the devolved system of governance.

1.6 Scope of the Study
This study confined itself to the population of SMEs located in Nairobi County. It also narrowed the scope to investigate the role of credit access requirements in formalizing decisions made by small and medium enterprises in Kenya with a focus on enterprises in Nairobi which have registered with the Nairobi Central Business District Association and Nairobi County government, then provided recommendations according to the findings. The association has registered 1200 SME in Nairobi representing different sectors: services, manufacturing, and hospitality and retail trade. There are various credit requirements imposed by lenders to SMEs in Kenya but the researcher only considered four generally reviewed credit access requirements; asset collateralization, joint liability, financial reporting and tax compliance. The results of the study were generalized to SMEs in Nairobi.

1.7 Limitations of the Study
The researcher had anticipated low response from entrepreneurs with low or no formal education. However, majority were found to have capacity to read, understand and respond to the data collection instruments. The few who could not comprehend were guided in Swahili language to respond. Secondly, only enterprises operating in Nairobi were considered in the sample hence engage two research assistants to ensure participation of a large number of respondents through a 'drop and pick' methodology. Lastly, there is limited literature on formalization of SMEs in Kenya a fact that necessitated the researcher to review more international journals on the same subject.
CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction
This chapter deals with the review of Literature related to the study of the topic. The theoretical and conceptual framework on which the study is based was discussed, four main credit access requirements imposed by financial institutions were considered followed by an empirical review of literature related to the topic under study and the critique of this literature. Finally, the chapter delved on the gaps that arose from this literature and then the summary.

2.2 Theoretical Framework
Three theoretical models guided the research design. The herd’s theory was used to justify the notion that people join or form associations mainly with a finance motive. The Grameen model of financing was applied to affirm past debate that Microcredit programs are important in extension of financial services to SMEs who do not have access to formal banking sector because they lack traditional forms of collateral while the moral hazard theory indicated the rationale for the lenders’ credit selection criterion.

2.2.1 Herds Theory
Studies have found that attitude and behavioral intention are positively related (Crisp & Turner, 2007) and that attitude towards behavior leads to intention (Ajzen, 2009). Herd Behavior was formulated by Banerjee in 1992 to explain situations where individuals are assumed to make rational decisions but influenced by personal or environmental signals (Banerjee, 1992). Herd’s behavior is the tendency for individuals to mimic the actions of a larger group. The main reason why herd behavior happen is because of the social pressure of conformity and the need to be accepted by a group (Bikhchandani & Sharma, 2001). Peoples' social networks and associations help shape their perceptions, norms and attitudes which then influence their responses to perceived and actual sanctions (Devos, 2012; Ondimu, 2015). Zhang & Liu (2012) argue that for an investor to imitate others, he/she must be aware of and be influenced by others actions.
SMEs in Nairobi are characterized by having related businesses located near each other. This proximity between enterprises facilitate linkages and networks that help them to grow (Kinyanjui, 2006; Bosibori, 2012). Further, Kinyanjui (2010) observes that the informal economy in Kenya is dominated by trust-based face-to-face relations, and transactions are largely based on interdependence between people who know each other and are bound together by trust and mutual agreement. They are also indigenous and engage in collective action and behavior. The formal and informal relationships through which SMEs exchange and share products, information, social support and cash for the benefit of their businesses are regarded as networks. These relationships include; merry-go-round (ROSCA), women’s groups, cooperatives and other Jua-kali associations (Bosibori, 2012). Membership to trade networks and associations significantly increase business performance through savings, credit access and training (Bosibori, 2012).

Kenyon (2007) argues that it is almost impossible to formalize unorganized informal sector enterprises without working through existing informal organizations. Such associations may be better placed to enforce bargains, set common industry standards and identify and punish individuals who fail to meet them. Formal private sector associations can persuade entrepreneurs to formalize by making the benefits of membership contingent on regulatory compliance. For instance, the Kenya association of small tea-growers helped its members’ comply with national product standards by acquiring inputs, such as pesticides and fertilizers in bulk and selling them at a discount to producers.

Some groups have constitutions which spell out the functions of the organizations, rules and regulations, and membership rights. They also have a governing body comprising a chairperson, a secretary, a treasurer, and committee members and deputies. The groups have measures such as penalties and expulsion from the group for dealing with individuals who default on payment or are late for meetings. Associations are also
avenues for mobilizing finances for funeral and birth rites, marriage ceremonies medical care, education and also for investment (Kinyanjui, 2010).

Use of associations as a tax collection channel has been credited with increasing revenues generated from the informal sector where an association of SMEs bear the burden of identifying members and ensuring that they comply. These associations contribute to broadening the tax net and address capacity constraints in the tax administration (World Bank and DFID, 2007). Becoming tax compliant grants entrepreneur’s legitimacy and protect them from more arbitrary harassment by public officials and police (Joshi & Ayee 2008; Joshi et al., 2012).

2.2.2 Grameen Theory
The Grameen Theory is associated with Professor Mohammed Yunus who supported establishment of Grameen Bank of Bangladesh in 1976 with an aim of alleviating poverty and empower the poor. The bank was created on the foundation of solidarity lending where members' savings and social trust are used as collateral for micro credit. The Grameen Bank's priority was use of joint liability model of lending to organized group members and also impose intense pressure on borrowers for timely loan repayments (Dowla, 2006). The Grameen model bases the reward or punishment of a borrower on both his/her performance and group performance as opposed to only the group performance (Karlan & Giné (2007).

A study by Rahman and Milgram (2001) found that most microlending initiatives are replicating Bangladesh’s Grameen Bank model. In particular, solidarity groups or group lending is considered the pillar of microfinance programs’ sustainability as well as a strategic approach for improving access to credit for the poor in developing countries (Armendariz & Morduch, 2005; Tundui & Tundui, 2013). Survey of credit market in Kenya indicates that 8% of SMEs access credit from microfinance institutions (Financial Sector Deepening FSD, 2009). One of the major mechanisms that most MFIs employ is the group lending model which has its origin from the Grameen Bank in India. Group
lending has proven effective in providing peer support and a form of loan collateral (USA, 2012; Maobe, 2010).

In a group lending contract, borrowers are required to form groups, access individual loans, but jointly be liable for a member’s debt (Kono & Takahashi, 2010; Ibtissen & Bouri, 2013). In case of default by any group member, other members are obliged to repay the loan, or otherwise, the groups’ possibility of access to future credit is forfeited (Brau & Wooler, 2004; Tundui and Tundui, 2013). This interdependence between borrowers helps mitigate adverse selection and moral hazard problems and therefore contributes significantly in obtaining high repayment rates (Ibtissen and Bouri, 2013).

Through group lending, institutions are also able to identify and classify risks of their potential borrowers; detect the diversion of funds, ensure proper utilization of the loans and generally reduce transaction costs and make loan management process less costly. In addition, group lending is able to inculcate risk taking behavior among borrowers (Ghatak & Guinnane, 1999; Giné et al., 2010; Tundui & Tundui, 2013).

A Tanzanian microfinance program called PRIDE has successfully used the Grameen methodology to offer micro-credit facility to women. In principal before loans are disbursed, potential applicants are required to form a group of five (5) people called Enterprise groups (EGs). These groups then join in tens to constitute a larger group of 50 clients called Market Enterprise Committees (MEC) (Tundui and Tundui, 2013). Jamah (2009) discusses one significant case of a successful microfinance in Kenya, Jamii Bora Trust. Initially, 49 women street vendors formed a group and started saving KSh.10 a day; they were able to gather together Ksh.8000 which helped establish the institution in 1999. As at 2009, it had over 228,000 member families in over 90 branches and had disbursed Ksh.3 billion in slight loans to small entrepreneurs. It has effectively supported the poorest of the poor to escape poverty by establishing an inventive self-help enterprise development, a medical and life insurance, disaster insurance, a business school and a housing program.
2.2.3 Moral Hazard Theory

The severity of the financial crisis which first became apparent in 2007 provoked widespread public discussion about the structure and behavior of the financial sector (Dow, 2010). A moral hazard is where one party is responsible for the interests of another, but has an incentive to put his or her own interests first (Dowd, 2009). The term moral hazard is a term that has been used over more than two centuries in discussions of insurance to refer to the possibility that insurance would encourage the insured party to take on additional risk in a way which could not effectively be monitored (Arrow, 1963). Moral hazard is also a concept which is employed in mainstream analysis which focuses on rational behavior, usually with respect to information asymmetry. The core concepts of the moral hazard theory are perverse incentives, negative precedents, norms, and provocation (Western, 2005).

It is opportunistic behavior which takes advantage of an opportunity for personal benefit even if it is at the expense of others (Fehr, 2002). Moral hazard therefore involves the risk that an individual or group will behave immorally, flouting moral conventions and breaching trust (Dow, 2010). Banks and other financial intermediaries earn profits by having better information about investments than their depositors. Problems of getting people to choose hidden actions appropriately are called moral hazard while the problems of getting people to share hidden information honestly are called adverse selection. Under Basel standards, loans to small businesses and individuals are considered risky and entail maximal capital charges unless "securitized" (Myerson, 2012).

Various studies state that deposit contracts provide better risk sharing than other contractual arrangements (Palia & Porter, 2007). But deposit contracts also inevitably allow the possibility of bank runs thereby mandating government insurance for the depositors. In another study Lee (2002) argues that risk-averse managers respond to incentive compensation more aggressively if the risk of bank failure is low. While hard
borrowing constraints may come into play for some households, casual observation shows that if the terms are favorable enough, lenders are willing to loan one more dollar to nearly anyone (Kahneman & Tversky, 2009).

Edelberg (2004) asserts that if lenders cannot contract on a borrower’s effort to avoid repayment problems, contracts that satisfy an incentive compatible effort constraint may be optimal. Additionally, lenders may observe some risk characteristics, but there is the potential for remaining unobservable risk. As a result, loan contracts may be bound by a revelation constraint. Due to unobservable risk, borrowers self-select into loan contracts with varying interest rates and collateral requirements. For example, ex-post higher risk borrowers pledge less collateral and pay higher interest rates. Other empirical studies state that in order to reduce moral hazard, collateral is used to induce higher repayment effort. It is difficult to induce such an effort among higher risk borrowers than lower risk borrowers. This difference explains the counter-intuitive result that higher risk borrowers sometimes pay lower interest rates.

Asymmetric information leads to higher costs of borrowing – both in the interest rate and in collateral requirements.

Igawa and Kanatas (2009) consider the moral hazard involved in the borrower's use of pledged collateral in the general environment of asymmetric information. They show that self-financing may be optimal for some borrowers given costly loan terms. Asymmetric information leads to higher costs of borrowing both in the interest rate and in collateral requirements. Dow (2010) observes that moral sentiments are not the only sentiments governing behavior; behavior may for example be governed by greed, responding to monetary incentives. But the argument here is that commercial society cannot function without the operation of some moral sentiments such that there is some foundation of trust in commercial relations. In other words, it is inappropriate to assume that behavior is opportunistic, driven by monetary incentives.
New Keynesian theory postulates opportunistic behavior on the part of borrowers who conceal their increased risk exposure from the lender; were banks able to stipulate contracts to cover all the behavior of borrowers, they could otherwise increase the interest charge in compensation (Stiglitz and Weiss, 2001). They may conceal information, and lenders may find it difficult to assess risk. But even if there were no concealment, lenders are unable to identify true risk, and therefore can only arrive at a judgment to which they attach higher weight. Since neither party can have full understanding of the future path of the conditions under which the loan contract is made, the lender-borrower relationship relies on trust. Moral hazard is the danger that these understandings break down, eroding trust. However, empirical literature on the moral hazard theory is limited to use of collateral to offset asymmetric information but does not consider other efforts such as joint liability.

2.3 Conceptual framework
Huberman (1994) defined a conceptual framework as a visual product that explains the key factors, concepts or variables and presumed relationships among them. The conceptual framework was developed to explain the relationship between independent variables (credit access requirements) and the dependent variable (formalization of SMEs) with regards to the problem statement and objectives. It was guided by three theories; Herds Theory, Moral Hazard Theory and Grameen Model.

The overall objective of the study was to determine the influence of credit access requirements in formalization decision of small and medium enterprises in Kenya. Specific objectives were; to determine the influence of asset collateralization on formalization, analyse the influence between joint liability and formalization, determine the influence of financial reporting on formalization, analyse the influence of tax compliance and formalization of small and medium enterprises in Kenya. Finally, the study sought to investigate the moderating effect of firm size on the relationship between credit access requirements and formalization decision of small and medium enterprises in Kenya.
Credit Access Requirements

Kenya

Asset Collateralization
- Credit Risk
- Information asymmetry
- Security

Joint Liability
- Guarantee
- Screening
- Monitoring

Financial Reporting
- Liquidity
- Profitability
- Going Concern

Tax compliance
- Tax Administration
- Tax Revenue
- Fiscal Exchange

Formalization of SMEs in

- Business Registration Certificate
- Business permit/license
- Audited Balance Sheet and Cashflow Statement
- KRA PIN registration
- Tax Compliance Certificate
- Self-Assessment
- Tax returns
- Statutory Deductions
- Association Membership Certificate

Firm Size
- Number of employees

Independent Variables
Moderating Variable
Dependent Variable

Figure 2.1 Conceptual Framework
2.3.1 Asset Collateralization

SMEs have faced persistent pressure when seeking funds for investment and expansion from financial institutions because they have short business history and they lack formal securities to act as guarantee (Berger and Udell 2002; Chepkorire et al., 2014). Financial needs and the financing options available for SMEs change throughout the various phases of a firm’s lifecycle. During the initial stage, the business depends more on internal financing mostly due to lack of collateral and high risk of failure (Abdulsaleh & Worthington, 2013). Further, since SMEs are rarely listed at the stock exchange, they have trouble signaling their qualities to financial institutions. Collateral is therefore widely used to prove creditworthiness instead of costlier monitoring tools (Stulz & Johnson, 1981). Calice et al (2012) stated that collateral requirements for SME loans are higher than for consumer loans, because SMEs’ credit risk is usually difficult to evaluate.

Furthermore, SMEs by their nature cannot raise substantial internal finance. It therefore, becomes necessary for them to seek bank lending to bridge the gap between their retained earnings and their potential investment outlay (Terungwa, 2012). Steel and others (2008) asserts that bank loans are the most widely used form of SME financing. Prior research finds that collateral is shown to be an important factor influencing long-term external borrowing by firms (Jiménez, Fumás, & Saurina, 2006). An immediate implication of this view is that the stronger the protection creditors obtain via collateral, the more abundant and cheaper credit will be for entrepreneurs and households (Manove, Padilla and Pagano, 2001).

Aghion and Bolton (1992) describe collateral as an instrument that ensure good behavior on the part of borrowers, given the existence of a credible threat (Haron et al., 2013) by reducing the information asymmetry between the SME and the financial institution (Chan and Kanatas, 1985). When collateral requirements are in place perverse incentive is diminished, since that sort of action would increase the chance of losing the assets pledged as collateral (Zeller, 1994; Coco, 2000; Nangaki, 2014). Consequently,
collateral serves as the last resort for recovery of the loan in case of default, where the lender can sell the collateral obtained to recover the balance (or part) of the loan (Okurut et al., 2006).

Fatoki (2014), Coco (2000), Barbosa and Moraes (2004) note that collateral can solve problems derived from asymmetries in valuation of projects, uncertainty about the quality of projects and the riskiness of borrowers, and problems related to the cost of monitoring or supervising borrowers’ behavior. Asset-based lenders focus on the quality of collateral rather than on credit ratings. Borrowers pledge receivables, inventory and equipment as collateral. At times, an insurance company may provide an asset-based borrower with an insurance policy covering the asset (Modansky & Massimino, 2011).

For banks, collateral is the most important factor that is considered at most for the provision of loans to SMEs. Whilst Basel I Capital Accord treated all corporate lending alike, Basel II Capital Accord prescribes that banks that engage in higher risk lending must hold more capital to safeguard their solvency and overall economic stability. Thus, it requires information-opaque firms to rely heavily on collateral (Inderst & Mueller, 2007). In this regard, only SMEs that can provide collateral to secure loan repayment generally receive bank credit (Berger and Frame, 2007).

Banks require immovable assets as the most standard form of collateral security due to the reason that the value of moveable assets reduces as the time passes by (Kouser, Durani, & Hassan, 2012). More easily realizable collateral like motor vehicles and shares are a popular form of collateral for the more aggressive financial institutions while pay slips are popular to the conservative firms (Karanja et al., 2014). But, majority of informal entrepreneurs seldom have proper titles, hence cannot afford collateral for formal loans which implies loss of many profitable investment opportunities (Ledgerwood, 2009). Therefore, Karanja and others (2014) observes that collateral requirements are the main reasons that make entrepreneurs not seek for credit from financial institutions and that financial institutions use collateral substitutes, third
party guarantees, tied contracts and threat of loss of future access to credit to surge access to credit by potential and actual borrowers.

A potential determinant of a firm’s credit access is owner characteristics such as gender (Aga & Reilly, 2011). A significant proportion of SMEs are predominantly owned by females (Wellalage & Locke, 2007). Other studies have identified lack of affordable collateral as one of the challenges that hinder women from accessing credit (Steel et al., 2008). Nasr (2010) observes that in many developing economies, certain segments of the population, primarily women, are excluded from business activity, because traditionally they do not own land, which is often the preferred collateral for loans.

2.3.2 Joint Liability
Evidence from Kenya’s informal economy shows that this sector is not just chaotic or disorganized, as some of the literature suggests but it is relatively organized. Numerous factors push people into the informal economy—but once there, they mobilize social relations and associations to fulfill multiple tasks and functions. These social relations and associations are guided by particular norms and values that help in addressing fundamental concerns, such as organizing society and coordinating markets (Kinyanjui, 2010).

The joint liability model was initiated by the Grameen Bank in Bangladesh and replicated by a large number of institutions globally. This model is also referred to as group liability, group lending or solidarity group and also associated with the social capital theory. The model is often cited as a key innovation responsible for the expansion of access to credit for the poor in developing countries (Morduch, 1999; Armendariz & Murdoch, 2005; Microcredit Summit Campaign 2005, Maobe, 2010). The main attribute of the group-lending model of microcredit is the use of social rather than material collateral. Loans are made to small groups or cooperatives, who become liable for repayment of their collective loans to a financial institution (Steel et al., 2008). Peer pressure is used both as a disciplinary and support mechanism within microcredit.
Borrowers who lapse on their payments are punished with reclamation of their assets but, more importantly, non-payment results in social sanction (Schurmann & Johnston, 2009).

A study on 'social capital and access to credit by Mwangi and Ouma (2012) recommend that financial institutions should factor in group affiliation in designing their loan products so as to increase financial outreach. Borrowers, who are poor in collateralizable assets and for whom lenders have poor information about their creditworthiness have resorted to the use of social capital to improve their accessibility to credit. Putnam (1993) defined social capital as connections among individuals that characterize social networks where norms of reciprocity and trustworthiness arise. Social capital in such networks promotes interpersonal trust, provides for sanctions against those who deviate from the norms and serves as a substitute for institutional and legal deficiencies.

Many studies like Nomaguchi and Milkie (2003), Sprecher (2001), Lawler (2001), Monge and Contractor (2003) relate the social exchange theory to the concept of equity and reciprocity; where the group in a network, pool resources and give it to a member at a time. Stronger relationships are empirically associated with lower loan interest rates, reduced collateral requirements, lower dependence on trade debt, greater protection against the interest rate cycle and increased credit availability (Chepkorir et al., 2014). These social networks have enhanced credit access to the majority SMEs and the poor rural and urban dwellers in Kenya majority of whom suffer from poor access to formal credit due to lack of assets to secure loans and poor information keeping. For most of them social capital is thought to boost their credit worthiness. Regarding social capital, the higher the number of groups one pledges loyalty to, the higher the probability of accessing a loan (Mwangi and Ouma, 2012).

Group lending is very important to SMEs because the model increases credit access through groups other than as individuals and reduces adverse selection problem even without collaterals (Maobe, 2010). Chowdury (2005), Zhao and Gao (2011) attributed
the success of group lending to the inspiration of peer monitoring between group
members, which would further relieve the difficulty of moral hazard and contract
enforcement. As group members develop personal credit histories through their loan
repayments, the need for collective guarantees disappear (Economist, 2005; Maobe,
2010).

Group lending has also helped women secure loans and improve the economy of the
countries over the years. If one is not able to pay his or her debt, group members impose
social sanctions. Belongings like furniture, utensils, or livestock may be confiscated to
pay for an amount owed to the bank. As a form of an adverse-selection framework
fellow borrowers use their social networks to know the characteristics of each other’s
projects relevant to their creditworthiness (Maobe, 2010).

In Kenya, the special fund concept that includes microfinance and the women enterprise
fund were borne from the group lending concept. The Women Enterprise Fund (WEF)
was conceived by the Government of Kenya in 2006 with the objective of empowering
women economically. Through partner financial intermediaries and Constituency
Women Enterprise Scheme, WEF has disbursed substantial amounts of money in the
form of credit to women groups (Women Enterprise Fund, 2009; Mwobobia, 2012; Ijaza
et al., 2014).

According to Anderson and others (2009), Teringwa (2012) and Gichuki and others
(2014) inability to acquire affordable credit in the micro enterprises and the increasing
cost of living at the households has forced women entrepreneurs in Sub-Saharan Africa
to seek affordable credit and saving services from the Village Saving and Credit
Associations (VSCAs). This is a community banking model that mobilizes low-income
earning women from within the same neighborhood. They raise funds to a credit kitty
that offers affordable loans at low-interest rates with flexible repayment period
(Gugerty, 2007; Allen, 2006).
Savings and Credit Cooperative (SACCOs) are yet another modality enabling transition of SMEs to formality in Kenya. After achieving a critical mass of clients and capital, solidarity groups often come together to build a formalized financial institution like SACCOs whose services include selling shares, offering credit facilities and savings (Brown et al., 2011). The SACCOs have reported increase in demand for loans, but have exercised caution in responding to requests. Currently, huge percentage of credit risk is on the guarantors (WOCCU, 2009, Njeru et al., 2015).

The ILO Recommendation No. 193 states that “Governments should promote the important role of cooperatives in transforming the "informal economy" into legally protected work, fully integrated into mainstream economic life. The ILO SYNDICOOP project is an example of a joint approach by trade unions and cooperative movements to engage with workers of the informal economy in view of capacitating them to form their own organizations to gain better livelihoods and defend their rights. The SYNDICOOP project was implemented in Kenya between 2002-2007 with tangible outcome (Omolo et al., 2014).

2.3.3 Financial Reporting
According to Slemrod (2007) and Ondimu (2015), keeping records of accounts is essential for all business operations but small businesses fail due to inadequate, inaccurate or non-existent books. In regard to accounting standards, Karugu, (2013) asserts that SMEs tend to have little accounts or records and engage few or no professionals unlike major companies. Additionally, Fatoki (2014), Berger and Udell (2006), Sarapaivanich and Kotey (2006) observe that SMEs are the most informational opaque due to their lack of track recording. Such firms find it costly and beyond their capacity and skills to comply with standard recordkeeping requirements (World Bank & DFID, 2007). Asymmetric information results in adverse selection and moral hazard, which are two factors that contribute to credit rationing (Wattanapruttipaisan, 2003; Ohanga, 2005; Ramlee & Berma, 2013). A study by Calice and others (2012) stated that amongst Kenyan banks, the lack of quality information which should be reflected in
profit and loss, cashflow and balance sheet statements was the biggest SME-specific hindrance and obstacle to SME lending.

