EFFECTS OF ENTREPRENEURIAL AND FIRM CHARACTERISTICS ON ACCESS TO VENTURE CAPITAL BY SMALL AND MEDIUM ENTERPRISES IN NAIROBI CITY COUNTY, KENYA

BANCY WAWIRA MUCHIRA

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A THESIS SUBMITTED TO SCHOOL OF BUSINESS IN PARTIAL FULFILLMENT FOR THE AWARD OF DEGREE IN DOCTOR OF PHILOSOPHY IN BUSINESS (FINANCE OPTION) OF KENYATTA UNIVERSITY

NOVEMBER 2019
DECLARATION

I declare that this thesis is my original work and has not been presented for a degree or other award in any other University. No part of this thesis should be reproduced without authority of the author or/and of Kenyatta University.

Signature............................................. Date.................................

STUDENT: BANCY WAWIRA MUCHIRA

REGISTRATION NO.: D86/CTY/26889/2013

This thesis has been submitted for examination with our approval as the university appointed supervisors.

Signature............................................. Date.................................

DR. AMBROSE JAGONGO,
Department of Accounting and Finance,
School of Business,
Kenyatta University

Signature............................................. Date.................................

DR. EDDIE SIMIYU,
Department of Accounting and Finance,
School of Business,
Kenyatta University
DEDICATION

This thesis is dedicated to my family; my husband – Bernard Chomba Mugo and children – Elvis Mugo and Elaine Wangui for their understanding, support, and sacrifice and for encouraging me to build a strong foundation in education.
ACKNOWLEDGMENT

I sincerely thank my supervisors Dr. Ambrose Jagongo and Dr. Eddie Simiyu both of Kenyatta University for the professional guidance and suggestions they have made at all stages of this study. I am grateful to the staff of the Ministry of Industrialization and enterprise development and in particular Mr. William Langat, for helping me to access requisite information and materials for the development of this proposal. I am equally grateful to all my colleagues in the 2014 PhD class in the City Campus for their invaluable contributions during class presentations and other forums of consultations.

Very special thanks to my husband Bernard Chomba who has stood with me throughout this study. His sacrificial love, encouragement, comfort, prayers, emotional and material support have seen me through many challenges. Finally, special thanks to my children; Elvis and Elaine who have been patient despite my absence from home during my studies.
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<th>Description</th>
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<tr>
<td>BERR</td>
<td>Business, Enterprise and Regulatory Reform</td>
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<td>CLRM</td>
<td>Classical Linear Regression Model</td>
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<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
</tr>
<tr>
<td>IEA/SID</td>
<td>Institute of Economic Affairs and Society for International Development</td>
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<tr>
<td>IA</td>
<td>Independence of Irrelevant Alternative</td>
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<tr>
<td>KNBS</td>
<td>Kenya National Bureau of Statistics</td>
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<tr>
<td>NMNL</td>
<td>Nested Multinomial logit</td>
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<tr>
<td>R&amp;D</td>
<td>Research and development</td>
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<td>SBA</td>
<td>Small Business Administration</td>
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<td>SMEs</td>
<td>Small and Medium Enterprises</td>
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<td>MSMEs</td>
<td>Micro, Small and Medium Enterprises</td>
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<td>SPSS</td>
<td>Statistical Packages for Social Sciences</td>
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<tr>
<td>VC</td>
<td>Venture Capital</td>
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<td>VIF</td>
<td>Variance Inflation Factor</td>
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## OPERATIONAL DEFINITION OF TERMS

<table>
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<th>Term</th>
<th>Definition</th>
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<tr>
<td><strong>Access to Venture Capital</strong></td>
<td>Allowing an enterprise to obtain financial services (fund and management skills) from venture capitalist.</td>
</tr>
<tr>
<td><strong>Entrepreneurial Characteristics</strong></td>
<td>These are features that are specific to the owner of the firm which can impact on the performance of the firm negatively or positively. The entrepreneurial characteristics in this study will include the managerial competency of the owner of the firm and the innovativeness of the owner/manager.</td>
</tr>
<tr>
<td><strong>Entrepreneurship</strong></td>
<td>Ability and willingness to develop organize and manage an enterprise.</td>
</tr>
<tr>
<td><strong>Equity Financing</strong></td>
<td>Raising capital in exchange of an ownership interest in the SMEs.</td>
</tr>
<tr>
<td><strong>Entrepreneur Innovativeness</strong></td>
<td>This is the ability of the owner of a business to produce new ideas, product and provide better and new way of carrying out activities.</td>
</tr>
<tr>
<td><strong>Entrepreneur managerial competency</strong></td>
<td>Quality of a manager being adequately in possession of required skills, knowledge and qualification to manage and run a business.</td>
</tr>
<tr>
<td><strong>Firm Characteristics</strong></td>
<td>These are traits or features specific to a firm which can positively or negatively affect the performance of the firm. In this study they include, firms’ age and firms’ industry/sector of operation.</td>
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</table>
Firm’s Age

The number of years a firm has been in operation

Non-Service Sector/Industry

Sector/industry whose end product is tangible

Risk Measure

These are the measures taken to manage threats and uncertainties in future.

Small and Medium Enterprises

These are enterprises having between 10 and 99 employees. Small have 10-49 employees and medium have 50-99 employees.

Service Sector/industry

Sector/Industry whose end product is intangible

Venture Capital

A risk financing in the form of equity which is provided by the venture capitalist on the basis of potential and ability of firms.

Venture Capitalists

These are investors who provide funds to investors who wish to expand but do not have access to formal financing.
ABSTRACT

Small and medium Enterprises are vital for economic growth especially in the developing countries. However, empirical evidence shows that most of these enterprises fail due to poor/lack of access to finance. Access to venture capital by the small and medium enterprises could be a plausible alternative but unfortunately research has pointed out that majority of the enterprises do not access venture capital financing, which is considered an important option for small and medium enterprises trying to grow. This study therefore sought to investigate the effect of entrepreneurial and firm characteristics on access to venture capital by small and medium enterprises in Kenya. The study was guided by the following specific objectives; To determine the effect of entrepreneur’s innovativeness on access to venture capital, to establish the effect of entrepreneur’s managerial competency on access to venture capital, to determine the effect of firm’s age on access to venture capital, to establish the effect of firm’s sector of operation on access to venture capital, to determine the mediating effect of firms performance on the relationship between entrepreneurial and firm characteristic and access to venture capital and lastly to determine the moderating effect of risk reduction strategies on the relationship between entrepreneurial and firm characteristics on access to venture capital financing by Small and medium size enterprises in Kenya. Agency theory underpinned the study. The study adopted the explanatory non-experimental research design and positivism philosophy guided the study. Target population of the study was 334 Small and medium size enterprises ranked by KPMG between 2008 and 2017 in their annual survey. Proportionate random sampling technique was used to select the firms. Primary data was collected by semi structured questionnaire, using drop and pick method. Both descriptive statistics and inferential statistics were used to analyze the data. Nested multinomial logit model was used to establish the effect of entrepreneurial and firm characteristic on access to venture capital financing. The results reveal that; the influence of an entrepreneur’s innovativeness on access to venture capital financing is statistically significant. Secondly, managerial competency had positive influence and was statistically significant to access to venture capital financing among SMEs. Third, the results show that SMEs in the service industry benefits more from venture capital as opposed to those in the non-service industry. Fourthly, the results show that a firm’s age has a positive though statistically insignificant influence on access to venture capital financing. Fifth, there is no mediating relationship between a firm’s performance on the relationship between entrepreneurial and firm characteristic and access to venture capital financing. Finally, there exists a moderating relationship between entrepreneurial and firm characteristic on access to venture capital financing. From the findings, a number of recommendations can be made. First, SMEs should continue investing in enhancing entrepreneurial innovativeness as it increases the propensity of their enterprises from accessing venture capital financing. Secondly, given that managerial competency positively affects SMEs access of venture capital financing, firms should invest in human capital of their management through various strategies. For instance, investing in training gives employees the opportunity to develop new skills and accumulate the knowledge they need in order to achieve specific organizational and personal goals with the priority being to train managers so that they can be able to cope with the challenges which hinder business success.
CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Small and Medium Enterprises (SMEs) are important in any economy for they have potential to develop into larger productive units, they can adopt new technologies, and they have ability to adapt to new economic conditions (Katua, 2014). Financial constraints can however ruin a good SMEs business idea, lead to the business failure, or hinder its growth and development (Ayyagari, Demirguc-Kunt & Maksimovic, 2011).

According to Abdullah, Khadijah, and Manan (2010), inaccessibility and insufficiency of funds is the major barrier to the growth and performance of SMEs in both developed and developing countries. SME Baseline Survey (2009) shows that the sector is not only a provider of goods and services but also a driver in promoting competition, innovation and enhancing the enterprise culture. The SME sector effectively responds to challenges of creating sustainable employment opportunities, promoting economic growth and poverty reduction in a country (Abdullah et al., 2010).

In many countries, SME sector is a major source of employment, and also important to national growth. For instance, in 2011 the SMEs sector in Poland generated almost fifty percent of the Gross Domestic Product. Additionally, the sector in 2011 employed 6.3 million people out of the total of 9.0 million of the labor employed in private sector (United Nation, 2011). Nyang’ori (2010) points out that in European economy, SMEs represent 99 percent of enterprises and they are major source of entrepreneurial skills, innovation and employment and that in the European Union of 25 countries, some 23 million SMEs provide around 75 million jobs. Additionally,
according to the Department for Business, Enterprise and Regulatory Reform (BERR)’s Enterprise Directorate Analytical Unit, the United Kingdom economy in 2008 had 99 percent SMEs, employing 14.23 million people, out of a working population of approximately 30 million. Moreover, in terms of UK turnover and Gross Domestic Product (GDP), UK SMEs account for 1.48 British Pounds (Rowe, 2012).

In Africa, promotion of SMEs and particularly those in informal sector is a viable development. Okafor (2011) affirms that SMEs are the main source of employment in developed and developing countries alike, comprising over ninety percent of African business operations and contributing to over fifty percent of African employment and GDP. In Kenya, for instance, SMEs output was estimated at Kes.3369.1billion against a national output of Kes.9971.4 representing a contribution of 33.79percent in 2015(Kenya National Bureau of Statistics, 2016). Despite SMEs significance, statistics indicate that 29.6 percent of the 2.2 million enterprises closed in the past 5 years; the year 2016 included, and most was as the result of shortage of operating funds.

There are arguments that SMEs in most cases are unable to access finance from financial institution due to their inability to meet requirements by the financial institution (Calice, Chando, & Sekioua, 2012). Further, more financial institutions often see SMEs as a risk-prone sector because of poor guarantees and lack of information about their ability to repay loans (Olando, Mbewa, & Jagongo, 2012). It is also argued that many SMEs have little access to many sources of finance due to legal and regulatory framework that do not recognize innovative strategies for lending to the SMEs(Sigara &Memba, 2011). This lack of sufficient capital and credit is often a major handicap to the development of SMEs particularly in their early stages(Lemuel, 2009). Additionally, entrepreneurial firms characterized by significant intangible assets, negative
earnings in their early development, or unproven products makes it unlikely to access bank loans or other debt financing, and therefore struggle to attract equity financing (Tedesco, 2014).

Venture capital is risk finance in form of equity which gives the business funds based on their potential and their interest as perceived by the investor (Mckaskill, 2009). Venture capital is generally considered to be the most appropriate financial resources for the small and Medium enterprises (Diaconu, 2012). Venture capitalists bridge the financing gap caused by information asymmetry for new and innovative firms (Burżacka & Gąsiorowska, 2016). According to (Hickey, 2013), Venture Capital firms invest funds on business with a professional outlook. Under venture capital financing agreement, the venture capital firm provides finance to enable a business undertake a project and in return the venture capitalist gets an ownership stake in the business (Nunkoo & Boateng, 2010).

However, venture capital firms have reputations for being highly selective in funding SMEs, so the receipt of venture capital funding often strengthens a startup’s reputation among stakeholders (Graham & Sichelman, 2010). At least one of the members of a venture capitalist does sit on the board of directors, or in a similar position of control, which provides structure and management to the fledgling company (Gompers & Lerner, 2001). This shows how important entrepreneur skills or expertise is to venture capital financiers (Hickey, 2013).

As indicated by Rypestøl and Aarstad (2018), in an era of tight competition today firms faced with the choice of innovative or die, therefore to sustain the survival of the firms, the company should chose to innovate. Innovation plays a key role as a main driving force in economic development, and in the context of the company is considered as a vital source of innovation for strategic change by the which a firm generates positive outcomes, including a sustained
competitive advantage (Gunday, Ulusoy, Kilic & Alpkan, 2011). Sinha, Steel, Saunders and Dewald (2019) considers that entrepreneur’s innovativeness reflects the tendency of firms to implement and support new ideas, novelty, experimentation, and creative processes that producing the products, services, or processes of new technologies. On the other hand, Hånell, Nordman, Tolstoy and Sharma (2018) affirms that entrepreneur’s innovativeness is the tendency of openness to new ideas as an aspect of organizational culture, which resulted in the innovation capacity of a firm's ability to adopt or implement ideas, processes, and new products successfully.

Like managerial competencies, entrepreneurial competencies can be defined as underlying characteristics such as generic and specific knowledge, motives, traits, self-images, social roles, and skills which result in venture birth, survival, and/or growth (Zarefard & Cho, 2018). Entrepreneurial competencies have been identified as a higher (vs. standard) level ability that can be promoted through education and encompasses the necessary skills, knowledge and abilities to perform an innovative role successfully. As indicated by Lara and Salas-Vallina (2017), managerial competencies are characteristics that relate to effective job performance. In view of the knowledge-based nature of competitive business environments, entrepreneurs need an adequate range of managerial competencies and highly differentiated knowledge to manage change and uncertainty, to survive in an organization.

The link between age and performance of a company has been extensively examined in the finance literature as well as other disciplines such as economics and organizational studies (Coad, Holm, Krafft & Quatraro, 2018). Theoretical and empirical papers are ambiguous regarding the relationship between age and firm performance. On the one hand, research suggests that older firm outperform younger firm since they have more experience in the
industry. According to Coad (2018), age is the length of time during which a being or thing has existed. Aziz and Samad (2016) defined firm age as the number of years of incorporation of the company; even though some believe that listing age, should define the age of the company. The relationship between firm age and profitability is contentious. In empirical sense, firm age has been researched in different contexts. Starting with the influential work of Gibrat (2015) and finding that smaller, younger firms are more likely to grow faster than larger, older firms (in terms of the number of employees or amount of sales), a large number of researches have tried to explore the relationship between firm size and growth rate.

According to Ekanem, Owen and Cardoso (2019), Risk management can add value and is necessary in all types of companies to secure long-term stability (Frooth et al., 2013; Mackay and Moeller, 2007). Nevertheless, the topic of risk management is still in its infancy as articles are mainly published in finance and accounting, but less in management or entrepreneurship journals (Bromiley et al., 2015). Especially venture capital (VC) investments are well known as high risk investments since venture capital companies (VCCs) invest in ventures with a high growth but also high risk potential (LiPuma & Park, 2014). Young entrepreneurial firms face the challenge of “liability of newness” resulting in particular difficulties, e.g. shorter expected life, and a greater risk of failure (Coleman, 2004). In this study firm characteristics were measured using firm size, firm age, firm growth etc.

1.1.1 Access to Venture Capital

Venture capital finance is risk finance in form of equity that is available to a borrower with no obligation to repay (Smolarski & Kut, 2011). It is a financial investment for start-ups or established SMEs that are perceived to have unique ideas and excellent growth ability (Kumar &
Siddharthan, 2013). Access to VC improves a nation’s innovative capacity by making investments in early stage businesses that offer high growth potential (Warma, 2010). The main source of deals for venture capitalists are personalized networks of referrals (Berger & Schaeck, 2011).

Venture capitalists mainly focus on: market attractiveness, product/service, the entrepreneur, the management team and financial considerations (Deloitte, 2009). Once the VCs are comfortable with the screening, they negotiate the terms and condition of the investment with the entrepreneur, with the aim of controlling the corporate decisions and minimizing the potential cost and risk (Ndabeni, 2014). According to Obeng and Mwebi, (2012), venture capitalists rarely provide funds to SMEs in full amount as applied for but instead they give certain percentage of requested funds based on the perceived potential of the SME. The percentages are mostly in levels of low access level (1 percent-33 percent), moderate access level (34 percent-66 percent) and high access level (67 percent – 100 percent).

According to SAVC (2009), VCs uses two main risk reduction strategies; syndicate of investments and staging of capital infusion. According to Cumming, (2011), most venture capital transactions include staging of capital which have the ability to mitigate the agency problem effects. This also leaves the owner–manager with some control during the investment period. Moreover, venture capitalists use syndication, that is, when two or more venture capitalists are sharing in a single financing round. The syndication mechanism helps in reducing the problems associated with adverse selection through the participation of a co-investor sharing the investment risk (Smolarski & Kut, 2011). Another strategy the venture capitalists use is staged capital infusion where the funds are given to SMs in stages as opposed to lump sum. According to Ndabeni, (2014) this is a control mechanism which enables venture capitalists to subdivide
their investment into various stages of the investment life. This in return reduces risks, controls moral hazard and allows the investor to gather information and monitor progress while maintaining the option to abandon the project at any time. (Zabri, 2013) suggests that VC accessibility to SMEs could be achieved through improving understanding of their financial practices.

VC, which is quite prevalent in developed countries, has played a big role in enhancing growth of SMEs by providing equity capital. Some of the world’s largest companies, including Home Depot, Starbucks, Whole Foods, Microsoft, Apple, Google, JetBlue, eBay, and Staples were originally backed by Venture capital (Kavanaugh et al., 2014). In essence, access to VC has played an important role in the economic development of the United States(Dolencic, 2010). In 2012, it was estimated that venture-backed companies which publicly traded their share accounted for 10.4 million jobs and $2.3 trillion in revenues, which represents a share of 17.6 percent in the total U.S. Gross Domestic Product (GDP) (Kavanaugh et al., 2014). Accordingly, in 2014, the value of investments in Poland accounted for 19.1percent of the total value of investments in Central and Eastern Europe (RBC Wealth Management, 2017).

In Africa unlike in developed countries, VCs are few and hence they have created little impact to the SMEs. In the year 2013 for instance, there were only 176 venture capitalists in South Africa and only 26 active VC firms dedicated to East Africa (AEAVC, 2015). Kenya has continued to dominate the private equity industry in Eastern Africa, accounting for more than 60 per cent of private equity deals recorded in the East African region (KPMG, 2015). Kenya received investment deals worth Keya shillings 49.7 billion out of the Kes78.9 billion, accounting for 63 per cent of the deals for East Africa (KPMG & EAVCA 2015).
VCs consider the following before funding an enterprise; the quality of the business plan, basic concept of the project, track record of entrepreneur, the management team, the characteristics of the product, market or technology among others (Memba, 2011). According to KNBS (2016), of all the sources of capital utilized by SMEs, equity financing accounts for only 4.1 percent. With the availability of VC funds in Kenya, it is not clear why SMEs uptake to VC is very low yet they are still struggling to raise capital.

1.1.2 Entrepreneurial Characteristics

The entrepreneurial characteristics are those attributes that are specific to the owner of the firm which can affect performance of a firm negatively or positively. According to Sajilan, n.d. (2015), entrepreneurial characteristic are grouped in terms of attitude and personal behavior while others have grouped them as demographic (age and gender) and personal characteristics (need for achievement, entrepreneur’s growth strategies need for cognition and internal locus of control).

In this study, entrepreneurial characteristics are; entrepreneurial innovativeness and managerial competency. Entrepreneurial innovativeness is considered in terms of new products development, new process development and new markets introduced. Wood (2008) urges that creativity of an entrepreneur is mainly concerned with the establishment of valuable and useful new product, service or idea and the methods by which individuals work together in a complicated social system. Innovation is concerned and defined with the adoption of a product, service and methods that are new for organizations and adopted by them.

Crossan and Apaydin (2010) highlights that innovation is creation or acceptance, adaptation and utilization of a value-added novelty in trade and industry spheres, regeneration and expansion of
product, services and markets, making of new ways of product development and establishing new. Managerial competency was assessed in terms of level of education and years of experience. Past research found a positive relationship between higher educational qualifications and business growth (Kozan et al, 2006). Education helps to enhance the exploratory skills, improves communication skills and foresight. These enhanced skills are positively related to presenting a plausible case for accessing funds at the time of preparing a loan proposal and hence convincing the lender during the client interview. Kumar & Francisco (2005), found a strong education effect in explaining access to financial services in Brazil. They also found that graduates had the least difficulties raising finance from lenders.

The researchers have given three interpretations for this finding. Firstly, more educated managers/owners have the ability to present positive financial information and strong business plans and they have the ability to maintain a better relationship with financial institutions compared to less educated entrepreneurs. Secondly, the educated managers/owners have the skills to manage the other resources of the business such as human resources, finance, marketing, and these skills results to high performance of the business which helps them in accessing finance with fewer challenges. The third reason is from the supply side, where lenders value higher education level of the owners/managers in the lending criterion. Highly qualified owners/managers of SMEs are more efficient in their work and hence providers of funds have more confidence in those with higher academic qualifications than those with lower levels of qualification (Berger and Udell, 2006). In some studies like Kasseeah and Thoplan (2012), educational level is measured by ordered measures depending on the level of the participant as primary, secondary or tertiary level etc. Educated managers also possess the necessary confidence to overcome any barriers they might come across when seeking access to finance and
are well informed in regard to lending services and requirements (Zarooket al.2013). Zarooket al.(2013); Slavec and Prodan (2012) observed that educational level of owners has big tremendous correlation with access to finance.

Entrepreneurial characteristics have important implications in the demand for any form of finance (Keil, Maula, & Wilson, 2010). The characteristics of the owner of small and medium enterprises are inseparable from their business. This is mainly because most of these firms are owned as sole proprietorship and partnership form of businesses where ownership is inseparable from control. Likewise in the case of limited liability companies where there exists a separate legal entity, ownership can rarely be separated from control (Nkuah, Tanyeh, & Gaeten, 2013).

