

**NETWORKING CAPABILITIES, ENTREPRENEURIAL COMPETENCIES,  
SELF-EFFICACY AND PERFORMANCE OF SMALL AND MEDIUM  
ENTERPRISES IN NORTH RIFT REGION-KENYA**

**BY**

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**A RESEARCH THESIS SUBMITTED TO THE SCHOOL OF BUSINESS AND  
ECONOMICS, DEPARTMENT OF MANAGEMENT SCIENCE IN PARTIAL  
FULFILLMENT FOR THE REQUIREMENTS OF THE AWARD OF THE  
DEGREE OF DOCTOR OF PHILOSOPHY IN  
BUSINESS MANAGEMENT**

**MOI UNIVERSITY**

**2024**

## DECLARATION

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## **DEDICATION**

Many people have contributed towards the completion of my thesis. I am deeply honoured to have known all of them academically, personally and professionally. However, I would like to first and foremost dedicate my thesis to my dear spouse, children, late father and my mother who have supported and motivated me towards the success of my academic and professional journey with their deepest love, care and affection.

## **ACKNOWLEDGEMENT**

I want to first acknowledge the Almighty God who has given me the strength and wisdom to undertake this noble course. I wish to acknowledge various scholarly contributions; first from my most able supervisors Prof. Michael Korir and Prof. Ronald Bonuke of Moi University, for having confidence in my capabilities, guiding me through the process of preparing this thesis, the critical review, moral support and direction; whose scholarly guidance in terms of knowledge and skills led me to the completion of this research thesis. My sincere gratitude also goes to my fellow doctoral students for their tremendous support and encouragement and in the sharing of some of their resources that aided me in the completion of this research thesis.

## ABSTRACT

Small and Medium Enterprises are generally thought to be the backbone of any economy because they drive growth, provide employment opportunities and open new markets. This has attracted the attention of scholars in trying to understand the factors affecting their performance. The main objective of the study was to examine effect of networking capabilities, entrepreneurial competencies, and Self-Efficacy on the performance of Small and Medium Enterprises in selected towns of the North Rift Region -Kenya. Specific objectives were to determine; the effect of networking capabilities, entrepreneurial competencies, and entrepreneurial Self-Efficacy on performance of Small and Medium Enterprise, to determine the; effect of networking capabilities on entrepreneurial competencies, the mediating effect of entrepreneurial competencies on the relationship between networking capabilities and firm performance, the moderating effect of entrepreneurial Self-Efficacy on the relationship between; networking capabilities and entrepreneurial competencies, networking capabilities and firm performance, entrepreneurial competencies and firm performance. Finally, the study sought to determine the moderating effect of entrepreneurial Self-Efficacy on the strength of the indirect relationship between networking capabilities and firm performance via entrepreneurial competencies. The study was anchored by the theoretical approach of Resource Based View, Competency Based, Balanced Scorecard and Social Capital theories. The study employed positivism research philosophy and explanatory research design and using a stratified random sampling technique. Sample size of 323 drawn from a population of 4596 Small and Medium Enterprises registered with the Uasin Gishu, TransNzoia and Nandi Counties was collected using self-administered questionnaires. Hierarchical and multiple regression model using Hayes process Macro were used to analyse data and test the hypothesis. The variables were tested for reliability and validity by computing the Cronbach alpha and factor analysis statistical tests respectively. The study found that; networking capabilities ( $\beta = .678$   $p = .000 < .05$ ), entrepreneurial competencies ( $\beta = .465$ ,  $p = .000 < .05$ ) and entrepreneurial Self-Efficacy ( $\beta = .115$   $p = .009 < .05$ ) significantly affects firm performance. In addition, the result showed that networking capabilities directly influences entrepreneurial competencies ( $\beta = .404$ ,  $p = .000 < .05$ ), entrepreneurial competencies mediate the relationship between networking capabilities and firm performance ( $\beta = .260$ ,  $LLCI = .194$ ,  $ULCI = .334$ ), entrepreneurial Self-Efficacy failed to moderate the link between networking capabilities and entrepreneurial competencies ( $\beta = .034$ ,  $p = .392 > .05$ ). The study found that; entrepreneurial Self-Efficacy moderated the relationship of networking capabilities ( $\beta = .101$ ,  $p = .013 < .05$ ) and entrepreneurial competencies ( $\beta = .090$ ,  $p = .03 < .05$ ) on firm performance, finally the study found that entrepreneurial Self-Efficacy moderates the indirect relationship between networking capabilities and small and medium enterprises performance via entrepreneurial competencies and the conditional indirect effect is much stronger at lower levels of entrepreneurial Self-Efficacy ( $\beta = .196$ ,  $SE = .051$ ,  $CI = .098$ ,  $.300$ ), the bootstrap confidence levels were nonzero. The study contributes to knowledge by revealing a complimentary mediation and that entrepreneurial competencies mediates the relationship between networking capabilities and firm performance. Furthermore, contribution is clear in the moderation model of Self-Efficacy between the variables of the study. The new knowledge introduced is that entrepreneurial Self-Efficacy moderates the indirect links between networking capabilities and entrepreneurial competencies thus providing greater predictive power than when testing the direct, mediating, and moderating effects alone. The government should therefore develop effective strategies that will help improve Small and Medium Enterprises performances by applying the networking capabilities, entrepreneurial competences, and entrepreneurial Self-Efficacy unique dimensions.