Lack of managerial accounting skills for decision making and lack of technical skills to prepare financial statements are as much obstacles to developing a small business as is the inability to access credit (Mbogo, 2011; Karanja et al., 2013). Studies by Kinyanjui (2006) and Mwobobia (2012) reported that some entrepreneurs felt that it was difficult to obtain loans as they had to show credit records and they did not fully understand the requirements of getting and paying loans. Allee (2007) asserts that firms with audited financial statements have a higher probability to get credit and at a lower cost than those without audited financial statement.

Financial statement lending involves underwriting loans based on the strength of a borrower’s financial statement (Fatoki, 2014). Lenders analyze financial statements to measure a firm’s present performance and capacity of a business to effect repayment of credit, general credit risk and predict future performance (Arthur, 2009; Kwok, 2002; Kitindi et al., 2007). Banks use a statistical credit scoring model to predict the probability that a credit applicant will default (Berger and Frame, 2007). The model utilizes financial history to predict solvency probabilities (Avery et al., 2009) hence segment potential creditors (Abdou & Pointon, 2011), based on a probability risk of default. Moreover, SMEs that have more fixed assets tend to utilize higher financial leverage because they can borrow at lower interest rates as their loans are secured with these assets serving as collateral ((Bradley et al., 1984; Berger & Udell, 1998; Cassar, 2004; Abdulsaleh & Worthington, 2013).

In their study, Okello (2005), Kimaru and Jagongo (2014) affirm that the inability of SMEs to maintain books of accounts for their transactions has hindered uptake of the turnover tax system that was introduced by KRA in 2007. This is a presumptive taxation based on turnover or gross income which obliges SMEs to keep some basic books and records. The SMEs below the VAT threshold of 5 million Ksh (US$ 71,500) are subject
to a presumptive tax at a rate of 3% on declared turnover in case the business maintains accounts and 3% of Ksh 5 million if a business does not keep accounts (World Bank and DFID, 2007). Even when available, the financial information provided by SMEs may not accurately reflect their current financial position and overall business performance (Beck et al., 2008; World Bank, 2014).

Research by Kamau and others (2012) found that tax avoidance and evasion are factors that contribute to creative-illegal accounting practice in Kenya. The objective of creative accounting practices is to make firms appear to be performing well financially through; presenting incorrect statement of accounts, inputting fake entries or incorrect accounting books or records, and making up unachieved income for the purpose of evading taxes (Kuria, 2013). An institution that reports less income than the real amount or rather reports no income at all does not attract attention from the taxpayers thus its likelihood of evading tax is high (Kuria, 2013). On the other hand, such would be appraised adversely if they apply for credit in a financial institution. Moreover, for a firm to qualify for a government tender under the Access to Government Procurement Opportunities (AGPO) program, SMEs are required to present audited books of accounts as proof of financial capabilities (Orido, 2015).

2.3.4 Tax Compliance
Raising more domestic revenue is a priority for most sub-Saharan African countries (Drummond et al., 2012) in order to provide essential public service Merima (2010). In Kenya, taxation is the single largest source of budgetary resources constituting about 80.4% of total government revenue. One of the most prominent challenge is the presence of a large untaxed informal sector as well as high levels of revenue leakage (Karingi et al, 2005). Moreover, Kenyans are yet to accept a tax paying “culture” (KRA, 2004). Hence, tax evasion remains high, with a tax gap of about 33.1% (KIPPRA, 2004).

In reference to tax compliance, majority of enterprises found not to comply have been grouped in one category termed the 'underground economy' (Parliamentary Budget
Office, PBO, 2010). Ouma and others (2007) states that underground economy comprises both legal and illegal activities but the most dominant component was the micro and small enterprises whose transactions remain largely undocumented and unaccounted for. Indeed, SMEs are commonly referred to as hard to tax taxpayers characterized by low tax compliance which can either be by ignorance or by intent (OECD, 2012; Ondimu, 2015). Noncompliance may take several forms, which include failure to submit a tax return within the stipulated period or non-submission; understatement of income; overstatement of deductions; and failure to pay assessed taxes by the due date (Kasipillai & Hijatullah, 2006; Antwi et al., 2015).

Most of the time firms remain informal to evade taxes (Azuma & Grossman, 2002; Loayza & Rigolini, 2006; Marcouiller & Young, 1995). A good tax regime for small firms is a key policy tool to pave their way out of the “informality trap” of low growth, limited access to markets, and exclusion from formal financial services (Kenyon et al., 2005, Akelentera, 2011). Entrepreneurs in Kenya find the tax system burdensome in the procedure used to prepare and submit tax returns (Institute Of Economic Affairs, 2006).

The incentives for SMEs to enter the tax net are closely connected to formalization. Firms will formalize if the benefits of formalization outweigh the costs. The costs of formalization include time and resources taken in registration, cost of tax compliance, and the cost of following labor laws and other regulations. Benefits are; access to credit and capital markets, government procurement contracts, other external markets, state-provided services and facilities (Perry et al., 2007; Joshi et al., 2012). Hence, individuals who are more satisfied with public service provision are more likely to have a tax compliant attitude (Ali et al., 2010). Research in African countries shows that tax resistance is likely to increase if service provision does not improve, necessitating costly and coercive methods of tax enforcement (IFC, 2005; World Bank and DFID, 2007). Since informal economy operators are not registered as taxpayers, the simplest way to tax them is indirectly through goods and services bought or sold (Joshi et al., 2012). Unfortunately, this strategy has little effect on formalization of SMEs. The second
strategy is increasing enforcement and incentive for compliance such as lower tax rates for SMEs that maintain proper books of accounts. But, this effort may consequently increase tax administration costs and coercive or corrupt behavior by tax officials (Bird and Wallace, 2003; Joshi et al., 2012; Pimhidzai & Fox, 2012).

Electronic tax register (ETRs) were first introduced to Kenya in 2004, as a device approved by the government to ensure full remittance of VAT on goods and services transacted by retailers (KRA 2004). The law makes it mandatory for businesses registered for VAT to issue tax invoices and/or cash sale receipts which must be ETR generated or supported by ETR receipts. However, ETR machines are perceived as an additional cost to the business, have consistently been resisted and a subject of court battles between KRA and Traders' Business Associations (Mativo, Muturi & Nyangau, 2015).

In addition, the government of Kenya introduced turnover tax (TOT) in 2007 to enhance revenue collection, improve tax administration and reduce compliance and collection costs. But the performance has been below 50% with 2,890 SMEs registering for taxation against a target of 6,928 between 2009 and 2010. A turnover tax is similar to a sales tax or a value-added tax (VAT), but it is lower and calculated on gross income at a flat rate of 3% without any deductions (KIPPRA, 2006; Kimaru & Jagongo, 2014).

The main challenges that affect the TOT adoption rate are: large size of the SME sector making recruitment difficult, lack of training on TOT to staff, inadequate attention by the tax administration towards the informal sector, mobility of SMEs making compliance difficult, weak enforcement system and tax evasion attitude (KRA, 2010; Mwangi, Gachoka and Siagi, 2010; IEA, 2012; Kimaru & Jagongo, 2014). Kenya pioneered a single business permit (SBP) licensing system in 1989 and has become a model that has been emulated and adopted by other countries in the region. The Constitution of Kenya mandates County Governments to issue Single Business Permits and the system has become their core source of revenue (Sander, 2003; Ndunda et al.,
There are more businesses registered with municipal councils (Current County Councils) than with KRA (IEA, 2012; Ondimu, 2015).

Tax experts argue that compliance is less burdensome when tax laws are simple, tax return forms easy to understand and when taxpayers do not need the help of tax specialists to file their returns (KIPPRA, 2004). Simplifying the registration process and reducing exposure to registration red tape will therefore be key towards this end (Institute Of Economic Affairs, 2006). High costs and difficult formalization procedures drive many small businesses into operating in the informal economy (World Bank and DFID, 2007). Hence, transaction costs should be low enough that they do not act as a disincentive to register (ILO, 2002).

Non-compliance with tax regulation is costly to SMEs in the long term. Firstly, they are not able to reclaim credit for any VAT paid on inputs. Secondly, in many cases the application for an SME credit requires the presentation of a tax Pin identification number (PIN) and therefore the credit is not available to businesses not registered for tax purposes (Calice et al., 2012). The results of informality mean that firms are unsuccessful in accessing formal credit and have to rely on informal lenders (Wellalage & Locke, 2007). However, credit from informal sources may be under extortionate conditions and rates (World Bank and DFID, 2007).

Further, in many developing countries the government tends to be the main client for goods and services offered by SMEs (IFC, 2007). In Kenya, informality will therefore cause an SME not to qualify for government tenders under the AGPO (Access to Government Procurement (AGPO) program, which require presentation of a copy of business registration certificate, PIN/VAT certificate, tax compliance certificate and certificate of registration with relevant regulatory bodies such as the National Construction Authority (Orido, 2015).
2.3.5 Firm Size

Chepkorir and others (2014) define an SME using the number of employees as a criterion whereby a very small or micro enterprises have six or fewer workers, small enterprises have 7-10 workers, medium sized firms have 11-50 workers while large enterprises have over 50 workers.

Several studies have observed that access to finance is one of the major obstacles of SMEs growth (World Bank, 2014). Lack of collateral requirements, low-income, problems in filing tax repayment reports and unsound business plans are some of the major reasons for the unwillingness of the formal bank’s lending credit, to majority of entrepreneurs who own small and medium enterprise (SMEs) (Sacerdoti, 2005; Gichuki, Njeru & Tirimba, 2014).

Very small enterprises are unlikely to meet specific requirements in order to access Business Development Services (BDS) and credit services offered by financial institutions (Bosibori, 2012). Some find it costly and beyond their capacity and skills to comply with standard credit access requirements (World Bank & DFID, 2007). For instance, SMEs engage few or no professionals unlike major companies hence tend to have little accounts or records (Karugu, 2013). In order to enhance creditworthiness, small enterprises organize themselves into associations and informal groups hence benefit from social capital. In this context, financial institutions get an entry point to provide loans at subsidized interest rates exempting them from collateral requirement (Omolo et al., 2014).

Through the informal joint liability groups, financial institutions are able to extend other business development services such as training on goal setting, budgeting, basic book keeping and compiling of tax returns. The government too has initiated various policy and regulatory reforms to accelerate formalization of SMEs. These efforts include; requirement for SMEs to register their businesses, acquire Tax registration certificate, trade licenses, remit employees' statutory deductions and participate in the Nairobi Stock Exchange (Bruhn and McKenzie, 2014).
Therefore, firm Size is a potential determinant of a firm’s access to credit. Prior studies indicate that larger and mature firms have higher external credit accessibility than younger small firms (Wellalage & Locke, 2007; Mahembe, 2011). Usually, firm size is considered on the basis of number of employees and assets of the firms. Financial statement appraisal is therefore best suited for relatively large and transparent firms with certified audited financial statements. However, some small firms with long histories, transparent businesses and strong audited financial statements also qualify for financial statement lending (Chepkorir et al., 2014).

2.3.6 Formalization of SMEs in Kenya

The informal sector is increasingly being referred to as the informal economy to get away from the idea that informality is confined to a specific sector of economic activity but rather cuts across many sectors (Becker, 2004). Neoclassic approach defines informal economy as one that lack formal registration while neo-structuralism approach emphasizes its multiple deficiencies especially lack of capital (UNIDO, 2008). According to García -Bolívar (2006) informal economic activities are those productive activities that are unrecorded – or insufficiently accounted for – in a country’s national income account. Businesses which have failed to be registered under laws that govern business operations in a country are sometimes termed as “illegal”, “black market” or even “hidden economy” (Kuria, 2013).

Informality is often considered both a social challenge and an economic challenge. It is a social challenge because informal employment is often associated with low earnings, low-quality jobs and poverty (Jütting and de Laiglesia, 2009). From a decent work perspective, over 80 percent of Africa’s labor force are employed in the informal economy, and are exposed to decent work deficits in terms of employment gap, right gap, social protection gap and social dialogue gap (ILO, 2007). It is an economic challenge for it reduces the tax base, stifles investment and undermines the overall
competitiveness of the economy (Bongwa, 2009; Palmade, 2005; Bongwa, 2009; OECD, 2012).

In Kenya, the Small and medium enterprises fall under the popular informal sector called Jua Kali as they largely start in the open sun under no roof. It is regulated by the Micro and Small Enterprises Authority (MSEA) as provided by MSEA Act of 2012. The sector employs over 83% and 92% of total non-agricultural job opportunities for women. It is currently receiving a lot of government attention as the solution to the crippling unemployment especially for the youth (Becker, 2004; UNIDO, 2008). The factors that fuel informality have been described by many studies as: high taxes, complicated regulations, bureaucratic hurdles and corruption (Djankov, 2002). In particular, informality is said to be more pervasive in countries requiring entrepreneurs’ compliance with a large number of procedures to start a business and in those in which the time and cost associated with business entry are high. Kinyanjui (2010) argues that policy deficits in education system, employment and practice, inheritance, legal structures and lack of social protection generate vulnerability in individuals, who then find their way into the informal sector.

There exist a general legal requirements that all registered businesses must have a Value Added Tax (VAT) and Personal Identification Number (PIN) with the Kenya Revenue Authority (KRA), a National Social Security Fund (NSSF) number, a National Hospital Insurance Fund (NHIF) number, a Trade License with the ministry of Trade or a Single Business Permit (SBP) with the Local authority. Other requirements are specific to business type. In addition to the above, before one can establish an enterprise, there must be approval by the National Environmental Management Authority (NEMA), which is charged with the responsibility of ensuring that businesses do not have a negative impact on the environment (Maengwe, 2014).

Registration practices in Kenya are often unnecessarily bureaucratic and may involve multiple agencies, and multiple crosschecks; complex due to the different laws, norms,
documents and forms required; expensive, and time-consuming. Delays in business registration, which often involves multiple government institutions including the tax administration, can be a significant impediment to business formation and particularly harmful to the small entrepreneur with limited start-up cash reserves (Simiyu, 2013). While most authors tend to argue that jua kali businesses are not registered and have therefore no legal status (Mead & Morrison 1996; Republic of Kenya 1998), they nonetheless have some form of registration. For example, local authority issues a daily license for Kenyan shilling (Ksh) 100 and is often shown to council askaris or regular police upon demand as proof of legal business. However, the daily receipts do not bear entrepreneurs’ names, the kind of job they do, nor the category of business they are engaged in (Kinyanjui, 2010).

Another category of informal enterprises has business names, which are issued by the Registrar of Societies at a fee. It is an official declaration that one is carrying out a business under a particular name. However, a business name is not a legal entity; the legal entity is the owner of the business. The legal requirements for registering a business name are as follows: carry out a name search to ensure that no other business exists with the same name; complete form BN2 at the Registrar of Societies and procure a certificate of registration (Kinyanjui, 2010).

Kinyanjui (2010) recommends a coordinated approach in formalizing SMEs rather than straitjacketed strategies. She points out that previous efforts in organizing the sector through the formation of groups, such as the Kenya National Alliance of Street Vendors and Informal Traders (KENASVIT) and the Nairobi Informal Sector Confederation (NISCOF) involved the creation of parallel organizations. In 2005, local jua kali associations formed an umbrella body (the National Informal Sector Coalition, NISCO) which gave the numerous small associations a more powerful voice and led to establishment of a large hawkers market in Nairobi and a revolving loan fund administered jointly by NISCO, microfinance institutions and the government (UNIDO, 2008).
The Kenya Hair, Beauty and Salon Workers Union, which is an affiliate of the Central Organization of Trade Unions is an example of how trade unions can organize informal workers into SACCOs and offer training. The union has recruited over 4,000 workers in the informal economy. The union has also supported establishment of regional based SACCOs which are in turn given affiliation. As an incentive to organize the workers in this sector, the union offers the employees and their employers training in areas such as occupational safety and health, labor laws and basic financial management skills (Omolo et al., 2014).

Matatu businesses in Kenya have a history of informality. Some authors refer to the sector as "organized chaos", acknowledging that the industry does in fact organize itself (Mutongi, 2006; Graeff, 2009). The Ministry of Transport and the Transport Licensing Board issued a directive in 2010 requiring that all public transport operators to form or join transport Savings and Credit Cooperatives (SACCOs) or Transport companies that manage buses on behalf of individual investors. After two years of implementation, 450 SACCOs and companies had been registered (McCormick et al. 2013). The idea has proven that the government has potential to effectively regulate and address informal institutions embedded in cartels.

Several studies reveal that reducing compliance costs related to business registration can be a major factor facilitating the formalization of SMEs (Anayiotos, 2005; UNIDO, 2008). Kenya has successfully reduced the bureaucracies for starting and operating a small business by harmonizing all formalities required for registering and operating SMEs. The Huduma Centre model is an inter-institutional framework between various state departments such as; Registrar of companies, KRA, NSSF and NHIF providing a single window for business formalization. The Huduma centers, which are located in all major towns, provide one-stop shop services for registration and tax payments and other business support services to entrepreneurs. The model has also proven highly effective in the formalization process.
The adoption of ILO Recommendation 204 concerning the informal economy further provides broad guidelines on how Member States of the ILO can transit from informal to the formal economy. The recommendation 204 underscores that formalization brings protection and improved conditions to workers, fair competition and improved sustainability to enterprises and revenues and strengthened authority to governments (ILC, 2015).

Informality is a cost to businesses. Firstly, non-compliance with labor laws such as minimum wage culminates in conflict with trade unions and counterproductive consequences such as strikes (UNIDO, 2008) and low labor productivity (Gelb *et al.*, 2009). Secondly, more than 59 percent of small and medium enterprises in Sub-Saharan Africa lack access to formal finance (Meghana *et al.*, 2011). This may be due to lending institutions being reluctant to serve SMEs because of their high risk associated with insufficient assets, low capitalization, vulnerability to market fluctuation, and high information asymmetry (Wellalage & Locke, 2007). Moreover, informal SMEs may miss government contacts since they are expected to produce among others: a certificate of registration; a certificate of tax compliance and five years audited financial reports among others, all which an SME is unable to provide (Maengwe, 2014).

In contrast, formal SMEs face, on average, 18% fewer obstacles to access credit. A study by Terungwa (2012) concluded that the higher the probability of a firm operating in the formal sector, the greater its access to external credit. Other benefits of formalization include: access to capital markets, government procurement contracts, other external markets, a reduced need to pay bribes, access to public services and business support services and availability of basic infrastructure facilities such as electricity, telephone, public sewage, as well as premises (Foreign Investment Advisory Service, 2008; Zinnes, 2009; Gelb *et al.*, 2009; McCulloch *et al.*, 2010; Orido, 2015). There is also evidence that being formal leads to significant gains in value added per employee (Sharma, 2014).
Nevertheless, efforts to transition SMEs to formality may be hindered by the notion that small firms opt into informality precisely because they believe that informality will benefit them, given the burdens of formality (Joshi et al., 2012). From a political view, various researchers such as Baross (1990), Cross (1998), Tendler (2002) and Joshi and others (2012) agree that it is actually in the interest of politicians to keep the informal economy informal, as a captive source of votes. Politicians are known to make such promising statements as: ‘if you vote for me… I won’t collect taxes from you; I won’t make you comply with other tax, environmental or labor regulations; and I will keep the police and inspectors from harassing you’ thus hindering any formalization effort. Lastly, though the benefits of formalization are real, some argue that they are not high enough or exclusive enough to be an incentive to formalize (McKenzie & Woodruff, 2006; Joshi et al., 2014).

2.4 Empirical Review

Several empirical studies have recognized the issue of financial constraint as the main problem thwarting the speedy growth of small businesses in developing economies including (the authors include; Arthur, 2003; Mensah, 2004; Deakins et al., 2008; Akorsu & Agyapong, 2012; Atieno, 2001; Indarti & Langenberg, 2004; Kibera & Kibera1997; Garikai, 2011; Jun, 2007; Maengwe, 2014). An empirical review by Musamali & Tarus (2013), Nangaki and others 2014 too concluded that there was a disconnect between SMEs and lenders which results in the latter failing to secure the required debt finance for development.

Chepkorir and others (2014) sought to understand the credit access requirements imposed by Kenyan commercial banks when lending to SMEs. They found out that the following attributes were considered to be of great importance when making lending decision: strength of income statements, strength of the balance sheet, long histories, quality of accounts receivable and inventory, history of the principal owner and transparency of firms through provision of certified financial statements. Makena and
others (2014) conducted a study on challenges facing women entrepreneurs in accessing business finance in Kenya: Case of Ruiru Township, Kiambu County, where lack of collateral was one of the objectives. The study found out that lack of collateral was a greater hindrance to credit accessibility by women entrepreneurs. This is due to lack of tangible assets like land, which are used as assets to secure credits. This agrees with Bhuiya and others (2001) who argued that with more wealth in form of assets land and livestock, access to bank credit is increased.

Another study by Gichuki and others concluded that SMEs preferred to get their start-up capital from personal savings, relatives and friends because of strict collateral requirements, unwillingness of people to act as guarantors, high credit facilities’ processing fees and short repayment period. Prior studies have delved on the relationship between informality and credit constraints. Many of these studies provide evidence that informality increases SMEs’ credit constraints (Gichiku et al., 2014). Consistent with this report is the empirical work by Beck and Hoseini (2014) and Straub (2005) that provides evidence that informality is associated with lack of access to sources of external finance.

Gitari (2012) in her study on factors affecting women entrepreneurs’ financial performance in Kenya: a case of Ngara Market, found out that lack of information on who is offering what and the cost of obtaining such services limit them and that high inventory costing are some of the major drawbacks for success in women entrepreneurship. A similar study by Nangaki and others (2014) established that most of the SME owners did not maintain proper books of accounts. On access to debt finance, the study found out that most firms which kept financial information had their applications for debt finance approved while those that never maintained financial information had their application declined. This agreed with the studies by Sarapaivanich and Kotey (2006) who argued that lack of adequate information by SMEs led to information asymmetry and credit rationing. Thus financial information and access to debt finance had a positive relationship.
Bruhn and McKenzie (2014) asserts that government reforms on enabling SMEs to formalize have had limited effects, with the majority of existing informal firms not willing to change. Kenyon (2007) argues that development practitioners, especially those in micro-finance, may be wary of linking formalization to access for finance for fear of undermining their business. The formalization of enterprises in many developing countries is cumbersome mainly due to heavy regulations which bring longer delays and higher costs of public services.” (USAID, 2005).

Further, Guha-Khasnobis and others (2009) observe that no simple rule exists that increasing or decreasing "formalization" necessarily improves or worsens the well-being of the poor or welfare of society at large. Two recent studies of a business simplification program in Mexico (Kaplan et al, 2006; Bruhn, 2006) did not find much impact of reforms on registration amongst existing firms. The studies concluded that formality status would appear to be the result of a cost–benefit calculus of the entrepreneur with respect to these costs and benefits. Formalization in the form of access to credit has positive effects on firm profits, growth and survival while formalization appears to have the effect of bringing SMEs closer to their optimal size (Fajnzylber et al., 2009; Joshi et al., 2012).