1.1.2.1 Firm characteristics

According to Sorooshian, Norzima, Yusof, and Rosnah (2010), firm characteristics are specific features to a firm, which can affect its performance either positively or negatively. Studies have grouped firm characteristics into various ways, for example organizational factors (ownership, firm size, firm age), operational factors (performance, business goal and objectives) and market factors (sector, asset structure, size of market and import/export) (Xiang, Worthington, Higgs, & Dong Xiang, 2011). Firm characteristics considered in this study are firm industry/sector and firm’s age. Firm industry of operation was measured in term of service or no service. The industry in which a firm operates does determine its capital structure but indirectly via the nature and composition of the firm’s assets (Hallet al., 2000). Barbosa and Moraes (2004) argue that the relationship between industry classification and access to finance is based on the assumption that industry classification is a proxy for business risk. Firms in the same industry face the similar environmental and economic conditions and, thus, tend to cluster with respect to variance of
earnings and sales. Abor (2007) found that SMEs in the no service sector requires the highest capital structure and asset structure or collateral value, while the service industry has the lowest debt ratio and asset structure. Theories from strategic management and industrial organization have emphasized the importance of industry affiliation to access to finance. Barriers to entry and other structural features of industries create significant differences in firm performance (Bain, 1951). Because of differences in sunk and fixed-cost requirements by industry, firm performance may differ significantly by industry regardless of country affiliation (Sutton, 1990). Thus, even among firms with different affiliations by country, important differences may arise in performance by industry (Porter, 1981). Because some industries are characterized by higher risk and since lenders assess risk levels of an industry, risk exposed sectors may not access as much finance as compared to other less risky sectors. In the same way, some sectors are less profitable than others. Because profitability is a yardstick used by lenders, then it means that some sectors may be disadvantaged in access to finance. Firm’s age was measured by the number of years in the operation. Older firms have established themselves in the environment and as such, they are active in the market as compared to new firms in the market. Evans (2007) indicated a positive relationship between age and capital accessibility of firms and those older firms grow at a faster rate compared with young firms. Stinchcombe (1965) argues that older firms are more experienced, have enjoyed the benefits of learning and are not prone to liability of newness which ultimately leads to easy access of capital. Chandler (2009) suggested that the longer a firm exists; the more it is believed to have ability to cope with tough economic conditions. Furthermore, by staying in business, a firm does not adopt opportunistic behavior instead it signifies maturity to deal with business challenges. Older firms provide a resume in which lenders can use to gauge their credit worthiness. Ngoc et al. (2009) found that it is often difficult
and expensive for young SMEs to access bank financing, due in large part to information asymmetry between the banks and firms. Bougheaset al.(2005)argue that young firms are more prone to failure than older ones hence they have problems in accessing various sources of finance. However another opposing view is that older firms may lose out on grasping profitable opportunity that comes along their way because of the structural inflexibility created by bureaucracy and inertia. Firms’ sources of finance change with time. For instance,a firm which starts off as a family business by utilizing internal financing like personal and family savings may grow to obtain funds from its suppliers. When it has established a good track record, developed accounting systems and reputable legal identity, it may qualify and obtain a loan from a banks or other financial institution. Firm characteristics have important implications in the demand for any form of finance (Keil, Maula, & Wilson, 2010)

1.1.3 Small and Medium Enterprises in Kenya

Kenya National Bureau of Statistics KNBS,(2016) defines and classifies SMEs according to the number of employees; small: 10–49 employees; and medium: 50–99 employees. SMEs are the primary vehicles by which new entrepreneurs provide the economy with a continuous supply of ideas, skills, and innovations (Normah, 2006). According to Beck, Degryse andKneer, (2014) SMEs have ability to fuel economic growth and enhance competition and entrepreneurship hence has external benefits on economy wide efficiency, innovation and aggregate productivity. SMEs dominate the world economies in terms of employment and number of companies, yet their full potential remains remarkably untapped (Schlogl, 2004,Omar, Arokiasamy & Ismail, 2009). In Kenya 90percent of all enterprises are SMEs providing employment to over 60percent of the total employed population (Katua, 2014). They are reported to employ an estimated 2.4 million people and the sector contribution to GPD is estimated at 18.4 percent (Mutai, 2011).
Most SMEs fall under the informal sector called jua kali, which means hot sun or fierce sun in Swahili. Initially, jua kali referred to people working under the hot sun or open air (Akolo, Mulili & Kiboi, 2018). By extension, the term now refers to people in self-employment or small-scale industries. In other reports, jua kali refers to all enterprises employing between 1-49 employers in all sectors. It therefore appears that jua kali could refer to both formal and informal sector SMEs. Kenya does not have a comprehensive record of SMEs. While estimates put Kenya’s MSMEs at about 7.5 million enterprises, contributing approximately 44% to the Kenyan GDP in 2008, it has been suggested that the number of formal SMEs is more in the region of 250,000. A 2014 CNBC news report puts SME contribution to Kenya’s GDP at about 45%. The Deloitte Kenya Economic Outlook 2016 notes Kenyan SMEs are hindered by inadequate capital, limited market access, poor infrastructure, inadequate knowledge and skills and rapid changes in technology. Corruption and an unfavorable regulatory environment are other challenges. Government attempts to address these problems include enforcing legislation on local content for public projects, establishing ‘Buy Kenya, Build Kenya’ policies in public procurement, research and development support and increased contributions to funds such as the Uwezo. The Uwezo fund aims to expand access to finances and promote women, youth and persons living with a disability. The Kenyan government is also promoting small and medium scale manufacturing firms and plans to develop SME parks (Chepsang, Iraya & Okiro, 2018).

1.2 Statement of the Problem

Small and Medium Enterprises are drivers of economic expansion in both developed and emerging economies, whose success is largely dependent on access to adequate financing (Njama, 2013). According to Clark and Juma, (2013), the fundamental reasons behind SMEs’ poor access to finance can be found in their unique characteristics.
Various types of assistance such as; financial assistance, training and extension services, pre-constructed commercial shades or assisting in marketing of products have been provided to SMEs to boost their performance (IEA&SED 2001). However, 2.2 million SMEs on average 3.8 years old closed down in the last 5 years, 2016 inclusive. Of the 2.2 million, 29.6 percent attributed their closure to poor access to finance (KNBS, 2016). This is one of the scenarios that have led to loss of confidence in lending to SME by financial institutions. This therefore called for SMEs to identify alternative method of financing their business and VC becomes the best option (Musani, 2014).

Venture capital has been in existence in Kenya since 1970s, yet it has had little impact on growth of SMEs. According to Olando et al.,(2012), only 2 percent of Micro, small and medium enterprises, have had access to VC. The East Africa Venture Capital Association (2015) confirms that VCs in Kenya had raised Kes172.8 billion by 2015, but only managed to invest Kes49.7 billion (28.8 percent) in Kenya; this means that the VCs still have a lot of funds to invest. According to KNBS (2016), equity financing account for only 4.1 percent of all the sources of capital utilized by SMEs. With the availability of these funds in Kenya, it is not clear why SMEs uptake to VC is very low yet they are still struggling to raise capital. According to Nour (2009), the key aspect of interest to VC when funding a firm include the product/service offered by the firm, the market served by the firm, the management team of the firm and the financial projection of the firm. These can be summed up to entrepreneur and firm characteristics.

Studies on relationships between entrepreneurial and firm characteristics on access to finance have been conducted both in developed and developing countries with mixed results. For instance Xiang, Worthington and Higgs (2014) in a study on Firm-Level Determinants and
Impacts of Finance-Seeking Behaviour and Outcomes for Small and Medium-Sized Enterprises (SMES) in Australia and found that a large number of SME characteristics, including firm age, size, industry and sales and the declared strategies for operations, profits, growth and exports, significantly affect both finance-seeking behaviour and outcomes. Since the study was conducted in Australia and focusing on firm level determinants of finance seeking, both contextual and conceptual gaps were established. Abdulsaleh & Worthington (2013) conducted a study which focused on Small and Medium-Sized Enterprises Financing and found that both entrepreneurial and firm characteristics are important factor in accessing financing. The study presented a conceptual gap. Conversely, Islamat et. al., (2012) in a study contends that only firm’s characteristics can be significant factors on business access to finance. The study presented both conceptual and methodological gaps. However, studies conducted in Kenya to explore the entrepreneurial and firm characteristics on access to VC have not been exhaustive as there is limited information on access to venture capital. For instance, Ochieng, Masoud, and Mwirigi, (2013) studied determinant of uptake of credit product by SMEs in Nairobi and found out that business characteristics correlate positively to uptake of credit product. The study presented a conceptual gap. Memba, Gakure and karanja (2012) studied the impact of VC on growth of SMEs in Kenya and found out that VC financing has an impact on growth of SMEs. Since the study focused on all SMEs in Kenya, conceptual contextual gap was established. Jagongo (2012) studied VC financing; the all-important Micro Small and Medium Enterprises (MSMEs) financing Strategy under neglect in Kenya and found out that all entrepreneurship stakeholders were largely ignorant of the potentials for VCs to bridge the MSMEs financing gap. The findings from these studies therefore imply that VC may not have been exhaustively explored for financing businesses in Kenya.
In order to unlock the potential of this industry, the important question to answer then is --what are the factors that drive the access to VC in Kenya? Hence, the need to identify and enhance factors behind access to VC explored in this study. The current study addressed the gaps by establishing the effect of Entrepreneurial and Firm characteristics on access to VC financing by SMEs in Nairobi County, Kenya.

1.3. **Objective of the study**

The study was guided by the following objective:

1.3.1 **General Objective**

The general objective of this study was to investigate the effect of entrepreneurial and firm characteristics on access to venture capital financing by selected SMEs in Nairobi, Kenya.

1.3.2 **Specific Objectives**

This study was guided by the following specific objectives;

i. To determine the effect of entrepreneur’s innovativeness on access to venture capital by SMEs in Nairobi County, Kenya

ii. To establish the effect of entrepreneur’s managerial competency on access to venture capital by SMEs in Nairobi County, Kenya

iii. To determine the effect of firm’s sector/industry of operation on access to venture capital by SMEs in Nairobi County, Kenya

iv. To establish the effect of form of firm’s age on access to venture capital by SMEs in Nairobi County, Kenya
v. To determine the mediating effect of firm’s performance on the relationship between entrepreneurial and firm characteristic and access to venture capital financing by SMEs in Nairobi County, Kenya

vi. To determine the moderating effect of VC risks measures, on the relationship between entrepreneurial and firm characteristic and access to venture capital financing by SMEs in Nairobi County, Kenya

1.4 Research Hypotheses

The study tested the following null hypotheses.

\( H_{01} \): Entrepreneur’s innovativeness does not have significant effect on access to venture capital by SMEs in Nairobi County, Kenya.

\( H_{02} \): Entrepreneur’s managerial competency does not have significant effect on access to venture capital by SMEs in Nairobi County, Kenya.

\( H_{03} \): Firm’s sector/industry of operation does not have significant effect on access to venture capital by SMEs in Nairobi County, Kenya.

\( H_{04} \): Firm’s age does not have significant effect on venture capital by SMEs in Nairobi County, Kenya

\( H_{05} \): Firm performance does not have significant mediating effect on entrepreneurial and firm characteristics and access to venture capital by SMEs in Nairobi County, Kenya.

\( H_{06} \): VC risk measures does not have significant moderating effect on entrepreneurial and firm characteristics and access to venture capital by SMEs in Nairobi County, Kenya.
1.5 **Significance of the Study**

It is envisaged that the findings and suggestions of this study will be useful to the stakeholders concerned with making policy for business operation in the country. The findings and suggestions of this study will also be helpful to the owners and managers of the SMEs, in that they may increase their entrepreneurial knowledge and be able to successfully enhance their entrepreneurial characteristics and hence attract more external funders. It is also projected that both formal and informal financiers of SMEs will find the results of this study useful and hence make appropriate decisions in the process of funding the sector. This study will also add to the already existing literature in the field of SMEs and more relevantly in the area of sources of finance for the sector.

1.6 **Scope of the Study**

The study confined itself to the effect of entrepreneurial and firm characteristics of selected SMEs on access to venture capital in Nairobi County. The entrepreneurial characteristics are restricted to owner’s innovativeness and managerial competence while firm’s characteristics are restricted to firm’s sector of operation and firm’s age. The study concentrated on SMEs appearing in the category of the top 100 SMEs according to KPMG between 2008 and 2016 and in Nairobi County. The year 2008 to 2016 is the period from when the top 100 SMEs categorization began to the time of this study. The total number of SMEs that appeared in this categorization between 2008 and 2017 were 424, out of the 424 SMEs, 334 (79 percent) SMEs are located in Nairobi County. Nairobi County was therefore conceptualized since it houses the highest percentage (79 percent) of the SMEs in Kenya. The list of these SMEs was considered credible as it is developed by KPMG, a reliable international audit and advisory firm.
1.7 Organization of the Study

The study was organized into five chapters. Chapter one makes the introduction of the study in terms of the content and the context. This includes the background to the study, statement of the problem, objectives, significance of the study, scope and limitation of the study. Chapter two embarks on the literature review where both theoretical and empirical literature is appraised and also the study conceptual framework formulated. Chapter three presents the research methodology. This includes discussion of the research design, philosophical orientation of the study, empirical model, target population, sampling methods and sample size, data collection instruments and procedures, data analysis and presentation, diagnostics test, operationalization of the study variables and ethical consideration. Chapter four presents discussion of the results of the study and chapter five provides the summary, the conclusions and recommendations based on the conclusions from the study.
CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter focuses on an overview of theoretical underpinning of the study. The chapter presents a review of empirical research relating to Entrepreneurial and Firm characteristics on access to Venture Capital. The study variables are presented in a conceptual framework demonstrating the researchers conceptualization of the variables investigated in the study. Based on this review, the research gap is identified for the purpose of contextualizing the study.

2.2 Theoretical Review

This section presents the theoretical foundation of the study’s main theories that could explain the drivers of SMEs access to venture capital financing. Agency theory underpinned the study. Other theories which support this study are the Pecking Order Theory, Social Network theory and life cycle theory.

2.2.1 The Agency Theory

An agency relationship formulated by Jensen and Meckling, (1976) is a contract under which one person (the principal) authorizes another person (the agent) to accomplish some activity on their behalf. If both parties in the relationship are interested in utility maximization, there might be a problem because the agent may not act to the best interest of the principal. However, it is impossible for the principal or the agent, at zero costs, to make sure that the agent will make optimal decisions on the principal’s point of view (Anderson et al., 2013).
The problem arises where the two parties have different interests and asymmetric information; such that the principal cannot directly ensure that the agent is always acting in his best interest. This is particularly when activities that are useful to the principal are costly to the agent, and where elements of what the agent does are costly for the principal to observe Vasilescu, (2010).

Problem of agency cost is mostly severe for SMEs due to their opaqueness which may lead to increased moral hazard and adverse selection problems (Degryse, Goeij and Kappert, 2012). According to Hand, Lloyd, and Rogow, (2011) the main problem of agency in SMEs is between the internal and external contributors, not between owners and managers. Bailos, Daskalaki, Eriotis and Vasilıou (2016) considered that agency costs are greater in smaller firms, leading their owner to run higher risks and in isolation, particularly in the first years when the firm’s survival is at stake.

Solutions to agency problems are relatively expensive for SMEs as it may increase the transaction costs between them and their creditors or shareholders (Fauzi & Locke, 2012). Monitoring could also be more difficult and costly in the case of SMEs since they are not obliged to fully disclose information to the market as is usually the case with large firms, which allow a reduction of agency costs (Vasilescu, 2010). On the basis of the arguments of this theory, the major issues highlighted that are the agency cost and information asymmetry will help this study in understanding how some variables of this study interact. For instance; agent cost and information asymmetry, of SMEs concerning the VCs main risk reduction strategies (moderating variable): convertible securities, syndicate of investments and staging of capital infusion would affect the proximate variable (firm performance) and hence the access to the VC which is the dependent or criterion variable of the study. According to Cumming, (2011) convertible securities have the ability to mitigate the agency problems. The information symmetry would
also determine the use of other VC risk measures that is syndication mechanism which helps in reducing the problems associated with adverse selection through the participation of a co-investor sharing the investment risk and staged capital infusion which is a control mechanism that enables venture capitalists to subdivide their investment into various stages of the investment life (Smolarski & Kut, 2011; Ndabeni, 2014).

Whereas agency theory has been developed primarily in the context of publicly traded firms with diffuse ownership structures and managers with very limited equity stake, its logic has some appeal for explaining the VC-E relationship. When VCs buy into a venture, they are like outside stakeholders (or large blockholders) who carefully observe the firm to track its business potential and monitor agent behavior to protect against opportunism. One of the primary normative prescriptions of agency theory is that the principal should seek to avoid or mitigate the agency problem. However, it appears that the agency problem is not uniform throughout the life of a venture. As a result, agency theory is likely to vary in its usefulness in explaining the VC and entrepreneur behaviors. For example, agency theory may be most applicable in explaining behaviors immediately prior to the initial investment VCs make in a new venture. Then, after the VC has invested in the new venture, it appears that agency concerns rapidly decline followed later by some potential upswings.

2.2.2 Pecking Order Theory

According to the pecking order theory hypothesized by Myers (1984), firms finance their needs in a hierarchical order, first by using internally available funds, followed by debt and finally, external equity. Pecking order theory points out that there is no properly-defined optimal capital structure; instead the debt ratio is the result of hierarchical financing over time. Firm
management has a preference to choose internal financing before external financing and when a firm is forced to use external financing, managers first select the least risky and demanding source (Torugsa, O'Donohue & Hecker, 2012). The theory is a framework for examining firm financing that states that firms attempt to reduce information asymmetries and maintain ownership by first using internal financing, followed by external debt and equity (Berger, Goulding & Rice, 2014).

In most cases SMES prioritize the source of financing from internal cash flow or entrepreneur’s own capital to external sources according to relative availability and opportunity cost (Ogujiuba & Abiola, 2012). In the case of the small firm or entrepreneur, personal sources are used first, external debt next, followed by outside equity. Equity is acquired last because the entrepreneur presumably has more information than the investor. The presence of significant information asymmetries causes the investor to charge a higher rate of return on equity than on debt (Frank & Goyal, 2013). Since most SMEs in their start up stages have no or have limited access to formal bank credit and in most cases no retained earnings, venture capital financing which is equity finance could be the best option.

Pecking order theory helped the study to understand the SMEs because they are opaque and carry high information costs especially those with a relatively short history in the market (Mac an Bhaird & Lucey, 2011). This particularly helped this study to scrutinize the approach of SMEs owners to external equity which in the case of this study is the VC finance. The hierarchical order, using internally available funds, followed by debt and finally, external equity leads to the desire of the owner-manager of SMEs to maintain independence and retain control of the firm hence making the firms opaque. In this sense, venture capitalist lacks enough information that would help in financing the SMEs. The theory therefore helped the study
describe the characteristics of SMEs and that of entrepreneurs (Independent variables) and hence lead to in-depth understanding on how the predicate variables related with the criterion variables in the study.

The first limitation of the Pecking Order Theory is that it fails to incorporate the effect of taxes, cost of issuing new securities, agency cost, and financial distress of the investment opportunities. It considers the impact of financial slack on the firm and the impact of availability of positive NPV's of projects. Tests of the pecking order theory have not been able to show that it is of first-order importance in determining a firm's capital structure. However, several authors have found that there are instances where it is a good approximation of reality. Zeidan, Galil and Shapir (2018) document that owners of private firms in Brazil follow the pecking order theory and also Myers and Shyam-Sunder (2017) find that some features of the data are better explained by the pecking order than by the trade-off theory. Frank and Goyal show, among other things, that pecking order theory fails where it should hold, namely for small firms where information asymmetry is presumably an important problem.

2.2.3 Social Network Theory

Social network theory by Galaskiewicz (1978) offers a framework for entrepreneurial networking which is a vital aspect of any progressive enterprise. The theory argues that the presence or absence of social ties such as access or membership in associations plays a key role in business success. Steier and Greenwood, (2000 ) suggest that social endorsement takes precedence over the technical merit of a business plan in attracting venture capital financing. The organizational theorists have generally proposed that seed-stage investors rely on social
relationships to identify and to select which ventures to fund (Fraser, S., Bhaumik, S.K. and Wright, M., 2015).

In this perspective, Boso, Story and Cadogan (2013), found that direct and indirect ties between entrepreneurs and VCs have effects on investment decisions of investors due to the information transfer benefits that ties generate. Equally Batjargal and Liu, (2004) found that strong ties between entrepreneurs and VCs have significant direct effects on investment decisions. However Boso, Story & Cadogan (2013), Lu, Tan and Huang (2013) revealed a differences in the number of deals that come to VCs through third-parties recommendations. VCs tend to syndicate their investment with other VCs (Gitman & Zutter, 2012). They are strongly linked with each other through the joint investment and once they have invested in a company, they maintain the networks (Chiu, Hsu, & Wang, 2006). Entrepreneurs well embedded in networks can gain advantages and valuable external resources in a timely manner that can help the entrepreneur to overcome the liabilities of newness problems (Harper, 2015). According to Jennings, Greenwood, Lounsbury & Suddaby (2013), entrepreneurs can find potentially profitable opportunities through establishing ties between previously unlinked networks. Thus, sparse networks with links among contacts are important for discovering opportunities and gaining of access to resources (McEvily & Zaheer, n.d.); (Burt, 2014). VC also use syndication mechanism in reducing the problems associated with adverse selection, through the participation of a co-investor sharing the investment risk (Smolarski & Kut, 2011).

The Social Network Theory helped this study to accurately understand the social characteristics of SMEs that leads to ease of access to the VC finance. This was based on the premises that strong ties between entrepreneurs and VCs have significant direct effects on investment decisions. In this case, the venture capitalists are able to make effective decisions concerning the
funding of SMEs. This is because the strong ties enable the venture capitalist to access important information about the SMEs which might help in reducing risk of the investment. The theory also helped the research in fully understanding the behavior of the SMEs entrepreneurs based on the social interaction perspective. In this sense, the researcher was able to cleanly see the relationship between the independent and the dependent variables and how these variables affected each other in the study. The theory argues that the presence or absence of social ties such as access or membership in associations plays a key role in business success, however in some instances this may be the case.

2.2.4 Life Cycle Theory

Life cycle theory by Penrose (1952) is used to describe the development of a firm through growth phases. Timmons, Spinelli and Zacharakis, (2004) assert that the life cycle theory has been advanced in explaining the development of financing needs and capital structure of the firm. The theory assumes the firm in its early stage of development relies on internal finance. The firm is able to obtain more external finance as it develop, due to less information asymmetries which is as a result of the ability of outsiders to scrutinize its creditworthiness(Mac an Bhaird & Lucey, 2011). This theory is relevant to SMEs as they are opaque and carry high information costs (Psillaki & Daskalakis, 2009). There are a number of studies that support applicability of the life-cycle theory in explaining the financing decisions of SMEs for example Hacklin & Wallnöfer (2012);(Mac an Bhaird & Lucey, 2011). According to Gregory, Rutherford, Oswald, & Gardiner, (2009) financing choices and needs of a firm change as a firm grows, gains more experience and becomes more transparent. This theory therefore helped the study to clearly comprehend how the independent variables (Firm age) and the entrepreneur
characteristics (Experience) related with the (Access to venture capital finance) independent variable. This theory assumes the firm in its early stage of development relies on internal finance; however there are cases where even a firm in its early stage has easy access to external funding for operations.

2.3 Empirical Literature Review

Empirical literature was reviewed in line with entrepreneurial characteristic, firm characteristics and access to venture capital. Empirical review of the literature helped in identifying gaps that exist in literature and which this study endeavored to bridge.

2.3.1 Entrepreneurial Characteristics and Access to Venture Capital

Globally, regionally and locally, a number of studies have been conducted on entrepreneurial characteristics and access to venture capital. These studies include;

Wang (2013) studied the impact of microfinance on the development of small and medium enterprises in Ghana. The study found out that SME characteristics are very important in determining the likelihood of getting micro financing funds. The study concentrated on product innovation efforts, managerial and entrepreneurial attitudes as the main characteristics of an entrepreneur. The results indicated that the factors are key in determining the likelihood of receiving micro financing. Whereas the study concentrated on microfinance as the main source of finance in Ghana, this study considered VC as the source of finance in Kenya, and determined how both entrepreneurial and firm characteristics affect access to VC in Kenya.

In their study Fatoki and Odeyemi (2010) investigated the determinants of access to trade credit by SMEs in the Eastern Cape Province of South Africa. Managerial competency, Networking, Business information, Location, age and size were the main study variables. They used the
quantitative research design and probability sampling method was used for sampling. Data analysis was through descriptive statistics and logistic regression. Managerial competency (especially higher education and related experience), business plan, relationships with banks, and the location of the business were found to be the most important determinants of access to trade credit by new SMEs. Networking, business information, and age did not affect access to trade credit. Unlike this study, the current study is concerned with venture capital as a possible source of finance and firm characteristics as one of the factors that can affect access to trade credit. The current research considered both firm and entrepreneurial characteristics and access to venture capital in Kenya.