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## ACRONYMS AND ABBREVIATIONS

|                 |                                                            |
|-----------------|------------------------------------------------------------|
| <b>ANOVA:</b>   | Analysis of Variance                                       |
| <b>CFA:</b>     | Confirmatory Factor Analysis                               |
| <b>CVI:</b>     | Content Validity Index                                     |
| <b>EC:</b>      | Entrepreneurial Competencies                               |
| <b>EO:</b>      | Entrepreneurial Orientation                                |
| <b>ESE:</b>     | Entrepreneurial Self- Efficacy                             |
| <b>EU:</b>      | European Union                                             |
| <b>FDI:</b>     | Foreign Direct Investment                                  |
| <b>FP:</b>      | Firm performance                                           |
| <b>GDP:</b>     | Gross Domestic Product                                     |
| <b>GIF:</b>     | Goodness of Fit Index                                      |
| <b>I-CVI:</b>   | Item-level Content Validity Index                          |
| <b>KMO:</b>     | Kaiser-Meyer-Olkin                                         |
| <b>LLCI</b>     | Lower Limit Confidence Interval                            |
| <b>MSMEs:</b>   | Micro, Small and Medium Enterprises.                       |
| <b>NACOSTI:</b> | National Commission for Science, Technology and Innovation |
| <b>NC:</b>      | Networking Capabilities                                    |
| <b>RBVT:</b>    | Resource Based View Theory                                 |
| <b>RDT:</b>     | Resource Dependence Theory                                 |
| <b>ROK:</b>     | Republic of Kenya                                          |
| <b>S-CVI:</b>   | Scale-level Content Validity Index                         |
| <b>SEM:</b>     | Structural Equation Modelling                              |
| <b>SMEs:</b>    | Small and Medium Enterprises                               |
| <b>SPSS:</b>    | Statistical Package for Social Sciences                    |
| <b>VIF:</b>     | Variable Inflation Factor                                  |
| <b>VRIO:</b>    | Valuable, Rare, Inimitable and Organization's processes    |

## OPERATIONAL DEFINITION OF TERMS

**Entrepreneurial Competencies (EC):** Refers to the underlying characteristics possessed by an individual which assist them to execute the tasks in a manner that is most befitting (Venesaar et al., (2021). It is operationalized as strategic, conceptual, opportunity, organising, commitment, relationship and education competencies (Bird, 2019).

**Entrepreneurial Self- Efficacy (ESE):** Refers to an individual's belief in their ability to have the confidence in identifying the potential value of a new idea, convincing others to adopt an idea, and cooperating well with team members in entrepreneurial activities such as marketing, innovation, management, risk taking and financial controlling (Osadolor et al., 2021).