2.5 Critique of Existing Literature
Different terms have been used synonymously by various authors such as; (Abdulsaleh & Worthington, 2013); (Akorsu & Agyapong, 2012); (Bharadia, 2010); though they bear unique literal interpretation. These include; SMEs (Small and Medium Enterprises), SMEs (Micro and Small Enterprises) and MSMEs (Micro, Small and Medium Enterprises). Others are joint liability, group lending and solidarity groups. Most surveys have sought to capture the range of factors that inhibit the growth and development of small firms. Few studies have concentrated on a particular constraint, so that finance or credit has most often been identified as an inhibiting factor as part of a larger investigation into a wider range of variables. Interpretation is also complicated
because inquiries have almost exclusively been directed at firms that exist rather than following the histories of those that have eventually failed.

Many reviewed studies such as (Aga & Reilly, 2013); (Calice, Chando, & Sekioua, 2012); (Kiira, 2013); over-indulge in analyzing microfinance institutions in regards to credit access while ignoring all other financial institutions in the market such as commercial banks and informal financial institutions. In order to appreciate the role of credit access requirements in formalizing SMEs, an investigation need to encompass all relevant credit market players and review their appraisal techniques. Others such as, (Kiira, 2013); (Manove, Padilla, & Pagano, 2001); (Samreen, Zaidi, & Sarwar, 2013); have delved on analyzing the different credit appraisal techniques adopted by commercial banks to assess the creditworthiness of SMEs in Kenya and also the challenges facing banks in using the applicable credit appraisal techniques when lending to SMEs but none viewed these criteria as a trigger to formalization.

Generally, analysts tend to focus on the demerits of SMEs operating in the informal economy such as credit and growth limitation but not much mention of the benefits accruing from the contrast (Maitreesh & Guinnane, 2010) (Omolo, Kimani, Ngugi, & Orwa, 2014). Yet from existing literature, there is no conclusive evidence that formalization is in itself a prime cause of economic growth. Further, researchers argue that improving services to informal enterprises may help them grow, but there is little evidence on how successful this is in encouraging formalization. Benefits of formalization, though real, are reported not to be sufficient incentive to formalize.

Gender has been identified as factor that influence credit access (Fatoki, 2014). Nearly all such studies focused on challenges facing accessibility of credit facilities among women-owned enterprises and concluded that lack of collaterals had a strong and negative influence towards the accessibility of finance (Gichuki, Mutuku, & Kinuthia, 2014). However, they did not look at the effect of social capital or joint liability as an alternative requirement to access credit facilities. Finally, many SMEs are operated by
individuals who are on transit, not entrepreneurs per se, but who are doing something while waiting for an opportunity to enter salaried jobs, or doing it to supplement other employment income. In such circumstances, expanding the business or even formalization is more likely to be irrelevant.

2.6 Research Gaps
Based on the stated theoretical framework and empirical research, there are substantial studies indicating that credit access requirements such as collateral, joint liability, financial reports and tax compliance are a constraint to SMEs growth and survival, but none of the studies have dealt with all in combination. In the study Aga and Reilly, (2013) the study overemphasized on the access of credit for small and micro enterprises, however, this study focused on credit access requirements as a trigger of formalization decision among SME’s. Further, the study focussed on informal SME’s whereas this study will sample formal businesses that are registered within the Nairobi CBD. Atieno (2009) focussed on linkages, access to finance and the performance of SME in a pure descriptive study. This study however focused on the formalization decision of SME and undertake a cross-sectional study. Similarly, Chepkorir, Osiemo, and Wambua, (2014) assessed credit appraisal techniques applied by commercial banks to SME’s. However, the study failed to take into consideration the effects of joint liability of SME owners and business groups in their study; thus this research sought to fill this gap.

Fatoki, (2014) in his study emphasized on the factors that limit the success of startups in South Africa. However, the researcher did not take into account the impact of business formalization into account in terms of the benefits it creates to a SME. Karanja, Mwangi, and Nyakarimi, (2014) concentrated on factors limiting women owned SME from accessing credit. Though, the researchers touched on collaterization and formal structures of business, they did not take into consideration business owned by all sides of the gender; hence this study sampled all businesses irrespective of ownership. Further, the study did not adopt a cross-sectional survey design. In general; very few have
established a correlation between any of these variables and formalization decision in the Kenyan contest. This study attempted to fill in this gap on how these variables influence formalization decision of SMEs in Kenya.

2.7 Summary
In summary, the most common definition of a Small Medium Enterprises (SMEs), which is also adopted in the study is an enterprise which employ less than 50 employees and with turnover of less than Ksh 100 million’. The SMEs are also characterized by informality, implying that they operate outside government set rules and regulation. The informality is sighted as a challenge to both business and government in form of limited access to credit and growth and loss of tax income respectively. To counter credit risk posed by SMEs as a result of their informality, financial institutions require borrowers to meet certain conditions such as; collateral, membership guarantee or joint liability, audited financial statements and tax registration (KRA PIN). The conceptual framework identifies four requirements; collateralization, joint liability, financial reporting, and tax compliance as independent variables that could influence formalization decision of SMEs. The conceptual framework is guided by three theoretical models; The Herds Theory that seeks to explain the importance of informal associations and networks in inducing compliance and conformity to set credit access requirements, Moral Hazard Theory which describes the role of collateral in enhancing credit repayment and the Grameen Theory that extends the concept of group lending as an alternative to borrowers who cannot meet collateral requirements. In general, the reviewed literature reveals a relationship between informality of enterprise operations with credit constraints.

This chapter also explores the empirical review of various authors, who have done research on SME financing, credit access requirements and formalization. The chapter also critiques the existing literature and identifies the research gap the study seeks to fulfill. The next chapter deals with the research methodology and its related features.
CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction
This chapter introduces the research methodology including the research design, population of study, sampling methodology, and the data collection and analysis procedures. The study adopted both a qualitative and quantitative approach. Data analysis was undertaken by means of standardized statistical procedures. Questionnaires were used to capture qualitative and quantitative data from owners of SMEs under consideration. Guided interviews were used in cases where owner’s education background makes it difficult respond to questionnaires. An observation checklist was important to capture physical evidence of formalization.

3.2 Research Design
Research design is a systematic model that enables the researcher to draw conclusions concerning causal relationships amongst the variables under investigation (Kothari, 2004). The researcher used a cross-sectional survey research design to determine the influence of credit access requirements on formalizing SMEs in Kenya. A cross-sectional survey design is concerned with determining the frequency with which something occurs or the relationship between variables (Bryman & Bell, 2003). The design was appropriate for this study because of its descriptive nature that helps learn people’s attitudes, beliefs, values, behavior, opinions, habits and desires. Further, a cross-sectional study allowed the research to undertake a cause-effect tests for the study variables, thus enabled the research to test whether credit access requirements influence formalizing decisions of SME’s. Ultimately, applying this research design enabled the researcher to make comparison between the study variables within a single period of time (Creswell, 2013).

3.3 Target Population
Mugenda and Mugenda (2003) defines the target population as the population the researcher studies, and whose findings are used to generalize the entire population.
Target population also refers to the larger group from which a sample is taken (Kombo & Tromp, 2006). The target population for the study are small and medium enterprises enlisted with the Nairobi Central Business District Association (NCBDA) 2016. The SMEs represented four main sectors namely; commercial and trade, Services, Pharmaceuticals, and food and beverage as depicted below. In line with the data sourced from the Nairobi County government and NCBDA, there were 1,200 SME’s registered within the central business district (Morange, 2015).

<table>
<thead>
<tr>
<th>Population Frame</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial and Trade</td>
<td>270</td>
</tr>
<tr>
<td>Service</td>
<td>310</td>
</tr>
<tr>
<td>Pharmaceuticals</td>
<td>140</td>
</tr>
<tr>
<td>Food and Beverages</td>
<td>480</td>
</tr>
<tr>
<td><strong>Total Target Population</strong></td>
<td><strong>1200</strong></td>
</tr>
</tbody>
</table>

Literature review on financing institutions especially banks and micro-finance was included in the study to ensure consistency with the objectives of the study. This is because the study sought to determine the role of credit access requirements, which are imposed by financial institutions, in formalization decision of SMEs. The respondents were entrepreneurs who operated businesses in Nairobi and were registered with NCBDA.

3.4 Sampling Frame
Saunders (2011) state that a sampling frame has the property that the researcher can identify every single element and include any in the sample. The most straightforward type of frame is a list of elements of the population with appropriate contact information. The sampling frame was selected from the category of respondents that possess the required information.
The study used the list of SME’s obtained from the NCBDA and registered with the Nairobi County Government as a sampling frame. A sampling frame has the property that the researcher can identify every single element and include any in the sample (Saunders, 2011). The simplest type of frame is a list of elements of the population with appropriate contact information. The sampling frame contained 1200 small and medium enterprises affiliated with Nairobi Central Business District Association.

3.5 Sample and Sampling Technique
Sampling means selecting a given number of subjects from a defined population as representative of that population (Orodho, 2005). The study used stratified random sampling technique to select the sample. The study grouped the population into strata. Each stratum was treated as an independent sub-population. From each stratum the study used systematic random sampling to select 369 respondents. This sampling design was used because the population of the study was not homogenous and was hence sub-divided into sub-units namely; commercial and trade, Services, Pharmaceuticals, and food and beverage.

3.5.1 Sampling Technique
Kothari (2004) recommends stratified random sampling because it is accurate, easily accessible, divisible into relevant strata and it enhances better comparison; hence representation across strata. Another advantage of stratified random sampling is said to be its ability to ensure inclusion of sub-groups, which would otherwise be omitted entirely by other sampling methods because of their small number in the population. The strata in this study consisted of four main sectors where the target SMEs operate; commercial and trade, Services, Pharmaceuticals, and food and beverage.

3.5.2 Sample Size
To get sample size determined from the total population, the recommended scientific Yamane (1967) formula was employed for convenience and accuracy purposes. The formula is as follows;
The proportion of firms to be sampled for the study 60%;

\[ Q = 1 - p \]

\[ n = \frac{Z^2 \cdot p \cdot q}{d^2} \]

\[ n = (1.96)^2 \times (0.6 \times 0.4) \]

\[ (0.05)^2 \]

\[ n = 369 \]

Where: \( n \) = the desired sample size.

\( Z \) = the standard normal deviate at 1.96.

\( P \) = proportion of SME’s to be sampled (0.60).

\( q \) = proportion of SME’s not sampled in the research, given by 1-P, which is set at 0.4 (1-0.6).

\( d \) = degree of accuracy desired set at 0.05 since the test is at 95% confidence level.

Then apportioning the sample size to each sector or strata;

**Table 3.2 Sampling Distribution**

<table>
<thead>
<tr>
<th>Strata</th>
<th>No. firms</th>
<th>Sample population for firms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial and Trade</td>
<td>270</td>
<td>270/1200*369 = 83</td>
</tr>
<tr>
<td>Service</td>
<td>310</td>
<td>310/1200*369 = 95</td>
</tr>
<tr>
<td>Pharmaceuticals</td>
<td>140</td>
<td>140/1200*369 = 44</td>
</tr>
<tr>
<td>Food and Beverages</td>
<td>480</td>
<td>480/1200*369 = 147</td>
</tr>
</tbody>
</table>

**Total Sample Size:** 369 Firms

Morse (2000) indicates that, an ideal sample should be adequate so that the researcher can be sure that a different sample of the same size drawn using related procedures can give approximately similar results. The computed sample size was 369 respondents,
accounting for 29% of the target population which is sufficiently large even for descriptive studies for which the minimum sample size is 10% (Saunders, 2011).

Further, the selected sample size was also guided by the 5% level of significance at which the formulated hypotheses was tested. The level of significance is the statistical standard which is specified for rejecting the null hypothesis (Namusonge, 2010). At this level of significance, the level of confidence is 95%. This is the level of confidence normally used for research in social science (Lewis, Thornhill, & Saunders, 2007). Finally, systematic random sampling method was used to select individual SMEs from each stratum. Based on the formula k=N/n (where k is sampling interval, n is sample size from a strata and N is the population size of the strata), every 7th element was selected to constitute representatives of a stratum.

3.6 Data Collection Instruments

Questionnaires were constructed based on the research objectives. Questionnaires were preferred since they are easy to administer and time-saving (Mugenda & Mugenda, 2003). According to Orodho (2008) each item on the questionnaire should be developed to address a specific objective, research question or hypothesis of study. The questionnaire contained closed-ended questions using a mixture of yes/no, multiple choice, matrix and scaled questions.

There were a few open-ended questions meant to draw qualitative data on subjective thoughts and different responses related to credit access requirements and formalization decision. Self-administered questionnaires were completed by those who could interpret the questionnaire. The researcher administered the questionnaires to the respondents who were not in a position to interpret the questions possibly due to their literacy levels. The questionnaires had six sections: Section 1 gave social-economic characteristics about the entrepreneur, Section 2,3,4 and 5 provided information on credit access requirements; collateralization, joint liability, tax compliance and financial reporting while Section 6 sought information on general formalization process.
An observation checklist was used by the researcher and research assistants to verify presence of various formalization indicators such as; business license/permits, ETR machines, employees and accounts department. In addition, secondary data related to collateralization, financial reporting, joint liability and tax compliance was derived from publications such as economic surveys, sessional papers and journal articles.

3.7 Data Collection Procedure

A questionnaire was developed to collect information on how various credit access requirements influence formalization of SMEs. The instrument was addressed to the owners of small and medium enterprises and administered at their workplace. In order to save cost and time and not interfere with business, the “drop and pick later” method was adopted. Guided Interviews were conducted on respondents who were not able to fill the questionnaire owing to their level of education.

Prior to the data collection exercise, the researcher obtained an introduction letter authorizing data collection from the School of business administration, Jomo Kenyatta University of Agriculture and Technology. A research permit from the National Council for Science and Technology (NACOSTI) was also sought. A cover letter to explain the purpose of the study was attached to the research instruments. This assured the respondents that their responses would be held confidential and used only for the intended purpose. The researcher visited the SMEs twice, when issuing the questionnaires and on collection of the questionnaires. Two research assistants were engaged to assist in administration of the questionnaires and make observations onsite.

Sources of secondary data included published literature on the subject, journal articles, relevant books, websites, reports, Government of Kenya documents, working papers and discussion papers. Various policy documents from the Government of Kenya were used in order to provide an understanding of the institutional context of the study; these included sessional paper No. 2 of 1992 and 2005, Economic survey of 2015, Finance
Bill 2015 and the Medium-Term Plan I of the Vision 2030. The questionnaires were administered over a two-month period from July to August 2016.

The completed questionnaires were cleaned by checking for legibility, consistency in responses to related items and dealing with missing data. Coding was done of the responses to close-ended questions and themes were developed to classify responses to open-ended questions. The information from the data instruments was entered into a Microsoft Access database then converted to SPSS (version 22.0) software for analysis of descriptive and inferential statistics.

3.8 Pilot Test Study

Kombo and Tromp (2006) suggest that in order to ensure the effectiveness of questionnaires, a preliminary test must be carried out. Piloting the questionnaire with a small representative sample was conducted to find out whether the set questions measured what they were intended to. The research instruments were pre-tested using a sample size of 18 respondents which represented 5% of the sample size in line with Mugenda and Mugenda (1999) who commends a pilot study sample size of between 1% to 10% of the actual sample size. The respondents were SMEs in the population with similar characteristics to, but not those who participated in the main study. Respondents for the pilot study were selected using the same procedure followed for the main study. The result of the pilot test was used to identify areas where the questionnaire required adjustments.

3.8.1 Validity

Validity of research instrument refers to the extent to which the instrument measures what it is supposed to measure (Roberts, Priest, & Traynor, 2006). For content validity, the research instruments were pre-tested on a random sample to identify and change any ambiguous, awkward or offensive questions. Then, experts in the subject area reviewed the instruments and rated them based on the content validity index (CVI) using the formula CVI = K/N; Where K = Total number of items in the questionnaire declared
valid and N = Total number of items in the questionnaire. Amin (2005) recommends a computed CVI rate of 0.7 (Wynd, Schmidt, & Schaefer, 2003).

3.8.2 Reliability
Mugenda and Mugenda (2003) states that reliability is the measure of the degree to which a research instrument yields consistent results after repeated trials over a period of time. To test the internal consistency of the instruments in this study, reliability analysis was done using the Cronbach’s Alpha test. Nunnally (1978) asserts that a reliability coefficient of $\alpha \geq 0.7$ is adequate. Additionally, for the researcher to avoid committing a Type II error and improve confidence level while using the Chi-Square statistical test, instruments were issued to 369 respondents (N>30). To further enhance the reliability of the study, data was collected by trained research assistants.

3.9 Data Analysis and Presentation
Sekaram, (2003) asserts that there are three objectives in data analysis; getting a feel for the data, testing the goodness of the data, and answering the research question. According to Mugenda and Mugenda (1999) descriptive statistics enable the meaningful description of a distribution of scores or measurements using a few indices or statistics. For this study, analysis of the data was done using a combination of designs involving descriptive statistics and inferential analysis. Frequency distribution and percentages were used to record the number of times a score occurs and the extent of occurrence of a particular observation respectively.

Regression assumptions were taken into consideration in order to validate the regression equation and reduce the probability of type I and type II errors. The researcher therefore, conducted the following: Homoscedasticity test: test to determine the homogeneity of the data; Multicollinearity test and autocorrelation. The multicollinearity is an often encountered statistical phenomenon in which two or more independent variables in a multiple regression model are highly correlated (Sekaran & Bougie, 2013). If the correlation is 1 or -1, in its most severe case this makes the estimation of the regression
coefficients impossible or unreliable (Sekaran & Bougie, 2013). Autocorrelation gave the researcher the relationship between values of the dependent and independent variables based on the repeated patterns in the regression analysis process.

Heteroscedasticity is a violation of one of the requirements of ordinary least squares (OLS) in which the error variance is not constant (Gujarati, 2007). The consequences of Heteroscedasticity are that the estimated coefficients are unbiased and inefficient. The variances are either too small or too large, leading to Type I error where the Null hypothesis is rejected when it is true or Type II error where one fails to reject a false Null hypothesis. Heteroscedasticity is mainly prevalent in cross-sectional data set such as the one used in this study. Some of the main causes are model misspecification, measurement errors, and outliers in the data set and subpopulation differences. Breusch-Pagan I Cook-Weisberg test was used to test for Heteroscedasticity in the variables.

3.9.1 Statistical Model
The t-test statistics was used to test for the significance of relationships between credit access requirements (independent variables) and formalization of SMEs (dependent variable). A multiple regression equation was used to detect any relationship between the dependent variable and the four independent variables as described below;

\[ Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon \]

Where:

\[ Y = \text{Formalization of SMEs} \]

\[ \alpha = \text{Intercept} \]

\[ \beta_1 - \beta_4 = \text{Slopes coefficients representing the influence of the associated independent variables over the dependent one.} \]

\[ X_1 = \text{Asset Collateralization} \]

\[ X_2 = \text{Joint Liability} \]

\[ X_3 = \text{Financial Reporting} \]
$X_4 = \text{Tax Compliance}$

$X_5 = \text{Firm Size}$

$\varepsilon = \text{Error term}$

To draw conclusions on the moderating influence of firm size on the relationship between credit access requirements and formalization decision of SMEs, a moderated multiple regression model was fitted and tested for significance. The model included interaction variables of the moderating variable and the credit access requirements. The change statistics (R-square change and F-change were calculated on a step wise regression to determine the effect of addition of the interaction variables to the equation. The hypothesis on the moderating variables was tested based on the significance of the change statistics. The MMR model equation was given by:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_MZ + \beta_1MZ + \beta_2MZ + \beta_3MZ$$

$$\ast Z + \beta_4MZ + \varepsilon$$

Where

$Y = \text{Formalization of SMEs}$

$\alpha = \text{Intercept}$

$X_1 = \text{Asset Collateralization}$

$X_2 = \text{Joint Liability}$

$X_3 = \text{Financial Reporting}$

$X_4 = \text{Tax Compliance}$

$Z = \text{Firm Size}$

$X_i \ast Z$ interaction variable between firm size and an independent variable \{=1,2,3,4\}

$\beta_1 - \beta_4 = \text{Slopes coefficients representing the influence of the associated independent variables over the dependent one.}$
\( \beta_M \) = Slope coefficient representing the influence of the moderating variable

\( \beta_{iM} \) = Slope coefficient representing the influence of interaction term moderating variable

\( \varepsilon \) = Error term

The researcher had set up null hypotheses which the study used the t-test to analyze the relationship between the variables, on the basis of the evidence from the sample. If the null hypothesis is rejected, this offered support to the research hypothesis that there is a real relationship between the variables in the population from which the sample is drawn. The chosen alpha level for the analysis was 0.05 (\( \alpha = 0.05 \)). The decision rule was that if the exact probability is less than the critical alpha level (\( p < \alpha \)), the finding is significant and the null hypothesis was to be rejected. If the exact probability is greater than the critical alpha level (\( p > \alpha \)), the finding was to be significant and the study would fail to reject the null hypothesis.
### 3.9.2 Model Description

<table>
<thead>
<tr>
<th>Variable</th>
<th>Hypothesis</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent Variable 1;</td>
<td>$H_1$: There is a positive significant influence of asset collateralization on formalization of SMEs</td>
<td>$Y = \alpha + \beta_1 X_1 + \epsilon$</td>
</tr>
<tr>
<td>Asset Collateralization</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Independent Variable 2;</td>
<td>$H_2$: There is a positive significant influence of joint liability on formalization of SMEs</td>
<td>$Y = \alpha + \beta_2 X_2 + \epsilon$</td>
</tr>
<tr>
<td>Joint Liability</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Independent Variable 3;</td>
<td>$H_3$: There is a positive significant influence of financial reporting on formalization of SMEs</td>
<td>$Y = \alpha + \beta_3 X_3 + \epsilon$</td>
</tr>
<tr>
<td>Financial Reporting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Independent Variable 4;</td>
<td>$H_4$: There is a positive significant influence of tax compliance on formalization of SMEs in Kenya.</td>
<td>$Y = \alpha + \beta_4 X_4 + \epsilon$</td>
</tr>
<tr>
<td>Tax Compliance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moderating Variable;</td>
<td>$H_5$: There is a positive significant influence of firm size on the relationship between credit access requirements and formalization of SMEs</td>
<td>$Y = \alpha + \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_1 X_1 Z_4 + \beta_2 X_2 Z_4 + \beta_3 X_3 Z_4 + \beta_4 X_4 Z_4 + \epsilon$</td>
</tr>
</tbody>
</table>
The independent samples t-test were to be used to equality of variances (Levene's test) and the t-value for both equal- and unequal-variance. The assumptions underlying the T-test were that independent variable consists of two independent groups and that the dependent variable was normally distributed. The constant error term was representative of any other moderating variables that may affect the relationship between credit access requirements and formalization decision of SMEs but which was factored into the causal relationship. The Statistical package for social sciences (SPSS) was the main tool of analysis. Information was then presented diagrammatically by use of tables, bar charts, graphs and pie charts.
### 3.10 Operationalization of Variables

Table 3.1 provides the relationship between the dependent and independent variables on which the study is based.