In their study Garwe and Fatoki (2012) analysed the impact of gender as an SME characteristic and access to debt finance in South Africa. Descriptive statistics and a logistic regression were used. The empirical findings of the study were that the female-owned SMEs were significantly smaller than the male-owned SMEs in terms of number of employees. Female owners were also likely to be less educated and also less likely to have collateral. The results indicated that there were gender differences in some but not all of the entrepreneurial factors. Whereas this research focused on one characteristic of an entrepreneur; gender, and access to debt finance, the current study considered more than one entrepreneurial characteristic as well as firm characteristics on the access to VC in Kenya.

Ochieng, Masoud, and Mwirigi (2013) explored the determinants of uptake of credit products by SMEs in the manufacturing industry in Kariobangi Nairobi-Kenya. They analyzed the relationship between borrower’s and firm characteristics and uptake of credit products by SMEs. Descriptive research design was used and analysis of the data was with the aid of the Statistical Package for Social Sciences (SPSS). The study found out that business characteristics that
correlate positively with uptake of credit among SMEs were business size and age of business. Owners’ characteristics have a negative correlation with the uptake of credit products. The study concentrated on the manufacturing industry. Unlike this study, the current study considered effect of entrepreneurial and firm characteristics on access to venture capital across all SMEs sectors in Kenya.

Fatoki and Asah (2011) investigated the Impact of Firm and Entrepreneurial Characteristics on Access to Debt Finance by SMEs in South Africa. Data was collected through questionnaire in a survey. Age of the firm, the size of the firm and the availability of collateral, location and insurance, industry and business information were the main firm characteristics. Data was statistically analyzed using descriptive statistics, Pearson correlation and logistic regression. The results indicate that firm and entrepreneurial characteristics impact on access to debt finance by SMEs. The study concentrated on access to debt finance. The current study extends this study by investigating if the same characteristics affect access to venture capital by SMEs in Kenya.

Brush, Patricia and Greene (2014) in their study, bridging the Gender Gap in Venture Capital examined possible reasons why fewer than 5 percent of all SMEs receiving venture capital had women on their executive teams. They found out that, many fundable women entrepreneurs had the skills and experience to lead high-growth ventures. Nonetheless, women were consistently left out of the networks of growth capital finance and appeared to lack the contacts needed to break through. Whereas only one characteristic; gender of entrepreneur that could affect access to venture capital financing was considered, the current study will extend this study by incorporating other entrepreneurial characteristics and the firm characteristics.
Ngugi, Mcorege and Muiru (2013) investigated the Influence of Innovativeness on the Growth of SMEs in Kenya using descriptive survey and exploratory design. Descriptive statistics and inferential data analysis method was to analyze the data. The study found out that innovativeness influences the growth of SMEs in Kenya. The tendency of owner/manager to engage in and support new ideas, novelty, experimentation and creative processes results in new products, services or technological processes which has a great influence on the performance of SMEs. Whereas the study considered only one entrepreneurial characteristic (innovativeness) on growth of SMEs, the current study will address two entrepreneurial characteristics (innovativeness and managerial competency) together with those of a firm on access to venture capital.

Harvie, Narjoko, and Oum, (2013) investigated on the Small and Medium Enterprises’ Access to Finance in eight Asian countries. The study collected data on firm and entrepreneurial characteristics and sources of finance. Information on the following characteristics was collected: firm’s size, firm’s age, firm’s ownership type and firm’s performance, entrepreneur’s capability to innovate, and managerial/entrepreneur background. Entrepreneur’s ability to innovate, firm’s age, firm’s ownership, and firm’s performance were found to have a significant impact on access to finance. Unlike this study, the current study narrowed down to only one source of finance; Venture capital, in Kenya.

2.3.2 Firm Characteristics and Access to Venture Capital

Nkuah, Tanyeh, and Gaeten, (2013) investigated challenges and determinants in accessing bank credit by Small and Medium Enterprises in Ghana. They concentrated on ownership, size and specific industry sector as the main characteristics of a firm. The major findings of this study indicated that there exist significantly positive relations between firm age-firm size-firm
ownership and access to credits. Some financial activities such as business registration, documentation/recording, business planning, asset ownership and others that also impact heavily on SMEs access to bank credits. SMEs with fewer employees in service sector and sole proprietorship relates positively to access to credit from financial institutions. Location of a firm has no influence on access to credit. Unlike this study, the current study considered venture capital as a possible source of finance for SMEs and if firm characteristics could affect access to venture capital.

Islam, Khan, Obaidullah and Alam, (2012) examined the effect of Entrepreneur and Firm Characteristics on the Business Success of Small and Medium Enterprises (SMEs) in Bangladesh. Entrepreneurial characteristics were grouped into three categories: demographic Characteristics (age and gender), Individual Characteristics (education, managerial know-how, industry experience and social skills) and Personal Traits (self-confidence and perseverance of the owner/manager). The firm characteristics were length time in operation, size of enterprise, and capital sources on the business success. The results indicated that characteristics of entrepreneur are significant factor for business success of SMEs in Bangladesh. However, the firm characteristics are found not to be significant factor on the business success of SMEs in Bangladesh. Whereas this study examined the effect of Entrepreneur and Firm Characteristics on the Business Success of (SMEs), the current study investigated the effect of entrepreneurial and firm characteristics on access to venture capital as a source of business funding.

Abdul and Worthington( 2013) studied Small and Medium-Sized Enterprises financing. The study examined the effects of the characteristics of both SMEs and their owner-managers on the financing methods chosen. The study studied various sources of finance used by SMEs such as; equity financing, venture capital, debt financing, trade credit, non- bank financial institution
debts, bank finance, government assistance and Islamic finance for SMEs. The following entrepreneurial characteristics (gender, age, education and experience) and firm characteristics (asset structure, industry sector, location, ownership size and age) were considered. The study found out that these entrepreneurial and firm characteristics are important in determining the source of capital. Unlike this study, current study concentrated on only one source of capital for SMEs, (venture capital financing) and in Kenya.

Xiang et al., (2014) studied the firm-level determinants and impacts of finance-seeking behavior and outcomes for small and medium-sized enterprises (SMEs) in Australia. The researcher employed a three-step analysis; Demand-side determinants of finance seeking by Australian SMEs, the factors affecting the unavailability of finance and the phenomenon of discouraged SME borrowers. The researcher grouped firm characteristics into three categories of potentially influential factors: organizational factors (ownership, firm size, firm age, employment, registration), operational factors (business goals, financial objectives, operating assessment, planning, innovation or growth opportunities, and profitability) and market factors (primary markets for the firm’s output, imports, and exports). The study considered both debt and equity financing decisions. The findings of the study indicate that the following SME characteristics; firm age, size, industry, sales, declared strategies for operations, profits, growth and exports significantly affect both finance-seeking behavior and outcomes. Unlike this study, the current study will investigate both entrepreneurial and firm characteristics and access to venture capital financing.

Njeru, Namusonge, & Kihoro (2012) examined the firm’s Size as a Determinant of Choice of Source of Entrepreneurial Finance for Small and Medium Sized Enterprises in Thika District, Kenya. The researcher adopted an empirical descriptive survey design. Stratified random
sampling was used. Size was determined in the form of number of employees and volume of sales by SMEs. Data was analysed using descriptive and inferential statistics. The study findings indicated that MSEs were not constrained by size in their ability to access their choice of source of entrepreneurial finance, debt or equity. The researcher recommends that SMEs focus on optimizing their size in order to maximize on the potential to increase value in activities and enhance profitability. Unlike this study, the current study addresses two firm characteristics (firm age and sector/industry of operation) and entrepreneurial characteristics on access to VC.

Kihimbo, Ayako, Omoka, and Otuya (2012) studied the major sources of financing SMEs in Kenya. They found out that less than half of SMEs in Kakamega Municipality consider formal financing as a source of capital for their operations, more than 90 percent of SMEs who sought for formal financing succeeded. These results showed that formal financing were significant to keep the business operational of SMEs in Kakamega Municipality. Various sources of capital are adopted by most of the SMEs which includes loan from micro-finance institutions and private sources (personal savings, friends and relatives). Whereas this study considered only formal financial institution, the current study will investigate the effect of entrepreneurial and firm characteristics on access to venture capital financing.

2.4 Summary of Literature Review and Research Gap

For the access to venture capital, the reviewed literature in this study shows that factors leading to the access of venture capital remains blurred. Gaps exist in the following area: That research in venture capital as a source of capital for business is scant, particularly in Kenya. There are various studies that have related entrepreneurial and firm characteristics on access to various source of finance but little has been conducted on access to venture capital in Kenya. The study
therefore sought to fill this major gap and add to the already existing body of knowledge in this field.

It would be important to highlight the major research conducted in this field so as to clearly show the gaps that exist, which this research will endeavor to bridge. Table 2.1 show various researches that have been conducted in the past and clearly identifies that the entrepreneurial and firm characteristics as factors that could affect access to Venture capital by the SMEs has not been research on in the described location. This therefore forms the research gap which this study strives to bridge.

A study by Wang (2013) on the impact of microfinance on the development of small and medium enterprises in Ghana which found out that SME characteristics are very important in determining the likelihood of getting micro financing funds, presented contextual and conceptual gaps since it was conducted in Ghana focusing only on effect of microfinance on the development of SMSs. The study in addition concentrated on product innovation efforts, managerial and entrepreneurial attitudes as the main characteristics of an entrepreneur. The current study addressed the gaps by establishing the effect of Entrepreneurial and Firm characteristics on access to VC financing by SMEs in Nairobi County, Kenya.

The study by Garwe and Fatoki (2012) which analyzed the impact of gender as an SME characteristics and access to debt finance in South Africa presented contextual, conceptual and methodological gaps since the study was conducted in South Africa by adopting a Descriptive statistics and a logistic regression. In addition the study used gender as the only study variable. The current study addressed the gaps by establishing the effect of Entrepreneurial and Firm
characteristics on access to VC financing by SMEs in Nairobi County, Kenya using explanatory non-experimental research design.

From the study by Ochieng, Masoud and Mwirigi (2013) which explored the determinants of uptake of credit products by SMEs in the manufacturing industry in Kariobangi Nairobi-Kenya, both conceptual and methodological gaps were established since the study focused mainly on determinants of uptake of credit products and adopting Descriptive research design and analysing data using Statistical Package for Social Sciences (SPSS). The current study sought to bridge the gaps by establishing the effect of Entrepreneurial and Firm characteristics on access to VC financing by SMEs in Nairobi County, Kenya using explanatory non-experimental research design.

Finally, the study conducted by Islam, Khan, Obaidullah and Alam (2012) on the effect of Entrepreneur and Firm Characteristics on the Business Success of Small and Medium Enterprises (SMEs) in Bangladesh presented contextual and conceptual gaps since the study was conducted in Bangladesh using entrepreneur and firm characteristics as the study variable. The current study addressed the gaps by establishing the effect of Entrepreneurial and Firm characteristics on access to VC financing by SMEs in Nairobi County, Kenya using explanatory non-experimental research design.
<table>
<thead>
<tr>
<th>Author and year</th>
<th>Objective of the study</th>
<th>Findings</th>
<th>Identified gaps</th>
<th>Addressing the gaps</th>
</tr>
</thead>
</table>
| Fatoki and Asah, (2011) | Firm and Entrepreneurial Characteristics on Access to debt finance by SMEs in South Africa | Firm & entrepreneurial characteristics have impact on access to debt finance by SMEs. | Addressed access to debt in SA | Address the Access to VC.  
- Conducted in Kenya. |
| Masoud and Mwirigi, (2013), | Determinants of uptake of credit products by small and medium enterprises in Nairobi-Kenya. | Not all firm & borrowers features correlate positively to uptake of credit by SMEs | - Addresses manufacturing industry only  
- Considered uptake of credit | - All sectors.  
- Access to VC. |
| Xiang, Worthington, and Higgs (2011) | Impacts of finance-seeking behavior and outcomes for small and medium-sized enterprises (SMEs) in Australia | SME characteristics, significantly affect both finance-seeking behavior and outcomes. | - Considered other financing modes and not VC  
- Conducted in Australia | - Access to VC addressed.  
- In Kenya. |
<p>| Memba, Gakure and Karanja (2012) | Impact of VC on Growth of Small and Medium Enterprises in Kenya | VC has an impact on growth of SMEs they finance | - SME’s factor leading to VC access missing | - Address the characteristics leading to access of VC. |
| Njama (2013) | Effect of venture capital financing on the growth of small and medium enterprises in Kenya | Positive and significant relationship between SMEs growth and VC financing. | - What leads to VC access missing | - Effects of firm &amp; entrepreneur Characteristics will be addressed |</p>
<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Title</th>
<th>Focus</th>
<th>Addressed</th>
<th>Address in particular access to VC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abdulsaleh and Worthington (2013)</td>
<td>Entrepreneurial and firm characteristics as determinant of source of capital for SMEs in Australia</td>
<td>Entrepreneurial and firm characteristic are important in determining the source of capital</td>
<td>Addressed various sources of capital but left out VC</td>
<td>-Will be conducted in Kenya</td>
</tr>
<tr>
<td>Islam, Khan and Obaidullah (2012)</td>
<td>Impact of entrepreneurial &amp; firm factors on method of financing SMEs in Ghana</td>
<td>Entrepreneurial factors are significant while firm factors are not significant factor</td>
<td>Addressed other sources of capital and left out VC</td>
<td>-Access to VC will be addressed</td>
</tr>
<tr>
<td>Fatoki and Odeyemi (2010)</td>
<td>Effect of entrepreneurial characteristics on access to credit</td>
<td>Not all entrepreneurial characteristics affect access to credit</td>
<td>Addressed access to credit</td>
<td>-Addresses access to VC</td>
</tr>
<tr>
<td>Njeru, Namusonge and Kihoro (2012)</td>
<td>Size as a determinant of Choice of Source of Entrepreneurial finance for SMEs in Thika, Kenya</td>
<td>SMEs were not constrained by size in their ability to access their choice of source of finance.</td>
<td>Concentrated on only one firm characteristic (size) on access to both debt and equity.</td>
<td>-Will address both firm and entrepreneurial characteristics on access to VC</td>
</tr>
<tr>
<td>Brush (2014)</td>
<td>The effect of gender on access to venture capital</td>
<td>Many fundable women entrepreneurs had skills and experience to lead high-growth ventures, but were left out of the networks of</td>
<td>Addressed gender as a factor influencing access to venture capital financing.</td>
<td>-Conducted in Nairobi, Kenya</td>
</tr>
</tbody>
</table>


growth capital finance and appeared to lack the contacts needed to break through

Source: Various literature reviewed, 2018

2.5 Conceptual Framework

According to (Myers, 2008), a conceptual framework is a graphical explanation of the general constructs of the variables to be studied and the relationships amongst them. The independent variables used in the study are, Entrepreneurial characteristics (entrepreneur’s innovativeness and entrepreneur’s managerial competency) and Firm characteristics (firm’s sector/industry of operation and firm’s age). Entrepreneur’s innovativeness operationalized by product and process innovation. Product innovation is measured in terms of number of new products introduced in the market, and process innovation is measured in term of new marketing and selling technologies introduced by the owner or manager. Managerial competency of the owner or manager is measured by the level of education and the relevant management experience.

Firm’s age is measured in terms of the number of years a firm has been in operation while industry/sector of operation is measured in terms of service and non-service. Dependent variable of the study is access to VC which is measured in terms of levels of access to finance. Mediating variable is the firm performance measured by return on equity and moderating variable is VC risk measures measured in terms of syndication and staging strategies. The conceptual framework is shown in figure 2.1
Figure 2.1: Conceptual Framework
CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter described the research methodology, which deals with the description of methods applied in carrying out the study. It is organized under the following sections: research philosophy, research design, target population, sampling procedures and sample size, research instruments, validity and reliability of the instrument, data collection procedure and lastly the data analysis techniques.

3.2 Research Philosophy

The research philosophy is an important aspect in social science research which is attached to the researcher’s assumption about the way and the method the researcher strategizes in his /her work, in such a way that the assumptions made at the beginning are justified at the end of the research (Onweugbuzie, Johnson & Collins (2011). This study adopted Positivism philosophy which prefers working with observable social reality, whose end results can be generalized. Collis & Hussey (2013) observes that a positivist researcher is concerned with ensuring that any concepts used can be operationalized (that is, described in such a way that they can be measured). Positivism holds a deterministic philosophy in which causes determine effects or outcomes (Saunders, 2011).

According to Creswell, (2014) positivist methodology is directed at explaining relationships as it attempts to identify causes which influence outcomes and provide basis for prediction and generalization. This philosophy helped the researcher to collect all the facts and figures that were associated with the research issues through general sources. In positivism, the role of researcher
is vital for the study to evaluate the collected data and produce appropriate results in order to achieve research goals and objectives (Sekaran, 2006). Positivism philosophy was chosen because it helped to uncover the facts as revealed in real research; a structured method, combining logical deductions with precise empirical observations, to open up and confirm causal relationships that are generally valid with a known probability and which was used for prediction (Onweugbuzie & Johnson, 2011).

3.2.1 Research Design

Creswell & Meissner,( 2012) refers research design as the entire process of research from conceptualizing an idea, literature review, methodological approach to writing the conclusion. Further, research design, is glue that holds all the elements of research together (Kombo & Tromp, 2011). This study adopted an explanatory non-experimental research design which connects ideas to understand cause and effect, and to explain what is going on without manipulating variable. Explanatory non experimental research design was used to test hypotheses derived from the theory and thus test causality between the independent and dependent variable (Saunders, 2011). Explanatory Non-experimental research is systematic empirical inquiry where the researcher cannot manipulate independent variables instead they are studied as they exist(Kerlinger & Lee, 2000). An explanatory non-experimental research design is appropriate where the researcher is attempting to explain how the phenomenon; access to VC works by identifying the underlying factors; Entrepreneurial and Firm characteristics that produce change in it, in which case there is no manipulation of the independent variable (Kerlinger & Lee, 2000).
3.3 Empirical model

This study utilized Nested Multinomial Logit (NMNL), the model has two levels where the first level is whether firm accessed VC or not. The second level of the model is the levels of access for VC (VC access ranging between; 1 percent-33 percent, 34 percent-66 percent, 67 percent-100 percent). The nested multinomial logit model is a generalization of the basic Multinomial Logit (MNL) model (Hensher, 1986). The justification for using NMNL is the fact that, unlike the multinomial logit model (MNL), it is free from the independence of irrelevant alternatives (IIA) property; probability of choosing one alternative (access) is independent of the presence or attributes of any other alternative (not accessed) and is relevant for multidimensional choice sets (VC access ranging between 1 percent-33 percent, 34 percent-66 percent, 67 percent-100 percent and not accessed). The choice of a particular model depends on the structure of choices and the assumptions made. In this study, the decision on structure that was adopted is multidimensional. The alternative options were grouped into sub-groups that allow the variance to differ across the groups while maintaining the IIA assumption within the groups. This specification defines a nested logit model. In the model, the homoscedasticity assumption is relaxed unlike in the conditional logit or multinomial logit models. The choice process involved choosing among the choice sets and then making specific choice within structure.

3.3.1 Model specification

According to the study the dependent variable is the Firm’s access to venture capital; access, no access. The independent variables used in the study are, one, entrepreneurial characteristics proxied by entrepreneur’s innovativeness and entrepreneur’s managerial competency) and two, firm characteristics proxied by firm’s sector/industry and firm’s age.
The first step was to determine the effect of entrepreneur and firm characteristics on access to VC financing for the firms that have accessed and those that have not accessed. The logit model used is as shown:

**Model 1 (Binary Logit Model)**

\[ U_A = \beta_1 \chi_1 + \beta_2 \chi_2 + \beta_3 \chi_3 + \beta_4 \chi_4 + \varepsilon_A \] ..........................3.1

\[ U_{A^1} = \beta_1 \chi_1 + \beta_2 \chi_2 + \beta_3 \chi_3 + \beta_4 \chi_4 + \varepsilon_{A^1} \] ..........................3.2

Where:

- \(U_A\) - Accessed venture capital
- \(U_{A^1}\) - Not Accessed venture capital
- \(\chi_1\) - Entrepreneurs innovativeness
- \(\chi_2\) - Entrepreneurs Managerial Competency
- \(\chi_3\) - Firm’s sector/industry
- \(\chi_4\) - Firm’s age

Therefore the probability of having accessed and not accessed:

\[ P(A|\{A, A^1\}) = P (A^1|\{A, A^1\}) = \frac{1}{2} \] ..........................3.3

The second level of the model is about the various level of access to VC

**Model 2 (Nested Multinomial Logit)**

\[ U_A = \beta_1 \chi_1 + \beta_2 \chi_2 + \beta_3 \chi_3 + \beta_4 \chi_4 + \varepsilon_A \] ..........................3.4

\[ U_{A^1} = \beta_1 \chi_1 + \beta_2 \chi_2 + \beta_3 \chi_3 + \beta_4 \chi_4 + \varepsilon_{A^1} \] ..........................3.5

\[ U_{A^{i1}} = \beta_1 \chi_1 + \beta_2 \chi_2 + \beta_3 \chi_3 + \beta_4 \chi_4 + \varepsilon_{A^{i1}} \] ..........................3.6

\[ U_{A^{ii}} = \beta_1 \chi_1 + \beta_2 \chi_2 + \beta_3 \chi_3 + \beta_4 \chi_4 + \varepsilon_{A^{ii}} \] ..........................3.7

\[ U_{A^{i1}} = \beta_1 \chi_1 + \beta_2 \chi_2 + \beta_3 \chi_3 + \beta_4 \chi_4 + \varepsilon_{A^{i1}} \] ..........................3.8

Where:

- \(A\) - Accessing venture capital
- \(A_1\) - Accessing venture capital ranging between 1 percent - 33 percent
- \(A_{ii}\) - Accessing venture capital ranging between 34 percent - 66 percent
- \(A_{iii}\) - Accessing venture capital ranging between 67 percent - 100 percent
- \(A^{i1}\) - Not accessing venture capital

43
Therefore the probability of the levels of access;

\[
P (A_i|\{A_i, A_{i1} , A_{i2} , A_{i3} \}) = P (A_{i1}|\{ A_i, A_{i1} , A_{i2} , A_{i3} \}) = P (A_{i2}|\{ A_i, A_{i1} , A_{i2} , A_{i3} \}) = P (A_{i3}|\{ A_i, A_{i1} , A_{i2} , A_{i3} \}) = P (A_{i1} |\{ A_i, A_{i2} , A_{i3} \}) = 1/4
\]

3.3.2 The Mediating Effect Model

The second relationship in the conceptual research model was the mediation effect of firm’s performance on the relationship between the independent and dependent variables. To establish the mediation effect of a firm’s performance on the relationship between the independent and dependent variables the Baron and Kenny approach was applied. According to Baron and Kenny (1986), mediation is confirmed when the following four conditions are fulfilled: The independent variable must be significantly related to the dependent variable in the absence of the mediating variable, the independent variable must be significantly related to the mediator variable, the mediator variable must be significantly related to the dependent variable, when the effect of the mediating variable on the dependent variable is controlled, the effect of the independent variable on the dependent variable should not be significant. The regression models for the four conditions are shown below.