**Firm performance (FP):** Relates to the ability of the firm to achieve its objectives. Amongst these objectives include customer relationships, profitability, quality of products and services, market share and operational excellence (Tarifi, 2021).

**Networking capabilities (NC):** Refers to the ability of the firm to initiate, maintain and utilize the firm's relationship with various partners to the firm's advantage and measured on four components that is coordination, relational skills, partner knowledge and internal communication (Arasti, Garousi Mokhtarzadeh & Jafarpanah, 2022).

**Small and Medium Enterprises:** In this study, SMEs are defined in accordance with the MSE Act 2012. In a Kenyan context, SMEs (referred to as Micro Small and Medium Enterprises (MSMEs) in the Act), are made up of

Micro and Small enterprises and are legally recognized in the MSE Act 2012 in which a Micro Enterprise is a business that has less than Ksh.5million invested in it, or has sales of less than Ksh.500, 000 a year, or has 1 – 9 people working in it. A Small Enterprise is a business that has sales of between Ksh.500, 000 – Ksh.1million a year, or has 10–50 people working in it (MSE Act 2012).

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Overview**

This chapter covers background of the study, SMEs in Kenya, statement of the problem, research objectives, hypothesis, significance, and scope of this study.

#### **1.2 Background of the Study**

Firm performance is a critical indicator of economic health and sustainability, particularly within the context of small and medium enterprises (SMEs) that significantly contribute to employment, innovation, and economic dynamism. This thesis examines the intricate relationship between networking capabilities, entrepreneurial competencies, self-efficacy, and the performance of SMEs in the North Rift Region of Kenya. SMEs in this region operate within a diverse and rapidly evolving economic landscape, facing unique challenges and opportunities that necessitate a deep understanding of the factors influencing their success. By exploring these dimensions, this study aims to provide comprehensive insights into how they collectively impact SME performance, thereby offering valuable implications for policymakers, practitioners, and researchers focused on fostering SME growth and development in similar contexts.

World Bank report, (2022) documents that formal SMEs contribution to total employment and national income (GDP) in developing economies stands at over 60% and 40% respectively. In Kenya, SMEs contribute 33.8% of the GDP and accounts for over 80% of the new job created (Government of Kenya, 2021). The sector had created 720,000 new jobs by 2016 compared to 120,000 new jobs that were created in the formal employment. As part of the global agenda, United Nations have come up with

Sustainable Development Goals (SDGs) that is geared towards addressing economic and social challenges. SMEs play a crucial agenda in fostering the economy especially in supporting poverty alleviation and creating sustainable business environment. The dynamic and flexible nature of SMEs makes it an essential sector in achieving sustainable development. Governments including Kenya have plans that contribute to sustainable development and have blueprints that commit to SDGs, and SMEs come into sharp focus. Literature recognises the strong impact of SMEs on the economy worldwide and the urgency of their involvement in achieving SDGs. Encouraging SMEs to integrate the SDGs into their business gives the United Nations the potential to unlock more opportunities for goal progress.

Customer relationships, profitability, product and service quality, market share, and operational excellence are just a few of the many factors that have been used to measure SME performance globally (Onsomu, Munga, Nyabaro & Munene, 2022); effectiveness, efficiency, relevance, and financial viability (Banu, Jayakani, Farzana, Fastina & Vikraman, 2024); financial performance, product market performance, and shareholder return performance (Herman & Zsido, 2023); non-financial indicators and financial indicators of performance (Jamai, De Steur, Abidar & Gellynck, 2021); competitiveness, financial performance, quality of service, flexibility, resource mobilization, and innovation (Ngiri & Njagi, 2022). All these studies however did not directly look at the context and scope of the current study.