**Table 3.1 Operationalization of Variables**

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Types of Variables</th>
<th>Scale</th>
<th>Type of analysis</th>
<th>Analysis tools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective one</td>
<td>Independent-asset collateralization</td>
<td>Ordinal</td>
<td>Descriptive, Analytical, Inferential</td>
<td>Frequency table analysis, Mean, standard deviation and regression analysis</td>
</tr>
<tr>
<td>Objective two</td>
<td>Independent-joint liability</td>
<td>Ordinal</td>
<td>Descriptive, Analytical, Inferential</td>
<td>Frequency table analysis, Mean, standard deviation and regression analysis</td>
</tr>
<tr>
<td>Objective three</td>
<td>Independent-financial reporting</td>
<td>Ordinal</td>
<td>Descriptive, Analytical, Inferential</td>
<td>Frequency table analysis, Mean, standard deviation and regression analysis</td>
</tr>
<tr>
<td>Objective four</td>
<td>Independent-tax compliance</td>
<td>Ordinal</td>
<td>Descriptive, Analytical, Inferential</td>
<td>Frequency table analysis, Mean, standard deviation and regression analysis</td>
</tr>
<tr>
<td>Objective five</td>
<td>Moderating variable - firm size</td>
<td>Binary, Discrete</td>
<td>Descriptive, Analytical, Inferential</td>
<td>Frequency table analysis, Mean, standard deviation and regression analysis</td>
</tr>
<tr>
<td></td>
<td>Dependent- Formalization</td>
<td>Ordinal</td>
<td>Descriptive</td>
<td>Frequency table analysis, Mean, standard deviation and regression analysis</td>
</tr>
</tbody>
</table>
CHAPTER FOUR
RESULTS AND DISCUSSIONS

4.1 Introduction

This chapter presents an analysis of data that was collected, interpretation and discussion of the findings. Presentations of the results are on tables and figures where appropriate. Both descriptive and inferential analysis techniques have been employed in the analysis. The results are presented according to the research objectives; influence of asset collateralization, joint liability, financial reporting and tax compliance on formalization decision of SMEs. The chapter is organized according to the themes derived from the research questions. The response rate and the demographic characteristics of the study respondents are also highlighted as a background to the analysis.

4.2 Response Rate

The section presents the results on the response rate. This is an illustration of the response rate from the respondents who were sampled as a representative of the target population as presented in Figure 4.1. The researcher targeted to collect data from a sample of 369 SMEs in Nairobi. However, the study did not achieve a response of 100% as there were some non-response incidences where the researcher could not access all the respondents or the information given was found insufficient to be utilized in the study. Therefore, out of the 369 responses targeted, 292 gave adequate information through answering the questions completely. However, 77 respondents did not give response to the study making a non-response of 21%. Thus, the study realized an overall response rate of 79.13% (292 / 369) as shown in Table 4.1. According to Mugenda and Mugenda (2003) a response rate of 50% is adequate, 60% is good and above 70% is very good. Saunders, Lewis and Thorn (2007) too suggest that an average response rate of 30% to 40% is reasonable for a 'drop and pick' survey method.
Table 4.1: Response rate

<table>
<thead>
<tr>
<th>Strata</th>
<th>Population</th>
<th>Targeted sample</th>
<th>Responses</th>
<th>Response rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commercial and Trade</td>
<td>270</td>
<td>83</td>
<td>61</td>
<td>77.22%</td>
</tr>
<tr>
<td>Service</td>
<td>310</td>
<td>95</td>
<td>73</td>
<td>81.11%</td>
</tr>
<tr>
<td>Pharmaceuticals</td>
<td>140</td>
<td>44</td>
<td>32</td>
<td>80.00%</td>
</tr>
<tr>
<td>Food and Beverages</td>
<td>480</td>
<td>147</td>
<td>110</td>
<td>78.57%</td>
</tr>
<tr>
<td>Total</td>
<td>1200</td>
<td>369</td>
<td>292</td>
<td>79.13%</td>
</tr>
</tbody>
</table>

4.3 Pilot study test results for instrument validity and reliability

A pilot test was carried out where data from the questionnaire was collected from 10% of the intended sample size with the aim of assessing the validity and reliability of the data collection instrument. The pilot test results for instrument validity involved the use of factor analysis which was the basis of testing that the instrument met construct validity.

4.3.1 Factor Analysis

Factor analysis is a statistical technique used for dimension reduction. Where the variables are measured using many observed indicators, factor analysis is adopted to reduce the dimensions of the many observed indicators into few unobserved latent variables. Confirmatory factor analysis (CFA) was for dimension reduction the indicators measured based on theoretical basis of grouping indicators. Factor analysis was thus performed for each variable and its indicators. From factor analysis, factor loadings were extracted and used as the basis of retaining or expunging observed indicators. An indicator is retained and said to belong to the variable if it loads the component by a factor loading greater than 0.4. All the indicators measured had factor loadings greater than 0.4 and were retained except the indicator Y6 which had a loading of 0.0165 that is less than 0.4. This indicator was thus expunged and not considered in computation of the latent variable formalization. The results of the factor loadings are presented in appendix v. Further to computation of factor loadings, factor scores were computed and used to compute latent variables that were used for inferential analysis to test hypothesis and draw conclusions.
4.3.2 Instrument Validity

The researcher used the results from factor analysis to measure and test the construct validity of the instrument. Construct validity is measured and tested by testing convergent validity and discriminant validity.

Convergent validity confirms that the indicators that are meant to be related are actually related. This is confirmed using factor analysis variances extracted. The average variances extracted (AVEs) from the observed indicators of the latent variable can be used to test the validity of the indicators to measure the latent variables. The AVEs above 0.5 implies convergent validity. All the variables of the study had AVEs above 0.5 from the observed indicators used to measure them. This implies convergent validity of the instrument used to collect data. Table 4.2 shows the Average variances extracted.

<table>
<thead>
<tr>
<th>Variable</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asset Collateralization</td>
<td>0.678</td>
</tr>
<tr>
<td>Joint Liability</td>
<td>0.737</td>
</tr>
<tr>
<td>Financial Reporting</td>
<td>0.740</td>
</tr>
<tr>
<td>Tax Compliance</td>
<td>0.743</td>
</tr>
<tr>
<td>Formalization of SMEs</td>
<td>0.632</td>
</tr>
</tbody>
</table>

To measure and test discriminant validity, the researcher used a comparison of the AVEs and the squared correlations. Discriminant validity confirms that the constructs that are not supposed to be related are actually not related. The squared correlations of the latent variables generated were computed and the results compared with the AVEs. A variable with an AVE greater than all the squared correlations between it and the other constructs implies discriminant validity. All the variables had AVEs greater than the respective square correlations implying discriminant validity of the instrument. Having passed both
convergent and discriminant validity, the instrument was thus said to exhibit construct validity.

**Table 4. 3 Squared correlations**

<table>
<thead>
<tr>
<th></th>
<th>SME formalization</th>
<th>Asset collateralization</th>
<th>Joint liability</th>
<th>Financial reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>SME formalization</td>
<td>0.632</td>
<td>0.409</td>
<td>0.472</td>
<td>0.542</td>
</tr>
<tr>
<td>Asset collateralization</td>
<td>0.409</td>
<td>0.678</td>
<td>0.021</td>
<td>0.003</td>
</tr>
<tr>
<td>Joint liability</td>
<td>0.472</td>
<td>0.021</td>
<td>0.737</td>
<td>0.000</td>
</tr>
<tr>
<td>Financial reporting</td>
<td>0.542</td>
<td>0.003</td>
<td>0.000</td>
<td>0.740</td>
</tr>
<tr>
<td>Tax Compliance</td>
<td>0.612</td>
<td>0.001</td>
<td>0.081</td>
<td>0.000</td>
</tr>
</tbody>
</table>

The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and the Bartlett’s test of sphericity were used to test the reliability of the factor analysis results. The KMO shows the proportion of variance caused by underlying factors. With a KMO value close to zero, there is an implication of diffusion in patterns of correlation from large partial correlations relative to the sum of correlations. Diffusion is an indication that the factor analysis results could be inappropriate. The Bartlett’s chi-square statistic is desired to have a p-value less than 0.05 to imply existence of relationship between indicators. From table 4.4, the KMO statistic was found to be 0.958 which is greater than 7 and the Bartlett’s chi-square has a p-value of 0.000 which is less than 0.05. This implies that the factor analysis results can be trusted.

**Table 4. 4 KMO and Bartlett’s test**

<table>
<thead>
<tr>
<th>Test</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kaiser-Meyer-Olkin Measure of Sampling Adequacy.</td>
<td>0.95766</td>
</tr>
<tr>
<td>Bartlett's Test of Sphericity</td>
<td>13985.34</td>
</tr>
<tr>
<td>Approx. Chi-Square</td>
<td></td>
</tr>
<tr>
<td>DF</td>
<td>465</td>
</tr>
<tr>
<td>Sig.</td>
<td>0.000</td>
</tr>
</tbody>
</table>
4.3.2 Reliability of constructs

The instrument was tested for the reliability by computation of Cronbach alpha statistics of reliability. According to the findings, all the variables had Cronbach’s Alpha coefficients that were all greater than the 0.7 threshold thus confirming the reliability. This shows that all the indicators for the variables were reliable measurements and thus the questionnaire was suitable for data collection for the study. The items under the variable were reliable to collect data for the study and give consistent results.

Table 4.5 Reliability Statistics

<table>
<thead>
<tr>
<th></th>
<th>N of Items</th>
<th>Cronbach's Alpha</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asset Collateralization</td>
<td>6</td>
<td>0.786</td>
<td>Accepted</td>
</tr>
<tr>
<td>Joint Liability</td>
<td>10</td>
<td>0.905</td>
<td>Accepted</td>
</tr>
<tr>
<td>Financial Reporting</td>
<td>8</td>
<td>0.882</td>
<td>Accepted</td>
</tr>
<tr>
<td>Tax Compliance</td>
<td>7</td>
<td>0.866</td>
<td>Accepted</td>
</tr>
<tr>
<td>Formalization of SMEs</td>
<td>6</td>
<td>0.720</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

4.3 Preliminary analysis

The section gives the study findings on the demographic characteristics of the firms and the respondents. The characteristics include the gender of the respondents, age and the highest level of academics achieved, technical training related to the businesses in operation and the position of the respondents in their respective businesses. It also presents the findings on the number of years the respondents had worked in their respective businesses.

4.3.1 Demographic characteristics of the respondents.

According to the study results as presented in Table 4.6, majority of the respondents (66.8%) were male. The female respondents were the least representing 33.2%, a contradiction from Wellage and Locke (2007) who noted that SMEs are predominantly owned by women but in line with the findings of Aga and Reilly (2013) who determined that the male respondents were the majority in their study. With regard to the
respondents’ age groups, 2.4% were aged below 21 years, 14.7% were aged between 21
- 30 years and 65.8% were aged between 31 - 40 years whereas 17.1% were aged above
40 years. The findings also show that, majority (62%) of the respondents had achieved
secondary education as the highest level of academic whereas 38% had post-secondary
education. Further, 50% of the respondents had no technical training related to this
business while 41.1% had on-the-job training and only 8.9% had technical training.
Further, Abdulsaleh and Worthington (2013) in their study determined that majority of
the respondents were experienced and those in managerial positions were aged more
than 40 years. However, in contrary to the findings of this study, the majority of
respondents were aged 31-40 years.

The table also shows that, majority (34.6%) of the respondents to the study were
employees of the business, 31.8% were family relatives of the business owners, 19.9%
were joint-owners of the businesses and 13.7% were the owners of the businesses. The
findings of the present study agree with the findings obtained by Samreen, Zaidi and
Sarwar (2013) and Ndunda, Ngahu and Wanyoike (2015) who determined in their
studies that growth from micro to small and medium enterprises is mainly indicated by
employment creation.
Table 4. 6 Demographic Characteristics of the Respondents

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>97</td>
<td>33.2</td>
</tr>
<tr>
<td>Male</td>
<td>195</td>
<td>66.8</td>
</tr>
<tr>
<td><strong>How old are you</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Below 21 years</td>
<td>7</td>
<td>2.4</td>
</tr>
<tr>
<td>21 - 30 years</td>
<td>43</td>
<td>14.7</td>
</tr>
<tr>
<td>31 - 40 years</td>
<td>192</td>
<td>65.8</td>
</tr>
<tr>
<td>Above 40 years</td>
<td>50</td>
<td>17.1</td>
</tr>
<tr>
<td><strong>Highest level of education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Secondary</td>
<td>181</td>
<td>62.0</td>
</tr>
<tr>
<td>Post-secondary education</td>
<td>111</td>
<td>38.0</td>
</tr>
<tr>
<td><strong>Technical training related to this business</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No related training</td>
<td>146</td>
<td>50.0</td>
</tr>
<tr>
<td>On-the-job training</td>
<td>120</td>
<td>41.1</td>
</tr>
<tr>
<td>Technical training</td>
<td>26</td>
<td>8.9</td>
</tr>
<tr>
<td><strong>Position in this business</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employee</td>
<td>101</td>
<td>34.6</td>
</tr>
<tr>
<td>Family member of owner</td>
<td>93</td>
<td>31.8</td>
</tr>
<tr>
<td>Joint-owner</td>
<td>58</td>
<td>19.9</td>
</tr>
<tr>
<td>Owner</td>
<td>40</td>
<td>13.7</td>
</tr>
<tr>
<td><strong>How long have you been in this business</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-3 years</td>
<td>81</td>
<td>27.7</td>
</tr>
<tr>
<td>3-6 years</td>
<td>145</td>
<td>49.7</td>
</tr>
<tr>
<td>6-10 years</td>
<td>6</td>
<td>2.1</td>
</tr>
<tr>
<td>Above 10 years</td>
<td>60</td>
<td>20.5</td>
</tr>
</tbody>
</table>

4.3.2 Source of Business Finance

The findings demonstrate the SMEs’ sources of business finance. It was revealed that the main source of business finance for the SMEs was bank/ microfinance loans accounting for 79.5%. Other sources were personal savings at 64.7%, 43.5% from family and friends, 40.1% from selling of personal assets and 39.7% from the women enterprise fund/ youth fund. The least source given was the chamas/ROSCAs at 37%.
The findings obtained agree with those posited by Feakins (2005) and Fatoki (2014) who claim that commercial banks are one of the major sources of finance to SMEs in Kenya. Informal financial support services include Merry-Go-Rounds (MGRs) (chamas) and Rotating and Services Credit Associations (ROSCAS) which have roots in traditional mutual guarantee systems (Central Bank of Kenya, 2006; Mwobobia, 2012). The study confirmed that the Youth Fund and Women Enterprises Fund are a government’s intervention for financial inclusion of SMEs as observed by Atieno (2009). The study also affirms the sentiments of Tockman (2007) that formalized economy is characterized by larger enterprises, hired employees, high level of organization and technology.

4.5 Descriptive analysis and discussions on the study variables
The variables of the study were measured by various indicators. Each indicator was analyzed and discussed using measures of central tendency as descriptive analysis techniques. The scale of measurement of the indicator formed the basis of the central tendency measure chosen for analysis.

4.5.1 Asset Collateralization
Indicators of the independent variable asset collateralization were measured categorically using ordinal scale of measure. The mode as a measure of central tendency was therefore chosen as the appropriate descriptive technique. Table 4.8 gives the

### Table 4. 7 Source of Business Finance

<table>
<thead>
<tr>
<th>Source of Business Finance</th>
<th>Frequency</th>
<th>Percent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Savings</td>
<td>189</td>
<td>64.7</td>
</tr>
<tr>
<td>Selling personal Assets</td>
<td>117</td>
<td>40.1</td>
</tr>
<tr>
<td>Family and friends</td>
<td>127</td>
<td>43.5</td>
</tr>
<tr>
<td>Bank/ Microfinance Loan</td>
<td>232</td>
<td>79.5</td>
</tr>
<tr>
<td>Chama/ROSCAs</td>
<td>108</td>
<td>37.0</td>
</tr>
<tr>
<td>Women Enterprise Fund/ Youth Fund</td>
<td>116</td>
<td>39.7</td>
</tr>
</tbody>
</table>
findings on asset collateralization. The tables are frequency table analyses with the modal class of each indicator shown.

To measure asset collateralization, the respondents were asked how much they agreed with the statement that lack of business maturity limits the business ability to signal financial institutions of their capacity; 44 respondents strongly disagreed that lack of business maturity limits the business ability to signal financial institutions of their capacity, 24 respondents just disagreed while 10 respondents remained neutral. There are 100 respondents who were in agreement that lack of business maturity limits the business ability to signal financial institutions of their capacity and 114 respondents strongly agreed with the statement. The average score for this indicator was found to be 3.739 and a standard deviation of 1.431. This implies that on average, there is agreement in the perception that lack of business maturity limits the business ability to signal financial institutions of their capacity.

Respondents were also asked to state how much they agreed that lack of adequate formal collateral for SME increases their credit risk among financiers; 36 respondents strongly disagreed that lack of adequate formal collateral for SME increases their credit risk among financiers, 22 respondents just disagreed while 15 respondents remained neutral. There are 125 respondents who were in agreement that lack of adequate formal collateral for SME increases their credit risk among financiers and 94 respondents strongly agreed with the statement. The average score for this indicator was found to be 3.75 and a standard deviation of 1.314. The implication here is that on average, there is in agreement in the perception that lack of adequate formal collateral for SME increases their credit risk among financiers.

The study sought to find out the perception of respondents on the indicator that lack of formal identity of documents limits the information available on the specific business; 25 respondents strongly disagreed that lack of formal identity of the document limits the
information available on the specific business, 10 respondents just disagreed while 14 respondents remained neutral. There are 124 respondents who were in agreement that lack of formal identity of the document limits the information available on the specific business and 119 respondents strongly agreed with the statement. The average score for this indicator was found to be 4.034 and a standard deviation of 1.169. The implication here is that on average, there was an agreement in the perception that lack of formal identity of documents limits the information available on the specific business.

Considering the indicator on the level of agreement with the statement that lack of abundant collateral among SME limit their access to credit as required by banks; 11 respondents strongly disagreed that lack of abundant collateral among SME limit their access to credit as required by banks, 13 respondents just disagreed while 17 respondents remained neutral. There are 139 respondents who were in agreement that lack of abundant collateral among SME limit their access to credit as required by banks and 112 respondents strongly agreed with the statement. The average score for this indicator was found to be 4.123 and a standard deviation of 0.973. This implies that on average, there is an agreement in the perception that lack of abundant collateral among SME limit their access to credit as required by banks.

Respondents were also asked to state how much they agreed that having the right collateral fosters the credibility of a business thus bridging the information asymmetry among SME; 17 respondents strongly disagreed that having the right collateral fosters credibility of a business thus bridging the information asymmetry among SME, 11 respondents just disagreed while 21 respondents remained neutral. There are 130 respondents who were in agreement that having the right collateral fosters credibility of a business thus bridging the information asymmetry among SME and 113 respondents strongly agreed with the statement. The average score for this indicator was found to be 4.065 and a standard deviation of 1.065. This has an implication that on average, there is
an agreement in the perception that having the right collateral fosters credibility of a business thus bridging the information asymmetry among SMEs.

Table 4. 8 Asset Collateralization

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree (1)</th>
<th>Disagree (2)</th>
<th>Neutral (3)</th>
<th>Agree (4)</th>
<th>Strongly Agree (5)</th>
<th>Mean</th>
<th>Std. dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC1</td>
<td>44</td>
<td>24</td>
<td>10</td>
<td>100</td>
<td>114</td>
<td>3.74</td>
<td>1.431</td>
</tr>
<tr>
<td>AC2</td>
<td>36</td>
<td>22</td>
<td>15</td>
<td>125</td>
<td>94</td>
<td>3.75</td>
<td>1.314</td>
</tr>
<tr>
<td>AC3</td>
<td>25</td>
<td>10</td>
<td>14</td>
<td>124</td>
<td>119</td>
<td>4.03</td>
<td>1.169</td>
</tr>
<tr>
<td>AC4</td>
<td>11</td>
<td>13</td>
<td>17</td>
<td>139</td>
<td>112</td>
<td>4.12</td>
<td>0.973</td>
</tr>
<tr>
<td>AC5</td>
<td>17</td>
<td>11</td>
<td>21</td>
<td>130</td>
<td>113</td>
<td>4.06</td>
<td>1.065</td>
</tr>
</tbody>
</table>

The findings of this study are in line with Fatoki (2014) and Moraes (2004) who noted that collateral can take care of issues raised about asymmetries in valuation of projects, vulnerability about the nature of projects and the hazard of borrowers, and issues identified with the expense of monitoring borrowers’ conduct. The current study determined that having the right collateral fosters credibility of a business thus bridging the information asymmetry among SMEs. For instance, borrowers vow stock and hardware as collateral as indicated by Modansky and Massimino (2011).

Banks require steady assets as the most standard type of collateral security because of the reason that the estimation of moveable assets lessens with time as indicated by (Kouser, Durani, and Hassan, 2012). Karanja et al. (2014) observed that collateral necessities are the principle reasons that make business people not look for credit from
budgetary foundations and that money related establishments use collateral substitutes, thus risk of loss of future access to credit by potential and genuine borrowers.

4.5.2 Joint Liability
The second objective of the study sought to find out the influence of joint liability on formalization decision of SMEs. The study therefore measured joint liability using different indicators that were analyzed and results presented in tables. Findings under this section present the results of the effect of joint liability on business formalization decision among SMEs. The findings are based on frequency tables and the mode as the central tendency since indicators were measured on a Likert scale data of 1 to 5. The results are presented in table 4.9.

The respondents were asked how much they agreed with the statement that joining up a group has enhanced the business ability to access credit; 67 respondents strongly disagreed that joining up a group has enhanced the business ability to access credit, 71 respondents just disagreed while 82 respondents remained neutral. There are 72 respondents who are in agreement that joining up a group has enhanced the business ability to access credit and 0 respondents strongly agreed with the statement. The average score for this indicator was found to be 3.709 and a standard deviation of 1.415. The implication here is that on average, there is agreement in the perception that joining up a group has enhanced the business ability to access credit.

The questionnaire sought to find out how much the respondents agreed that joint liability of the group allow members to monitor each other easily thus enhancing loan repayment; 44 respondents strongly disagreed that the joint liability of the group allow members to monitor each other easily thus enhancing loan repayment, 24 respondents just disagreed while 10 respondents remained neutral. There were 110 respondents who were in agreement that joint liability through a group allow members to monitor each other easily thus enhancing loan repayment while 104 respondents strongly agreed with
The average score for this indicator was found to be 3.87 and a standard deviation of 1.376, implying that on average, there is agreement in the perception that joint liability of the group allow members to monitor each other easily thus enhancing loan repayment.

The questionnaire also sought to find out the level to which the respondents agreed that joining up as a group allows business to access better credit terms since the group acts as the guarantor; 36 respondents strongly disagreed that joining up as a group allows business to access better credit terms since the group acts as the guarantor, 22 respondents just disagreed while 15 respondents remained neutral. There are 96 respondents who are in agreement that joining up as a group allows business to access better credit terms since the group acts as the guarantor and 123 respondents strongly agreed with the statement. The average score for this indicator was found to be 3.973 and a standard deviation of 1.142, implying that on average, there is agreement in the perception that joining up as a group allows business to access better credit terms since the group acts as the guarantor.