Step 1

\[
P (A|\{A, A^1 \}) = P (A^1|\{A, A^1 \}) = \beta_0 + \beta_1 \chi + \beta_1 Y + \varepsilon
\]

Step 2

\[
Z_1 = \beta_0 + \beta_1 \chi + \varepsilon
\]

Step 3

\[
P (A|\{A, A^1 \}) = P (A^1|\{A, A^1 \}) = \beta_0 + \beta_1 Z_1 + \beta_1 Z_2 + \varepsilon
\]

Step 4

\[
P (A|\{A, A^1 \}) = P (A^1|\{A, A^1 \}) = \beta_0 + \beta_1 \chi + \beta_1 Y + \beta_2 Z + \beta_2 Z + \varepsilon
\]

Where:
\[ \beta_0 = \text{Constant} \]
\[ \beta_1, \beta_2 = \text{Regression coefficients} \]
\[ X = \text{Entrepreneurial characteristics (Composite index)} \]
\[ Y = \text{Firm characteristics (Composite index)} \]
\[ Z = \text{Firm performance (Mediating variable)} \]
\[ \varepsilon = \text{Error Term} \]

### 3.3.3 The Moderating Effect Model

The third relationship in the conceptual research model is the moderating effect of risk measures by venture capitalists on the relationship between the entrepreneurial and firm characteristics and access to venture capital by use of the Baron and Kenny approach. Subsequently, test the influence of the interaction term (each independent variables and composite index of risks measures) on access to venture capital. Moderation will be established if the effect of interaction term on access to venture capital is significant. The regression models are:

\[
P(\{A, A^1\} = P(\{A^1\mid\{A, A^1\}) = \beta_0 + \beta_1 X_1 M + \beta_2 X_2 M + \beta_3 X_3 M + \beta_4 X_4 M + \varepsilon \]

Where:

\[ \beta_0 = \text{Constant} \]
\[ \beta_1, \beta_2 = \text{Regression coefficients} \]
\[ M = \text{Risks Measures (Moderating variable)} \]
\[ \varepsilon = \text{Error Term} \]
3.3.4 Operationalization and Measurement of Variables

The study variables are operationalized as follows;

**Table 3.1: Operationalization and measurement of variables**

<table>
<thead>
<tr>
<th>Type of Variable</th>
<th>Variable</th>
<th>Operationalization</th>
<th>Measurement</th>
<th>Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent</td>
<td>Entrepreneur’s innovativeness</td>
<td>-New Product development -New process developed -New market development</td>
<td>-Number of new products introduced -Number of new products improved -Number of new technologies applied -Number of new markets</td>
<td>Ordinal</td>
</tr>
<tr>
<td></td>
<td>Entrepreneur’s managerial competency</td>
<td>-Academic /Professional qualification -Relevant experience</td>
<td>-Highest level of education -Highest professional qualification -No of seminars/on job training attended -No of years of experience in similar engagement</td>
<td>Nominal</td>
</tr>
<tr>
<td></td>
<td>Firm’s industry/sector of operation</td>
<td>-specific industry</td>
<td>-Service -Non service</td>
<td>Categorical</td>
</tr>
<tr>
<td></td>
<td>Firm’s age</td>
<td>Number of years in operation</td>
<td>-0-5yrs -6-10yrs -11years and above</td>
<td>Categorical</td>
</tr>
<tr>
<td>Dependent</td>
<td>Access to venture capital</td>
<td>Access</td>
<td>-Not accessed Levels of access</td>
<td>Ordinal</td>
</tr>
<tr>
<td>Mediating variable</td>
<td>-Firm’s performance</td>
<td>-Return on equity -Return on asset</td>
<td>-Net income -Equity</td>
<td>Ratio</td>
</tr>
</tbody>
</table>
### Table 1

<table>
<thead>
<tr>
<th>Moderating Variable</th>
<th>-Risk Measures</th>
<th>-Risk Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-syndicate of investment</td>
<td>-Staging of capital infusion</td>
</tr>
<tr>
<td></td>
<td>ordinal</td>
<td></td>
</tr>
</tbody>
</table>

**Source:** Researcher (2018)

### 3.4 Target Population

Target population is the specific population about which information is desired. The target population of the study comprised of 334 SMEs which appeared in the category of top 100 SMEs lists from 2008-2016 according to KPMG in Kenya, and the managers of the venture capital firms in Kenya. The population was heterogeneous since it comprises of SMEs operating in all industries as per the KPMG Kenya reports of 2008 - 2016. The owners/ financial managers of these SMEs were the respondent.

### 3.5 Sampling Technique and Sample Size

Orodho, (2003) notes that sampling is a procedure of selecting a representative of a population on which research can be conducted and inferential conclusion from the study applied in general terms to the entire population. According to Leroy (2012) a sample should be a relatively true representation of the target population in terms of the respondents. Dillman, (2011) formula of sample calculation guided the calculation of the desired sample size. The justification for using Dilman (2011) sample determination formula is based on other studies that have used the same formula. These include Kaptein (2011), Huang (2011) and Jordan, Walker, Kent, & Inoue (2011).

\[
n = \frac{Np^*p \ (1-p)}{(Np-1) \ (B/C)^2 + p \ (1-p)}
\]

Where:
Where: n = sample size

Np = size of population

p = proportion expected to answer a certain way (50 percent or 0.5 is most conservative)

B = acceptable level of sampling error (±0.05 = ±5 percent)

C = Z statistic associated with confidence interval (1.96 = 95 percent confidence level)

For this study therefore, the sample size was 178 SMEs.

Proportionate Stratified random sampling technique was used as it ensured that all the SMEs are well represented. According to Adejimi and Ogunsanmi (2010), proportionate stratified technique is advantageous as it samples each sector (stratum) independently by grouping members of the population into relatively homogeneous sub-groups before sampling. This improves the representativeness of the sample by reducing sampling error. The target population was stratified into two strata (service sector SMEs and non-service sector SMEs). Further, random sampling was used to select 178 owners/financial managers. Random sampling was used within the two strata to ensure that the study eliminates bias in its choice of respondents. This is because the variability within the subgroups was lower compared to the variations when dealing with the entire population.

Table 3.2 shows the sampling frame.

Out of the 334 SMEs in Nairobi County, 199 SMEs are in service while 135 SMEs are in non-service.
Table 3.2: Sampling Frame

<table>
<thead>
<tr>
<th>Sector</th>
<th>Population</th>
<th>Sample (53.29% of population)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service</td>
<td>199</td>
<td>106</td>
</tr>
<tr>
<td>Non-Service</td>
<td>135</td>
<td>72</td>
</tr>
<tr>
<td>Total</td>
<td>334</td>
<td>178</td>
</tr>
</tbody>
</table>

There are twenty six venture capital firms in Kenya and since the number is small, a census was conducted.

3.6 Data collection Instrument

The study used both primary and secondary data. Primary data were collected through semi-structured questionnaires with both open and closed-ended questions. There were two sets of questionnaire; one for the SMEs and the other for the Venture capitalists. The questionnaires were divided in sections where each section sought information on a specific objective. One questionnaire was administered to each SME and addressed to the owner or financial manager. A semi-structured questionnaire was used because it enables the collection of both quantiative and qualitative data (Gall, Borg, & Gall, 2003). Marshall and Rossman, (2006) points out that, questionnaires are appropriate for studies since they collect information that is not directly observable as it inquire about feelings, motivations, attitudes, accomplishments as well as experiences of individuals. They further observe that questionnaires have the added advantage of being less costly, using less time as instruments of data collection and useful in obtaining objective data.
3.6.1 Validity of data collection Instruments

Validity is the degree to which a test measures what it purports to be measuring. This is how well a test measures what it intends to measure. Validity can also be said to be the degree to which results obtained from analysis of data represent the phenomenon under investigation (Orodho, 2003). The researcher tested face, content validity and internal validity of the questionnaire. Face validity is the likelihood that a question was misunderstood or misinterpreted. According to Feingold, Leitner, & Wilkinson, (2009), pre-testing a questionnaire is a good way to increase the likelihood of face validity. A pilot study was conducted on 10 percent of the sample population in accordance with Mugenda & Mugenda, (2003) to identify those items that could be misunderstood, and such items were modified accordingly, thus increasing face validity.

Content validity refers to whether an instrument provides adequate coverage of a research topic. Expert opinions, literature searches, and pre-testing of open-ended questions help to establish content validity (Feingold et al., 2009). The researcher prepared the instruments in close consultation with the supervisors, and ensured that the items in the questionnaire covered all the areas under study. Internal validity on control of extraneous variables was addressed by making the question simple, straightforward and unambiguous.

3.6.2 Reliability of data collection Instruments

The reliability of a research instrument concerns the extent to which the instrument yields the same results on repeated trials (Mugenda & Mugenda, 2003). The Cronbach’s alpha was used as the measure of reliability. The Cronbach’s alpha, also called the scale reliability test is a test for a study’s internal consistency, which measure how well each individual item in a scale correlates with the remaining items. The Cronbach’s coefficient alpha ranges from 0 to 1. Cooper and
Schindler (2003), note that a score of 0.7 is the acceptable reliability coefficient but lower thresholds are sometimes used. This study considered a score of 0.7 as the measure of reliability. In addition, reliability was ensured by pre-testing the research instrument in the pilot study, using 33 SMEs (10 percent of 334), but which were not included in the final sample and discussing with researchers who have previous experiences in related studies and keeping open-ended questions to a minimum.

3.7 Data Collection Procedure

Relevant authorization from Kenyatta University and NACOSTI was sought and approved. Consent to collect information from study respondents were sought from management of the firms. The lists of the top 100 SMEs was obtained from KPMG for easy identification of the SMEs. Mixed mode of data collection was used where some questionnaires were e-mailed and others delivered by hand.

3.8 Data Analysis and Presentation

Data was collected, grouped and coded simultaneously. The data was prepared by coding and cleaning data checks to identify any reverse coded values and missing values. A structured grid was used in the preparation of the data. Saunders recommends that in business research, structured grids are appropriate method of data preparation, since it makes allocation of responses easily identified and placed.

The data was analyzed using both descriptive and inferential statistics. Descriptive statistics namely; mean, frequency and percentages were used. Through content coding, a list of key ideas and themes for each variable was generated and this guided the nature of integration needed for both qualitative and quantitative data collected. This formed the basis for cross-checking and
comparing the two sets of data and drawing of conclusions. The data was then operationalized through scoring for crosschecking with the quantitative data. The inferential statistics included a Nested Logistic Multinominal regression models. SPSS software version 21 was used as a statistical tool for analysis.

3.9 Diagnostic tests

It is important during a study to ensure non-violation of the assumptions of the classical linear regression model (CLRM) before trying to estimate study variables. This helped to mitigate the risk of obtaining biased, inefficient, and inconsistent parameter estimates. This study conducted the following diagnostic tests; normality, multi-collinearity and heteroscedastic tests.

3.9.1 Normality test

Regression analysis assumes that data is normally distributed and it is therefore important to test data for normality before further analysis. Normality assumption is required in order to conduct single or joint hypothesis tests about the model parameters. The test for normality was examined using the graphical method approach, specifically, the kernel density with the normal distribution curve.

3.9.2. Multi-collinearity

Multi-collinearity occurs when the explanatory variables are highly correlated. This was tested during piloting using variance inflation factor (VIF) where VIF less or equal to ten indicate presence of multi-collinearity. If multi-collinearity is not accounted for, there would be indeterminate regression coefficients, infinite standard errors and large standard errors. Large standard errors affect the precision and accuracy of rejection or failure to reject the null
hypothesis. If the problem of multi-collinearity is detected the researcher will increase the sample size and or drop the correlated variables.

3.9.3 Heteroscedasticity

Heteroscedasticity is an assumption of CLRM which was tested using Breush-pagan white test (1980). CLRM assumes that the error term is homoscedastic, that is, it has constant variance. If the error term has no constant variance, then there is heteroscedasticity in the data. Running a regression model without accounting for heteroscedasticity would lead to unbiased parameter estimates but the invalid standard errors. In this study, heteroscedasticity was tested for using the Breush-pagan white test. The null hypothesis of this test was that the error variance is homoscedastic.

3.10 Ethical Consideration

The respondents were not willing to disclose what goes on in the institution for fear of being investigated and referred the researcher to top management for clearance which led to bureaucracy and red tape within the institution. Difficulty to gain access to the necessary documents and files that are considered confidential in the organization was one of the other challenges; the researcher handled this situation by emphasizing and assuring the respondents that the data collected was to be treated very confidentially and only within the scope of the study.

The issue of uncooperativeness was critical because some employees refused to offer information and therefore left other questions unanswered. To overcome this, the researcher only concentrated on fully answered questions and returned questions for analysis.
The researcher received some responses without proper identification. The researcher responded to this by only taking the correctly filled questionnaires and not concentrating on the falsely filled questionnaires as that could lead to a biased study.

Some respondents thought that they would be coerced to fill the questionnaire and that there was a reward for doing so. The researcher explained to the respondents that the questionnaires were being filled voluntarily and that no one is forced to fill them.
CHAPTER FOUR
RESEARCH FINDINGS AND DISCUSSION

4.1 Introduction

The chapter presents the empirical findings and results of the application of the variables using techniques mentioned in chapter three. Specifically, the data analysis was based on specific objectives where patterns were investigated, interpreted and implications drawn on them. The chapter starts with a preliminary analysis of the data before analyzing the study variables.

4.2 Response Rate

The questionnaires were administered with the help of research assistance. The questionnaires were administered to 178 sampled respondents. Out of 178 questionnaires administered, 144 questionnaires were dully filled and returned representing response rate of 80.9%. According to Mugenda and Mugenda (2003) and Kothari (2004), a response rate of above 50% is adequate for a descriptive study. Babbie (2004) also asserted that return rates of above 50% are acceptable to analyse and publish, 60% is good and 70% is very good. Based on these assertions from renowned scholars, 80.9% response rate was very good for the study. The response rate could have been 80.9% and not 100% because some of the respondents were busy and could not find time to respond to the questionnaires. Some of the respondents also could have responded to the questionnaire but were not able to submit them back in time.

4.3 Reliability Test Results

Reliability analysis was evaluated using Cronbach’s alpha. Sekaran and Bougie (2013) argued that coefficient greater than or equal to 0.7 is acceptable research.
The extent to which results are consistent over time and an accurate representation of the total population under study is referred to as reliability and if the results of a study can be reproduced under a similar methodology, then the research instrument is considered reliable (Joppe, 2000). Reliability test results are presented in Table 4.1.

**Table 4.1: Reliability Test Results**

<table>
<thead>
<tr>
<th>Construct</th>
<th>Cronbach’s Alpha</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrepreneurial Innovativeness</td>
<td>0.746</td>
<td>Reliable</td>
</tr>
<tr>
<td>Managerial Competence</td>
<td>0.923</td>
<td>Reliable</td>
</tr>
<tr>
<td>Firm’s age</td>
<td>0.853</td>
<td>Reliable</td>
</tr>
<tr>
<td>Firms Performance</td>
<td>0.964</td>
<td>Reliable</td>
</tr>
<tr>
<td>VC Risk measures</td>
<td>0.861</td>
<td>Reliable</td>
</tr>
<tr>
<td>Access to VC</td>
<td>0.721</td>
<td>Reliable</td>
</tr>
</tbody>
</table>

Cronbach’s Alpha measures how well a set of items or variables, measure a uni-dimensional latent construct that is a coefficient of reliability or consistency. Reliability is expressed as a coefficient between 0.0 and 1.00. The higher the coefficient the more reliable is the test. A threshold of a Cronbach Alpha of 0.7 and above is acceptable (Cronbach, 1951). The findings in Table 4.1 show that the values of Cronbach’s Alpha were greater than 0.700 for all the variables and therefore deemed reliable.
4.4 Regression Diagnostics Tests

The diagnostic tests that were performed before conducting regression analysis include test for normality, test for multicollinearity and lastly test for Heteroscedasticity. Diagnostic tests are performed so as to avoid spurious results.

4.4.1 Normality Test

The test for normality was examined using the graphical method approach. Results are presented in Figure 4.1.

![Kernel density estimate](image)

**Figure 4.1: The normal distribution plot of the residuals.**

Results presented in Figure 4.1 of the kernel density with the normal distribution curve superimposed upon it reveals that two humps of normal distribution exists and though not fully fitting into a normal distribution, the residuals of the regression analysis conducted overall is
taken to be normal distribution on the basis of the two humps. Similarly, the analysis is more on the association amongst the variables rather than causation and therefore the extent to which the data is normally distributed is to a lesser extent not a major problem in the analysis.

4.4.2 Test for Multicollinearity

According to William et al. (2013), Multicollinearity refers to the presence of correlations between the predictor variables. In severe cases of perfect correlations between predictor variables, Multicollinearity can imply that a unique least squares solution to a regression analysis cannot be computed Field, (2009). Multicollinearity inflates the standard errors and confidence intervals leading to unstable estimates of the coefficients for individual predictors (Gujarati, 2003). Multicollinearity was assessed in this study using the VIF and tolerance. According to Field (2009) VIF value in excess of 10 is an indication of the presence of Multicollinearity. The results of the test are presented in Table 4.2.

Table 4.2: Variance Inflation Factors test for Multicollinearity

<table>
<thead>
<tr>
<th>Variable</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firm’s sector of operation (Service or Non-Service)</td>
<td>1.05</td>
</tr>
<tr>
<td>Firm’s age</td>
<td>1.05</td>
</tr>
<tr>
<td>Management Competency</td>
<td>1.01</td>
</tr>
<tr>
<td>Entrepreneurial innovation</td>
<td>1.01</td>
</tr>
<tr>
<td>Mean VIF</td>
<td>1.03</td>
</tr>
</tbody>
</table>
The VIF values of the variables as presented in Table 4.2 shows that all are below 5 and in the spirit of Field, (2009) and Gujarati (2003) who indicated that VIF values should not as a rule of thumb be more than either 5 or 10 respectively, conclude there is no Multicollinearity.

4.4.3 Testing for Heteroscedasticity

Since the data for this research is a cross-section of firms, this raises concerns about the existence of heteroscedasticity. The classical linear regression model (CLRM) assumes that the error term is homoscedastic, that is, it has constant variance. In testing the spherical disturbances assumption that the regression’s residuals have a constant variance (i.e. considered homoscedastic). The study adopted the Breusch-Pagan White’s test of independence whose null hypothesis states that the spherical disturbances are homoscedastic (Gujarati, 2003; Wooldridge, 2003). Results are presented in Table 4.3.

**Table 4.3: Breusch-Pagan White’s Test of heteroscedasticity**

<table>
<thead>
<tr>
<th>$x^2$ – test</th>
<th>p – value</th>
</tr>
</thead>
<tbody>
<tr>
<td>$x^2(52) = 1.10$</td>
<td>0.2949</td>
</tr>
</tbody>
</table>

Results in Table 4.3 shows that the Breusch-Pagan LM test with a $x^2(10) = 1.10$ is statistically not significant (p-value = 0.2949) and thus the conclusion that the spherical disturbance assumption is not violated and thus the residuals are homoscedastic.

4.5 Descriptive Statistics

This section presents descriptive statistics. The descriptive statistics are for Entrepreneur’s and Firm Characteristics.
4.5.1 Entrepreneur’s Characteristics

Descriptive statistics are used to describe the basic features of the data in a study. They provide simple summaries about the sample and the measures. Together with simple graphics analysis, they form the basis of virtually every quantitative analysis of data. The entrepreneur’s characteristics that the respondents were requested to respond to included; their position in the firm, years served in the position, years worked in another firm before if application, academic qualifications, professional body membership, sources of their expertise, whether they have introduced a new product or process and the innovativeness they apply in their businesses. This means that there is a slight separation of ownership and management of small and medium enterprises.

Position in the Firm

The respondents were requested to indicate their current positions in the firms. Results are presented in Table 4.4.

Table 4.4: Position in the Firm

<table>
<thead>
<tr>
<th>Position</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Owners</td>
<td>27.1</td>
</tr>
<tr>
<td>Firm Manager</td>
<td>45.8</td>
</tr>
<tr>
<td>Both</td>
<td>27.1</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
</tr>
</tbody>
</table>

Results in Table 4.4 show that 27.1 percent are the owners of the business, 45.8 percent are managers of the firm while 27.1 percent are both the owners and the managers of the firm. This
implies that majority of the Small and Medium Enterprises in Nairobi are managed by firm managers. This means there is slight progress toward separation of ownership and management of small and medium enterprises.

**Length Served as Owner of the Firm**

Those who said that they were the business owners; they were further asked to indicate the number of years that they have operated the business. Results are presented in Table 4.5

**Table 4.5: Business Owners Length of Operation**

<table>
<thead>
<tr>
<th>Duration</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-4 years</td>
<td>9</td>
</tr>
<tr>
<td>5-9 years</td>
<td>33.3</td>
</tr>
<tr>
<td>10-14 years</td>
<td>31.3</td>
</tr>
<tr>
<td>15-19 years</td>
<td>22.2</td>
</tr>
<tr>
<td>20 years +</td>
<td>4.2</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
</tr>
</tbody>
</table>

Results in Table 4.5 show that 9 percent of the respondents had been in operation for 0-4 years, 33.3 percent for 5-9 years, 31.3 percent for 10-14 year, 22.2 percent for 15-19 years while only 4.2 had been in operation for more than 20 years. This implies that majority of Small and Medium Enterprises in Nairobi have been in operation for a good number of years to understand the business dynamics and thus were able to give reliable responses regarding factors influencing their accessibility to venture capital. This indicates the survival rate of business in Nairobi considering the statistics that most of them do not survive beyond the fifth year.
Length served as Manager of the Firm

For the firm managers, they were further asked to indicate the number of years that they had served in the business. Results are presented in Table 4.6.

Table 4.6: Firm Managers Length of Operation

<table>
<thead>
<tr>
<th>Duration</th>
<th>Percent (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-4 years</td>
<td>6.9</td>
</tr>
<tr>
<td>5-9 years</td>
<td>42.4</td>
</tr>
<tr>
<td>10-14 years</td>
<td>33.3</td>
</tr>
<tr>
<td>15-19 years</td>
<td>15.3</td>
</tr>
<tr>
<td>20 years +</td>
<td>2.1</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
</tr>
</tbody>
</table>

Results in Table 4.6 show that 6.9 percent of the respondents had served for 0-4 years, 42.4 percent for 5-9 years, 33.3 percent for 10-14 years; 15.3 percent for 15-19 years while only 2.1 percent had served for more than 20 years. This implies that majority of the firm managers of Small and Medium Enterprises in Nairobi had a wide experience since they had worked for a longer period of time and thus were able to understand the business environment.

Length served in another Firm
The respondents were asked to indicate if they had worked in another firm before the current one. Findings shows that; 66 percent of the respondents indicated that they had not worked in any other firm before joining their current one while 34 percent indicated that they had worked in another firm before their current one. This implies that majority of firm managers of Small and Medium Enterprises in Nairobi prefer longevity rather than job hopping and thus an opportunity to make their mark on the organization and build trust and valuable relationships with the business owners that will last long past their tenure.

For those who indicated that they had worked in another firm, they were further asked to indicate the duration of working. Results are presented in Figure 4.2.

![Figure 4.2: Duration worked in another Firm](image)

Results in Figure 4.2 show that 13.9 percent had worked in other firms for 0-4 years, 11.8 percent had worked in other firms for 5-9 years while only 4.3 percent of the respondents had worked for 10-14 years. This implies that majority of manager/owners had gained enough experience from other firms and thus they have wide knowledge in running the business.
Level of Education for Owner/Manager

The respondents were asked to indicate their highest level of education. Figure 4.3 indicates the breakdown of the highest level of education attained.

Figure 4.3: Highest Level of Education

Results in Figure 4.3, shows that 67 percent of the respondents had post-secondary training, 30 percent had secondary education while only 3 percent had primary education. This implies that majority of the respondents were able to read and understand the questionnaire. According to the study conducted by Fatoki and Odeyemi (2010), managerial competency (especially high education and related experience), business plan, relationships with banks and the location of the business were found to be the most important determinants of access to trade credit by new SMEs.
Membership of Owner/Manager to Professional Body
The respondents were asked to indicate if they were members of any professional body which are relevant to their firms. Results show that 86 percent were not members of any professional body while only 14 percent were members of a professional body. Islam, Khan, Obaidullah & Alam, (2012) in their study, stated that the professionalism of an entrepreneur influences capital access and business success.