The concept of SMEs varies across different countries due to varying economic contexts across the globe. Within the context of the European Union, the SMEs are characterized with their employment levels and annual turnovers of the enterprises. Therefore, enterprises with up to fifty persons and a turnover of less than ten million

euros are characterized as a small enterprise. Similarly, a micro enterprise within the context of EU zone refers to any enterprise with less than 10 employees and an annual turnover of less than 2 million euros. The Kenya Micro and Small Enterprises Act 2012 grants legal recognition to MSMEs operating in Kenya (Kimathi, 2020). According to the Act, a micro enterprise is one that employs one to nine people, has annual sales of less than Kshs 500,000, or has an investment of less than Kshs 5 million. A business with 10 to 50 employees or annual sales of Kshs 500,000 to Kshs 1 million is classified as a small enterprise. Even though the Act doesn't define it, a medium enterprise is any company that employs 51 to 100 people or has annual sales of more than Kshs 1 million.

Sasmito, Nugroho and Ridwan, (2023) define networking capabilities as the company's capacity to establish, uphold, and take advantage of its relationships with different partners. The ultimate purpose of networking capabilities is the creation of networks with a view to creating a platform for exchanging strategic resources and capabilities. Garousi Mokhtarzadeh, et al., (2020) assert that the four components of networking capabilities are partner knowledge, coordination, relational skills, and internal communication. The networking capabilities influence SME performance in diverse ways including gaining of collective competitive advantages, knowledge sharing amongst network members, and undertaking of joint ventures.

In the context of business and management therefore, networking capabilities refer to a firm's ability to establish, nurture, and leverage relationships with various partners, stakeholders, and networks to gain strategic advantages and achieve organizational goals (Cartwright & Davies, 2022; Kurniawan, Budiastuti, Hamsal & Kosasih, 2021). These capabilities encompass both internal networking within the firm and external networking with other organizations, suppliers, customers, industry associations, and other relevant entities.

Internally, networking capabilities involve facilitating communication, collaboration, and knowledge sharing among different departments, teams, and individuals within the organization (Cabeza-Pullés, Fernández-Pérez & Roldán-Bravo, 2020). This internal networking fosters a culture of teamwork, innovation, and continuous learning, enabling the firm to tap into the diverse expertise and perspectives of its employees to solve problems, generate ideas, and drive organizational performance.

Externally, networking capabilities extend the firm's reach beyond its boundaries, allowing it to build and maintain relationships with key stakeholders in its ecosystem (Radziwon & Bogers, 2019). These external networks may include suppliers, distributors, customers, industry partners, government agencies, research institutions, and other organizations relevant to the firm's operations and objectives. By cultivating strong relationships with these external partners, the firm can access valuable resources, information, market insights, and opportunities that contribute to its competitive advantage and long-term success.

Entrepreneurial competence refers to the comprehensive set of skills, knowledge, attitudes, and behaviours that enable individuals to successfully identify, create, evaluate, and exploit business opportunities (Kozlinska, Rebmann & Mets, 2023; Venesaar, Malleus, Arro & Toding, 2021). It encompasses a diverse range of capabilities essential for initiating, managing, and growing a business venture effectively. Entrepreneur's competence is one of the significant determinant factors for success, performance and growth or failure of business operation (Yustian et al 2021). SME owners and managers are primarily responsible for the operations of small-scale businesses, which are contingent on their competencies. The performance of SMEs is positively impacted by entrepreneurial competencies, according to entrepreneurship research (Sakib et al., 2022; Yani et al., 2020). According to Ibudin, Ogundana and

Okonkwo (2022), businesses led by managers possessing high levels of entrepreneurial competencies typically search for new opportunities and strengthen their competitive positions by monitoring and controlling their operating environment.

Entrepreneurial Self-Efficacy has been seen as a significant contributory factor to entrepreneurial motivation, intentions and behaviour that influence firm performance (Abdelwahed, et al 2022). There has been a claim made that an entrepreneur's confidence in his ability to complete a task is more significant than his knowledge or skill level (Bird, 2019). Because a small business owner's decisions and actions directly affect the direction of their company and, in turn, its overall performance, ESE is essential to the performance of small businesses. Therefore, the performance of a business is directly impacted by the entrepreneur's confidence in his or her ability to achieve the intended outcomes in an entrepreneurial endeavour (Kiani & Wang, 2021).