The other indicator considered for measuring this variable was on how much respondents agree that joining up in groups allow a business to be screened fairly by financial institutions thus accessing better credit terms; 25 respondents strongly disagreed that joining up in groups allow a business to be screened fairly by financial institutions thus accessing better credit terms, 10 respondents just disagreed while 14 respondents remained neutral. There were 145 respondents who were in agreement that joining up in groups allow a business to be screened fairly by financial institutions thus accessing better credit terms and 98 respondents strongly agreed with the statement. The average score for this indicator was found to be 4.116 and a standard deviation of 0.97, implying that on average, there is agreement in the perception that joining up in groups allow the business to be screened fairly by financial institutions thus accessing better credit terms.
The key respondents from the firms were also to state their extent of agreement that peer monitoring within the groups reduces moral hazard and fosters contract enforcement among business; 11 respondents strongly disagreed that peer monitoring within the groups reduces moral hazard and fosters contract enforcement among business, 13 respondents just disagreed while 17 respondents remained neutral. There are 137 respondents who are in agreement that peer monitoring within the groups reduces moral hazard and fosters contract enforcement among business and 114 respondents strongly agreed with the statement. The average score for this indicator was found to be 4.021 and a standard deviation of 1.045. This has an implication that on average, there is agreement in the perception that peer monitoring within the groups reduces moral hazard and fosters contract enforcement among business.

Table 4. 9 Joint Liability

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree (1)</th>
<th>Disagree (2)</th>
<th>Neutral (3)</th>
<th>Agree (4)</th>
<th>Strongly Agree (5)</th>
<th>Mean</th>
<th>Std. dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>JL1</td>
<td>67</td>
<td>71</td>
<td>82</td>
<td>72</td>
<td>0</td>
<td>3.709</td>
<td>1.415</td>
</tr>
<tr>
<td>JL2</td>
<td>44</td>
<td>24</td>
<td>10</td>
<td>110</td>
<td>104</td>
<td>3.870</td>
<td>1.376</td>
</tr>
<tr>
<td>JL3</td>
<td>36</td>
<td>22</td>
<td>15</td>
<td>96</td>
<td>123</td>
<td>3.973</td>
<td>1.142</td>
</tr>
<tr>
<td>JL4</td>
<td>25</td>
<td>10</td>
<td>14</td>
<td>145</td>
<td>98</td>
<td>4.116</td>
<td>0.970</td>
</tr>
<tr>
<td>JL5</td>
<td>11</td>
<td>13</td>
<td>17</td>
<td>137</td>
<td>114</td>
<td>4.021</td>
<td>1.045</td>
</tr>
</tbody>
</table>

Still under joint liability, the researcher measured other indicators of the benefits accrued from joint liability strategy. Considering the indicator on the level of agreement with the statement that benefits accrued from joint liability strategy has enhanced access to credit; 17 respondents strongly disagreed that benefits accrued from joint liability strategy has enhanced access to credit, 11 respondents just disagreed while 21 respondents remained neutral. There were 150 respondents who were in agreement that
benefits accrued from joint liability strategy had enhanced access to credit and 93 respondents strongly agreed with the statement. The average score for this indicator was found to be 3.747 and a standard deviation of 1.435. The implication here is that on average, there is agreement in the perception that benefits accrued from joint liability strategy has enhanced access to credit.

The other indicator considered for measuring this variable was on how much respondents agree that benefits accrued from joint liability strategy has enhanced formal credibility of the business; 44 respondents strongly disagreed that benefits accrued from joint liability strategy has enhanced the formal credibility of the business, 24 respondents just disagreed while 10 respondents remained neutral. There were 111 respondents who were in agreement that benefits accrued from joint liability strategy had enhanced the formal credibility of the business and 103 respondents strongly agreed with the statement. The average score for this indicator was found to be 3.795 and a standard deviation of 1.339. This has an implication that on average, there is agreement in the perception that benefits accrued from joint liability strategy has enhanced formal credibility of the business.

Another indicator for this variable was based on the level of agreement that benefits accrued from joint liability strategy has fostered the availability of guarantors for credit; 36 respondents strongly disagreed that benefits accrued from joint liability strategy has fostered the availability of guarantors for credit, 22 respondents just disagreed while 15 respondents remained neutral. There are 93 respondents who are in agreement that benefits accrued from joint liability strategy has fostered the availability of guarantors for credit and 126 respondents strongly agreed with the statement. The average score for this indicator was found to be 4 and a standard deviation of 1.155. The implication here is that on average, there is agreement in the perception that benefits accrued from joint liability strategy has fostered the availability of guarantors for credit.
The other indicator considered for measuring this variable was on how much respondents agree that benefits accrued from joint liability strategy enhances monitoring of borrowers’ fund usage and repayment; 25 respondents strongly disagreed that benefits accrued from joint liability strategy enhances the monitoring of borrowers' fund usage and repayment, 10 respondents just disagreed while 14 respondents remained neutral. There are 133 respondents who are in agreement that benefits accrued from joint liability strategy enhances the monitoring of borrowers' fund usage and repayment and 110 respondents strongly agreed with the statement. The average score for this indicator was found to be 4.168 and a standard deviation of 0.989. This implies that on average, there is agreement in the perception that benefits accrued from joint liability strategy enhances monitoring of borrowers' fund usage and repayment.

Next, the respondents were asked whether they agreed that benefits accrued from joint liability strategy has supported more elaborate screening of would-be members and borrowers; 11 respondents strongly disagreed that benefits accrued from joint liability strategy has supported more elaborate screening of would-be members and borrowers, 13 respondents just disagreed while 17 respondents remained neutral. There are 114 respondents who are in agreement that benefits accrued from joint liability strategy has supported more elaborate screening of would-be members and borrowers and 137 respondents strongly agreed with the statement. The average score for this indicator was found to be 4.034 and a standard deviation of 1.051, implying that on average, there is agreement in the perception that benefits accrued from joint liability strategy has supported more elaborate screening of would-be members and borrowers.
Table 4.10 Benefits Accrued from Joint Liability Strategy

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree (1)</th>
<th>Disagree (2)</th>
<th>Neutral (3)</th>
<th>Agree (4)</th>
<th>Strongly Agree (5)</th>
<th>Mean</th>
<th>Std. dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BA1</td>
<td>17</td>
<td>11</td>
<td>21</td>
<td>150</td>
<td>93</td>
<td>3.747</td>
<td>1.435</td>
</tr>
<tr>
<td>BA2</td>
<td>44</td>
<td>24</td>
<td>10</td>
<td>111</td>
<td>103</td>
<td>3.795</td>
<td>1.339</td>
</tr>
<tr>
<td>BA3</td>
<td>36</td>
<td>22</td>
<td>15</td>
<td>93</td>
<td>126</td>
<td>4.000</td>
<td>1.339</td>
</tr>
<tr>
<td>BA4</td>
<td>25</td>
<td>10</td>
<td>14</td>
<td>133</td>
<td>110</td>
<td>4.168</td>
<td>0.989</td>
</tr>
<tr>
<td>BA5</td>
<td>11</td>
<td>13</td>
<td>17</td>
<td>114</td>
<td>137</td>
<td>4.034</td>
<td>1.051</td>
</tr>
</tbody>
</table>

The above observations agree with Kenyon (2007) who posits that it is impossible to formalize SMEs without working through their informal associations. The main benefits of formalization through group affiliation are; increased credit access, reduced need to pay bribes, access to government procurement opportunities and access to public business support services.

4.5.3 Financial Reporting

Financial reporting was used as an independent variable in the third objective of the study. This section gives the findings on the effect of financial reporting on SME formalization decision. The findings are based on a Likert scale data which was collected and analyzed through using frequency tables with the mode as the measure of central tendency. The results for the descriptive statistics for financial performance is presented in table 4.11.

The respondents were first asked how much they agreed with the statement that financial reporting enhances availability of business information thus better track recording; 17 respondents strongly disagreed that financial reporting enhances availability of business information thus better track recording, 11 respondents just disagreed while 21 respondents remained neutral. There are 137 respondents who were in agreement that financial reporting enhances availability of business information thus better track recording and 106 respondents strongly agreed with the statement. The average score for
this indicator was found to be 3.743 and a standard deviation of 1.369. This implies that on average, there is agreement in the perception that financial reporting enhances availability of business information thus better track recording.

Considering the indicator on the level of agreement with the statement that availability of financial records eliminates information asymmetry thus allowing for better monitoring; 44 respondents strongly disagreed that availability of financial records eliminates information asymmetry thus allowing for better monitoring, 15 respondents just disagreed while 19 respondents remained neutral. There were 103 respondents who were in agreement that availability of financial records eliminates information asymmetry thus allowing for better monitoring and 111 respondents strongly agreed with the statement. The average score for this indicator was found to be 3.853 and a standard deviation of 1.312. This implies that on average, there is agreement in the perception that availability of financial records eliminates information asymmetry thus allowing for better monitoring.

Analysis of the level of agreement of the respondents that availability of quality credible financial information enhances business access to lending facilities; 36 respondents strongly disagreed that availability of quality credible financial information enhances business access to lending facilities, 8 respondents just disagreed while 29 respondents remained neutral. There were 96 respondents who were in agreement that availability of quality credible financial information enhances business access to lending facilities and 123 respondents strongly agreed with the statement. The average score for this indicator was found to be 4.082 and a standard deviation of 0.981. This has an implication that on average, there is agreement in the perception that availability of quality credible financial information enhances business access to lending facilities.

The key respondents from the firms were also to state their extent of agreement that financial reporting fosters the ability of the business to access better credit terms; 12
respondents strongly disagreed that financial reporting fosters the ability of the business to access better credit terms, 14 respondents just disagreed while 23 respondents remained neutral. There were 147 respondents who were in agreement that financial reporting fosters the ability of the business to access better credit terms and 96 respondents strongly agreed with the statement. The average score for this indicator was found to be 4.151 and a standard deviation of 0.983. The implication here is that on average, there is agreement in the perception that financial reporting fosters the ability of the business to access better credit terms.

Analysis of the level of agreement of the respondents that professionally audited financial records instill a better image of the going concern view of the firm; 11 respondents strongly disagreed that audited financial records instill a better image of the going concern view of the firm, 13 respondents just disagreed while 17 respondents remained neutral. There were 126 respondents who were in agreement that audited financial records instill a better image of the going concern view of the firm and 125 respondents strongly agreed with the statement. The average score for this indicator was found to be 4.065 and a standard deviation of 1.065. This has an implication that on average, there is agreement in the perception that professionally audited financial records instill a better image of the going concern view of the firm.

The questionnaire sought to find out how much the respondents agreed that elaborate financial reporting enables a business to be conscious of its liquidity levels; 17 respondents strongly disagreed that elaborate financial reporting enables a business to be conscious of its liquidity levels, 11 respondents just disagreed while 21 respondents remained neutral. There are 138 respondents who are in agreement that elaborate financial reporting enables the business to be conscious of its liquidity levels and 105 respondents strongly agreed with the statement. The average score for this indicator was found to be 3.688 and a standard deviation of 1.403. This implies that on average, there
is agreement in the perception that elaborate financial reporting enables a business to be conscious of its liquidity levels.

Respondents were also asked to state how much they agreed that having quality financial reporting mechanism enhances the firm’s capacity to undertake seamlessly its tax obligations; 44 respondents strongly disagreed that having quality financial reporting mechanism enhances the firm’s capacity to undertake seamlessly its tax obligations, 24 respondents just disagreed while 10 respondents remained neutral. There are 101 respondents who are in agreement that having quality financial reporting mechanism enhances the firm’s capacity to undertake seamlessly its tax obligations and 113 respondents strongly agreed with the statement. The average score for this indicator was found to be 3.822 and a standard deviation of 1.353. This has an implication that on average, there is agreement in the perception that having quality financial reporting mechanism enhances the firm’s capacity to undertake seamlessly its tax obligations.

Another indicator for this variable was based on the level of agreement that elaborate financial reporting opens up the business to opportunities such as government tendering; 36 respondents strongly disagreed that elaborate financial reporting opens up the business to opportunities such as government tendering, 22 respondents just disagreed while 15 respondents remained neutral. There were 102 respondents who were in agreement that elaborate financial reporting opens up the business to opportunities such as government tendering and 117 respondents strongly agreed with the statement. The average score for this indicator was found to be 3.966 and a standard deviation of 1.139, there is agreement in the perception that elaborate financial reporting opens up the business to opportunities such as government tendering.
Table 4.11 Financial Reporting

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree (1)</th>
<th>Disagree (2)</th>
<th>Neutral (3)</th>
<th>Agree (4)</th>
<th>Strongly Agree (5)</th>
<th>Mean</th>
<th>Std. dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FR1</td>
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<td>11</td>
<td>21</td>
<td>137</td>
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<td>1.369</td>
</tr>
<tr>
<td>FR2</td>
<td>44</td>
<td>15</td>
<td>19</td>
<td>103</td>
<td>111</td>
<td>3.853</td>
<td>1.312</td>
</tr>
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<td>FR3</td>
<td>36</td>
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<td>29</td>
<td>96</td>
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<td>96</td>
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<td>0.983</td>
</tr>
<tr>
<td>FR5</td>
<td>11</td>
<td>13</td>
<td>17</td>
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<td>4.065</td>
<td>1.065</td>
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<td>3.688</td>
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<td>22</td>
<td>15</td>
<td>102</td>
<td>117</td>
<td>3.966</td>
<td>1.139</td>
</tr>
</tbody>
</table>

The study results are in line with Slemrod (2007) and Ondimu (2015) who found out that keeping records of accounts is crucial for all business operations; however small organizations fail to secure credit because of insufficient, incorrect or non-existent books. As to financial guidelines, Karugu, (2013) determined that SMEs have a tendency not to maintain proper books of accounts or records and connect with few or no experts different to large organizations. Furthermore, Fatoki (2014), Berger and Udell (2006), found out that SMEs are the most informational opaque because of their absence of track recording. Such firms think that it’s unreasonable and past their ability and aptitudes to consent to standard recordkeeping prerequisites as indicated by the World Bank and DFID (2007). The findings also agree with those posited by Calice et al. (2012) who reported that amongst Kenyan banks, the absence of valuable data on SMEs was a particular deterrent and hindrance to SME lending. In addition, the study confirms the observation made by Chepkorir and others (2014) that the most common credit access requirement by lenders in Kenya is a certified financial statement.
4.5.4 Tax Compliance

The study objectives also sought to find out the effect of tax compliance on SME formalization decision. The variable tax compliance was measured by various indicators on an ordinal scale. The findings are analyzed as frequency tables basing on the mode as the measure of central tendency.

To measure this variable, the respondents were asked how much they agreed with the statement that tax compliance fosters business brand image; 44 respondents strongly disagreed that tax compliance fosters business brand image, 11 respondents just disagreed while 23 respondents remained neutral. There were 102 respondents who were in agreement that tax compliance fosters business brand image and 112 respondents strongly agreed with the statement. The average score for this indicator was found to be 3.73 and a standard deviation of 1.357. This implies that on average, there is agreement in the perception that tax compliance fosters business brand image.

Considering the indicator on the level of agreement with the statement that tax compliance is an essential tool of fostering business legitimacy/formalizing operations; 36 respondents strongly disagreed that tax compliance is an essential tool of fostering the business legitimacy/formalizing operations, 13 respondents just disagreed while 24 respondents remained neutral. There were 99 respondents who were in agreement that tax compliance is an essential tool of fostering business legitimacy/formalizing operations and 120 respondents strongly agreed with the statement. The average score for this indicator was found to be 3.908 and a standard deviation of 1.337, implying that on average, there is agreement in the perception that tax compliance is an essential tool of fostering business legitimacy/formalizing operations.

To measure this variable, the respondents were also asked how much they agreed with the statement that tax compliance opens up the business to essential opportunities such as government tendering; 10 respondents strongly disagreed that tax compliance opens
up the business to essential opportunities such as government tendering, 18 respondents just disagreed while 21 respondents remained neutral. There are 131 respondents who are in agreement that tax compliance opens up the business to essential opportunities such as government tendering and 112 respondents strongly agreed with the statement. The average score for this indicator was found to be 4.065 and a standard deviation of 0.994. The implication here is that on average, there is agreement in the perception that tax compliance opens up the business to essential opportunities such as government tendering.

Considering the indicator on the level of agreement with the statement that tax compliance enables the business to enjoy public service provisions; 11 respondents strongly disagreed that tax compliance enables the business to enjoy public service provisions, 13 respondents just disagreed while 17 respondents remained neutral. There are 121 respondents who are in agreement that tax compliance enables the business to enjoy public service provisions and 130 respondents strongly agreed with the statement. The average score for this indicator was found to be 4.175 and a standard deviation of 0.992. This implies that on average, there is agreement in the perception that tax compliance enables the business to enjoy public service provisions.

Analysis of the level of agreement of the respondents that tax compliance enable businesses to recoup paid VAT thus enhancing business financial position; 17 respondents strongly disagreed that tax compliance enable businesses to recoup the paid VAT thus enhancing business financial position, 11 respondents just disagreed while 21 respondents remained neutral. There were 129 respondents who were in agreement that tax compliance enable businesses to recoup the paid VAT thus enhancing business financial position and 114 respondents strongly agreed with the statement. The average score for this indicator was found to be 4.099 and a standard deviation of 1.078. This implies that on average, there is agreement in the perception that tax compliance enable businesses to recoup the paid VAT thus enhancing business financial position.
To measure this variable, the respondents were also asked how much they agreed with the statement that payment of SME tax obligations has been hindered by rigid tax administration structures; 44 respondents strongly disagreed that payment of SME tax obligations has been hindered by rigid tax administration structures, 24 respondents just disagreed while 10 respondents remained neutral. There were 99 respondents who were in agreement that payment of SME tax obligations has been hindered by rigid tax administration structures and 115 respondents strongly agreed with the statement. The average score for this indicator was found to be 3.73 and a standard deviation of 1.426. This implies that on average, there is agreement in the perception that payment of SME tax obligations has been hindered by rigid tax administration structures.

The respondents also responded the question on whether they agree that high tax obligations contribute to tax evasion among SMEs; 36 respondents strongly disagreed that high tax obligations contribute to tax evasion among SMEs, 22 respondents just disagreed while 15 respondents remained neutral. There were 104 respondents who were in agreement that high tax obligations contribute to tax evasion among SMEs and 115 respondents strongly agreed with the statement. The average score for this indicator was found to be 3.846 and a standard deviation of 1.365. This implies that on average, there is agreement in the perception that high tax obligations contribute to tax evasion among SMEs.
The study results are in line with Azuma and Grossman (2002) who argued that more often, firms stay casual to avoid taxes. Further, they observed that a decent tax administration for small firms is a key policy device to clear out of the "casualness trap" of low development, constrained access to business sectors, and rejection from formal budgetary administrations as also indicated by Kenyon et al. (2005) and Akelentera (2011). The motivation for SMEs to enter the tax net are firmly associated with formalization. Firms will formalize if the advantages of formalization exceed the expenses. The expenses of formalization incorporate time and assets taken in enrollment, expense of tax consistence, and the expense of taking after work laws and different directions. The advantages of formalization are; enhanced access to credit and consequential growth of SMEs as posited by Perry et al. (2007) and Joshi et al. (2012).

4.5.6 Size of the firm (Number of Employees)
The moderating variable, size of the firm was measured in terms of the number of employees in the business.
Based on the accepted definition of an SME, the study revealed that majority (56.8%) of the businesses under study recorded between 51-100 employees hence mainly
categorized as medium enterprises. Conversely, both micro and small enterprises accounted for 30.5% while 12.7 of businesses fit in the definition of large enterprises. The findings of the study are in line with the European Union (2005) observation that SMEs in developing countries have a cut-off of 100 employees in their businesses. Similar findings were also recorded by Gibson and Vaart (2008) who observed that a growth from micro, small to medium and eventually to large enterprise is mainly characterized by an increase the number of employed workers. Tockman (2007) also observed that a formalized economy will be depicted by presence of larger enterprises, hired employees and high level of organization and technology.

<table>
<thead>
<tr>
<th>Group</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of workers employed in your business</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-50</td>
<td>89</td>
<td>30.5</td>
</tr>
<tr>
<td>51-100</td>
<td>166</td>
<td>56.8</td>
</tr>
<tr>
<td>101-200</td>
<td>24</td>
<td>8.2</td>
</tr>
<tr>
<td>Over 200</td>
<td>13</td>
<td>4.5</td>
</tr>
</tbody>
</table>

### 4.5.7 Formalization

Findings as indicated in Table 4.13 illustrate that, all the businesses were found to have a business permit/ operation license. Similarly, all the businesses studied were registered with line authorities and had a tax compliance certificate.

Of the businesses, 75% had enacted formal structures to support financial information recording and reporting. The findings as well show that 92.8% of the businesses studied were registered with statutory bodies such as NSSF and NHIF.
Table 4. 13 Indicators of formalization by SMEs (check list)

<table>
<thead>
<tr>
<th>Indicators of formalization</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business has a permit/license</td>
<td>292</td>
<td>100.0</td>
</tr>
<tr>
<td>Business is registered with line authorities</td>
<td>292</td>
<td>100.0</td>
</tr>
<tr>
<td>Business has a tax compliance certificate</td>
<td>292</td>
<td>100.0</td>
</tr>
<tr>
<td>Business has enacted formal structures to support financial</td>
<td>219</td>
<td>75.0</td>
</tr>
<tr>
<td>information recording and reporting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business is registered with statutory bodies i.e. NSSF/NHIF</td>
<td>271</td>
<td>92.8</td>
</tr>
</tbody>
</table>

A keen observation of the SMEs against the checklist of general indicators of formalization revealed a high level of formality. Consequently, majority of the studied SMEs recorded that they had accessed external credit financing. These results are in line with Gichuki and others (2014) who observed that an increase in the level of SME formality reduces credit constraints. The findings also agree with Joshi and others (2012) who found that formalization results in growth in size of SMEs.

4.5.8 Content Analysis of Qualitative Data Results

This section presents results that were obtained from open ended questions that were used in the study. The researcher gave the respondents an opportunity to give their views without being restricted to structured responses. The following results were obtained:

On other ways that asset collateralization affects business performance; the respondents identified recovery of the loan in case of default as a means of resolving problems related to the cost of monitoring borrowers' behavior and in provision of loans.

On other ways that joint liability fostered business formalization among SMEs, the respondents identified reduction of adverse selection problem without collaterals, inspiration of peer monitoring between group members and disappearance of collective guarantees as ways that joint liability has fostered business formalization.
On other ways that financial reporting has fostered business formalization, the respondents identified financial reporting as a way of fostering business formalization through financial capabilities. The following was reported by the respondents;

“SMEs are required to present audited books of accounts as proof of financial capabilities, and therefore financial reporting makes it easier for SMEs to achieve this important goal.”

On the other ways that tax compliance has fostered business formalization; the respondents said tax compliance helps them reclaim credit for any VAT paid on inputs and in qualification of tenders. The following were the responses obtained;

“Non-compliance with tax regulation is costly and will make one unable to reclaim credit for any VAT paid on inputs.”