Source of Expertise /the Source of Managerial Skills

The respondents were asked to indicate the level of agreement on the statements regarding derivation of their managerial skills. Table 4.7 provides the findings that was used to establish managerial skills used in business. Respondents’ opinion was sought on whether the source of expertise was on four of the indicated avenues and the results indicated that a number of techniques were being adopted. Results are presented in Table 4.7.

Table 4.7: Source of Expertise /the Source of Managerial Skills

<table>
<thead>
<tr>
<th>Source of Expertise</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trial and error/Risk taking</td>
<td>10.4</td>
<td>11.1</td>
<td>20.1</td>
<td>33.3</td>
<td>25.0</td>
<td>3.6</td>
</tr>
<tr>
<td>Education and training</td>
<td>4.9</td>
<td>14.6</td>
<td>12.5</td>
<td>41.0</td>
<td>27.1</td>
<td>3.7</td>
</tr>
<tr>
<td>Operating family business</td>
<td>11.1</td>
<td>16.7</td>
<td>13.9</td>
<td>23.6</td>
<td>34.7</td>
<td>3.8</td>
</tr>
<tr>
<td>Participation in trade fair and exhibition</td>
<td>11.1</td>
<td>18.8</td>
<td>33.3</td>
<td>20.1</td>
<td>16.7</td>
<td>3.2</td>
</tr>
</tbody>
</table>

From Table 4.7; 58.3 percent use trial and error/risk taking, 68.1 percent relied on Education and training, 58.3 percent operating family business, and Finally, 58.3 percent derived expertise from
participation in trade fair and exhibition. From the results, it can be deduced that a multiplicity of channels is adopted by SMEs in a bid to enhance their managerial skills.

This findings are consistent with that of Abdul saleh & Worthington (2013) who studied Small and Medium-Sized Enterprises financing who examined the effects of the characteristics of both SMEs and their owner-managers on the financing methods chosen and found that entrepreneurial characteristics (gender, age, education and experience) and firm characteristics (asset structure, industry sector, location, ownership size and age) are important in determining the source of capital.

**Introduction of New Products and New Processes**

Further, the respondents were asked to indicate the number of new products and new processes that they have introduced or have significantly improved over the past five years and results presented in Table 4.8. Product innovation indicates the dynamism of the small and medium enterprises to maintain growth trajectory.

**Table 4.8: Introduction of New Products and New Processes**

<table>
<thead>
<tr>
<th>Innovation</th>
<th>Between 1-3</th>
<th>Between 4-6</th>
<th>More than 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduced new products or significantly improved product</td>
<td>56.90%</td>
<td>29.20%</td>
<td>13.90%</td>
</tr>
<tr>
<td>Introduced new process or significantly improved process</td>
<td>48.60%</td>
<td>38.90%</td>
<td>12.50%</td>
</tr>
</tbody>
</table>

Results in Table 4.8 show that 56.9 percent of the respondents have introduced between 1-3 new products or significantly improved product, 48.9 percent had introduced between 1-3 new
processes or significantly improved the processes. This implies that most of the SMEs in Nairobi had at least introduced a new product or service. This meant that most SMEs were innovative. The introduction of new products or processes by SMEs may also imply that they are experiencing growth and thus they can qualify for loans from the venture capital firms. Ngugi, Mcorege and Muiru (2013) investigated the Influence of Innovativeness on the Growth of SMEs in Kenya and found out that innovativeness influences the growth of SMEs in Kenya. The tendency of owner/manager to engage in and support new ideas, novelty, experimentation and creative processes results in new products, services or technological processes which has a great influence on the performance of SMEs.

**Innovative strategies applied by the Business Enterprises**

Opinion was also sought on the types of innovativeness strategies that were applied by the SMEs studied and results are presented in Table 4.9.

**Table 4.9: Innovative strategies applied by the Business Enterprises**

<table>
<thead>
<tr>
<th>Innovative strategy</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>New product development</td>
<td>2.1</td>
<td>13.9</td>
<td>25.0</td>
<td>34.7</td>
<td>24.3</td>
<td>3.4</td>
</tr>
<tr>
<td>New market development</td>
<td>6.3</td>
<td>11.8</td>
<td>9.0</td>
<td>20.8</td>
<td>52.1</td>
<td>3.7</td>
</tr>
<tr>
<td>New process development</td>
<td>1.4</td>
<td>8.3</td>
<td>14.6</td>
<td>38.2</td>
<td>37.5</td>
<td>3.3</td>
</tr>
</tbody>
</table>

The results in Table 4.9 shows that 24.3 percent strongly agreed and another 34.7 percent agree that they had introduced new products in the market and thus implies that most of the SMEs studied had introduced product innovations by introducing new products in the market. In addition, the results also reveal that 72.9 percent agreed that they had initiated new market
developments while 75.7 percent had initiated new process developments. From the results we can deduce that most of SMEs in Nairobi County are innovative. Ngugi, Mcorege & Muiru (2013) investigated the Influence of Innovativeness on the Growth of SMEs in Kenya and found out that innovativeness influenced the growth of SMEs in Kenya. The tendency of owner/manager to engage in, and support new ideas, novelty, experimentation and creative processes, results in new products, services or technological processes which have a great influence on the performance of SMEs.

**Applicability of the innovativeness**

Further, the respondents were asked to indicate how often they applied the innovations presented in in Figure 4.4.

![Figure 4.4: Applicability of the Innovativeness](image)

Results in Figure 4.4 shows that 22.2 per cent of the respondents indicated that they always applied the innovative strategies, that is, new product development, new market development and new process development, 52.1 per cent of the respondents indicated that they mostly
applied the innovative strategies, 10.4 per cent indicated that they sometimes applied the strategies, 9 per cent indicated that they rarely applied the innovative strategies, while only 6.3 per cent indicated that they did not apply the innovative strategies. This implies that majority of the SMEs owners applied innovative strategies for the success of their enterprises.

Lastly, the respondents were asked to respond on the questions regarding the most important business issues for SMEs Enterprises. The results are presented in Table 4.10.

**Table 4.10: Product Development for SMEs Enterprises**

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online marketing</td>
<td>4.9</td>
<td>11.1</td>
<td>11.8</td>
<td>13.2</td>
<td>59.0</td>
<td>3.8</td>
</tr>
<tr>
<td>Door step delivery</td>
<td>3.5</td>
<td>13.2</td>
<td>7.6</td>
<td>38.2</td>
<td>35.4</td>
<td>3.1</td>
</tr>
<tr>
<td>Feedback from customers to help improve on our product and process</td>
<td>5.6</td>
<td>9.7</td>
<td>10.4</td>
<td>20.1</td>
<td>52.1</td>
<td></td>
</tr>
<tr>
<td>Functional research and development department</td>
<td>6.3</td>
<td>25.0</td>
<td>23.6</td>
<td>19.4</td>
<td>23.6</td>
<td></td>
</tr>
</tbody>
</table>

The results in Table 4.10 shows that 72.2 per cent strongly agreed that they had adopted online marketing, 73.6 per cent indicating that they relied on door step delivery with 72.2 percent strongly valuing the feedback from customers to help improve on our product and process while 43 percent invested in Functional research and development department to ensure the success of their products. According to Sigara Memba (2011), many SMEs have little access to many sources of finance due to legal and regulatory frameworks that do not recognize innovative strategies for lending to the SMEs. This lack of sufficient capital and credit is often a major handicap to the development of SMEs particularly in their early stages (Lemuel, 2009).
4.5.2 Firm Characteristics

Empirical research indicates that firm characteristics are important influences on financing of SMEs, including venture capital. The study selected the age of SME and type of firm as firm characteristics.

Age of SMEs

The respondents were asked to indicate the number of years that the small and medium enterprises have been in operation. This is important for venture capitalists because they will be able to gauge on the sustainability of the small and medium enterprises. The results are presented in Table 4.11.

Table 4.11: Years in Operation

<table>
<thead>
<tr>
<th>Years of Operation</th>
<th>Percent (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 1 year</td>
<td>4.9</td>
</tr>
<tr>
<td>1-5 years</td>
<td>23.6</td>
</tr>
<tr>
<td>6-10 years</td>
<td>27.1</td>
</tr>
<tr>
<td>11-15 years</td>
<td>18.8</td>
</tr>
<tr>
<td>over 15 years</td>
<td>25.7</td>
</tr>
<tr>
<td>Total</td>
<td>97.9</td>
</tr>
</tbody>
</table>

Results in Table 4.11 show that; 4.9 percent of the respondents indicated that their firms had been in operation for less than 1 year, 23.6 percent indicated 1-5 years in operation, 27.1 percent indicated 6-10 years in operation, 18.8 percent indicated 11-15 percent in operation while 25.7
percent of the respondents indicated that their firms had been in operation for over 15 years. This implies that most of the SMEs had been in operation for longer period and thus understood the business dynamics. According to Saleh and Worthington (2013) firm age is important in determining the source of capital.

**Type of the Firm**

Further, the respondents were asked to indicate the type of firm industry they belong to.

Results are presented in Table 4.12.

**Table 4.12: Type of Firm**

<table>
<thead>
<tr>
<th>Type of Firm</th>
<th>Percent (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service</td>
<td>33</td>
</tr>
<tr>
<td>Non-service</td>
<td>67</td>
</tr>
</tbody>
</table>

Results in Table 4.12 show that, 67 per cent indicated that their firms are non-service while 33 per cent indicated that their firms are service based. This implies that majority of SMEs in Nairobi operate as non-service enterprises. According to Nkuah, Tanyeh, & Gaeten, (2013) type of industry, concentrated ownership and size are the main characteristics of a firm which have a positive and significant effect on access to credits.

**Firm’s Market Output**

Respondents were asked to indicate their firm’s market output. The results are presented in Table 4.13.
Table 4.13: Market Output

<table>
<thead>
<tr>
<th>Market Output</th>
<th>Percent (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tangible goods</td>
<td>61.8</td>
</tr>
<tr>
<td>Non-tangible goods</td>
<td>29.9</td>
</tr>
<tr>
<td>Both</td>
<td>8.3</td>
</tr>
</tbody>
</table>

Results in Table 4.13 show that 61.8 percent of the respondents indicated that their market output is tangible goods, 29.8 percent non-tangible goods while only 8.3 percent indicated that their market output are both tangible and non-tangible goods. This implies that majority of the SMEs in Nairobi deal with tangible goods. According to Tedesco (2014), entrepreneurial firms characterized by significant intangible assets, negative earnings in their early development, or unproven products are not likely to access bank loans or other debt financing, and therefore struggle to attract equity financing (Tedesco, 2014). Venture capitalists bridge the financing gap caused by information asymmetry for new and innovative firms (Ernst & Young 2014). Venture capital is generally considered to be the most appropriate financial resources for the small and Medium enterprises Diaconu, (2012).

Sources of Capital of the Firm

The respondents were asked to indicate if their sources of capital had changed since they started business. Results are presented in Table 4.14.
Table 4.14: Sources of Capital of the Firm

<table>
<thead>
<tr>
<th>Sources of Capital of the firm</th>
<th>Percent (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sources of capital changed</td>
<td>59</td>
</tr>
<tr>
<td>Sources of capital not changed</td>
<td>41</td>
</tr>
</tbody>
</table>

Results in Table 4.14 show that 59 percent of the respondents indicated that their sources of capital have changed while only 41 percent indicated that they had not changed. Mostly SMES prioritize the source of financing from internal cash flow or entrepreneur’s own capital to external sources according to relative availability and opportunity cost (Ogujiuba, Ohuche & Adenuga, 2004). In the case of the small firm or entrepreneur, personal sources are used first, external debt next, followed by outside equity. Equity is acquired last because the entrepreneur presumably has more information than the investor. The presence of significant information asymmetries causes the investor to charge a higher rate of return on equity than on debt (Frank & Goyal, 2003). Since most of SMEs in their start up stages have no or have limited access to formal bank credit and in most cases no retained earnings, venture capital financing which is equity finance could be the best option.

Lastly, the respondents were asked to indicate the level of agreement on the sources of finance in their businesses. The results are presented in Table 4.15.
Table 4.15: Sources of Capital during Startup and Growth of Business

<table>
<thead>
<tr>
<th>Sources of Capital</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government sponsored program</td>
<td>19.70%</td>
<td>33.30%</td>
<td>27.30%</td>
<td>10.60%</td>
<td>9.10%</td>
</tr>
<tr>
<td>Personal savings</td>
<td>3.00%</td>
<td>6.10%</td>
<td>8.30%</td>
<td>14.40%</td>
<td>68.20%</td>
</tr>
<tr>
<td>Friends and relatives</td>
<td>4.50%</td>
<td>7.60%</td>
<td>31.10%</td>
<td>28.80%</td>
<td>28.00%</td>
</tr>
<tr>
<td>Bank loans</td>
<td>1.50%</td>
<td>15.20%</td>
<td>8.30%</td>
<td>16.70%</td>
<td>58.30%</td>
</tr>
<tr>
<td>Venture capital</td>
<td>37.10%</td>
<td>19.70%</td>
<td>12.10%</td>
<td>13.60%</td>
<td>17.40%</td>
</tr>
</tbody>
</table>

Results in Table 4.15 show that; 53per cent (19.7per cent+33.3per cent) did not utilize government sponsored programs as their sources of capital, 82.6 per cent indicated personal savings as their sources of capital, 56.8per cent indicated friends and relatives as their sources of capital, 75 per cent indicated bank loans as their sources of capital while only 31 per cent agreed that venture capital is their sources of capital. This implies that majority of the SMEs are financing their enterprises using personal savings and borrowings from friends and relatives. This may be because of lack of sufficient security to obtain formal loans. According to Frank and Goyal(2013), since most of SMEs in their start up stages have no or have limited access to formal bank credit and in most cases no retained earnings, venture capital financing which is equity finance could be the best option.

4.5.3 Firm Performance

Firm performance is used in the study as a mediating variable .The study measured firm performance using average annual income, total equity and total assets. The respondents were
asked to indicate their average annual income and the total equity and total asset at the beginning and the end of the periods. The results are presented in Table 4.16.

**Table 4.16: Average Annual Income**

<table>
<thead>
<tr>
<th>Average annual net income (KES)</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 500,000</td>
<td>13.2</td>
</tr>
<tr>
<td>500,000-1M</td>
<td>23.6</td>
</tr>
<tr>
<td>1M-1.5M</td>
<td>41</td>
</tr>
<tr>
<td>2M-2.5M</td>
<td>13.9</td>
</tr>
<tr>
<td>Over 2.5M</td>
<td>8.3</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
</tr>
</tbody>
</table>

The results in Table 4.16 show that 13.2 percent indicated that on average their annual net income was less than KES500,000. 23.6 percent indicated between 0.5-1M, 41 percent indicated 1M-1.5M, 13.9 percent indicated KES 2M-2.5M while 8.3 percent of the respondents indicated over KES 2.5M as their annual net income. This implies that most of the SMEs receives an average net annual income of KES 1M-1.5M which is still quite low for them to receive sufficient loans from the formal institutions. According to Calice, Chando, and Sekioua (2012) in most cases SMEs are unable to access financing from financial institution due to inability to meet requirements by the financial.
Table 4.17: Total Equity

<table>
<thead>
<tr>
<th>Total Equity and Total Asset</th>
<th>Mean</th>
<th>Std. Dev</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total equity at the beginning of your last financial year</td>
<td>1596774</td>
<td>1397887</td>
<td>300000</td>
<td>7000000</td>
</tr>
<tr>
<td>Total equity at the end of your last financial year</td>
<td>11500000</td>
<td>53100000</td>
<td>400000</td>
<td>300000000</td>
</tr>
</tbody>
</table>

Results in Table 4.17 shows that the mean for the total equity at the beginning the last financial year was 1,596,774 while its maximum and minimum was 300,000 and 7,000,000 respectively while the mean for the total equity at the end of the last financial year was 11,500,000 while its maximum and minimum was 400,000 and 300,000,000 respectively.

Table 4.18: Total Asset

<table>
<thead>
<tr>
<th>Total Equity and Total Asset</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total asset at the beginning of the last financial year</td>
<td>2347909</td>
<td>4083393</td>
<td>400000</td>
<td>24000000</td>
</tr>
<tr>
<td>Total asset at the end of the last financial year</td>
<td>2959677</td>
<td>5896768</td>
<td>200000</td>
<td>34500000</td>
</tr>
</tbody>
</table>

Further results in Table 4.18 shows that the mean for the total asset at the beginning the last financial year was 2,347,909 while its maximum and minimum was 400,000 and 24,000,000 respectively while the mean for the total asset at the end of the last financial year was 2,959,677 while its maximum and minimum was 200,000 and 34,500,000 respectively.
4.5.4 Venture Capital Risk Measure

Venture capital risk measure is used as moderator in the study. Venture capital risk measure was measured using the number of venture capitals and method of funding. The respondents were asked to indicate the number of venture capitals that fund their firms. The results are presented in Table 4.19.

Table 4.19: Number of Venture Capitals Funding the Firm

<table>
<thead>
<tr>
<th>Number of Venture Capitals</th>
<th>Percent (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>One</td>
<td>97.2</td>
</tr>
<tr>
<td>Two</td>
<td>2.1</td>
</tr>
<tr>
<td>Three</td>
<td>0.7</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
</tr>
</tbody>
</table>

Results in Table 4.19 show that majority who were 97.2 per cent indicated that their firms were funded by only one venture capital. This implies that majority of SMEs in Nairobi do not receive funding from venture capital firms. Olando, Mbewa, and Jagongo (2012) observe that more financial institutions often see SMEs as risk-prone sector because of poor guarantees and lack of information about their ability to repay loans.

Further, the respondents were asked to indicate how their firms were funded by the venture capitals. The results are presented in Table 4.20.
Table 4.20: Methods of Funding

<table>
<thead>
<tr>
<th>How was funded</th>
<th>Percent (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upfront</td>
<td>49</td>
</tr>
<tr>
<td>In stages</td>
<td>51</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
</tr>
</tbody>
</table>

Results in Table 4.20 show that 51 percent who were the majority were funded in stages while 49 percent indicated that they were funded upfront. According to Obeng and Mwebi (2012), venture capitalists rarely provide funds to SMEs in full amount as applied for, instead they give certain percentage of requested funds based on the perceive potential of the SME.

Further, the respondents were further asked to indicate if the methods of funding above were the preferred one. Results are presented in Table 4.21.

Table 4.21: Preference on Method of Funding

<table>
<thead>
<tr>
<th>Preference on Method of Funding</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>4</td>
</tr>
<tr>
<td>No</td>
<td>96</td>
</tr>
</tbody>
</table>

Results in Table 4.21 show 96 per cent did not prefer this method of funding while only 4 per cent indicated that they preferred the method. This means that majority of the SMEs were not satisfied with the way in which the VC firms offer their loans. Beck, Kunt, & Maksimovic (2008) argue that financial constraints can ruin a good business idea, lead to business failure, or hinder growth and development of an enterprise.
4.5.5 Access to Venture Capital

Access to venture capital was measured using the intention of the SMEs to be funded by venture capitalists in future, usage of venture capital since the startup and proportion of the venture capital received of the business. For those who answered that their firms were not funded by venture capitalists, they were asked to indicate if their firms aim to be funded in future. The results are presented in Figure 4.5.

![Pie chart showing 58% Yes and 42% No for venture capital funding in future](image)

**Figure 4.5: Venture Capital Funding in Future**

Figure 4.5 show that 58 per cent indicated that they hoped to be funded in future while 42 per cent indicated that they did not see this happening in the future. This implies that majority of the SMEs in Nairobi do not have adequate capital. Small and Medium Enterprises are drivers of economic expansion in both developed and emerging economies, whose success is largely dependent on access to adequate financing (Njama, 2013). According to Clark amd Juma, (2013), the fundamental reasons behind SMEs poor access to finance can be found in their unique characteristics.

Regarding access to VC, the respondents were asked to indicate the proportion of venture capital received to their total funds requested for. The results are presented in Table 4.22.
Table 4.22: Venture Capital Access

<table>
<thead>
<tr>
<th>Proportion of Venture Capital</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between 1 per cent - 33 per cent</td>
<td>19</td>
</tr>
<tr>
<td>Between 34 per cent - 66 per cent</td>
<td>57</td>
</tr>
<tr>
<td>Between 67 per cent - 100 per cent</td>
<td>24</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4.22 shows that 19 per cent of the respondents received 1-33 per cent of the venture capital applied, 57 per cent of the respondents received 34-66 per cent while 24 per cent received 67-100 percent. According to Deloitte (2009), venture capitalists mainly focus on; market attractiveness, product/service, the entrepreneur, the management team and financial considerations. Once the VCs are comfortable with the screening, they negotiate the terms and condition of the investment with the entrepreneur, with the aim of controlling the corporate decisions and minimize the potential cost and risk (Ndabeni, 2014).

Further, the respondents were asked to indicate if they got satisfied with the amount which they received. The results are presented in Figure 4.6.
Figure 4.6: Satisfaction with the Venture Capital Received

Figure 4.6 shows that 90 percent of the respondents indicated that they were not satisfied while only 10 percent indicated that they were satisfied. According to KNBS (2016), equity financing account for only 4.1 percent of all the sources of capital utilized by SMEs. With the availability of the funds in Kenya, it is not clear why SMEs uptake to VC is very low yet they are still struggling to raise capital. According to Nour, (2009), the key aspect of interest to VC when funding a firm include the product/service offered by the firm, the market served by the firm, the management team of the firm and the financial projection of the firm.

The respondents were asked to indicate the level of agreement on the possible reasons for not using VC. The results are presented in Table 4.23.
Table 4.23: Possible Reasons for not Using VC

<table>
<thead>
<tr>
<th>Reasons for not using VC</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not aware of their existence</td>
<td>26.40%</td>
<td>24.30%</td>
<td>18.10%</td>
<td>12.50%</td>
<td>18.80%</td>
<td>2.7</td>
</tr>
<tr>
<td>Fear of losing control of my business</td>
<td>21.50%</td>
<td>11.80%</td>
<td>27.10%</td>
<td>22.90%</td>
<td>16.70%</td>
<td>2.5</td>
</tr>
<tr>
<td>I cannot meet their requirements</td>
<td>2.80%</td>
<td>8.30%</td>
<td>33.30%</td>
<td>42.40%</td>
<td>13.20%</td>
<td>2.9</td>
</tr>
<tr>
<td>I do not need their funds</td>
<td>0.00%</td>
<td>4.90%</td>
<td>8.30%</td>
<td>56.90%</td>
<td>29.90%</td>
<td>2.6</td>
</tr>
</tbody>
</table>

Results in Table 4.23 show that 50.7 percent (26.4 percent + 24.3 percent) who were the majority agreed that they were not aware of their existence, 39.6 percent disagreed that the fear of losing control of their businesses, 55.6 per cent disagreed that they cannot meet their requirements while 86.8 per cent disagreed that they do not need their funds. This implies that majority of SMEs are really in need for the VC.