The degree of entrepreneurial Self-Efficacy and firm performance, as indicated by increases in revenue or employment, have been found to positively correlate in a number of studies (e.g. Zubair & Khan, 2021; McGee & Peterson, 2019). A direct positive relationship between ESE and firm performance has consistently been demonstrated in several studies (McGee & Peterson, 2019; Shen et al., 2021). This shows that the likelihood of entrepreneurs leading their companies to higher performance increases with their level of confidence in their ability to execute entrepreneurial tasks. According to Varshney and Varshney, (2020), entrepreneurs exhibiting elevated levels of emotional intelligence consistently establish demanding performance objectives for their companies and employ various tactics to attain these targets. These studies however did not capture the theme and spirit of the current study.

In the context of competitiveness, the firms' ESE is relevant since it is presumed that entrepreneurs who have self-confidence and belief in themselves will have more chances in building a larger network of clients and partner firms that will spur superior firm performance and competitiveness. Small business owners' decisions and actions directly impact the direction of their company and, in turn, its overall performance, which is why ESE is so important to small business performance. Hence, an entrepreneur's confidence in his or her ability to achieve the intended outcomes in an entrepreneurial endeavour has a direct and indirect impact on the success of the business (Taleb, Hashim & Zakaria, 2023; Staniewski, et al., 2024).

The current study argues that entrepreneurial self- efficacy, being an indicator of the firm owner's belief, has a moderating effect on the relationship between networking capabilities and performance more so indirectly through entrepreneurial competencies. The study further argues that ESE affects the strength of the relationship between NC and EC, NC and SME performance, EC and SME performance and finally the moderated mediation interaction between NC and SME performance. The study null hypotheses posits that the impact of networking capabilities as well as entrepreneurial competencies on firm performance may decay on the strength of entrepreneur's ESE. The study will therefore look at the moderating overall effect of ESE constructs as developed by Chen et al (1998) namely financial control ESE, marketing ESE, innovation ESE, management ESE and risk-taking ESE on networking capabilities – performance relationship. This is the basis under which the objectives of the study are underpinned.

### **1.3 Small and Medium Enterprises in Kenya**

Small enterprises in Kenya are defined, as those organizations where the employees' number is between 9-49, while the medium enterprises are defined as those organizations having an employee number of between 49-99 employees. The organizations where the employee number is less than 5 are known as micro enterprises (Maksum, Rahayu & Kusumawardhani, 2020). The significance of Kenya's SMEs was identified in the International Labour Organization report (ILO) in 1972 on 'Employment, Income and Equity in Kenya' (ILO, 1972). The report outlined the SMEs as key drivers for income generation and job creation. According to the African Economic Outlook report (2011) SMEs create close to 80% of employment. This shows the significance of SMEs in Kenya.

According to Surya et al., (2021) SMEs role in development of the economy and creation of employment opportunities has been in most discussions among most of the academicians, policy makers and governments around the globe. He notes that SMEs can fuel economic growth because they create employment opportunities, increase the tax collection, and play a critical role in innovation. SMEs are also noted as high providers of employment and are accredited as good income generators that provide training opportunities and other significant basic services to people who are disadvantaged (Chamberlain, 2019).

In Kenya while estimates put MSMEs at about 7.5 million enterprises (Kenya Economic Outlook 2008) contributing about 44% to the Kenya GDP in 2008, it has been suggested that the number of formal SMEs is more in the region of 250,000. According to 2017 Doing Business in Kenya report, the ease with which business can be registered has a bearing on the number of entrepreneurs who start businesses in the

formal sector, leading to jobs and more government revenue. In 2013 the government of Kenya passed the MSE Act 2012 in a bid to grow the economy through the SME sector. In terms of market access, swift dispute resolution, credit facility access, and technical skills, the Act was designed to support business growth.