“In Kenya, not complying with tax will cause an SME not to qualify for government tenders that require presentation of a copy of business registration certificate, PIN/VAT certificate, tax compliance certificate and certificate of registration with relevant regulatory bodies.”

On the main benefits of business formalization, the respondents identified access to capital markets, reduced need to pay bribes, government procurement contracts, access to public services and business support services and availability of basic infrastructure facilities such as electricity. The following were the responses obtained;

“Business formalization is important in ensuring that the SMEs follow the required guidelines for day to day operation. This therefore will reduce the need to pay bribes and thereby can help to curb the vice of corruption.”

“Business formalization opens doors to access the capital markets.”

“When your business is formalized, there is every reason to be involved in government procurement contracts.”

“There are more opportunities for a business to access public services, business support services and basic infrastructure facilities such as electricity when it is formalized. Business partners also find a better platform to engage the SMEs with different services.”
4.6.1 Normality

OLS models are fitted assuming that the residuals follow a Gaussian distribution. The model fitted for the study data was tested for normality of the residuals. The histogram of the residuals on figure 4.2 shows a possibility of normally distributed residuals with a mean of 0.000 and standard deviation of 0.993.

![Histogram](image)

**Figure 4.1 Normality Histogram**

To confirm normality of the residuals, a statistical test was used to test whether the residual follow a normal distributions. The Kolmogorov-Smirnov test was applicable as the sample size was greater than 30. According to the test as shown in table 4.14, the p-value of the K-S statistic is 0.200 which is greater than 0.05 implying a significant normal distribution of the residuals.
Table 4. 14 Normality test

<table>
<thead>
<tr>
<th>Kolmogorov-Smirnov</th>
<th>Statistic</th>
<th>Df</th>
<th>Sig.</th>
<th>Shapiro-Wilk</th>
<th>Statistic</th>
<th>Df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.028</td>
<td>292.000</td>
<td>.200*</td>
<td>0.997</td>
<td>292.000</td>
<td>0.931</td>
<td></td>
</tr>
</tbody>
</table>

4.6.2 Homoscedasticity

A homoscedastic variable is one that has a constant variance. OLS estimation assumes that the residuals of the estimated model are homoscedastic as they have a constant variance. A graphical presentation of a scatter plot of the standardized residuals against the predicted values is shown in figure 4.3. The figure shows a scatter plot with no pattern of an increasing or decreasing function. The line of best fit from this scatter plot is a line of y=0 with no slope. This is a sign of homoscedasticity.

Figure 4. 2 Scatterplot of residuals against predicted values
To confirm that the residuals are not heteroscedastic, a Breusch-Pagan test was carried out on the residuals. The B-P statistic computed follows a chi-square distribution thus a chi-square test was done on the B-P statistic to confirm homoscedasticity of the residuals. The p-value of the B-P statistic was found to be greater than 0.05 implying that the residuals have a constant variance and are therefore homoscedastic.

Table 4. 15 Homoscedasticity Test Results

<table>
<thead>
<tr>
<th>BP statistic</th>
<th>Df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.140</td>
<td>292</td>
<td>0.061</td>
</tr>
</tbody>
</table>

4.6.3 Autocorrelation

Autocorrelation of a variable also termed as serial correlation is a scenario where the variable can be predicted from an autoregressive process of itself. OLS estimation assumes that the residual term is not auto correlated. To confirm non-auto correlation of the residuals, a Durbin-Watson test was carried out on the residuals of the fitted multiple regression model. The calculated D-W statistic was then compared with tabulated D-W statistics. The calculated D-W statistic was found to be greater than the upper limit of the tabulated D-W value implying non-auto correlation of the residuals.

Table 4. 16 Durbin-Watson

<table>
<thead>
<tr>
<th>Durbin-Watson statistic</th>
<th>Tabulated lower limit</th>
<th>Tabulated Upper limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.8516</td>
<td>1.78371</td>
<td>1.83773</td>
</tr>
</tbody>
</table>

4.6.4 Multi-collinearity

Multicollinearity occurs when two or more predictors in the model are highly correlated and provide redundant information about the response. Multicollinearity was tested in this study to check the possibility of interdependence between the independent variables (predictor variables). The test was conducted through the VIF and the results are as
presented in table 4.17. VIF figures greater than 0.2 are associated with multicollinearity of the independent variables.

According to the findings as illustrated in Table 4.17, collinearity statistics show VIF values that are less than 2. Hence, the study found no presence of multicollinearity problem in fitting the multiple regression model. The Tolerance is the reciprocal of the VIF which checks on the degree of collinearity; where a tolerance value lower than 0.5 shows that the variable could be considered as a linear combination of other independent variables. Thus, in the case of the current study, all the Tolerance values are all greater than 0.5 indicating no cases of multicollinearity. The sig. values show the significance of the relationship between the variables and the dependent variable at the 5% level of significance. This is line with the recommendations of Atieno (2009), Bryman and Bell (2003) and Creswell (2013). Table 4.17 presents the collinearity diagnostic tests for the variables.

**Table 4. 17 Multi-collinearity**

<table>
<thead>
<tr>
<th></th>
<th>Tolerance</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asset Collateralization</td>
<td>0.598</td>
<td>1.672</td>
</tr>
<tr>
<td>Joint Liability</td>
<td>0.582</td>
<td>1.719</td>
</tr>
<tr>
<td>Financial Reporting</td>
<td>0.562</td>
<td>1.778</td>
</tr>
<tr>
<td>Tax Compliance</td>
<td>0.542</td>
<td>1.845</td>
</tr>
</tbody>
</table>

**4.6 Inferential Analysis and Hypothesis testing**

This section forms the basis of drawing conclusions for the objectives. The study sought to determine the influence of credit access requirements in formalization decision of small and medium enterprises in Kenya. The inferential analysis involved determination and checking whether there is any relationship between the independent variables; asset collateralization, financial reporting, joint liability, tax compliance requirements and
formalization decision of SMEs. Inferential analysis also involved the estimation of models to determine the influences of the independent variables on the dependent variable formalization of SMEs. Under inferential analysis, the study conducted analyses using the unobserved latent variables that were generated from factor analysis dimension reduction.

4.6.1 Correlation Analysis

To determine the relationship between the independent variables and the dependent variable, Correlation coefficients were computed as presented in table 4.18 The Pearson correlation coefficient was used as the latent variables generate for inferential analysis were on a continuous scale. The correlation coefficients were computed and 2-tailed test p-values used for testing significant relationships at the 5% level of significance. The strength of association was determined through the Pearson Correlation Scale where a correlation of values between 0.0 – 0.3 is an indication of no correlation, 0.3 – 0.5 is a weak correlation, 0.5 – 0.7 is a moderate correlation and a correlation coefficient of value of 0.7 and above is an indication of a strong correlation between the variables.

According to the findings, asset collateralization and formalization of SMEs were found to be significantly correlated with a strong relationship of 0.917. The correlation coefficient at 5% considering its p-value that was lower than 0.05 (r = 0.917; p = 0.001 < 0.025). The findings obtained in the study agree with the findings of previous studies in the same subject area which found a strong positive relationship between asset collateralization and SME formalization decision (Kouser, Durani & Hassan, 2012; Karanja et al., 2014)

According to the findings, joint liability requirement was moderately correlated with formalization decision of SMEs with a correlation coefficient of 0.687, which was also significant at the 5% level of significance (r = 0.687; p = 0.000 < 0.025). The findings of the present study agree with the findings of Armendariz and Murdoch (2005); Morduch
(1999); Maobe (2010); Maobe (2010); Chowdury (2005); Zhao and Gao (2011); Njeru et al. (2015) and Brown et al. (2011) who posited that there existed a positive significant relationship between joint liability and improved credit access by SMEs.

Table 4.15 also presents the study findings on the correlation between financial reporting requirement and formalization decision of SMEs. According to the findings, there is a strong relationship between financial reporting requirement and the formalization decision of SMEs ($r = 0.736; p = 0.000 < 0.025$). The correlation coefficient was also significant at the 5% level of significant. The findings of Arthur (2009) and Kitindi et al. (2007) agree with the present study findings as the studies determined that there was a positive link between financial reporting and formalization decision of companies.

Tax compliance requirement was also found to have a strong relationship with formalization decision of SMEs. The findings are also presented in the correlation matrix table 4.18. The table indicates that, there is a strong positive correlation between tax compliance requirement and formalization decision of SMEs ($r = 0.782 > 0.7; p = 0.000 < 0.025$). The relationship was found to be statistically significant at the 5% level of significance and were found to give similar results to previous studies on the same subject area (e.g. Antwi et al., 2015; Azuma & Grossman, 2002; Loayza & Rigolini, 2006) who observed a relationship between tax compliance and formalization decision of businesses in different sectors the studies looked into.
Table 4. 18 Correlation matrix

<table>
<thead>
<tr>
<th></th>
<th>SME formalization</th>
<th>Asset collateralization</th>
<th>Joint liability</th>
<th>Financial reporting</th>
<th>Tax Compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>SME formalization</td>
<td>1</td>
<td>0.917**</td>
<td>0.687**</td>
<td>0.736**</td>
<td>0.782**</td>
</tr>
<tr>
<td>2-tailed</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>Sig.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>292</td>
<td>292</td>
<td>292</td>
<td>292</td>
<td>292</td>
</tr>
<tr>
<td>Asset collateralization</td>
<td>0.917**</td>
<td>1</td>
<td>-0.145*</td>
<td>-0.056</td>
<td>-0.038</td>
</tr>
<tr>
<td>2-tailed</td>
<td>0.000</td>
<td>0.013</td>
<td>0.342</td>
<td>0.513</td>
<td></td>
</tr>
<tr>
<td>Sig.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>292</td>
<td>292</td>
<td>292</td>
<td>292</td>
<td>292</td>
</tr>
<tr>
<td>Joint liability</td>
<td>0.687**</td>
<td>-0.145*</td>
<td>1</td>
<td>0.009</td>
<td>0.285**</td>
</tr>
<tr>
<td>2-tailed</td>
<td>0.000</td>
<td>0.013</td>
<td>0.874</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>Sig.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>292</td>
<td>292</td>
<td>292</td>
<td>292</td>
<td>292</td>
</tr>
<tr>
<td>Financial reporting</td>
<td>0.736**</td>
<td>-0.056</td>
<td>0.009</td>
<td>1</td>
<td>-0.003</td>
</tr>
<tr>
<td>2-tailed</td>
<td>0.000</td>
<td>0.342</td>
<td>0.874</td>
<td>0.954</td>
<td></td>
</tr>
<tr>
<td>Sig.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>292</td>
<td>292</td>
<td>292</td>
<td>292</td>
<td>292</td>
</tr>
<tr>
<td>Tax Compliance</td>
<td>0.782**</td>
<td>-0.038</td>
<td>0.285**</td>
<td>-0.003</td>
<td>1</td>
</tr>
<tr>
<td>2-tailed</td>
<td>0.000</td>
<td>0.513</td>
<td>0.000</td>
<td>0.954</td>
<td></td>
</tr>
<tr>
<td>Sig.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>292</td>
<td>292</td>
<td>292</td>
<td>292</td>
<td>292</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Further to the correlation analysis, the researcher carried out regression analyses to determine the influences that each independent variable had on formalization decision of
SMEs. This involved fitting linear regression models using the ordinary least squares (OLS) techniques to estimate the parameters of the models. The study first fitted bivariate analyses between each independent variable.

4.6.2 Regression between Asset Collateralization and Formalization of SMEs

To determine the influence that asset collateralization has on formalization decision of SMEs, a linear regression model was fitted with asset collateralization as the independent variable. Table 4.19 presents the model summary of the bivariate model fitted. The R and R² of the fitted model are 0.917 and 0.84 respectively. The R shows the level of relationship between the variables while the R-square is the coefficient of determination that shows the explanatory power of the model. The R-square of 0.84 implies that 84% of the variation of formalization in this model is explained by the variation in the independent variable asset collateralization. Other factors not included in the study contribute to 16.0% of the variations in formalization.

Table 4. 19 Model Summary for Asset Collateralization

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.917a</td>
<td>.840</td>
<td>.840</td>
<td>.221</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Asset Collateralization

Analysis of variance for regression tests the general significance of the regression model fitted. In a bivariate regression model with only one coefficient, the ANOVA tests whether the estimated coefficient is not equal to zero. Table 4.20 shows the ANOVA for the bivariate regression of asset collateralization on formalization. As illustrated in p-value in of the ANOVA F-statistic was obtained as 0.000 which is less than 0.05. Therefore the model is statistically significant in predicting the influence of asset collateralization on formalization implying that asset collateralization has a significant effect on formalization decision of SMEs.
The study further computed the coefficient estimates for the regression model fitted. From the coefficients table 4.21, asset collateralization has a positive effect on the levels of formalization decision of SMEs ($\beta=0.860$, $t=39.053$, p-value=0.000). The p-value of the coefficient estimated is less than 0.05 level of significance. This implies that the effect of asset collateralization on the levels of formalization decision is statistically significant. The equation formulated by the results of the model is given by:

$$Y = 1.481 + 0.860X_1 + \epsilon$$

This model shows that increasing levels of asset collateralization of an SME by a unit would in turn have an effect causing formalization decision levels to increase by 0.860 units. The findings obtained in the study agree with the findings of Karanja et al. (2014) and Inderst and Mueller (2007) in the same subject area which found a strong positive relationship between asset collateralization and SME formalization decision.

### Table 4.20 Analysis of Variance for Asset Collateralization

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>74.586</td>
<td>1</td>
<td>74.586</td>
<td>1525.156</td>
<td>.000b</td>
</tr>
<tr>
<td>Residual</td>
<td>14.182</td>
<td>290</td>
<td>.049</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>88.768</td>
<td>291</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Formalization

b. Predictors: (Constant), Asset Collateralization

### Table 4.21 Regression Coefficients for Asset Collateralization

<table>
<thead>
<tr>
<th></th>
<th>Unstandardized Coefficients</th>
<th>Std. Error</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (Constant)</td>
<td>1.481</td>
<td>0.072</td>
<td></td>
<td>20.536</td>
<td>0.000</td>
</tr>
<tr>
<td>Asset Collateralization (X₁)</td>
<td>0.860</td>
<td>0.022</td>
<td>0.917</td>
<td>39.053</td>
<td>0.000</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Formalization
4.6.3 Regression between Joint Liability and Formalization of SMEs

For the second objective which sought to determine the effect of joint liability on formalization decision, the researcher also fitted a bivariate OLS model for joint liability and formalization. Table 4.22 is the model summary of the model fitted. The table shows that the model has an R-square of 0.473. Other factors not included in the study contribute to 43.0% of the variations in formalization.

Table 4. 22 Model Summary for Joint Liability

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.687a</td>
<td>0.473</td>
<td>0.471</td>
<td>0.402</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Joint Liability

For the bivariate model estimating the effect of joint liability on formalization decision of SMEs, the ANOVA as shown in table 4.23 also shows that the model was generally significant. The p-value of the F-statistic is 0.000 which is less than 0.05 significance implying that the coefficient of joint liability in the model is significantly not equal to zero.

Table 4. 23 Analysis of Variance for Joint Liability

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>41.943</td>
<td>1</td>
<td>41.943</td>
<td>259.765</td>
<td>.000b</td>
</tr>
<tr>
<td>1</td>
<td>Residual</td>
<td>290</td>
<td>0.161</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>88.768</td>
<td>291</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Formalization
b. Predictors: (Constant), Joint Liability

The findings on the estimated beta coefficients of the model indicated that joint liability had a significant influence on formalization of SMEs (β=0.108, t=16.1170, p-
value=0.000). The results for the coefficients of the model are shown in Table 4.24. The p-value of the t-statistic of the coefficient of joint liability in the model is less than 0.05 level of significance; this implies that with 95% confidence, joint liability influences the formalization decision of SMEs. A unit increase in levels of joint liability is expected to result into an increase in levels of formalization by 0.108 units. The resulting equation from the estimated parameters of the model is given by:

\[ Y = 1.621 + 0.108X_2 + \varepsilon \]

These results are in line with the findings of Gugerty (2007) and Allen (2006) who found a positive significant relationship between the two variables.

**Table 4.24 Regression Coefficients for Joint Liability**

<table>
<thead>
<tr>
<th>Unstandardized Coefficients</th>
<th>Std. Error</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>2.299</td>
<td>0.123</td>
<td>18.630</td>
<td>0.000</td>
</tr>
<tr>
<td>Joint Liability (X_2)</td>
<td>0.108</td>
<td>0.007</td>
<td>0.687</td>
<td>16.117</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Formalization

**4.6.4 Regression between Financial Reporting and Formalization of SMEs**

The study objectives also sought to determine the influence of financial reporting on formalization decision of small and medium enterprises in Kenya. A bivariate regression model was fitted as analysis for this objective. The model summary statistics for the model are presented in Table 4.25. The analysis found that the variation in financial reporting explained 54.2% of the variance in formalization decision of SMEs in the model. This is explained by the R-square statistic which was found as 0.542. The results imply that other factors not included in the study contribute to 45.8% (1 – 0.542 = 0.458) in formalization of SMEs.
Table 4. 25 Model Summary for Financial Reporting

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.736a</td>
<td>0.542</td>
<td>0.541</td>
<td>0.374</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Financial Reporting

Table 4.26 is the ANOVA table for the regression model between financial reporting and formalization decision of SMEs. The p-value of the ANOVA F-statistic was found to be 0.000 which is less than 0.05. This shows that the model is statistically significant in predicting the influence of financial reporting and formalization decision of SMEs.

Table 4. 26 Analysis of Variance for Financial Reporting

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>48.121</td>
<td>1</td>
<td>48.121</td>
<td>343.318</td>
<td>.000b</td>
</tr>
<tr>
<td>1</td>
<td>Residual</td>
<td>290</td>
<td>0.140</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>88.768</td>
<td>291</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Formalization
b. Predictors: (Constant), Financial Reporting

The findings shown in the coefficients table 4.27 indicate that financial reporting had a positive and significant influence on SMEs formalization decision. According to the results, financial reporting showed a significant influence on formalization decision of SMEs with the coefficients ($\beta = 1.081$, $t = 18.529$, $p=0.003<0.05$) indicating a positive effect on SMEs formalization decision. The p-value of the estimated coefficient was found to be 0.000 which is less than 0.05 level of significance. The significance of the coefficient estimate implies that financial reporting has a significant influence on formalization decision of SMEs. Increasing financial reporting would result into a 0.830 increase in levels of SME formalization decision. These findings are in line with other scholars’ findings that there exists a positive significant relationship between financial
reporting and SMEs formalization decision across different sectors (Berger & Udell, 1998; Abdulsaleh & Worthington, 2013; Kimaru and Jagongo, 2014). The equation formulated from the analysis is given by;

\[ Y = 1.081 + 0.830X_3 + \epsilon \]

**Table 4. 27 Regression Coefficients for Financial Reporting**

<table>
<thead>
<tr>
<th></th>
<th>Unstandardized Coefficients</th>
<th>Std. Error</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>1.081</td>
<td>0.173</td>
<td>0.736</td>
<td>6.264</td>
<td>0.000</td>
</tr>
<tr>
<td>Financial Reporting (X₃)</td>
<td>0.830</td>
<td>0.045</td>
<td>6.264</td>
<td>0.000</td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Formalization

4.6.5 Regression between Tax Compliance and Formalization of SMEs

A bivariate analysis was also conducted to help determine the influence of financial reporting on formalization decision of small and medium enterprises in Kenya. The results of the bivariate model for tax Compliance SMEs formalization are as shown in table 4.28. The coefficient of determination R-Square was found to be 0.612. This meant that 61.1% of the variation in formalization in this model is explained by variation in tax compliance.

**Table 4. 28 Model Summary for Tax Compliance**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.782a</td>
<td>0.612</td>
<td>0.611</td>
<td>0.345</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Tax Compliance

Table 4.29 shows the ANOVA for the regression model for estimating the influence of financial reporting on formalization decision of small and medium enterprises in Kenya. ANOVA for regression is used to test the general significance of the model. The p-value
of the computed F-statistic was found to be 0.000 which is less than 0.05 implying that the one predictor model of financial reporting on formalization was generally significant implying that financial reporting has a significant influence on formalization decision of SMEs.

Table 4. 29 Analysis of Variance for Tax Compliance

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>54.326</td>
<td>1</td>
<td>54.326</td>
<td>457.416</td>
<td>.000b</td>
</tr>
<tr>
<td>Residual</td>
<td>34.442</td>
<td>290</td>
<td>0.119</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>88.768</td>
<td>291</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Formalization  
b. Predictors: (Constant), Tax Compliance

The findings shown in Table 4.30 indicate that tax compliance also had a positive and significant influence on SMEs formalization decision. According to the results, tax compliance showed a significant influence on SMEs formalization with the coefficients ($\beta = 0.515$, $t = 21.387$, $p = 0.000$) indicating a positive effect of tax compliance on SMEs formalization decision. These findings of the study are in line with the findings of Mativo, Muturi and Nyangau (2015) who posited that tax compliance requirement triggers formalization decision of businesses.

The resulting equation form the model is given by:

$$Y = 2.235 + 0.515X_4 + \varepsilon$$

Table 4. 30 Regression Coefficients for Tax Compliance

<table>
<thead>
<tr>
<th></th>
<th>Unstandardized Coefficients</th>
<th>Std. Error</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (Constant)</td>
<td>2.235</td>
<td>0.096</td>
<td></td>
<td>23.176</td>
<td>0.000</td>
</tr>
<tr>
<td>Tax Compliance ($X_4$)</td>
<td>0.515</td>
<td>0.024</td>
<td>0.782</td>
<td>21.387</td>
<td>0.000</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Formalization
4.6.6 Combined effect of asset collateralization, joint liability, tax compliance, financial reporting on business formalization decision

Regression analysis was carried in this study to test the relationship between credit access requirements (predictor variables) and the formalization decision of SMEs as the dependent variable. A multiple regression model was fitted to determine the joint influence of credit access requirements (asset collateralization, joint liability, tax compliance and financial reporting) on business formalization decision of SMEs in Kenya. The regression model fitting adopted the use OLS to estimate the parameters of the model.

The model summary table 4.31 shows that the R-square for the multiple regression model is 0.916 implying that up to 91.6% of the variation of the dependent variable formalization is explained by variation of the independent variables in the model. This shows that the multiple regression model has a high explanatory power. Only 8.4% of the variance of formalization remains unexplained in the model.

Table 4. 31 Multiple regression Model summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.957a</td>
<td>0.916</td>
<td>0.915</td>
<td>0.161</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Asset Collateralization, Joint Liability, Financial Reporting, Tax Compliance

The ANOVA for regression is used to test the general significance of the model. In multiple regression, ANOVA tests the null hypothesis that the coefficient estimates of the model are jointly equal to zero. From the results of the study shown in the ANOVA table 4.32, the p-value for the F-statistic was found to be 0.000 implying significance at level 0.05. The null hypothesis is rejected and conclusion drawn that at least one of the
estimated coefficients of the model is significantly not equal to zero. That means that credit access requirements have a significant influence on business formalization decision of SMEs in Kenya.