Further the respondents were asked to indicate how they found information on venture capitalist. The results are presented in Table 4.24.
Table 4.24: Availability of Information on VC

<table>
<thead>
<tr>
<th>Availability of Information</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very available</td>
<td>6.3</td>
</tr>
<tr>
<td>Fairly available</td>
<td>2.8</td>
</tr>
<tr>
<td>rarely available</td>
<td>10.4</td>
</tr>
<tr>
<td>Not available</td>
<td>65.3</td>
</tr>
<tr>
<td>Not aware</td>
<td>15.3</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
</tr>
</tbody>
</table>

Results in Table 4.24 show that 6.3 percent of the respondents indicated that the information on VC is very available. 2.8 percent indicated fairly available, 10.4 percent indicated rarely available, 65.3 percent indicated not available while 15.3 percent were not aware. This implies that most of the SMEs in Nairobi find it hard to access information on VC. According to Obeng and Mwebi (2012), venture capitalists rarely provide funds to SMEs in full amount as applied for, instead they give certain percentage of requested funds based on the perceive potential of the SME

Lastly, the respondents were asked to indicate on the accessibility of venture capital as a source of finance for their businesses. The results are presented in Table 4.25.
Table 4.25: Accessibility of Venture Capital

<table>
<thead>
<tr>
<th>Accessibility of venture capitalists</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Easily accessible</td>
<td>7.6</td>
</tr>
<tr>
<td>rarely accessible</td>
<td>11.1</td>
</tr>
<tr>
<td>Not accessible</td>
<td>65.3</td>
</tr>
<tr>
<td>Not aware</td>
<td>16</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
</tr>
</tbody>
</table>

Results in Table 4.25 show that 7.6 percent of the respondents indicated that VC is easily accessible. 11.1 percent indicated rarely accessible, 65.3 percent indicated not accessible, while 16 percent indicated that they were not aware. This implies that most of the SMEs in Nairobi find it hard to access VC. According to Abdullah, Khadijah, & Manan (2010), inaccessibility and insufficiency of funds is the major barrier to the growth and performance of SMEs in both developed and developing countries.

4.5.6 Responses for Venture Capital Firms

The respondents were asked to indicate their positions in the firms. The results are presented in Table 4.26.
Table 4.26: Position in the Firm

<table>
<thead>
<tr>
<th>Position</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owner</td>
<td>0.00</td>
</tr>
<tr>
<td>Firm Manager</td>
<td>100</td>
</tr>
<tr>
<td>Both</td>
<td>0.00</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
</tr>
</tbody>
</table>

Results in Table 4.26 show that all those who were interviewed were firm managers representing 100 percent. This implies that all of the Venture Capital Firms are managed by firm managers and not the owners. This may be because of the nature of the expertise required which may need the business inventors to involve managers to assist in daily operations of the business.

The VCs managers were further asked to indicate the number of years that they had served in their firm. The results are presented in Table 4.27.

Table 4.27: Table 4.22: VCs Finance Managers Length of Operation

<table>
<thead>
<tr>
<th>Years Served</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-4 years</td>
<td>21.4</td>
</tr>
<tr>
<td>5-9 years</td>
<td>28.5</td>
</tr>
<tr>
<td>10-14 years</td>
<td>28.7</td>
</tr>
<tr>
<td>15-19 years</td>
<td>21.4</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
</tr>
</tbody>
</table>
Results in Table 4.27 show that 21.4 percent of the respondents indicated that they had served for 0-4 years, 28.5 percent had served for 5-9 years, 28.7 percent indicated 10-14 year while 21.4 percent for 15-19 years. This means that majority of the venture capitalist firms had been in operation for a long period of time to understand the business dynamics. VC, which is quite prevalent in developed countries, has played a big role in enhancing growth of SMEs by providing equity capital. Some of the world’s largest companies, including Home Depot, Starbucks, Whole Foods, Microsoft, Apple, Google, JetBlue, eBay, and Staples were originally backed by Venture capital (Kavanaugh et al., 2014).

The VCs finance managers were asked to indicate if their firms currently had SMEs clients. 57 percent of the respondents indicated that they did not have SMEs clients while 43 percent indicated that they had SMEs clients. This implies that Venture capital firms rarely provide funds to SMEs. According to Obeng & Mwebi, (2012), venture capitalists rarely provide funds to SMEs in full amount as applied for, instead they give certain percentage of requested funds based on the perceive potential of the SME.

For those who have SMEs clients, they were asked to indicate the number of SMEs that they had funded in the last 5 years. The results are presented in Figure 4.7.
Figure 4.7: Number of SMEs Clients

Figure 4.7 shows that 28.6 percent of the VC finance managers indicated that they had 1-3 SMEs clients, 57.1 percent indicated that they had 4-7 SMEs clients while only 14.3 percent indicated that their firms had more than eight SMEs clients. This implies that Venture capital firms rarely provide funds to SMEs. Venture capitalists mainly focus on; market attractiveness, product/service, the entrepreneur, the management team and financial considerations (Deloitte, 2009). Once the VCs are comfortable with the screening, they negotiate the terms and condition of the investment with the entrepreneur, with the aim of controlling the corporate decisions and minimize the potential cost and risk (Ndabeni, 2014).

The respondents were asked to indicate the form in which capital contribution they hold on those SMEs. The results are presented in Table 4.28.
Table 4.28: Capital Contribution of SMEs

<table>
<thead>
<tr>
<th>Form</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Convertible securities</td>
<td>7.1</td>
</tr>
<tr>
<td>Assets</td>
<td>85.7</td>
</tr>
<tr>
<td>Cash</td>
<td>7.1</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
</tr>
</tbody>
</table>

Results in Table 4.28 show that 7.1 per cent of the firm finance managers indicated they hold capital contribution of SMEs in convertible securities, 85.7 per cent indicated in asset form while another 7.1 per cent indicated in cash form. This implies that majority of the Venture Capital firms hold assets in the SMEs. According to SAVC, (2009) the VCs uses three main risk reduction strategies; convertible securities, syndicate of investments and staging of capital infusion. According to Cumming, (2006), most venture capital transactions include convertible securities which have the ability to mitigate the agency problem effects by leaving the owner–manager with some control during the investment period. Syndication is when two or more venture capitalists are sharing in a single financing round. The syndication mechanism help in reducing the problems associated with adverse selection through the participation of a co-investor sharing the investment risk (Smolarski & Kut, 2011).

The VC finance managers were asked to rank the following statements in order of their importance when funding SMEs and results are presented in Table 4.29.
Table 4.29: Important Factors considered by VCs when Funding SMEs

<table>
<thead>
<tr>
<th></th>
<th>Neutral</th>
<th>Not Important</th>
<th>Less Important</th>
<th>Important</th>
<th>Very Important</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owner/manager level of academic qualifications</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>66.70%</td>
<td>33.30%</td>
<td>4.5</td>
</tr>
<tr>
<td>Owner/manager level of professional qualification</td>
<td>0.00%</td>
<td>0.00%</td>
<td>55.60%</td>
<td>22.20%</td>
<td>22.20%</td>
<td>3.8</td>
</tr>
<tr>
<td>Owner/manager relevant experience</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>11.10%</td>
<td>88.90%</td>
<td>4.7</td>
</tr>
</tbody>
</table>

Results in Table 4.29 show that 66.6 percent indicated that owner/manager level of academic qualifications is important when funding SMEs clients, 55.6 percent indicated that owner/manager level of professional qualification is less important while 88.9 percent indicated that owner/manager relevant experience is very important when funding SMEs clients. This implies that majority of the venture capital firms look at the experience of the SMEs owners/managers before granting out the loans. According to the study conducted by Fatoki and Odeyemi (2010), managerial competency (especially high education and related experience), business plan, relationships with banks and the location of the business were found to be the most important determinants of access to trade credit by new SMEs.

The respondents were further asked to indicate the highest academic qualification preference for funding. Results are presented in Table 4.30.
Table 4.30: SMEs Academic Qualification Preferred by VCs for funding

<table>
<thead>
<tr>
<th>Highest Academic Qualification</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diploma</td>
<td>7.1</td>
</tr>
<tr>
<td>Degree</td>
<td>50</td>
</tr>
<tr>
<td>Master Degree</td>
<td>21.4</td>
</tr>
<tr>
<td>PhD</td>
<td>7.1</td>
</tr>
<tr>
<td>Not Important</td>
<td>14.3</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
</tr>
</tbody>
</table>

Results in Table 4.30 show that 7.1 percent of the VC firm managers indicated that they prefer diploma holders, 50 percent indicated degree holders, 21.4 percent indicated master degree holders, and 7.1 percent indicated PhD holders while 14.3 percent indicated that academic qualification is not important. This implies that academic qualification of an SME owner/manager contributes a lot to loan accessibility. Islam et al., (2012) in their study, stated that the professionalism of an entrepreneur influences capital access and business success.

The VCs finance managers were asked to rank the following in order of their importance when funding SMEs. The results are presented in Table 4.31.
Results in Table 4.31 reveal that 88.9 percent indicated that owner’s innovativeness is very important when funding SMEs. Another 88.9 percent indicated that owner’s managerial competence is very important, 88.9 percent indicated that firm’s age is important while 55.6 percent indicated that firm’s industry/sector of operation is important when funding SMEs. This implies that SMEs owner’s innovativeness plays a greater role in loan accessibility. Venture capitalists mainly focus on; market attractiveness, product/service, the entrepreneur, the management team and financial considerations Deloitte, (2009).

Further, the VC finance managers were asked to indicate their level of agreement in regard to the following statements. The results are presented in Table 4.30.
Table 4.32: Important SME innovativeness to VC for Funding

<table>
<thead>
<tr>
<th>Measure</th>
<th>Strongly Agree</th>
<th>Strongly Disagree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Neutral</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>We prefer entrepreneurs who have introduced new products into the market in the past 5years</td>
<td>88.90%</td>
<td>11.10%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>3.9</td>
</tr>
<tr>
<td>We prefer entrepreneurs who have introduced improved products in the market for the past 5years</td>
<td>88.90%</td>
<td>11.10%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>3.9</td>
</tr>
<tr>
<td>We prefer entrepreneurs who over the past five years have applied new technologies in their production process</td>
<td>55.60%</td>
<td>22.20%</td>
<td>22.20%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>3.5</td>
</tr>
</tbody>
</table>

Results in Table 4.32 show that 88.9 percent of the respondents agreed that they prefer entrepreneurs who have introduced new products into the market in the past 5 years. Another 88.9 percent indicated that they prefer entrepreneurs who have introduced improved products in the market for the past 5 years while 77.8 percent (55.6 percent + 22.2 percent) agreed that they prefer entrepreneurs who over the past five years have applied new technologies in their production process. This implies that SMEs owner’s innovativeness plays a greater role in accessing funds. According to Memba (2011), before VC funds an enterprise, the following must be conducted; the innovativeness of the SMEs, the quality of the business plan, basic concept of
the project, track record of entrepreneur, the management team, the characteristics of the product, market or technology among others.

On number of new product, improved products and technologies preference, the results are presented in Table 4.33.

**Table 4.33: SMEs Innovativeness Preferred by VCs for funding**

<table>
<thead>
<tr>
<th>Innovation</th>
<th>1-3 Products</th>
<th>4-6 Products</th>
<th>More than 6 Products</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of preferred new products</td>
<td>66.70%</td>
<td>33.30%</td>
<td>0.00%</td>
<td>1.9</td>
</tr>
<tr>
<td>Number of preferred improved product in the market</td>
<td>44.40%</td>
<td>33.30%</td>
<td>22.20%</td>
<td>1.7</td>
</tr>
<tr>
<td>Number of preferred technologies</td>
<td>33.30%</td>
<td>44.40%</td>
<td>22.20%</td>
<td>2.2</td>
</tr>
</tbody>
</table>

Results in Table 4.33 reveal that 66.7 percent of the respondents indicated that they prefer 1-3 new products; 44.4 percent indicated 1-3 improved products and 44.4 percent indicated 4-6 technologies. This implies that venture capital firms accesses the credit worthiness of a SMEs owner by looking at the number of new products, improved products and new technologies introduced. According to Deloitte (2009), venture capitalists mainly focus on; market attractiveness, product/service, the entrepreneur, the management team and financial considerations.

The respondents were asked to indicate if firm performance is a key consideration in funding a venture. 82 percent of the respondents indicated that firm performance is the key consideration in funding a venture while only 18 percent indicated that firm performance is not a key consideration. This implies that the SME performance plays a greater role on access to funding
from the venture capital firms. According to Nkuah, Tanyeh, & Gaeten (2013) firm size, firm performance and specific industry sector have a significantly positive relations with access to credits.

Lastly, the VC managers were asked to indicate on average the net income per annum that consider when funding. The results are presented in Table 4.34.

**Table 4.34: SMEs Income Level Considered by VCs when Funding**

<table>
<thead>
<tr>
<th>Amount per annum (KES)</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.5-1M</td>
<td>57.1</td>
</tr>
<tr>
<td>1-1.5M</td>
<td>21.4</td>
</tr>
<tr>
<td>2-2.5M</td>
<td>21.4</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
</tr>
</tbody>
</table>

Results in Table 4.34 show that 57.1 percent of the respondents considers between 0.5-1M income per year, 21.4 percent considers 1-1.5M and 2-2.5M per year. According to Calice, Chando, and Sekioua (2012) SMEs in most cases are unable to access financing from financial institution due to inability to meet requirements by the financial.

**4.6 Test of Research Hypotheses**

This section presents the findings of tests of hypotheses of the study. The hypotheses describe the relationship between variables of the study as conceptualized and presented in the conceptual model. The hypotheses that were tested related to effect of entrepreneur’s innovativeness; the effect of entrepreneur’s managerial competency; effect of firm’s sector/industry of operation; effect of firm’s age on access to venture capital; the mediating effect of firm’s performance on
the relationship between entrepreneurial and firm characteristic on access to venture capital and lastly, the moderating effect of VC risks measures on the relationship between entrepreneurial and firm characteristic on access to venture capital financing. This study utilized Nested Multinomial Logit (NMNL) model. To test for the level of significance, the t statistic and the probability values were used. The rule of thumb is that if the P-value is less than 0.05 and the calculated t-statistic value is more than 1.96, then the relationship between the variables is significant.

4.6.1 Entrepreneur’s Innovativeness and Access to Venture Capital

The first objective of the study was to determine the effect of entrepreneur’s innovativeness on access to venture capital by selected SMEs in Nairobi, Kenya. Table 4.35 shows the results of the first level of the model and Table 4.36 shows the results for the second level of the Nested Multinomial Logit Model for the relationship between entrepreneurial innovations and access to venture capital by small and medium enterprises.

**Table 4.35: Entrepreneur’s Innovativeness and Access to Venture Capital**

<table>
<thead>
<tr>
<th>Access to venture capital (1=Yes, otherwise 0)</th>
<th>Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>0.849</td>
</tr>
<tr>
<td></td>
<td>(1.62)</td>
</tr>
<tr>
<td>Entrepreneurial innovation</td>
<td>0.138**</td>
</tr>
<tr>
<td></td>
<td>(2.98)</td>
</tr>
<tr>
<td>pseudo $R^2$</td>
<td>0.5</td>
</tr>
</tbody>
</table>

$t statistics in parentheses >1.96$
** p < 0.05

*Significant if t statistic value absolute -1.96 < negative coefficient or positive coefficients >1.96*

The results suggest that variations in entrepreneurial innovations explains 50 percent of the variations in access to venture capital (measured by whether the firms access venture capital or not) as indicated in Table 4.35 and explains 60 percent of the variations when measured with respect to the ease of access of venture capital as indicated in Table 4.36. The study established that Entrepreneur’s innovativeness determines whether the firm would access VC or not. In particular, the more innovative an Entrepreneur’s is, the higher the probability of accessing venture capital by 0.138 which is statistically significant at 5 percent level of significance. This result leads to the rejection of the hypothesis that an entrepreneur’s innovative do not have significant effect on access to venture capital. This is an important finding as it may suggest that for firms to be able to access venture capital they have to be innovative as venture capitalists are likely to have this as one of the criteria of deciding which firms are able to access its portfolio.

Further analysis of the ease of access to venture capital corroborates the results above on access to venture capital as shown by results in Table 4.36.
Table 4.36: Entrepreneurial Innovation and Level of Access to Venture Capital

<table>
<thead>
<tr>
<th>Dependent Variable: Access to venture capital</th>
<th>Not accessible</th>
<th>rarely accessible</th>
<th>fairly accessible</th>
<th>Easily accessible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-85.42</td>
<td>-0.469</td>
<td>0.876</td>
<td>0.349</td>
</tr>
<tr>
<td></td>
<td>(-0.01)</td>
<td>(-0.51)</td>
<td>(1.41)</td>
<td>(0.47)</td>
</tr>
<tr>
<td>Entrepreneurial Innovation</td>
<td>16.92</td>
<td>-0.331</td>
<td>-0.319</td>
<td>-0.445**</td>
</tr>
<tr>
<td></td>
<td>(0.01)</td>
<td>(-1.29)</td>
<td>(-1.89)</td>
<td>(-2.09)</td>
</tr>
<tr>
<td>pseudo $R^2$</td>
<td>0.60</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

$t$ statistics in parentheses

** $p < 0.05$

Significant if $t$ statistic value  absolute $-1.96 < \text{negative coefficient or positive coefficients} > 1.96$

In particular, the results in Table 4.36 reveal that the most innovative entrepreneurs have a higher propensity of accessing venture capital. This can be attributed to the fact that innovative entrepreneurs are more likely to have established a strong market presence and as such is taken as a signal of a good quality firm and as a result the ease with which they can access venture capital.

From the analysis it is clearly evident that venture capital flows to innovative SMEs, who are likely to have higher returns and as venture capitalists seeks places with high returns in a bid to maximize their economic gains funds flows to innovative SMEs.
This is in line with the findings of a study conducted by Ngugi, Mcorege and Muiru (2013) on the influence of innovativeness on the growth of SMEs in Kenya where they also found that innovativeness influences the growth of SMEs. From the foregoing analysis, the study therefore infer that the supply of venture capital will tend to flow to whether viable investment opportunities exists and these are likely to be found in the most innovative firms.

4.6.2 Entrepreneur’s Managerial Competency and Access to Venture Capital

The second objective of the study was to establish the effect of entrepreneur’s managerial competency on access to venture capital and the results are presented in Table 4.37 for the first level of the model and Table 4.38 for the second level.

Table 4.37: Managerial Competency and Access to Venture Capital

<table>
<thead>
<tr>
<th>Access to venture capital (1=Yes, otherwise 0)</th>
<th>Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-0.0899</td>
</tr>
<tr>
<td></td>
<td>(-0.16)</td>
</tr>
<tr>
<td>Managerial competency</td>
<td>0.138**</td>
</tr>
<tr>
<td></td>
<td>(3.13)</td>
</tr>
<tr>
<td>pseudo $R^2$</td>
<td>0.43</td>
</tr>
</tbody>
</table>

*t statistics in parentheses*

** $p < 0.05$,

*Significant if $t$ statistic value absolute $-1.96 <$ negative coefficient or positive coefficients $>1.96$

Table 4.37, establishes that managerial competency is a significant predictor on access to venture capital, explaining 43 percent of the variations which is higher given a univariate regression
framework under investigation. The study establishes that managerial competency as assessed by the level of education that managers possess has a positive effect ($\beta = 0.138$) which is significant at 5 percent level of significance. The positive effect on education can be assumed to be associated with good management practices and those SMEs with good management have a higher likelihood of access venture capital. This result refutes the hypothesis put forth in chapter one that an entrepreneur’s managerial competency does not have significant effect on access to venture capital. This conforms to the literature that supports the proposition that difference in managerial competencies, i.e. industry-specific work experience and managerial experience to a great extent explains the variances in access to investment funds.

The results presented in Table 4.37 infer that, the higher the management competency of the SMEs owner/manager, the more likely are the SMEs they run to receive venture capital. Management competency is therefore a must have for firms seeking capital through venture capital as it trades off's opacity of the firm, in the sense that they will be more transparent in the undertakings and keeping the necessary documents required in accessing capital. As such managerial competency addresses informational asymmetries between the seekers and financiers of capital. In addition to mitigating the informational asymmetries, a competent management enables venture capitalists to identify and select them for having specialist knowledge in running enterprises.

Further the results presented in Table 4.38 shows that managerial competency is associated with the ease of access of venture capital.
Table 4.38: Managerial Competency and the Level of Access to Venture Capital

<table>
<thead>
<tr>
<th>Dependent Variable: Access to venture capital</th>
<th>Not accessible</th>
<th>rarely accessible</th>
<th>fairly accessible</th>
<th>Easily accessible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>23.46</td>
<td>5.769**</td>
<td>4.478**</td>
<td>-6.931**</td>
</tr>
<tr>
<td></td>
<td>(0.02)</td>
<td>(3.91)</td>
<td>(4.28)</td>
<td>(-3.64)</td>
</tr>
<tr>
<td>Managerial competency (Level of education)</td>
<td>-19.29</td>
<td>2.490**</td>
<td>1.439**</td>
<td>1.425**</td>
</tr>
<tr>
<td></td>
<td>(0.02)</td>
<td>(4.63)</td>
<td>(4.57)</td>
<td>(3.18)</td>
</tr>
<tr>
<td>pseudo $R^2$</td>
<td>0.267</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

$t$ statistics in parentheses

** $p < 0.05$

Significant if $t$ statistic value absolute $-1.96 < \text{negative coefficient or positive coefficients} > 1.96$

The results in Table 4.38 show that the coefficients on managerial competency are positive and significant at 5 percent level of significance. From these results we infer two things. Possession of managerial competencies more than simply skills and abilities in the face of increased competition among SMEs is a pre-requisite for accessing the scarce and much needed venture capital.

The positive and significant effect of managerial competency on access and ease of access of venture capital is well placed in the context of existing studies especially those conducted by Wang (2013) in China where they showed that managerial and entrepreneurial attitudes are most important in influencing the access to micro funding funds by Chinese SMEs. Similar assertion is also made by Fatoki and Odeyemi (2010) in South Africa while investigating the determinants of access to trade credit by SMEs where they established that besides an SME’s characteristics, managerial competency explained SMEs access to trade Credit. In Kenya, Ngugi, Mcorege and
Muiru (2013) also documents the central role of management competency in explaining growth and access to credit by SMEs.

### 4.6.3 Firm Sector/Industry of Operation and Access to Venture Capital

The third objective of the study is to determine the effect of firm’s sector/industry of operation on access to venture capital. Table 4.39 shows the results of the first level of the model and Table 4.40 shows the results for the second level of the model for the relationship between sector/industry and access to venture capital by small and medium enterprises.

**Table 4.39: SME Sector/Industry of Operation and Access to venture capital**

<table>
<thead>
<tr>
<th>Access to venture capital (1=Yes, otherwise 0)</th>
<th>Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-0.238</td>
</tr>
<tr>
<td></td>
<td>(-0.91)</td>
</tr>
<tr>
<td>Industry/sector of firm (1= Service, 0= Non-service)</td>
<td>1.058**</td>
</tr>
<tr>
<td></td>
<td>(3.00)</td>
</tr>
<tr>
<td>pseudo ( R^2 )</td>
<td>0.48</td>
</tr>
</tbody>
</table>

_t statistics in parentheses_

** p < 0.05

*Significant if t statistic value absolute -1.96 < negative coefficient or positive coefficients >1.96*

The results in Table 4.39 shows that the nature of the industry in which the SMEs are engaged in positively influences (\( \beta = 1.058 \)) its access to venture capital and explains 48 percent of the observed variations. The results clearly indicate that those in the service industry benefits more from venture capital as opposed to those in the non-service industry.
The study also looks at the influence of the sector/industry of operation in ease of access of venture capital. The results are in Table 4.40.