Studies and planning documents from the government, like those conducted in 2013 by Adam Smith International, acknowledge the contribution of SMEs to the expansion of the Kenyan economy. The SME sector is acknowledged as a critical component of the economy in the Vision 2030 blueprint strategy for development and growth. In national strategies to boost economic activity, lower unemployment, and combat poverty, this is crucial. It is undeniable that a vibrant small and medium-sized enterprise (SME) sector is a vital and strategic source of growth in achieving Vision 2030. These serve as both the foundation for entrepreneurship and the "seed bed" for cultivating an entrepreneurial culture and advancing industrial development and rural industrialization (Whatmore, Lowe & Marsden, 2023).

The Deloitte Kenya Economic Outlook (2017) notes Kenya SMEs are hindered by inadequate capital, limited market access, poor infrastructure; inadequate knowledge and entrepreneurial skills and rapid changes in technology, corruption and an unfavourable regulatory environment are other challenges. Although the agriculture sector provides a livelihood and employment for majority of Kenyans, contributing 30% to GDP and accounting for 80% of national employment, its percentage of SME financing is small. Overall, there is the need for changes to law, fiscal policies, financial institution strategy and total support for SMEs.

In the Kenyan North Rift Region, small and medium-sized businesses continue to be the main engines of the economy. They invent, generate employment, boost GDP,

promote industrial development, meet local service demands, and provide inputs and services to larger businesses. Despite the fundamental roles SME play, these enterprises are still not able to operate their optimum levels due to the challenges they face. The challenges include but not limited to lack of adequate managerial training, lack of adequate finance and limited access to credit, rapid technology changes. Other challenges include poor infrastructure, poor management of resources and inadequate support from the government.

Vision 2030, the country's development blueprint to transform Kenya into a newly industrializing middle-income country aims to increase annual GDP growth rate to an average of 10% and SMEs will therefore play a key role in this journey. It is evident that SMEs in Kenya have a chance to boost national productivity and transform the economy. This is also anchored in the government's Big Four Agenda. About 2.2 million small enterprises have closed shop over the last five years in the country, according to a survey by the Kenya National Bureau of Statistics (2017). It is imperative that scholars explore more further studies on SMEs in Kenya going by the challenges it is facing while acknowledging its significant. This is the rationale behind the current study's investigation of the impact of networking capabilities on Kenyan SMEs' performance.

#### **1.4 Statement of the Problem**

Firm performance is a critical driver of economic growth, innovation, and employment, especially within the small and medium enterprises (SMEs) sector. In Kenya, SMEs constitute 98% of all registered businesses, contribute 33% to the GDP, and account for 83.6% of new jobs (KNBS, 2021). Despite their significant role, the performance of Kenyan SMEs is worryingly fragile, with a failure rate of 60% within the first year and

75% within three years (KNBS, 2021). This high mortality rate underscores systemic issues such as limited access to finance, markets, and technology, insufficient managerial skills, poor infrastructure, and unsupportive policies (Osano, 2019). These challenges not only impede SME growth but also limit their potential to drive sustainable economic development and create substantial employment opportunities.

The literature highlights that networking capabilities, entrepreneurial competencies, and self-efficacy are crucial for enhancing firm performance. Networking capabilities facilitate resource acquisition, market access, and knowledge sharing, thereby improving firm performance (Wang et al., 2020; Garousi Mokhtarzadeh et al., 2020). Entrepreneurial competencies, including strategic planning, innovation, and risk management, are essential for navigating competitive markets and sustaining business growth (Pennetta, Anglani & Mathews, 2024; Sampene et al., 2021). Self-efficacy, reflecting the confidence of business owners and managers in their ability to achieve business goals, is crucial for driving persistence and resilience (Zaman, 2021). However, the interaction and combined impact of these factors on SME performance, particularly in the context of developing economies like Kenya, remain underexplored.

Yet again, most existing studies on the impact of networking capabilities and entrepreneurial competencies on firm performance are based in developed countries, creating a gap in understanding how these dynamics play out in Kenya's unique socio-economic environment (Kisubi, 2022). Locally, research has shown varied measures of networking capabilities and entrepreneurial competencies, but these studies often yield mixed results and do not fully capture the complex interactions between these factors and firm performance (Kaniniv& Muathe, 2019; Abdul, 2019; Chege, Wang & Suntu, 2020). Additionally, the role of self-efficacy in moderating these relationships is not

well understood, further contributing to the fragmented insights and inconclusive results regarding their combined effects on SME performance (Al Koliby., 2024).