Table 4. 32 Multiple regression ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>81.32</td>
<td>4</td>
<td>20.330</td>
<td>783.577</td>
<td>.000b</td>
</tr>
<tr>
<td>Residual</td>
<td>7.45</td>
<td>287</td>
<td>0.026</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>88.77</td>
<td>291</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Formalization
b. Predictors: (Constant), Asset Collateralization, Joint Liability, Financial Reporting, Tax Compliance

Further to the ANOVA, the study proceeded to estimate the beta coefficients of the predictors as indicated in table 4.33. The coefficients of asset collateralization, joint liability, financial reporting and tax compliance were found to be 0.562, 0.020, 0.257 and 0.092 respectively with t-statistics 22.111, 5.810, 10.002 and 5.306 respectively. All the estimates had p-values equal to 0.000 which are all less than 0.05 implying significance with 95% confidence. The results imply that all the predictors asset collateralization, joint liability, financial reporting and tax compliance have significant influences on business formalization decision of SMEs in Kenya. The resulting equation from the model is given by:

\[ Y = 0.728 + 0.562X_1 + 0.020X_2 + 0.257X_3 + 0.092X_4 \]
Table 4. 33 Multiple regression Coefficients

<table>
<thead>
<tr>
<th></th>
<th>Unstandardized Coefficients</th>
<th>Std. Error</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (Constant)</td>
<td>0.728</td>
<td>0.077</td>
<td></td>
<td>9.502</td>
<td>0.000</td>
</tr>
<tr>
<td>Asset Collateralization ($X_1$)</td>
<td>0.562</td>
<td>0.025</td>
<td>0.599</td>
<td>22.111</td>
<td>0.000</td>
</tr>
<tr>
<td>Joint Liability ($X_2$)</td>
<td>0.020</td>
<td>0.004</td>
<td>0.130</td>
<td>5.810</td>
<td>0.000</td>
</tr>
<tr>
<td>Financial Reporting ($X_3$)</td>
<td>0.257</td>
<td>0.026</td>
<td>0.228</td>
<td>10.002</td>
<td>0.000</td>
</tr>
<tr>
<td>Tax Compliance ($X_4$)</td>
<td>0.092</td>
<td>0.017</td>
<td>0.140</td>
<td>5.306</td>
<td>0.000</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Formalization

4.6.8 Hypothesis testing

Having tested and found that the multiple regression model fitted well the assumptions of OLS as used for estimation, the study proceeded to use the results of the multiple regression of table 4.33 to test hypotheses and draw conclusions on the objectives.

$H_{01}$: There is no significant influence of asset collateralization on formalization decision of small and medium enterprises in Kenya.

From the model, the t-statistic for this variable was found to have a p-value of 0.000. With the p-value of 0.000 being less than 0.05, the null hypothesis is rejected and a conclusion drawn that there is a significant influence of asset collateralization on formalization decision of small and medium enterprises in Kenya.

$H_{02}$: There is no significant influence of joint liability on formalization decision of small and medium enterprises in Kenya.

From the model, the t-statistic for joint liability was found to have a p-value of 0.000. With the p-value of 0.000 being less than 0.05, the null hypothesis is rejected and a conclusion drawn that there is a significant influence of joint liability on formalization decision of small and medium enterprises in Kenya.
$H_{03}$: There is no significant influence of financial reporting on formalization decision of small and medium enterprises in Kenya.

From the model, the t-statistic for financial reporting was found to have a p-value of 0.000. With the p-value of 0.000 being less than 0.05, the null hypothesis is rejected and a conclusion drawn that there is a significant influence of financial reporting on formalization decision of small and medium enterprises in Kenya.

$H_{04}$: There is no significant influence of tax compliance on formalization decision of small and medium enterprises in Kenya.

From the model, the t-statistic for tax compliance was found to have a p-value of 0.000. With the p-value of 0.000 being less than 0.05, the null hypothesis is rejected and the alternative hypothesis accepted, hence a conclusion drawn that there is a significant influence of tax compliance on formalization decision of small and medium enterprises in Kenya.

### 4.6.9 Moderating effect of firm size

Further to the multiple regression analysis a moderated multiple regression (MMR) was conducted through a hierarchical analysis by fitting 3 models. The first model involved estimating the effect of independent variables on formalization decision. The second test included the addition of the moderating variable (firm size) into the model as an additional independent variable. The third test involved the inclusion of interaction variables between each indicator and the moderator into the model. The final model sought to determine the moderating effect of firm size on the relationship between credit access requirements and formalization decision by determining the first level interaction effect between firm size and each of the independent variables on formalization. Firm size was used as the moderating variable in the study. This involved first generating transformational interaction variables as the intersection between the moderator and each independent variable.
Table 4.34 shows the model summary of the fitted models. Considering the R-square statistics that show the explanatory power of each model, all the models have high R-squares implying high explanatory powers. The R-square increases from model 1 to model 2 to model 3. The addition of the firm size for model 2 and the interaction variables in mode 3 improves the explanatory power of the models as shown by positive R-square change statistics. The P-value for the F change statistics are all less than 0.05. The R-square change for Model 2 and model 3 are 0.012 and 0.000 respectively. This implies that the R-square changes are significant. The significant change in R-square from model 2 to model 3 implies that the interaction variables cause a significant improvement on the explanatory power; this implies that firm size has a moderating effect on the relationship between credit access requirements and formalization decision of SMEs.

Table 4. 34 MMR Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Squared</th>
<th>Adjusted R Squared</th>
<th>Std. Error of the Estimate</th>
<th>R Square Change</th>
<th>F Change</th>
<th>df1</th>
<th>df2</th>
<th>Sig. F Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.957</td>
<td>0.916</td>
<td>0.915</td>
<td>0.161</td>
<td>0.916</td>
<td>783.57</td>
<td>4</td>
<td>287</td>
<td>0.000</td>
</tr>
<tr>
<td>2</td>
<td>.958</td>
<td>0.918</td>
<td>0.917</td>
<td>0.160</td>
<td>0.002</td>
<td>6.440</td>
<td>1</td>
<td>286</td>
<td>0.012</td>
</tr>
<tr>
<td>3</td>
<td>.971</td>
<td>0.943</td>
<td>0.941</td>
<td>0.134</td>
<td>0.025</td>
<td>31.099</td>
<td>4</td>
<td>282</td>
<td>0.000</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Tax Compliance, Joint Liability, Financial Reporting, Asset Collateralization
b. Predictors: (Constant), Tax Compliance, Joint Liability, Financial Reporting, Asset Collateralization, Firm size
d. Dependent Variable: Formalization of SMEs
Table 4.34 also presents the regression coefficients of the MMR models with credit access requirements (tax compliance, asset collateralization, financial reporting, and joint liability) as the independent variables, size of the firm as the moderating variable and the business formalization decision of SMEs (dependent variable). The table gives the coefficients and the significance test statistics at 0.05 level of significance. The All model one coefficient is significant with p-values less than 0.05 as earlier discussed in the multiple regression section.

Model 2 involved the inclusion of the moderating variable firm size as an independent variable. The added variable firm size was also found to have a significant influence on business formalization (β = 0.001, t = 2.538, p=0.012<0.05). The resulting equation for model 2 is given by;

\[ Y = 0.728 + 0.562X_1 + 0.020X_2 + 0.257X_3 + 0.092X_4 + 0.001Z \]

The results for the third model show that added interaction variables have significant influences on business formalization decision. The interaction variables between each independent variable and firm size were all found to have p-values less than 0.05 implying significance at 0.05 level of significance.

The final model generated an equation given by;

\[ Y = 0.728 + 0.562X_1 + 0.020X_2 + 0.257X_3 + 0.092X_4 + 0.001Z + 0.002X_1 \times Z + 0.114X_2 \times Z + 0.155X_3 \times Z + 0.002X_4 \times Z \]
Table 4. 35 MMR table of coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Std. Error</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>Unstandardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>0.728</td>
<td>0.077</td>
<td>9.502</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Asset Collateralization</td>
<td>0.562</td>
<td>0.025</td>
<td>0.599</td>
<td>22.111</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Joint Liability</td>
<td>0.020</td>
<td>0.004</td>
<td>0.130</td>
<td>5.810</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Financial Reporting</td>
<td>0.257</td>
<td>0.026</td>
<td>0.228</td>
<td>10.002</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Tax Compliance</td>
<td>0.092</td>
<td>0.017</td>
<td>0.140</td>
<td>5.306</td>
<td>0.000</td>
</tr>
<tr>
<td>2</td>
<td>(Constant)</td>
<td>0.847</td>
<td>0.089</td>
<td>9.491</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Asset Collateralization</td>
<td>0.533</td>
<td>0.028</td>
<td>0.568</td>
<td>19.302</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Joint Liability</td>
<td>0.020</td>
<td>0.004</td>
<td>0.127</td>
<td>5.685</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Financial Reporting</td>
<td>0.241</td>
<td>0.026</td>
<td>0.214</td>
<td>9.163</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Tax Compliance</td>
<td>0.091</td>
<td>0.017</td>
<td>0.138</td>
<td>5.275</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Firm size</td>
<td>0.001</td>
<td>0.000</td>
<td>0.062</td>
<td>2.538</td>
<td>0.012</td>
</tr>
<tr>
<td>3</td>
<td>(Constant)</td>
<td>0.459</td>
<td>0.115</td>
<td>3.985</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Asset Collateralization</td>
<td>0.551</td>
<td>0.042</td>
<td>0.588</td>
<td>13.140</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Joint Liability</td>
<td>0.016</td>
<td>0.005</td>
<td>0.099</td>
<td>2.881</td>
<td>0.004</td>
</tr>
<tr>
<td></td>
<td>Financial Reporting</td>
<td>0.221</td>
<td>0.041</td>
<td>0.196</td>
<td>5.438</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Tax Compliance</td>
<td>0.199</td>
<td>0.035</td>
<td>0.302</td>
<td>5.709</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Firm size</td>
<td>0.014</td>
<td>0.002</td>
<td>1.303</td>
<td>8.965</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Asset Collateralization</td>
<td>0.002</td>
<td>0.000</td>
<td>0.140</td>
<td>3.324</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>Interaction with Firm size</td>
<td>0.114</td>
<td>0.031</td>
<td>0.970</td>
<td>3.734</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Joint Liability Interaction with Firm size</td>
<td>0.155</td>
<td>0.024</td>
<td>1.346</td>
<td>6.323</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Financial Reporting Interaction with firm size</td>
<td>-0.002</td>
<td>0.000</td>
<td>-0.803</td>
<td>-4.415</td>
<td>0.000</td>
</tr>
</tbody>
</table>

* a. Dependent Variable: Formalization of SMEs

The results show that firm size has a significant positive effect on the relationship between asset collateralization and formalization. The effect is small but significant as shown by the p-value of the t-statistic which was 0.001. Increasing the size of the firm as indicated by number of employees would slightly increase the rate of influence that asset collateralization has on formalization. A graphical presentation from the model is shown in figure 4.4.
Firm size was also found to have a significant positive influence on the relationship between joint liability and business formalization. Figure 4.5 show a graphical presentation of the moderating effect. With a small firm size, the relationship between joint liability and formalization is negative shown by the decreasing function dotted line. Larger firm sizes sees an increase in the slope of the relationship between joint liability and formalization. With a larger firm size, the slope increases to a positive relationship between joint liability and formalization as shown by the non-dotted line.
Figure 4.4 Moderating effect on Joint liability and formalization

Firm size was also found to have a significant positive influence on the relationship between financial reporting and business formalization. Figure 4.6 shows a graphical presentation of the moderating effect. With a smaller firm size the relationship between financial reporting and formalization is negative as shown by the decreasing function dotted line. Larger firm sizes see an increase in the slope of the relationship between financial reporting and formalization. With larger firm sizes, the slope increases to a positive relationship between financial reporting and formalization as shown by the non-dotted line.
The influence of firm size on the relationship between tax compliance and formalization was however found to be negative. The influence is small but significant. Increasing the firm size as indicated by the number of employees would slightly reduce the slope of the graph between tax compliance and formalization as shown in figure 4.7. The finding concurs with a study by Joshi and others (2012) who argued that indirect taxation of SMEs through goods and services bought or sold has little effect on formalization decision of the SMEs. Another reason could be the deliberate informality of relatively large sized firms to evade taxes as observed by Azuma and Grossman, (2002) and Loayza and Rigolini (2006).

Figure 4.5 moderating effect on financial reporting and formalization
The results from the MMR model were used to test the hypothesis on the moderating effect of firm size and draw conclusions on the fifth objective.

\( H_{05} \): Firm size does not significantly moderate the relationship between credit access requirements and formalization decision of small and medium enterprises in Kenya.

The change in R-square was found to be significant with the P-value of the F-change statistic of the 3\(^{rd}\) model being 0.000 which is less than 0.05. The null hypothesis was thus rejected and conclusion drawn that firm size significantly moderates the relationship between credit access requirements and formalization decision of small and medium enterprises in Kenya.

The results are in agreement with similar studies conducted by World Bank (2007) and Bosibori (2012) who observed that very small enterprises are unlikely to meet specific requirements in order to credit by financial institutions. Some find it costly and beyond their capacity and skills to comply with standard credit access requirements. Further, SMEs engage few or no professionals unlike major companies hence tend to have little
accounts or records (Karugu, 2013). In order to enhance creditworthiness, small sized firms organize themselves into informal groups allowing financial institutions to get an entry point to provide loans, exempting them from collateral requirement (Omolo et al., 2014). As the enterprises increase in size, either through business growth or social capital, they are able to meet most of the credit access requirements hence an increased formalization.
CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction
This chapter presents a summary of the study findings as presented in chapter four in line with the set objectives and the research questions along with conclusions and recommendations.

5.2 Summary of the Study Findings
The study sought to find out influence of credit access requirements on formalization decisions of small and medium enterprises in Nairobi. The study adopted both a qualitative and quantitative approach with cross-sectional survey research design used to determine the influence of credit access requirements on formalization decision of SMEs in Nairobi.

5.2.1 Influence of Asset Collateralization on Formalization decision of SMEs
According to the study findings, asset collateralization is a key credit access requirement imposed by lenders to SMEs. Lack of adequate formal collateral by SMEs increases perceived credit risk among financiers thus limiting their financial access. Inability to raise loan security implies business immaturity hence limiting its ability to signal financial institutions of their capacity. In contrast, availability of formal identity documents to owned assets enhances information available and fosters credibility of a business while bridging information asymmetry among SME.

After testing the relationship between asset collateralization and formalization decision of SMEs, the study established that there was a strong positive and significant correlation between these variables. The study rejected the null hypothesis and accepted the alternative hypothesis that indeed there was a positive and significant relationship between asset collateralization and the formalization decision of SMEs in Kenya. Further, through a regression test, it was established that the asset collateralization
requirement had a positive and significant influence on formalization decision of SMEs in Kenya. This implies that an increase in asset collateralization requirement by lenders will accelerate the formalization process of SMEs in Kenya.

5.2.2 Influence of Joint Liability Requirement on Formalization of SMEs

According to the findings, an SME's association to a group enhances ability of the business to access credit. The study also revealed that joint liability or guarantee from the group allows members to monitor each other easily thus reduces moral hazard, enhance loan repayment, contractual enforcement and compliance to set rules. Further, association to a group was related to a business' ability to access better credit terms since the group acts as the guarantor. In addition, it was observed that joint liability strategy enhances credibility enabling SMEs to be screened fairly by financial institutions for funding.

The joint liability requirement had a strong and significant correlation with formalization decision of SMEs. By testing the hypothesis on the significance of the relationship, the study findings revealed that there was a positive and statistically significant relationship between the joint liability requirement and formalization decision of SMEs in Kenya. Hence, the study rejected the null hypothesis and accepted the alternative hypothesis that there is a positive significant influence of joint liability on formalization decision of small and medium enterprises in Kenya. The regression test of the relationship showed that joint liability had a positive and significant relationship with business formalization where an increase in the joint liability requirement would result to an increased level of business formalization.

5.2.3 Influence of Financial Reporting Requirement on Formalization decision of SMEs

The study findings illustrated that financial reporting enhances availability of business information thus better track recording. In addition, the results indicated that availability
of financial records eliminate information asymmetry thus allowing for better monitoring. Audited financial records were observed to instill a better image and also reflect a going concern view of the firm. The findings showed that elaborate financial reporting enables the business to be conscious of its liquidity levels. It is also clear that having quality financial reporting mechanism enhances the firm’s capacity to meet tax obligations. Moreover, elaborate financial reporting opens up the business to opportunities such as government tendering. Consequently, availability of quality and credible financial information enhances business access to loan facilities and better credit terms.

According to the correlation test results, there is a moderate positive and significant correlation between the financial reporting requirement and formalization of SMEs in Kenya. The null hypothesis which stated that there is no positive significant influence of financial reporting on formalization of small and enterpises in Kenya was rejected and the alternative accepted. Further, the study established a positive and significant relationship between financial reporting requirement and formalization decision of SMEs whereby an increase in the financial reporting requirement would result to a positive change in business formalization.

5.2.4 Influence of Tax Compliance Requirement on Formalization decision of SMEs
The study found that tax compliance requirement is an essential tool in fostering formalization of a business operations while enhancing its brand image. Secondly, the study revealed that tax compliance opens up the business to essential opportunities such as government tendering and public service provisions. It is also evident from the findings that tax compliance enables businesses to recoup the paid VAT thus enhancing business financial position. However, results indicated that payment of SME tax obligations has been hindered by rigid tax administration structures and high tax rates which contribute to tax evasion tendencies among SMEs.
Thus, according to the study findings, there is a strong positive and statistically significant correlation between tax compliance requirement and formalization decision of SMEs. As a result, the null hypothesis which stated that there is no positive significant influence of tax compliance on formalization decision of small and medium enterprises in Kenya was rejected and the alternative accepted. The regression test also revealed that tax compliance requirement is positively and significantly related to formalization decision of SMEs whereby an increase in tax compliance requirement would result to an increase in formalization of SMEs.

5.2.5 Moderating Influence of Firm Size on Formalization decision of SMEs
The test results revealed that firm size has a general moderating effect on the relationship between credit access requirements and formalization decision of SMEs. Specifically, firm size had a minor but positive influence on the relationship between asset collateralization and formalization of SMEs in Kenya implying that an increase in firm size as indicated by the number of employees would slightly increase the rate of influence that asset collateralization requirement has on formalization. In addition, Firm size was found to have a significant positive influence on the relationship between joint liability, financial reporting and formalization decision of SMEs in Kenya implying that an increase in firm size as indicated by the number of employees will significantly increase the rate of formalization of SMEs. However, firm size was revealed to have a negative influence on the relationship between tax compliance and formalization decision of SMEs implying that an increase in firm size will significantly reduce the rate of formalization of SMEs.

5.3 Conclusions
According to the study findings, lack of sufficient credit collateral among SME limit their access to security required by banks. Test results also revealed a significant relationship between asset collateralization and formalization decision of SMEs
implying that in their quest for credit facilities, businesses decide to formalize in order to meet the credit requirements imposed by lenders.

With regard to the influence of joint liability requirement on formalization decision of SMEs, the study results established that joining up a group enhances the business' ability to access credit. It is also clear from the findings that joining up in groups allow SMEs to be screened fairly by financial institutions thus accessing better credit terms. Statistical tests revealed a strong and significant correlation between joint liability and formalization decision of SMEs implying that increased accessibility to credit through groups has also resulted to formalization of the SMEs. Further, the study findings illustrated that financial reporting eliminates information asymmetry thus allowing for positive screening and hence increased access to loan facilities and better credit terms. It is also clear that having quality financial reporting mechanism opens up the firm to business opportunities such as government tendering.

Statistical tests reveal a moderate positive and significant correlation between the financial reporting requirement and formalization decision of SMEs in Kenya. This implies that financial reporting requirement by financial institution results to a significant effect on formalization decision of SMEs. Moreover, the study findings indicated that tax compliance is an essential tool that fosters business legitimacy and formal operations. Tax compliance was observed to be beneficial for it positions the firm to key business opportunities such as government tendering and other public services. The study results confirm that rigorous tax administration systems stimulate tax evasion among SMEs hence hindering the formalization process. Statistical tests found a significant relationship between tax compliance requirement and formalization decision of SMEs meaning that consistent tax compliance requirement by financial institutions would lead to increased formalization of SMEs.

The study findings also revealed that firm size which is mainly indicated by the number of employees or the ability of the business to create more jobs is a factor that is
considered by lender while appraising borrowers. As firms grow and employ a higher number of employees, structural organization occurs coupled with formalization of operations such as establishment of accounts departments, preparation of staff payroll and remittance of statutory deductions. A seemingly mature and formal enterprise increases chances of being appraised positively by would be lenders.

5.4 Recommendations

Based on the findings of the study and in line with the research objectives, the following recommendations were made;

Since credit access requirements were confirmed to have a significant influence in formalizing SME, the study gives recommendations for policy improvement towards acceleration of the transition from informal to formal businesses in Kenya. The Micro Small and Medium Enterprises Authority needs to support organization of SMEs into associations. Through these associations, statutory government agencies such as Kenya Revenue Authority, National Social Security Fund and National Health Insurance Fund will be able to enforce compliance to tax remittance and social protection respectively hence accelerate formalization of SMEs. Through the associations, SMEs will be sensitized on the benefits of formalizing their operations such as improved performance and growth.

Secondly, credit access requirements imposed by government financing schemes such as the Youth and Women Enterprise Development Funds and the Government Procurement Opportunities (AGPO) have been observed to increase formalization of SMEs. It is therefore imperative that the government builds the capacity of such initiatives to increase their coverage so that as they increase accessibility to financing, the level of formalization of business will be enhanced.
There is need for every financial institution to establish a credit product for the SME segment using the informal associations as an entry point. Partnership with these groups will increase their customer base and long term performance. It is also an effective channel for training programmes for entrepreneurs on key skills such as goal setting, budgeting and book keeping.

Professional bodies such as the Institute of Certified Public Accountants of Kenya could also collaborate with informal groups to offer training on basic book keeping skills and general compliance.

These will also facilitate the formalization strategy as the members would be required to be formally registered as business operators and also comply with other credit access requirements for them to enjoy the privileges of the group.

The government need to institute a policy framework which would require financial institutions to peg credit selection criterion on business formalization. In return, both the county and national governments will realize economic growth, increase tax revenue, enhance job creation, reduced unemployment, improve social protection and significantly eradicate poverty. Further, there is a need to establish more business incubation centres to offer training to the entrepreneurs on basic book keeping concepts in order to reduce information asymmetry which is rated adversely by lenders. In such centres, SME operators should also be sensitized on the importance of formalizing their businesses in order to facilitate financial inclusion, growth and sustainability.

The government should review business formalization structures such as the tax administration system and business registration to encourage compliance. These reforms include; reasonable tax rates, subsidies, fewer and simple formalizing documents, accessible offices and reduced bureaucracies. The Huduma ‘one stop shop’ model should be devolved in all counties to ease registration and remittance of tax by SMEs. Moreover, the government should provide quality public services to SMEs who have complied with set laws and regulation in order to achieve a fair fiscal exchange. This
will ensure a conducive environment for the SMEs’ formalization and ultimate growth as well as inclusion of the SMEs into the tax net.