Table 4.40: Sector/Industry of Operation of the firm and the Level of Access to Venture Capital

<table>
<thead>
<tr>
<th>Dependent Variable: Access to venture capital</th>
<th>Not accessible</th>
<th>rarely accessible</th>
<th>fairly accessible</th>
<th>Easily accessible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-0.297</td>
<td>0.396</td>
<td>-0.0459</td>
<td>0.476</td>
</tr>
<tr>
<td></td>
<td>(-0.29)</td>
<td>(0.60)</td>
<td>(-0.12)</td>
<td>(0.85)</td>
</tr>
<tr>
<td>Industry sector of firm</td>
<td>-2.565**</td>
<td>-1.872**</td>
<td>-0.214</td>
<td>-1.466**</td>
</tr>
<tr>
<td></td>
<td>(-3.50)</td>
<td>(-3.49)</td>
<td>(-0.73)</td>
<td>(-3.24)</td>
</tr>
<tr>
<td>pseudo $R^2$</td>
<td>0.324</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

$t$ statistics in parentheses

** $p < 0.05$

Significant if $t$ statistic value absolute $-1.96 < \text{negative coefficient or positive coefficients} < 1.96$

From the results in Table 4.40, the study proffer that the industry a firm operates in is key in influencing access to venture capital and shows that there is a higher preference of ventures capitalists of service-based firms. This may to a great extent be supported by the fact that given the intense competition in the environment in which these SMEs operate in, and that quality is at the forefront they usually tend to call for specialized knowledge that would ultimate raise the quality of its services and consequently the demand of their products and services to the consumers.

This agrees with findings by Nkuah, Tanyeh, & Gaeten, (2013) which showed concentrated ownership, size and specific industry sector as the main characteristics of a firm has a
significantly positive relations between firm age-firm size-firm ownership and access to credits. Some financial activities such as business registration, documentation/recording, business planning, asset ownership and others that also impact heavily on SMEs access to bank credits. SMEs with fewer employees in service sector and sole proprietorship relates positively to access to credit from financial institutions. Location of a firm has no influence on access to credit.

4.6.4 Firm’s Age on Access to Venture Capital

The fourth objective of the study was to determine the effect of firm’s age on access to venture capital. On the nexus between a firm’s age and access to venture capital, the results are presented in Table 4.41 for first level of the model (logit model) and Table 4.41 for second level (nested multinomial logit model).

Table 4.41: Age of an SME and Access to venture capital

<table>
<thead>
<tr>
<th>Access to venture capital (1=Yes, otherwise 0)</th>
<th>Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-0.197</td>
</tr>
<tr>
<td></td>
<td>(-0.40)</td>
</tr>
<tr>
<td>Age of the firm</td>
<td>0.159</td>
</tr>
<tr>
<td></td>
<td>(1.22)</td>
</tr>
<tr>
<td>pseudo $R^2$</td>
<td>0.57</td>
</tr>
</tbody>
</table>

t statistics in parentheses

** $p< 0.05$

Significant if t statistic value absolute $-1.96 < \text{negative coefficient or positive coefficients} >1.96$

Table 4.41, shows the association between SMEs age and access to venture capital. Based on the results the study establishes that 57 percent of the variations in access to venture capital are explained by the variations in their age while in operations. In addition, the results show that the
effect of firm’s age on access to venture capital is positive ($\beta = 0.159$) though statistically not significant at 5 percent level of significance.

Results in Table 4.42 shows relationship between SMEs age and the ease of access of venture capital

**Table 4.42: Firm’s Age on Level of Access to Venture Capital**

<table>
<thead>
<tr>
<th>Dependent Variable: Access to Venture Capital</th>
<th>Not Accessible</th>
<th>Rarely Accessible</th>
<th>Fairly Accessible</th>
<th>Easily Accessible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>15.80</td>
<td>-0.583**</td>
<td>-0.0408</td>
<td>-0.385</td>
</tr>
<tr>
<td></td>
<td>(0.02)</td>
<td>(-2.46)</td>
<td>(-0.25)</td>
<td>(-1.92)</td>
</tr>
<tr>
<td>Age of the firm</td>
<td>-80.38</td>
<td>0.247</td>
<td>-0.0899</td>
<td>0.140</td>
</tr>
<tr>
<td></td>
<td>(-0.02)</td>
<td>(0.32)</td>
<td>(-0.15)</td>
<td>(0.20)</td>
</tr>
<tr>
<td>pseudo $R^2$</td>
<td>0.055</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

$t$ statistics in parentheses

**$^{* *}$ $p < 0.05$**

*Significant if $t$ statistic value absolute $-1.96 < negative coefficient or positive coefficients >1.96*

From the results presented in table 4.42, the study shows that there was no sufficient support for the effect of the firm’s age on access to capital and thus supporting the hypothesis that age does not have significant effect on venture capital by SMEs as was put forth in the first chapter of this study. With respect to the existing literature mixed findings on the effect of age is reported with those that assert that those that have a significant impact seeking backing on the fact that due to liabilities of newness they are funds constrained. A more nuanced perspective is offered by
Nkuah, Tanyeh, and Gaeten, (2013), Islam, Khan, Obaidullah and Alam, (2012) and Abdul saleh and Worthington (2013) where they present evidence that suggests that most there exists a positive relationship between firm age and access to credit. In other words, older firms are more likely to get funding capital for furtherance of their operations.

### 4.6.5 Mediating Effect of Firm’s Performance on Access to Venture Capital

The fifth objective of the study is to determine the mediating effect of firm’s performance on the relationship between entrepreneurial and firm characteristic and access to venture capital. Table 4.43 shows the results on ease of access of venture capital by SMEs.

<table>
<thead>
<tr>
<th>Step (1)</th>
<th>Step (2)</th>
<th>Step (3)</th>
<th>Step (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to venture capital</td>
<td>Firm performance</td>
<td>Access to venture capital</td>
<td>Access to venture capital</td>
</tr>
<tr>
<td>Constant</td>
<td>0.758</td>
<td>6.314**</td>
<td>-2.303**</td>
</tr>
<tr>
<td>(0.85)</td>
<td>(3.00)</td>
<td>(-4.39)</td>
<td>(0.34)</td>
</tr>
<tr>
<td>Firm &amp; entrepreneurial characteristics</td>
<td>-0.413</td>
<td>-3.546**</td>
<td>-0.681</td>
</tr>
<tr>
<td>(-1.28)</td>
<td>(-3.72)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firm Performance</td>
<td></td>
<td></td>
<td>0.260</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.39)</td>
</tr>
<tr>
<td>Firm performance</td>
<td></td>
<td></td>
<td>0.302</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(1.43)</td>
</tr>
<tr>
<td>Pseudo $R^2$</td>
<td>0.41</td>
<td>0.144</td>
<td>0.33</td>
</tr>
</tbody>
</table>

$t$ statistics in parentheses

**$p<0.05$

*Significant if $t$ statistic value absolute $-1.96 < negative coefficient or positive coefficients >1.96

From the results in Table 4.43, in step one, the influence of firm and entrepreneurial characteristics on firm performance is not significant ($R^2=.41$, $\beta=-0.413$, $p>0.05$). The first
mediation condition which states that the independent variable should be significantly related to the dependent variable in the absence of the mediating variable is thus not satisfied.

The results from the second step indicates that the firm and entrepreneurial characteristics on firm performance is significant ($R^2=.144, \beta=-3.546, p<0.05$), thus satisfying the second condition which states that the independent variable should be significantly related to the mediator variable. The third step results reveal that the access to venture capital on firm performance is not significant ($R^2=.33, \beta=0.260, p>0.05$), thus the third condition which states that the mediator variable should be significantly related to the dependent variable is not satisfied.

The last and fourth step results reveals that the influence of the independent variable (firm and entrepreneurial characteristics) on the dependent variable (access to venture capital) was not significant in the presence of the mediating variable, firm performance ($R^2=.27, \beta=-0.681, p<0.05$), and thus not satisfying the fourth condition which states that the effect of the independent variable on the dependent variable should be insignificant in the presence of the mediating variable. Since all the four conditions are not unanimously satisfied, the study did not find evidence of full mediation and therefore the hypothesized relationship that, firm performance does not have significant mediating effect on entrepreneurial and firm characteristics and access to venture capital is supported.

4.6.6 Overall Nested Multinomial Logit Model

An overall regression model was performed for all the independent variables before performing the test of moderation. Results are presented in Table 4.44.
Table 4.44: Regression Results for all the Independent Variables

<table>
<thead>
<tr>
<th></th>
<th>Coefficients</th>
<th>t-statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-0.982</td>
<td>-0.180</td>
</tr>
<tr>
<td>Entrepreneurial Innovation</td>
<td>0.435**</td>
<td>2.01</td>
</tr>
<tr>
<td>Managerial Competency (Education)</td>
<td>0.609**</td>
<td>2.55</td>
</tr>
<tr>
<td>firms sector/ industry of operation</td>
<td>1.98**</td>
<td>4.34</td>
</tr>
<tr>
<td>Firm age</td>
<td>0.03</td>
<td>1.21</td>
</tr>
<tr>
<td>pseudo $R^2$</td>
<td>0.62</td>
<td></td>
</tr>
</tbody>
</table>

** $p < 0.05$

*Significant if t statistic value absolute $-1.96 < \text{negative coefficient or positive coefficients} > 1.96*

Nested multinomial logit results before moderation suggest that firm explain 62 percent of the variations in ease of access to venture capital. On the influence of entrepreneurial innovation variable on ease of access to venture capital, the study establishes that being innovative matters. In particular, the more innovative a firm is the higher the probability of ease of accessing venture capital by 0.435 which is found to be statistically significant at 5 percent level of significance. The study establishes that managerial competency as assessed by the level of education that managers possess reveals that it has a positive effect ($\beta = 0.609$) which is significant at 5 percent level of significance as shown by the results in Table 4.44.

Further, the results in Table 4.44, shows that the industry in which the SMEs are engaged positively influences ($\beta = 1.98$) its ease of access to venture capital while firm age do not have any significant effect on the ease of access to venture capital. According to Deloitte (2009), venture capitalists mainly focus on; market attractiveness, product/service, the entrepreneur, the management team and financial considerations. Once the VCs are comfortable with the
screening, they negotiate the terms and condition of the investment with the entrepreneur, with the aim of controlling the corporate decisions and minimize the potential cost and risk (Ndabeni, 2014).

4.6.7 Moderating Effect of VC Risks Measure

The sixth objective of the study was to establish the moderating effect of VC risks measures on the relationship between entrepreneurial and firm characteristic and access to venture capital financing. Results are presented in Table 4.45.

Table 4.45: The Moderation Effect of VC Risks Measure

<table>
<thead>
<tr>
<th></th>
<th>Coefficients</th>
<th>t-statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-1.309</td>
<td>-1.16</td>
</tr>
<tr>
<td>Entrepreneurial Innovation</td>
<td>0.676**</td>
<td>2.76</td>
</tr>
<tr>
<td>Managerial Competency (Education)</td>
<td>0.708**</td>
<td>2.77</td>
</tr>
<tr>
<td>Firms sector/ industry of operation</td>
<td>-3.251</td>
<td>-1.50</td>
</tr>
<tr>
<td>Firm’s age</td>
<td>0.141</td>
<td>0.12</td>
</tr>
<tr>
<td>Entrepreneurial Innovation *VC risk measures</td>
<td>-19.40**</td>
<td>-2.92</td>
</tr>
<tr>
<td>Managerial Competency (Education) *VC risk measures</td>
<td>-12.70**</td>
<td>-2.60</td>
</tr>
<tr>
<td>Firms sector/ industry of operation *VC risk measures</td>
<td>105.2**</td>
<td>2.02</td>
</tr>
<tr>
<td>Firm’s age *VC risk measures</td>
<td>2.490</td>
<td>0.09</td>
</tr>
<tr>
<td>pseudo $R^2$</td>
<td>0.74</td>
<td></td>
</tr>
</tbody>
</table>

** $p < 0.05$

Significant if t statistic value absolute $-1.96 < \text{negative coefficient or positive coefficients} > 1.96$
From the results in Table 4.45, an examination of the whether VC risks measure moderate the relationship between entrepreneurial and firm characteristic on access to venture capital financing, the study establishes that 74 percent of the variations in access to venture capital is jointly explained by the factors that were entered into the model on moderation in particular, the results reveal that moderation effect exists. The R squared before moderation was 62 percent. Therefore, the R squared improved from the 62 percent to 74 percent after moderation. This implies that VC Risks Measure generally moderates the relationship between the entrepreneurs and firm characteristics and access to venture capital

The study found out that VC risk measures moderates the relationship between entrepreneurial innovativeness and access to Venture Capital since the coefficient value of the interacting term was significant (β=19.40, P<0.05). In addition, VC risk measures moderates the relationship managerial competency and access to Venture Capital since the coefficient value of the interacting term was significant (β=-12.70, P<0.05). Further the study found out that VC risk measures moderates the relationship firm’s sector/industry of operation and access to Venture Capital since the coefficient value of the interacting term was significant (β=105.2, P<0.05). While VC risk measures do not moderate the relationship firm’s age and access to Venture Capital since the coefficient value of the interacting term was insignificant (β=2.490, P>0.05).

This agrees with findings by Xiang et al., (2014) who studied the firm-level determinants and impacts of finance-seeking behavior and outcomes for small and medium-sized enterprises (SMEs) in Australia who established that not only does firm characteristics have the potential of influencing firm access to capital but also other factors such as organizational factors (ownership, firm size, firm age, employment, registration), operational factors (business goals,
financial objectives, operating assessment, planning, innovation or growth opportunities, and profitability) and market factors (primary markets for the firm’s output, imports, and exports) affect access to capital financing.

### 4.4.8 Moderating Effect of VC Risks Measure using a composite of Entrepreneurial and Firm Characteristics

A composite of entrepreneurial and firm characteristics was obtained in order to establish the moderating effect of VC risk measure on the relationship between entrepreneurial and firm characteristics and access to venture capital. Results are presented in Table 4.46.

| Table 4.46: The Moderation Effect of VC Risk Measure using the Composite of Entrepreneurial and Firm Characteristics |
|---------------------------------------------------------------|---------------------------------|------------------|
| Constant                                                     | Coefficients    | t-statistics     |
| Composite of Entrepreneurial & Firm characteristics           | -1.407           | -1.34            |
| VC Risk Measure                                               | -4.234           | -1.99            |
| Composite of Entrepreneurial & Firm characteristics *VC risk measure | 87.61**          | 2.73             |
| pseudo $R^2$                                                  |                  | ** p < 0.05      |

**Significant if t statistic value absolute -1.96 < negative coefficient or positive coefficients >1.96**

From the results in Table 4.46, the study found out that VC risk measures moderates the relationship between the composite of entrepreneurial and firm characteristics and access to venture capital($\beta=87.61$, $P<0.05$). This finding is consistent with that of Islam, Khan,
Obaidullah and Alam, (2012) who examined the effect of Entrepreneur and Firm Characteristics on the Business Success of Small and Medium Enterprises (SMEs) in Bangladesh that characteristics of entrepreneur are significant factor for business success of SMEs in Bangladesh. In addition, it agrees with the findings of Abdul and Worthington(2013) who examined the effects of the characteristics of both SMEs and their owner-managers on the financing methods chosen and found out that entrepreneurial and firm characteristics are important in determining the source of capital.
4.7 Summary of Research Hypotheses

The summary results of the hypotheses are presented in Table 4.47.

Table 4.47: Summary of Hypotheses

<table>
<thead>
<tr>
<th>Objective No</th>
<th>Objective</th>
<th>Hypotheses</th>
<th>Rule</th>
<th>p-value</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective One</td>
<td>To determine the effect of entrepreneur’s innovativeness on access to venture capital by selected SMEs in Nairobi, Kenya.</td>
<td>$H_0$: Entrepreneur’s innovative strategies do not have significant effect on access to venture capital by the selected SMEs in Nairobi Kenya.</td>
<td>Reject $H_0$ if p value $&lt;0.05$</td>
<td>$p&lt;0.05$</td>
<td>The null hypothesis was rejected; therefore, an entrepreneur’s innovative strategies have significant effect on access to venture capital financing.</td>
</tr>
<tr>
<td>Objective Two</td>
<td>To establish the effect of entrepreneur’s managerial competency on access to venture capital by selected SMEs in Nairobi Kenya.</td>
<td>$H_0$: Entrepreneur’s managerial competency does not have significant effect on access to venture capital by the selected SMEs in Nairobi Kenya.</td>
<td>Reject $H_0$ if p value $&lt;0.05$</td>
<td>$p&lt;0.05$</td>
<td>The null hypothesis was rejected; therefore, an entrepreneur’s managerial competencies have significant effect on access to venture capital financing.</td>
</tr>
<tr>
<td>Objective Three</td>
<td>To determine the effect of firm’s sector/industry of operation on access to venture capital by the selected SMEs</td>
<td>$H_0$: Firm’s sector/industry of operation does not have significant effect on access to venture capital by the selected</td>
<td>Reject $H_0$ if p value $&lt;0.05$</td>
<td>$p&lt;0.05$</td>
<td>The null hypothesis was rejected; therefore, firm’s sector/industry of operation have significant effect on access to venture capital financing.</td>
</tr>
<tr>
<td>Objective No</td>
<td>Objective</td>
<td>Hypotheses</td>
<td>Rule</td>
<td>p-value</td>
<td>Comment</td>
</tr>
<tr>
<td>--------------</td>
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<td>---------</td>
</tr>
<tr>
<td>1</td>
<td>in Nairobi Kenya.</td>
<td>SMEs in Nairobi Kenya.</td>
<td>Reject $H_0$ if p value $&lt;0.05$</td>
<td>p$&gt;0.05$</td>
<td>The null hypothesis was not rejected; therefore, a firm’s age does not have significant effect on venture capital by the selected SMEs in Nairobi Kenya.</td>
</tr>
<tr>
<td>4</td>
<td>To establish the effect of form of firm’s age on access to venture capital by the selected SMEs in Nairobi Kenya.</td>
<td>$H_0$: Firm’s age does not have significant effect on venture capital by the selected SMEs in Nairobi Kenya.</td>
<td>Reject $H_0$ if p value $&lt;0.05$</td>
<td>p$&gt;0.05$</td>
<td>The null hypothesis was not rejected; therefore, a firm’s age does not have significant effect on venture capital by the selected SMEs in Nairobi Kenya.</td>
</tr>
<tr>
<td>5</td>
<td>To determine the mediating effect of firm’s performance on the relationship between entrepreneurial and firm characteristic and access to venture capital financing by selected SMEs in Kenya</td>
<td>$H_0$: Firm performance does not have significant mediating effect on entrepreneurial and firm characteristics and access to venture capital by selected SMEs in Nairobi Kenya.</td>
<td>Reject $H_0$ if p value $&lt;0.05$</td>
<td>P$&lt;0.05$</td>
<td>The null hypothesis was rejected; therefore, firm performance does not have significant mediating effect on entrepreneurial and firm characteristics and access to venture capital by selected SMEs in Nairobi Kenya.</td>
</tr>
<tr>
<td>6</td>
<td>To determine the moderating effect of VC risks measures on the relationship between entrepreneurial and firm characteristic and access to</td>
<td>$H_0$: VC risk measures does not have significant moderating effect on entrepreneurial and firm characteristics and access to venture capital by selected SMEs</td>
<td>Reject $H_0$ if p value $&lt;0.05$</td>
<td>P$&lt;0.05$ satisfied</td>
<td>The null hypothesis was rejected; therefore, there exists a moderating effect of VC risks measures on the relationship between</td>
</tr>
<tr>
<td>Objective No</td>
<td>Objective</td>
<td>Hypotheses</td>
<td>Rule</td>
<td>p-value</td>
<td>Comment</td>
</tr>
<tr>
<td>-------------</td>
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<td>---------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>venture capital financing by SMEs in Kenya.</td>
<td>in Nairobi Kenya.</td>
<td></td>
<td></td>
<td>entrepreneurial and firm characteristic and access to venture capital financing.</td>
</tr>
</tbody>
</table>
CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This study investigated the effect of entrepreneurial and firm characteristics on access to venture capital financing by selected SMEs in Nairobi, Kenya. The entrepreneurial and firm characteristics that were studied are; entrepreneur’s innovativeness, entrepreneur’s managerial competency, firm’s sector/industry of operation, firm’s age, firm’s performance and VC risks measures. On access to venture capital two measures that were studied was on access to venture capital and the ease of access to venture capital. The study also had one moderating variables which is VC risks measures and one mediating variable which is financial performance. This chapter summarizes the findings of the study and makes conclusions upon which recommendations are drawn. Suggestions for further study are also addressed as a way of filling the gaps identified in the study. The study pursued six objectives and six hypotheses upon which conclusions are aligned to.

5.2 Summary of research Findings

Evidence from previous studies on the key factors influencing access to venture capital in Kenya are scarce whereas those that existed in other regions showed that there were mixed results based on the operating environment. In Kenya, the use of venture capital financing has been on the rise and thus a subject worth further interrogation in a bid to establish the most influential factors of characteristics of a firm that is expected to be correlated with access to venture capital.

Reliability of the questionnaires were tested using the Cronbach alpha correlation coefficient in through statistical package for social sciences (SPSS) and the results revealed that the instrument
was reliable. Regression diagnostic tests revealed that all the assumptions of regression were satisfied. The following sections presents the findings of the study along the objectives set out in chapter one of the thesis.

**5.2.1 Entrepreneur’s Innovativeness and Access to Venture Capital**

The first objective of the study was set to establish the effect of entrepreneur’s innovativeness on access to venture capital. The findings revealed that most innovative SMEs are more likely to access venture capital as opposed to non-innovative SMEs and thus the hypothesis that an entrepreneur’s innovativeness does not influence access to venture capital is rejected at 5 percent level of significance. This finding is supported by the coefficient of determination which shows that the variations in access to venture capital financing are explained by the extent of an entrepreneur’s innovativeness. The influence of an entrepreneur’s innovativeness on access to venture capital financing is also statistically significant and hence the hypothesis that an entrepreneur’s innovative does not have significant effect on access to venture capital is rejected in favor of the alternate hypothesis.

**5.2.2 Entrepreneur’s Managerial Competency and Access to Venture Capital**

The second objective of the study sought to establish the effect of entrepreneur’s managerial competency on access to venture capital by selected SMEs in Nairobi Kenya. Results revealed that managerial competency had positive influence access to venture capital financing among SMEs in Kenya which is supported by the coefficient of determination which shows that managerial competency influences access to venture capital financing. The test for significance also showed that the influence was statistically significant and hence the hypothesis put forth in
chapter one that an entrepreneur’s managerial competency does not have significant effect on access to venture capital is refuted.

5.2.3 Firm’s Sector/Industry of Operation and Access to Venture Capital

The third objective of the study was to determine the effect of firm’s sector/industry of operation on access to venture capital by the selected SMEs in Nairobi Kenya. The regression results clearly indicated that those in the service industry benefits more from venture capital as opposed to those in the non-service industry. Equally, the analysis produced a coefficient of determination which showed the percentage of variations in access to venture capital financing was explained by firm’s sector/industry of operation. The significance test also showed that influence of a firm’s sector/industry of operation on access to venture capital was statistically significant and hence the alternate hypothesis of the existence of a relationship between access to venture capital financing and a firm’s sector/industry of operation was accepted.

5.2.4 Firm’s Age and Access to Venture Capital

The fourth objective sought to establish the effect of form of firm’s age on access to venture capital by the selected SMEs in Nairobi Kenya. The results showed that the effect of age has an effect on access to venture capital financing. This finding is further supported by regression results which showed that firm’s age has a positive though statistically insignificant influence on access to venture capital financing and thus a firm’s age does not have significant effect on venture capital by the selected SMEs in Nairobi Kenya is supported at least empirically.
5.2.5 Mediating Effect of Firm Performance on the relationship between entrepreneurial and firm characteristics on Access to VC

The fifth objective of the study sought to establish mediating effect of firm’s performance on the relationship between entrepreneurial and firm characteristic and access to venture capital financing. The study revealed that there was no mediating relationship exists between a firm’s performance on the relationship between entrepreneurial and firm characteristic and access to venture capital financing. Hence the fifth hypothesis (H05) which states that firm performance does not have significant mediating effect on entrepreneurial and firm characteristics and access to venture capital by selected SMEs in Nairobi Kenya was supported and so was not rejected.