Notably, prior research has primarily examined networking capabilities, entrepreneurial competencies, and self-efficacy in isolation, using diverse and sometimes inconsistent measures. This fragmented approach has led to inconclusive findings about the direct and indirect effects of these factors on firm performance. Moreover, few studies have considered the moderating role of Self-Efficacy or the mediating role of entrepreneurial competencies in these relationships, highlighting a significant methodological gap that needs to be addressed (Wu et al., 2022; Alarjani et al., 2020; Maheshwari & Kha, 2022).

This study aimed to fill these conceptual, contextual, and methodological gaps by investigating the integrated effects of networking capabilities, entrepreneurial competencies, and Self-Efficacy on the performance of SMEs in the North Rift Region of Kenya. By employing a holistic approach, this research provided a comprehensive understanding of these interactions and offered practical recommendations to enhance SME sustainability and growth in similar developing contexts. This study is poised to contribute significantly to the broader discourse on SME development and economic resilience, addressing the urgent need for effective strategies to support the growth and performance of SMEs in Kenya.

### **1.5 General Objective**

The main objective of the study was to carry out an empirical study of networking capabilities, entrepreneurial competencies, entrepreneurial Self-Efficacy and performance of SMEs in selected towns of North Rift Region -Kenya.

### **1.5.1 Specific Objectives**

- i.** To determine the effect of networking capabilities on SME performance.
- ii.** To examine the effect of entrepreneurial competencies on SME performance.
- iii.** To establish the effect of entrepreneurial self- efficacy on SME performance.
- iv.** To determine the effect of networking capabilities on entrepreneurial competencies.
- v.** To analyse the mediating effect of entrepreneurial competencies on the relationship between networking capabilities and performance of SMEs.
- vi.** To establish the moderating effect of entrepreneurial Self-Efficacy on the relationship between networking capabilities and entrepreneurial competencies.
- vii.** To determine the moderating effect of entrepreneurial Self-Efficacy on the relationship between networking capabilities and SME performance.
- viii.** To determine the moderating effect of entrepreneurial Self-Efficacy on the relationship between entrepreneurial competencies and performance of SMEs.
- ix.** To establish the moderating effect of entrepreneurial Self-Efficacy on the strength of the mediated relationship between networking capabilities and SME performance via entrepreneurial competencies.

### **1.6 Research Hypothesis**

Ishikawa, (2024) defines hypothesis as a specific, testable prediction about the relationship between two or more variables. In this research, hypotheses were formulated based on prior observations and served as a basis for conducting studies to validate or refute the prediction. The hypotheses were essential in this study because they provided a clear focus and direction for the research. They helped to structure the study and determined the data collection and analysis methods. They were stated in a

way that allowed for empirical testing and statistical evaluation, enabling the researcher to draw conclusions about the validity of the proposed relationships.

The study was thus guided by the following hypotheses

- H<sub>01</sub>:** Networking capabilities have no significant effect on SME performance.
- H<sub>02</sub>** Entrepreneurial competencies have no significant effect on SME performance.
- H<sub>03</sub>** Entrepreneurial self- efficacy has no significant effect on SME performance.
- H<sub>04</sub>** Networking capabilities have no significant effect on entrepreneurial competencies.
- H<sub>05</sub>:** Entrepreneurial competencies have no significant mediating effect on relationship between networking capabilities and SME performance.
- H<sub>06</sub>** Entrepreneurial Self-Efficacy has no significant moderating effect on the relationship between networking capabilities and entrepreneurial competencies.
- H<sub>07</sub>** Entrepreneurial Self-Efficacy has no significant moderating effect on the relationship between networking capabilities and SME performance.
- H<sub>08</sub>** Entrepreneurial Self-Efficacy has no significant moderating effect on the relationship between entrepreneurial competencies and SME performance.
- H<sub>09</sub>** Entrepreneurial Self-Efficacy has no significant conditional indirect effect on the strength of the mediated relationship between networking capabilities and SME performance via entrepreneurial competencies.