5.5 Areas for Further Research

Since this study considered SMEs in Nairobi County only, a similar research that would be needed to cover a different county or Kenya as a country. The study was limited to four credit access requirements; asset collateralization, joint liability, financial reporting and tax compliance, and their influence in formalization of SMEs in Kenya. However, there are other variables that were not considered yet may influence business formalization such as; laws and regulations, political environment, incentives, business managerial skills among others.

Moreover, there are entrepreneurs who have access to credit through informal sources thus would stay informal since such requirements doesn’t apply to them. There is need therefore for a further study to investigate the challenges facing formalization initiatives and suggest solutions to address them. To undertake this, an in-depth study would be appropriate to cover all the areas of the economy including the micro businesses, consider other different factors affecting formalization in different sectors and also target a wider geographical area in all the counties.

Lastly, with the adoption of a new law capping interest rates in Kenya, financial institutions might review their existing credit scoring systems hence locking out SMEs who are perceived as a high-risk category due to their informality. On the other hand, the government is proposing to establish an SME bank in order to facilitate entrepreneurs with special access to finance and government supply. It would be prudent therefore to investigate the effect the emerging legal and policy framework has on the formalization process.
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APPENDICES

APPENDIX I: LETTER OF INTRODUCTION

Dear Respondent,

My name is Damaris Muhika, I am currently undertaking a research study as part of the requirements for a PhD in Business Administration (Finance) at Jomo Kenyatta University of Science and Technology.

The Small and Medium Enterprises are a source of livelihood for many Kenyans. However, access to credit has been identified as a challenge due to informality of these businesses. To facilitate this exercise, I kindly request for your time to answer the interview questions. The information you provide will help to identify the role of credit access requirements in formalization of SMEs in Kenya.

I wish to assure you that all the information collected will be treated with strict confidentiality and will only be used for academic purposes. Your identity and links to individual respondents or organizations will not be revealed.

Your participation is highly appreciated.

With Regards,

Damaris Muhika

STUDENT ID: HD433-C002-1742/2014
APPENDIX II: QUESTIONNAIRE FOR SME’S
INFLUENCE OF CREDIT ACCESS REQUIREMENTS ON FORMALIZATION
OF SMEs IN KENYA

ADMINISTRATIVE DETAILS

Questionnaire ID No. ____________________    Sub county-----------------------

Questionnaire checked [yes] [no]        Date Checked ______________

SECTION A: DEMOGRAPHIC CHARACTERISTICS

1. Gender

   a) Female           b) Male

2. How old are you?

   Below 21 years       [ ]
   21-30 years          [ ]
   30-40 years          [ ]
   Above 40 years       [ ]

3. What is your highest level of education?

   a) No education       [ ]
   b) Primary            [ ]
   c) Secondary          [ ]
   d) Post-secondary education [ ]

4. What technical training related to this business have you done?

   a) No related training [ ]
   b) On-the-job training [ ]
c) Technical training (please specify course) __________________

5. What is your position in this business?
   a) Employee [ ]
   b) Family member of owner [ ]
   c) Joint-owner [ ]
   d) Owner [ ]

6. What type of goods/services do your business offer-----------------------------
   -

7. How long have you been in this business?
   1-3 years [ ]
   3-6 years [ ]
   6-10 years [ ]
   Above 10 years [ ]

8. What is the number of workers employed in your business?
   1-50 [ ]
   51-100 [ ]
   101-200 [ ]
   Over 200 [ ]

<table>
<thead>
<tr>
<th>Source</th>
<th>Initial Finance</th>
<th>Expansion Finance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Savings</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Selling personal Assets</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Family and friends</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Bank/ Microfinance Loan</td>
<td></td>
<td></td>
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<tr>
<td>Chama/ROSCAs</td>
<td></td>
<td></td>
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<tr>
<td>Women Enterprise Fund/ Youth Fund</td>
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</tbody>
</table>

10. Rank the importance of the following requirements as a condition to acquiring a loan;


<table>
<thead>
<tr>
<th>Requirement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>business registration certificate</td>
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<tr>
<td>KRA pin certificate</td>
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<tr>
<td>bank account</td>
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<tr>
<td>Group membership</td>
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<tr>
<td>Guarantor</td>
<td></td>
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<tr>
<td>Collateral/security</td>
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<tr>
<td>Audited Financial reports</td>
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<tr>
<td>Tax compliance certificate</td>
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</tbody>
</table>

**SECTION B: CREDIT ACCESS REQUIREMENTS ON FORMALIZING SMALL AND MEDIUM ENTERPRISES**

Kindly in the below statements rank your level of agreement with the following statements using a scale of 1-5 where; 1- *strongly disagree*, 2 – *disagree*, 3- *moderately agree*, 4- *agree*, 5- *strongly agree*.

**Asset Collateralization and Business Formalization**

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
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<tbody>
<tr>
<td>11. Lack of business maturity limits the business ability to signal to financial institutions of their capacity.</td>
<td></td>
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<tr>
<td>12. Lack of adequate formal collateral for SME increases their credit risk among financiers.</td>
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<td>13. Lack of formal identity documents limits the</td>
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</tbody>
</table>
information available on the specific business.

14. Lack for abundant credit collateral among SME limit their access to security required by banks.

15. Having the right collateral fosters, the credibility of a business that bridging the information asymmetry among SME.

16. From your own understanding in what other ways does asset collateralization affect the business formalization of SME’s?

a) Collateral requirement motivates entrepreneurs to invest in documented immovable assets

b) Evidence of asset ownership in formal documents increase business credibility resulting in positive credit appraisal

c) Presence of adequate collateral reduces perceived credit risk hence lower interest rates

d) Others

Joint Liability and Business Formalization

18. Do you belong to any group relating to your business organized by fellow traders or NGOs?

Yes   [  ]

No    [  ]
In the below statements, kindly rank your level of agreement with the following statements using a scale of 1-5 where: 1- strongly disagree, 2 – disagree, 3-moderately agree, 4- agree, 5- strongly agree.

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
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</thead>
<tbody>
<tr>
<td>19. Joining up a group has enhanced the business ability to access credit.</td>
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<td>20. The joint liability of the group allows for the members to monitor each other easily thus enhancing loan repayment.</td>
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<tr>
<td>21. Joining up as a group allows business to access better credit terms since the group acts as the guarantor.</td>
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<tr>
<td>22. Joining up in groups allows the business to be screened fairly by financial institutions thus accessing better credit terms.</td>
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<td>23. Peer monitoring within the groups reduces moral hazard and fosters contract enforcement among business.</td>
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</table>

24. From your own observation in what other ways has joint liability fostered business formalization among SME’s?

   a) Stronger social relationships increases credit availability at lower rates
b) Social capital increases compliance hence a substitute for legal and institutional deficiencies

c) Solidarity groups often grow into more formalized financial institutions such as SACCOs

d) Others

25. From the below kindly indicate your agreement to the level of benefits that group joint liability has created for your business? Use scale of; 1. Strongly Disagree 2. Disagree 3. Moderately Agree 4. Agree 5. Strongly Agree

<table>
<thead>
<tr>
<th>Benefits</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
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<tbody>
<tr>
<td>Has enhanced access to credit</td>
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<td>Has enhanced the formal credibility of the business</td>
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<tr>
<td>Has fostered the availability of guarantors for credit</td>
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<tr>
<td>Enhances the monitoring of borrowers and fund usage and repayment.</td>
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<tr>
<td>Has supported more elaborate screening of would-be members and borrowers.</td>
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</tbody>
</table>

Financial Reporting and Business Formalization
Kindly in the below statements rank your level of agreement with the following statements using a scale of 1-5 where; 1- strongly disagree, 2 – disagree, 3- moderately agree, 4- agree, 5- strongly agree.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
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<tbody>
<tr>
<td>26. Financial reporting enhances availability of business information thus better track recording.</td>
<td></td>
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<tr>
<td>27. Availability of financial records eliminate information asymmetry thus allowing for better monitoring.</td>
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<tr>
<td>28. Availability of quality credible financial information enhances business access to lending facilities.</td>
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<tr>
<td>29. Financial reporting fosters the ability of the business to access better credit terms.</td>
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<tr>
<td>30. Well audited financial records instill a better image of the going concern view of the firm.</td>
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<tr>
<td>31. Elaborate financial reporting enables the business to be conscious of its liquidity levels.</td>
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<tr>
<td>32. Having quality financial reporting mechanism enhances the firm’s capacity to undertake seamlessly its tax obligations.</td>
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</table>
33. Elaborate financial reporting opens up the business to opportunities such as government tendering.

34. Based on your own experience in what other ways has financial reporting fostered business formalization?
   a) Maintaining proper books of accounts increases business credibility hence lower cost of credit
   b) Financial reporting allows firms to predict future performance hence negotiate better terms with stakeholders such as employees and suppliers
   c) Proper reporting enables business owners meet statutory obligations promptly hence penalties and litigation costs
   d) Others

**Tax Compliance and Business Formalization**

Kindly in the below statements rank your level of agreement with the following statements using a scale of 1-5 where; 1- strongly disagree, 2 – disagree, 3- moderately agree, 4- agree, 5- strongly agree.

<table>
<thead>
<tr>
<th></th>
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<th>2</th>
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<tr>
<td>35. Tax compliance fosters the business brand image.</td>
<td></td>
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</table>
36. Tax compliance is an essential tool of fostering the business legitimacy/formalizing operations

37. Tax compliance opens up the business to essential opportunities such as government tendering.

38. Tax compliance enables the business to enjoy public service provisions.

39. Tax compliance businesses to recoup the paid VAT thus enhancing business financial position.

40. From your own perspective in what other ways has tax compliance fostered business formalization?
   a) Tax compliance ensures that firms avoid penalties and litigation costs from statutory institutions
   b) In order to comply with statutory obligations, businesses automate operations hence improved efficiency
   c) Firms which comply to taxation are perceived as low risk as they are unlikely to default on credit
   d) Others
SECTION C: FORMALIZATION OF SMES IN KENYA

41. From the below which are the common items that indicate business formalization?

<table>
<thead>
<tr>
<th>Item</th>
<th>Yes</th>
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<tbody>
<tr>
<td>Business Registration Certificate</td>
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<tr>
<td>KRA PIN registration</td>
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<tr>
<td>Tax compliance certificate</td>
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<tr>
<td>Statutory deductions</td>
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<tr>
<td>Business license/permit</td>
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</table>

42. What have been the main benefits of business formalization from your own observation?
   a) Business formalizations opens financing options hence reduce cost of capital
   b) Documentation and accounting for transactions improves business image
   c) Formalization increases access of basic public facilities such as electricity
   d) Others

43. From the below kindly indicate the level of agreement to the association between following variables and business formalization?


<table>
<thead>
<tr>
<th>Variable</th>
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<td>Asset collateralization</td>
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<td>Joint liability</td>
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<td>Tax compliance</td>
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<tr>
<td>Financial Reporting</td>
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*Thank you very much for taking your time to answer these questions*
APPENDIX III: OBSERVATION CHECKLIST FOR SME’S IN NAIROBI

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<td>1. Business has a permit/license</td>
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<td>2. Business is registered with line authorities</td>
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<td>3. Business has a tax compliance certificate</td>
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<tr>
<td>4. Business has enacted formal structures to support financial</td>
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<tr>
<td>information recording and reporting.</td>
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<td>5. Business is registered with statutory bodies i.e.</td>
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<tr>
<td>NSSF/NHIF/RBA</td>
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### APPENDIX V: FACTOR LOADINGS TABLE

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<td>AC 1</td>
<td>Lack of business maturity limits the business ability to signal financial institutions of their capacity</td>
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<td>Lack of adequate formal collateral for SME increases their credit risk among financiers</td>
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<td>AC 3</td>
<td>Lack of formal identity of the document limits the information available on the specific business</td>
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<td>AC 4</td>
<td>Lack of abundant credit collateral among SME limit their access to security required by banks</td>
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<td>AC 5</td>
<td>Having the right collateral fosters the credibility of a business thus bridging the information asymmetry among SME</td>
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<td>JL1</td>
<td>Joining up a group has enhanced the business ability to access credit</td>
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<td>JL2</td>
<td>The joint liability of the group allows for the members to monitor each other easily thus enhancing loan repayment</td>
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<td>JL3</td>
<td>Joining up as a group allows business to access better credit terms since the group acts as the guarantor</td>
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<td>JL4</td>
<td>Joining up in groups allows the business to be screened fairly by financial institutions thus accessing better credit terms</td>
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<td>JL5</td>
<td>Peer monitoring within the groups reduces moral hazard and fosters contract enforcement among business</td>
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<td>BA</td>
<td>Has enhanced access to credit</td>
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<td>FR</td>
<td>Financial reporting enhances availability of business information thus better track recording</td>
<td>0.874</td>
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<td>Availability of financial records eliminates information asymmetry thus allowing for better monitoring</td>
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<td>Availability of quality credible financial information enhances business access to lending facilities</td>
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<td>Financial reporting fosters the ability of the business to access better credit terms</td>
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<td>Well audited financial records instil a better image of the going concern view of the firm</td>
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<td>FR 7</td>
<td>Having quality financial reporting mechanism enhances the firm’s capacity to undertake seamlessly its tax obligations</td>
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<td>Tax compliance fosters the business brand image</td>
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<td>Tax compliance is an essential tool of fostering the business legitimacy/formalizing operations</td>
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<td>Tax compliance enables the business to enjoy public service provisions</td>
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<td>TC 5</td>
<td>Tax compliance enable businesses to recoup the paid VAT thus enhancing business financial position</td>
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<td>TC 6</td>
<td>Payment of SME tax obligations has been hindered by rigid tax administration structures</td>
<td>0.897</td>
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<td>TC 7</td>
<td>High tax obligations contribute to tax evasion among SMEs</td>
<td>0.633</td>
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<td>Benefits of formalization</td>
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<td>Business has enacted formal structures to support financial information recording and reporting</td>
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APPENDIX V DURBIN WATSON TABLES

Critical Values for the Durbin-Watson Test: 5% Significance Level

$T=200,210,220,...,500$, $K=2$ to 21

K includes intercept

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<th>K</th>
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<th>dU</th>
<th>T</th>
<th>K</th>
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APPENDIX VI: LIST OF SMEs IN NAIROBI

1. Recours Four Kenya Consultants Ltd
2. Airfall Cooling Services
3. Air Afrik
4. Soko Huru
5. Briantony International Consultants
6. Axis Business Concept Ltd
7. Nikohapa Ventures Ltd
8. Offers Africa Limited
9. Viffa Consult Limited
10. Icipay Business Solutions Ltd
11. Mega Wholesalers Ltd
12. Copyrite Furnitures Ltd
13. Giovani Enterprises – Ea
14. Growth Partners
15. Cutlery Duka – Nairobi
16. Advantech Consulting Ltd
17. Onesource Financial Services Ltd
18. Urban Properties Consultants & Developers Ltd
20. Edarns Enterprises Ltd
21. Indepth Research Investment Limited
22. Essential Innovative Synergy Africa
23. Taskwetu
24. Wallpaper Kenya
25. Btl Consulting Ltd
26. Deluxe Fruits Ltd
27. Futuresoft Technologies
28. Kuzabiashara
29. Screenet Technologies Ltd
30. Demo Entertainment
31. Lenka Hurst
32. Savislinks Technologies
33. Biz Brokers Kenya
34. Fivestar Agencies Limited
35. Isense Links Ltd
36. Lorrem Consulting Company Limited
37. Bridgent Consulting
38. Finance And Systems
39. Freyr International Limited
40. Unique Slim Point & Spa
41. Apex Lifestyle Consulting
42. Bero Tech
43. Pirelli Tyre
44. Ssa Accounting
45. Savvy Concepts
46. Assorted Steel (Hardware) Ltd.
47. Optimum Performance Solutions Ltd.
48. Taylorea
49. Kenya Business Directory
50. African E-Shop
51. Amana Capital Ltd
52. Bright Startups
53. Bridge Real Estate
54. Capability Improvements
55. Ol-Mara Registrars Ltd
56. Asi Kenya
57. Bruceward Consultants (E.A)
58. Crony Trading Ltd
59. Mukacho Auto Spares
60. Sme Kenya
61. The Pork Shop
62. Ayala Virtual Solutions
63. Halisi Group
64. Kenya Refrigeration& Airconditioning/Automobile
65. Mamuma Networks
66. Riayn Developers Limited
67. Biashara Africa Limited
68. Execcars
69. Enigma Trading
70. Jash Agencies Ltd
71. Askfin Accounting & Tax Services
72. Xantia Enterprises
73. Inner Ressources
74. Kebimex Company
75. Kopcke Inter.
76. Moneypoint Forex Bureau Ltd
77. Sumitomo Corp.
78. Tripple Epe Foundation
79. Ukwala Trading
80. Crossroad Business Management Centre
81. Musa Trading Ltd
82. Power Brands Limited
83. Commodity Fields International, LLC
84. Cyan Office Supplies Ltd
85. Muthaiga Forex Bureau De Change Ltd
86. Planet Connection Ltd
87. Rufussons Investments
88. Al-Mustaqim Trading Co (K) Ltd
89. Integrity Company Ltd
90. Rambhai & Co Ltd
91. Euro Dollar Bureau De Change Ltd
92. Give & Take Forex Bureau Ltd
93. Abc Place Forex Bureau Ltd
94. Afro Forex Bureau Ltd
95. Alpha Forex Bureau Ltd
96. Amana Forex Bureau
97. Amex Forex Bureau Ltd
98. Ap Enterprises
99. Arcade Forex Bureau
100. Arcade Forex Bureau Ltd
101. Aristocrats Forex Bureau Ltd
102. Bay Forex Bureau Ltd
103. Brisk Trading
104. Camac (K) Ltd
105. Cannon Forex Bureau Ltd
106. Capital Bureau De Change
107. Cape Equatorial Group
108. Climate Control Engineering
109. Colorado Trading Co
110. Continental Forex Bureau Ltd
111. Dahabshill Forex Bureau Ltd
112. Deluxe Trading Company
113. Dharamshi Lakhamshi & Co (K) Ltd
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160. Rurigi Enterprises Ltd
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162. Satellite Forex Bureau
163. Shepherds Forex Bureau Ltd
164. Sky Forex Bureau Ltd
165. Solid Exchange Bureau Ltd
166. Southlink Trading Co Ltd
167. Speedy Exchange Bureau Ltd
168. Sterling Forex Bureau Ltd
169. Sumitomo Corporation
170. Sunshine Forex Bureau Ltd
171. Technical Trading Co
172. Technical Trading
173. T-Lynk Enterprises
174. Tomen Corp.
175. Travellers Forex Bureau Ltd
176. Travel Point Forex Bureau Ltd
177. Union Forex Bureau Ltd
178. Village Market Forex Bureau
179. Vima Agencies
180. Virani Curry Powder & Flour Mills
181. Vision Trading Co Ltd
182. Vision Trading
183. Warwick Forex Bureau Ltd
184. Wellspa Ltd
185. Winfield Trading Co Ltd
186. Yaya Centre Exchange Bureau Ltd
187. Amer Trading Co Ltd
188. Cape Equatorial Group Of Co
189. Mercury Medical Supplies Ltd
190. A B C Place Forex Bureau
191. Addani General Trading Co
192. Adulius Trading Co Ltd
193. Ajit Wholesalers
194. Aldip Enterprises
195. Alihito Agency
196. Al-Ilson Trading Co
197. Alliance Trading Co
198. Alla-Amin
199. Amazon Forex Bureau Ltd
200. Anish Wholesalers
201. Anmol Trading Co Ltd
202. Aragon Trade Office (K) Ltd
203. Aroset Shop
204. Aum Distributors
205. Beauty Wholesale K Limited
206. Berlin International (K) Ltd
207. Bethlehem Trading Co (E A) Ltd
208. Bini Emporium
209. Bismilahi Wholesale & Retail
210. Blue Nile Forex Bureau Ltd
211. Bobric Trading Co Ltd
212. Bobby Emporium
213. Bunny Wholesalers Ltd
214. Central Fancy Wear
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219. Cinerama
220. City Comm Wholesale Mark
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273. Koa International Trading Co Ltd  
274. Kopcke International E A Ltd  
275. Lavington Forex Bureau  
276. Leancal Trading Ltd  
277. Leading Edge Food & Enterprises Ltd  
278. Links & Knots Ltd  
279. Lucky's International Ltd  
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281. Malde & Malde Agencies  
282. Mansukh Trading Co  
283. Marembo Trading Co Ltd  
284. Mara Trading Ltd  
285. Marson Traders Ltd  
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291. Minolta Wholesalers Ltd  
292. Mitsui & Co Ltd  
293. Mona Bureau De Change Ltd  
294. Mondial Traders  
295. Mtonyok Wholesale  
296. Munir Wholesellers  
297. Music House Ltd  
298. Myriad Bluechip Associates  
299. Myzo Co  
300. Nagoa Enterprises  
301. Nathoo Lakhtir & Sons  
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303. Neka Ltd
304. Nelson Ngethe & Sons
305. Nevon Trading Co Ltd
306. New Felisha Trading Co
307. New Aljaizira Store
308. Ngara Road Self Service Store
309. Njema Merchants
310. Nyaira Wholesalers
311. Oisebe's Grocery
312. Oswald Store
313. Pakttan Traders
314. Pak Nippon General Traders
315. Parag Emporium Ltd
316. Pena Traders
317. Perkera Wholesalers
318. Petcad Enterprises
319. P M Patel & Sons Ltd
320. Poly Pop Wholesalers Ltd
321. Pop's General Agencies Ltd
322. Premchand Mepa & Co
323. Premier Wholesalers
324. Prudent Wholesalers Ltd
325. Pumwani Industry Enterprises
326. Rahito Trading Co
327. Ramesh Enterprises
328. Ramesh Variety Wholesalers
329. Ramsa Trading
330. Raninga Trading Co Ltd
331. Razfar Investments Ltd
332. Real Value Forex Bureau Ltd
333. Regional Forex Bureau
334. Renhe Trading Co Ltd
335. Ruero General Agencies 2002 Ltd
336. Ruiria Investments Co Ltd
337. Rwikamba & Rwathia Trading Co Ltd
338. Saaf Trading Co Ltd
339. Sadiq Trading Co
340. Sanlese Trading Co
341. Sanlese Trading Co
342. Sarah Shop
343. Sawamu Enterprises
344. Shaflus Household
345. Shina Trading Company Ltd
346. Shree Sthanakvasi Jain Singh
347. Sigma Trading Co Ltd
348. Socio Trading Co Ltd
349. Solalite Co
350. Sunflower Trading Ltd
351. Sunil Garments
352. Supernatural Trading Co Ltd
353. Syronda Trading Co Ltd
354. Tanicam Trade Ltd
355. Tarakwo Trading Co Ltd
356. Tentel Trade & Supplies Ltd
357. Tender Base Ltd
358. Three Stars Foreign Exchange Bureau Ltd
359. Tomen Corporation
360. Top Rank Trading Co
361. Toppan Trading Co Ltd
362. Toyo Menka Kaisha Ltd
363. Trade Bureau De Change
364. Trans Asia Trading Co Ltd
365. Tradebase Co Ltd
366. Twinstar Ltd
367. Viazi Wholesalers
368. Visha Trading Co
369. Waleed Electronics