5.2.6 Moderating Effect of VC Risks Measures on the relationship between entrepreneurial and firm’s characteristics on Access to VC

The sixth objective of the study sought to establish the moderating effect of VC risks measures on the relationship between entrepreneurial and firm characteristic and access to venture capital financing. The regression results clearly indicated that there exists a moderating relationship between entrepreneurial and firm characteristic and access to venture capital financing with the moderation being observed on managerial competency and entrepreneur’s innovativeness. Similarly, the results reveal that 74 percent of the variations in access to venture capital is jointly explained by the factors that enter into the model on moderation in particular; the results reveal that moderation effect exists.
5.3 Conclusion

The main purpose of this study was to empirically investigate the effect of entrepreneurial and firm characteristics on access to venture capital financing. The first objective of the study was to establish the effect of entrepreneur’s innovativeness on access to venture capital financing. From this objective, it was hypothesized that an entrepreneur’s innovative strategies do not have significant effect on access to venture capital financing. The results showed that an entrepreneur’s innovativeness has a positive and statistically significant effect on access to venture capital financing and thus it can be concluded that entrepreneur’s innovativeness has a positive and statistically significant effect on access to venture capital financing.

The second objective of the study was to determine effect of entrepreneur’s managerial competency on access to venture capital by selected SMEs in Nairobi Kenya. From this objective, it was hypothesized that an entrepreneur’s managerial competency does not have significant effect on access to venture capital and based on the results the hypothesis is not supported and thus conclude that managerial competency is a significant predictor on access to venture capital.

The third objective of the study was to determine the effect of the firm’s industry of operation on access to venture capital and shows that there is a higher preference of ventures capitalists of service-based firms. This may to a great extent be supported by the fact that given the intense competition in the environment in which these SMEs operate in, and that quality is at the forefront they usually tend to call for specialized knowledge that would ultimate raise the quality of its services and consequently the palability of their products and services to the consumers.
Fourth objective of the study was to establish the effect of the firm’s age on access to venture capital. The study found out that though the effect of age on access to venture capital is positive, it is not statistically significant at 5 percent level of significance and hence no sufficient support for the effect of an SMEs age on access to capital and thus supporting the hypothesis that age does not have significant effect on venture capital by SMEs as was put forth in the first chapter of this study.

Fifth objective was hypothesized that the firm performance does not have significant mediating effect on entrepreneurial and firm characteristics and access to venture capital and the results supports this hypothesis and thus the conclusion was made that firm performance does not mediate the effect on entrepreneurial and firm characteristics on access to venture capital. Finally, on examining the moderating role of VC risks measures on the relationship between entrepreneurial and firm characteristic on access to venture capital financing the conclusion was made that, moderation effect exists and particularly with reference to managerial competency and entrepreneur’s innovativeness.

5.4 Contribution of the study to the body of knowledge

The purpose of this study was to investigate the effect of entrepreneurial and firm characteristics on access to venture capital financing by selected SMEs in Nairobi. This study contributes to understanding the relationship between entrepreneurial and firm characteristics and access to venture capital financing. The findings of the study confirm the findings of the previous studies that have found significant relationship between entrepreneur’s innovativeness, entrepreneur’s managerial competency, firm’s industry of operation, firm performance, VC risks measures and access to venture capital financing.
The study supports the applicability of the agency theory, pecking order theory, social network theory and life-cycle theory in explaining the financing decisions of SMEs. This is also supported by the previous studies, for example, according to Gregory, Rutherford, Oswald, & Gardiner, (2005) financing choices and needs of a firm change as a firm grows, gains more experience and becomes more transparent. SMEs carry high information costs especially those with a relatively short history in the market (Mac an Bhaird & Lucey, 2011). SMEs stick to the pecking order theory of financing due to the desire of the owner-manager to maintain independence and retain control of the firm. Entrepreneurs well embedded in networks can gain advantages and valuable external resources in a timely manner that can help the entrepreneur to overcome the liabilities of newness problems.

5.5 Recommendations

From the findings, a number of recommendations for both practice and policy can be made. Recommendations were made based on the significant variables. The significant variables under this study were entrepreneur’s innovativeness, managerial competency and industry of operation.

5.5.1 Recommendations for Practice

SMEs should continue investing in enhancing entrepreneurial innovativeness as it increases the propensity of their enterprises from accessing venture capital financing. A firm that attracts venture capital fund, is capable of attracting any other source of funding; equity or debt. As such SMEs should focus on improving their business processes to increase efficiency and productivity, or to enable the business to extend the range or quality of existing products and/or services.
Secondly, given that managerial competency positively affects SMEs access of venture capital financing, firms should invest in human capital of their management through various strategies. For instance, investing in training gives employees the opportunity to develop new skills and accumulate the knowledge they need in order to achieve specific organizational and personal goals with the priority being to train managers so that they can be able to cope with the challenges which hinder business success.

Further, since the study found out that SMEs’ innovativeness, sector, experience and performance play a greater role on the access of the VC, the study recommends for the VCs to carry out a thorough screening process for the SMEs before giving out funds. Once the VCs are comfortable with the screening, they negotiate the terms and condition of the investment with the entrepreneur, with the aim of controlling the corporate decisions and minimize the potential cost and risk.

The study also recommends for the VCs to that before funding an enterprise, the following must be conducted; the innovativeness of the SMEs, the quality of the business plan, basic concept of the project, track record of entrepreneur, the management team, the characteristics of the product, market or technology among others. This will reduce issues of information asymmetry.

**5.5.2 Recommendations for Policy**

Recommendations for policy were made based on the significant variables. The significant variables under study were entrepreneur’s innovativeness, managerial competency and industry of operation. In Kenya 90 percent of all enterprises are SMEs providing employment to over 60 percent of the total employed population. SMEs are reported to employ an estimated 2.4 million people and the sector contribution to GPD is estimated at 18.4 percent. Therefore, given
the high contribution of SMEs to the economy, the government and policy makers should come up with policies regarding provision of various types of assistance such as; financial assistance, training and extension services and pre-constructed commercial shades to SMEs so as to boost their performance.

The study found out that entrepreneur’s innovativeness has a positive and significant effect on the access to venture capital. Therefore, the study recommends for the government to come up with policies that supports entrepreneur’s innovativeness. These policies include provision of incentives that encourages innovation among the small and medium enterprises’ owners.

Similarly, the study found out that entrepreneur’s managerial competency has a positive and significant effect on the access to venture capital. Therefore, the study recommends for the owners of the SME’s to strive hard to make use of the policies concerning the SME’s development by collaborating with the government and other stakeholders whenever possible especially in education and training which are essential for success of any business. From this study, it is evident that managerial competencies will have a major impact to SME’s in Kenya. Therefore, it is crucial for the government of Kenya to take note of the challenges hampering SME’s calling for the need to enhance education and training for SME’s.

The study recommends for the VCs to come up with policies like convertible securities which have the ability to mitigate the agency problem effects by leaving the owner–manager with some control during the investment period. In addition, the study recommends for syndication and this will help VCs in reducing the problems associated with adverse selection through the participation of a co-investor sharing the investment risk. VCs need to come up with policies that give certain percentage of requested funds based on the perceived potential of the SME.
Lastly, regression results clearly indicated that those in the service industry benefits more from venture capital as opposed to those in the non-service industry. Therefore, the study recommends for the government to step in and support the non-service industry since they were found not to be accessing to venture capital as much as their counterparts. The government may provide support through the provision of cheap loans like Uwezo funds.

5.6 Limitations of the Study

There was a problem of respondents failing to disclose some information considered confidential; however, researcher mitigated this by assuring respondents confidentiality of the information provided. Further, there was difficulty in gauging the objectivity of the respondents in responding to the research instruments especially owing to the information sought by the study because some of the managers delegated their juniors as respondents. These limitations were overcome by obtaining official consent to carry out this study among the sampled SMEs and the venture capital firms and assuring the respondents that confidentiality would be maintained and the information used for academic purposes only.

Locating the SMEs physically during data collection was not easy but the researcher obtained a list of the SMEs from KPMG for their easy location. The top 100 SMEs are only those that have provided their statements to KPMG and successfully ranked among the best 100 SMEs. Also, there was difficulty in gaining access to the sampled respondents because they were busy and also suspicious of the intention of information to be given. To mitigate this, the researcher booked appointments in good time at the convenience of these owners/managers and enhance a rapport with the respondents to break the ice and assure them of the information being strictly for academic reasons.
5.7 Suggestion for further research

In this section, suggestions for further research in areas related to this study are given. In future, it is recommended that research may be conducted to address the limitations of this study. This study considered only the small and medium enterprises in Kenya. Future researchers may consider carrying out a similar study and focusing on large sectors for example manufacturing firms so as to assess any variation in responses. It would be interesting to explore how the results obtained when the methods applied in this study are applied in other contexts for example in other countries at higher or lower stages of development. Furthermore, it would be worthwhile establishing the extent to which the findings of this study are generalizable to other industries, sectors or settings.
REFERENCES


Warma, J. (2010). Venture Capital Investment on SME. Lappeenranta University of Technology Retrieved


APPENDICES

Appendix I: Introductory Letter

REF: REQUEST TO CARRY OUT STUDY IN YOUR INSTITUTION

I am a student pursuing a Degree in Doctor of Philosophy in Finance of Kenyatta University. I am carrying out a study on “Effects of Entrepreneurial and Firm Characteristics on Access to Venture Capital by Selected Small and Medium Enterprises in Nairobi, Kenya”. I request you to allow me to carry out the study in your institution. A copy of the final report will be made available to you at your request. The respondents’ identity will be kept confidential and information gathered will be used for academic purpose only. Your assistance will be highly appreciated.

Thank you in advance.

Bancy Muchira
Appendix II: Questionnaire for Entrepreneurs

The purpose of this questionnaire is to gather information about firm and entrepreneurial characteristics and how these influence access to venture capital financing in your business. The information you give will be used only for the purpose of this research and will be treated confidentially. Please give your answer with confidence. Kindly tick in the given box or indicate your answer in the provided space.

SECTION A

Entrepreneurial characteristics

(1a). kindly indicate your position in this firm?
   Owner [ ] Finance Manager [ ] Both [ ]

(b). If you are the owner how long have you owned and this firm?
   0-4 years [ ] 5-9 years [ ] 10-14 years [ ] 15-19 years [ ] 20 years and above [ ]

(c). If manager, how many year have you served in this position?
   0-4 years [ ] 5-9 years [ ] 10-14 years [ ] 15-19 years [ ] 20 years and above [ ]

(d). If both manager and owner, had you worked in another firm before?
   Yes [ ] No [ ]

(e) If yes, for how long?
   0-4 years [ ] 5-9 years [ ] 10-14 years [ ] 15-19 years [ ] 20 years and above [ ]

(2a). Please indicate your highest academic qualification. (Tick appropriately)
   Primary Certificate [ ] Secondary Certificate [ ] Post-secondary [ ]

(2b). Are you a member of any professional body?
   Yes [ ] No [ ]

2c). If yes, which body……………………………………

3a) Please tick appropriately, your source of expertise or the source of managerial skills
(5) Strongly Agree (4) Agree (3) Neutral (2) Disagree (1) strongly disagree

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<td>Trial and error/Risk taking</td>
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<tr>
<td>Education and training</td>
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<tr>
<td>Operating family business</td>
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<tr>
<td>Participation in trade fair and exhibition</td>
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</table>

4a) Over the past five years, have you introduced new products or significantly improved product into the market

   Yes [ ]   No [ ]

(b) If yes, please indicate the number of these products

   Between 1-3 [ ]   Between 4-6 [ ]   More than 6 [ ]

5a) Over the past five years, have you introduced new process or significantly improved process into the market

   Yes [ ]   No [ ]

b) If yes, please indicate the number of these processes

   Between 1-3 [ ]   Between 4-6 [ ]   More than 6 [ ]

6a) Kindly rank the following innovativeness you apply in your business

   (5) Always (4) Mostly (3) Sometimes (2) Rarely (1) Not at all

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<td>New product development</td>
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<td>New Service development</td>
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<tr>
<td>New process development</td>
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</table>
b) Please rank the following statements in order of their importance to your business

(5) Very important (4) Important (3) Less important (2) Not important (1) Not sure

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<tr>
<td>Online marketing</td>
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<td>Door step delivery</td>
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<tr>
<td>Feedback from customers to help improve on our product and process</td>
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<td>Functional research and development department</td>
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SECTION B

Firm characteristics

(7a). For how many years has your firm been in operation

Less than one year [ ] 1-5 years [ ] 6-10 years [ ] 11-15 years [ ] over 15 years [ ]

(b) Over the years, has your source of capital changed?

Yes ( ) No ( )

8) During the startup and growth of the business, please rank the sources of finance for your business

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<tr>
<td>Government sponsored program</td>
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<tr>
<td>Personal savings</td>
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<tr>
<td>Friends and relatives</td>
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<td>Bank loans</td>
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<tr>
<td>Venture capital</td>
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(8b). Over the years in operation, please rank following sources of finance in order of importance
(5) Extremely important (4) important (3) Less important (2) Not important (1) none

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<td>Government sponsored program</td>
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<td>Personal savings</td>
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<td>Friends and relatives</td>
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<tr>
<td>Bank loans</td>
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<tr>
<td>Venture capital</td>
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<tr>
<td>Any other</td>
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9a) Over the years in operation, would you say your business has become stable in the market?
Yes [ ] No [ ]
b) If no, give reason………………………………………………………………………………

10) What is your market output?
Tangible goods [ ] Intangible goods [ ] Both

11) In your sector/industry, how would rate the market competitiveness
Extremely competitive [ ] relatively competitive [ ] competitive [ ] Less competitive [ ] not competitive [ ]

12) In your industry/sector, how would you rate the market attractiveness to potential funders?
Extremely attractive [ ] Relatively attractive [ ] Attractive [ ] Less attractive [ ] Not attractive [ ]

**FIRMS PERFORMANCE**

13a). On average, what is your annual net income per annum in Kenyan shillings
Less than 500,000 [ ] 500,000-1M [ ] 1M-1.5M [ ] 2M-2.5M [ ] Over 2.5M [ ]

13b). What was your total equity at the beginning of your last financial year? --------------
(b). what was your total equity at the end of your last financial year? ------------- ------

14a). What was your total asset at the beginning of the last financial year? --------------------------
14b). What was your total asset at the end of the last financial year? --------------------------

**VC RISK MEASURES**

15) Your firm is funded by how many venture capital firms?
    One [ ] Two [ ] Three [ ] More than three [ ]

15b). If funded by more than one VC, give reasons …………………………………………

142
16a). How was your firm funded by the venture capitalist?

   Upfront [    ] in stages [    ]

16b). Was that your preferred way? Yes ( )   No ( )

   (5) Strongly Agree (4) Agree (3) Neutral (2) Disagree (1) strongly disagree

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<tbody>
<tr>
<td>It is difficult task to convincing investors to take risks by investing in business</td>
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<tr>
<td>I take on an enormous amount of risk when investing in a startup</td>
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<tr>
<td>Startups or small businesses usually make very little or no sales at inception</td>
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<tr>
<td>Venture capital investments require a lot of risk management techniques</td>
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<tr>
<td>A lot of investors put their money into the venture capital fund and on this notion they become limited partners in the fund.</td>
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<td>Measuring the risks involved in investing in venture capital funds can be cumbersome</td>
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SECTION C

Access to VC

(17). Does your firm aim to be funded by Venture capitalists?

   Yes [ ] No [ ]

(18a) has your firm ever used venture capital since start up? (Tick appropriately)

   Yes [ ] No [ ]

(bi). If your answer is yes, please indicate the proportion of venture capital received to your total funds requested for. (Tick appropriately)

   Between 1percent – 33 percent [ ] Between 34percent - 66percent [ ] Between 67percent - 100 percent [ ]

(c) If your answer in (a) is no, what are the possible reasons for not using VC? (Tick appropriately)

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<tr>
<td>Not aware of their existence</td>
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<td>Fear of losing control of my business</td>
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<tr>
<td>I cannot meet their requirements</td>
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<tr>
<td>I do not need their funds</td>
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</table>

(19). If you have sourced finance from venture capitalists, please tick appropriately

a. Information on venture capitalists
   - Very available [ ] Fairly available [ ] rarely available [ ] Not available [ ] Not aware [ ]

b. Accessibility of venture capitalists
   - Easily accessible [ ] fairly accessible [ ] rarely accessible [ ] Not accessible [ ] Not aware [ ]

THANK YOU FOR YOUR PARTICIPATION IN THIS STUDY
Appendix III: Questionnaire for venture capital firms

The purpose of this questionnaire is to gather some information about firm and entrepreneurial characteristics and how these influence access to venture capital financing by SMEs. The information you give will be used only for the purpose of this research and will be treated confidentially. Please give your answer with confidence. Kindly tick in the given box or indicate your answer in the provided space.

Section A: Entrepreneurial Characteristics

(1a). kindly indicate your position in this firm?
   Owner [ ] Manager [ ] Both [ ]

(b). If owner, how long have you owned and managed this firm?
   0-4 years [ ] 5-9 years [ ] 10-14 years [ ] 15-19 years [ ] 20 years and more [ ]

(c). If manager, how many years have you served in this position?
   0-4 years [ ] 5-9 years [ ] 10-14 years [ ] 15-19 years [ ] 20 years and more [ ]

2a). Does your firm currently have SMEs clients?
   Yes [ ] No [ ]

(b i) If yes, how many SMEs have you funded in the last 5 years?
   1-3 [ ] 4-7 [ ] 8 and over [ ]

b ii) in which form do you hold your capital contribution in those SMEs?
   Convertible securities [ ] Assets [ ] cash [ ] any other……
   Please give reasons………………………………………………

b iii). How did you provide funds to the SMEs?
   Upfront [ ] in stages [ ]
   Please give reasons………………………………………………

(3). Please rank the following in the order of their importance when funding SMEs
   (5) Very important (4) important (3) less important (2) Not important (1) neutral

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<td>Owner/manager level of academic qualifications</td>
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<tr>
<td>Owner/manager level of professional qualification</td>
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<tr>
<td>Owner/manager relevant experience</td>
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(4). Please indicate the highest academic qualification of an entrepreneur that you prefer. (Tick appropriately)
KCPE Certificate [ ] KCSE Certificate [ ] Post-secondary [ ] Not important [ ]

(5). Please indicate the highest professional qualification of an entrepreneur that you prefer. (Tick appropriately)
Certificate [ ] Diploma [ ] Degree [ ] Master Degree [ ] PhD [ ] Not important [ ]

(6a). Do you consider the experience of the entrepreneur when funding a firm?
Yes [ ] No [ ]

(6b) If yes, how many years? Kindly tick appropriately
0-4 years [ ] 5-9 years [ ] 10-14 years [ ] 15-19 years [ ] 20 years and above

(7) Please rank the following in the order of importance when funding SMEs
(5) Very important (4) important (3) less important (2) Not important (1) neutral

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<tr>
<td>The owner’s innovativeness</td>
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<tr>
<td>The owner’s managerial competence</td>
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<td>The firm’s age</td>
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<td>The firm’s industry/sector of operation</td>
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(8). To what extent do you agree with the following statements? 1

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<tr>
<td>We prefer entrepreneurs who have introduced new products into the market in the past 5 years?</td>
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<tr>
<td>We prefer entrepreneurs who have introduced improved products in the market for the past 5 years</td>
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<tr>
<td>We prefer entrepreneurs who over the past five years have applied new technologies in their production process?</td>
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</table>

8b) Please indicate the number of preferred new products.
Between 1 – 3 products ( ) Between 4 - 6 products ( ) More than 6 products ( ) NA ( )

8c) Please indicate the number of preferred improved product in the market.
Between 1 – 3 products ( ) Between 4 - 6 products ( ) More than 6 products ( ) NA ( )

8d) Please indicate the number of preferred technologies.
Between 1 – 3 ( ) Between 4 - 6 ( ) More than 6 ( )

11) Is firm performance a key consideration in funding a venture?
Yes [ ] No [ ]

11 b) On average, what annual net income per annum do you consider when funding SMEs?
12) Does your firm have a sector/industry specific focus in dealing with SMEs?
   Yes [ ] No [ ]

2) If yes, which is your preferred industry? (Indicate in order of preference)

13) Which are your risk measures when funding SMEs?  

15a) Have you ever been approached by SMEs for funding (Tick appropriately)
   Yes [ ] No [ ]

b). If Yes, among the applicants, what percentage of total applications did you fund (Tick appropriately)
   None [ ] Between 1 percent – 33 per cent [ ] Between 34 percent - 66 per cent [ ] Between 67 percent - 100 percent [ ]

d) If none give reasons-------------------------------------------------------------------------------------------------------------------------------------
---------------------------------------------------------------------------------------------------

Thank you
Appendix IV: Research Authorization

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Ref No: NACOSTI/P/18/64688/22287
Date: 25th April, 2018

Hanie Wawira Muchira
Kenya University
P.O. Box: 43844-00100
NAIROBI

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on “Effects of entrepreneurial and firm characteristics on access to venture capital by selected small and medium enterprises in Nairobi City, Kenya” I am pleased to inform you that you have been authorized to undertake research in Nairobi County for the period ending 23rd April, 2019.

You are advised to report to the County Commissioner and the County Director of Education, Nairobi County before embarking on the research project.

Kindly note that, as an applicant who has been licensed under the Science, Technology and Innovation Act, 2013 to conduct research in Kenya, you shall deposit a copy of the final research report to the Commission within one year of completion. The soft copy of the same should be submitted through the Online Research Information System.

DR. STEPHEN K. KIBIRU, PHD.
FOR: DIRECTOR-GENERAL/CEO

Copy to:

The County Commissioner
Nairobi County.

The County Director of Education
Nairobi County.
Appendix V: Research Clearance Permit

CONDITIONS
1. The License is valid for the proposed research, research site specified period.
2. Both the Licence and any rights thereunder are non-transferable.
3. Upon request of the Commission, the Licensee shall submit a progress report.
4. The Licensee shall report to the County Director of Education and County Governor in the area of research before commencement of the research.
5. Excavation, filming and collection of specimens are subject to further permissions from relevant Government agencies.
6. This Licence does not give authority to transfer research materials.
7. The Licensee shall submit two (2) hard copies and upload a soft copy of their final report.
8. The Commission reserves the right to modify the conditions of this Licence including its cancellation without prior notice.

Republic of Kenya

NACOSTI

National Commission for Science, Technology and Innovation

RESEARCH CLEARANCE PERMIT

Serial No.A 18397

CONDITIONS: see back page
Appendix VI: Research Permit

THIS IS TO CERTIFY THAT:
MISS. BANCY WAWIRA MUCHIRA
of KENYATTA UNIVERSITY, 43844-100
NAIROBI, has been permitted to conduct
research in Nairobi County

Permit No: NACOSTI/P/18/64688/22287
Date Of Issue: 25th April, 2018
Fee Received: Ksh 2000

on the topic: EFFECTS OF
ENTREPRENEURIAL AND FIRM
CHARACTERISTICS ON ACCESS TO
VENTURE CAPITAL BY SELECTED SMALL
AND MEDIUM ENTERPRISES IN NAIROBI
CITY, KENYA

for the period ending:
23rd April, 2019

.................................
Applicant's
Signature

.................................
Director General
National Commission for Science,
Technology & Innovation