### **1.7 Significance of the Study**

This present study is useful to management and policy makers since the results and suggestions from this endeavour which is carried out in Kenyan context can be utilized

by SMEs owners or managers to enhance SMEs competitiveness and performance. The present research intended to endow SMEs practitioners with guidance and support to proficiently manage resources and to remain competitive. Results from this study can assist in development of an efficient networking program for organizations and for using different entrepreneurial competencies while leveraging on the perceived entrepreneurial Self-Efficacy as it is a fundamental strategic tool for organizations to have competitive advantage and sustainability in the marketplace.

The study findings are to be of significance to universities and other institutions that conduct research, towards contribution to the pool of additional literature and new topic idea generation. The study's findings are extremely helpful since they have increased the body of knowledge about the factors that influence small and medium-sized businesses' survival. The study is bound to help planners and trainers create programs that strategically consider the survival and growth of SMEs. To create long-term job opportunities, policymakers must comprehend the factors that affect small and medium-sized businesses' ability to survive. The research advances our understanding and equips us with tools that will help SMEs survive. Furthermore, these findings would further provoke research in entrepreneurial issues while contributing to the knowledge gap of strategic literature.

This study also generated new knowledge that helped widen horizons of existing knowledge concerning networking capabilities practices in SMEs that could help improve the performance. It is hoped that conclusions that are drawn and recommendations made are of use to advisers, planners and decision-makers associated with enhancing use of network practices by building on the literatures that offer two distinct approaches – integrating moderating or mediation variables in advancing the NC- performance relationship.

This study assessed NC-performance relationships. The findings are important as it significantly extended contemporary theories into SME. Using the factors of firm performance, networking capabilities, entrepreneurial competencies and entrepreneurial Self-Efficacy, the study contributes to the Resource Based View theory, balanced scorecard and social capital theories. This insight in turn contributed to an opportunity to understand the theories further with firms operating in a dynamic context like in the Kenya context.

### **1.8 Scope of the Study**

The study on networking capabilities, entrepreneurial competencies, Self-Efficacy, and performance of small and medium enterprises (SMEs) in the North Rift Region, Kenya, was designed to explore key factors that influence SME success in this particular area. The North Rift Region, including counties such as Uasin Gishu, Elgeyo Marakwet, Nandi, and Trans Nzoia, provided a unique socio-economic context that may differ from other regions in Kenya. By focusing on this region, the study aimed to understand how SMEs build and leverage networks, the specific entrepreneurial skills and attitudes they possess, and the confidence of business owners in their ability to achieve goals. These aspects were crucial for enhancing SME performance, both in terms of financial metrics like revenue growth and profitability and non-financial metrics such as customer satisfaction and employee retention.

Confining the study to the North Rift Region allowed for a detailed examination of the local economic landscape, which is characterized by a diverse SME sector spanning agriculture, retail, manufacturing, and services. This focus was strategic, as the region's SMEs contribute significantly to local and national economies and face unique challenges such as market access and infrastructural issues. By concentrating on this area, the study provided tailored insights for regional policymakers and stakeholders,

facilitating targeted interventions that support SME growth and development. Moreover, findings from the North Rift Region will serve as a benchmark for comparative analysis with other regions in Kenya, helping to identify best practices and address regional disparities in SME performance.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Overview**

This chapter provided concepts of SME performance, networking capabilities, entrepreneurial competencies and entrepreneurial Self-Efficacy. The chapter also covered an expanded theoretical and conceptual framework reflecting the hypotheses. Empirical reviews were discussed on the relationship between networking capabilities and SME performance, mediating effect of entrepreneurial competencies (EC), moderating effect of entrepreneurial Self-Efficacy (ESE) and finally the moderated mediation model of ESE, networking capabilities, entrepreneurial competencies and its relationship to SME performance. Finally, the chapter presented a summary of empirical reviews and gaps in knowledge.

#### **2.2 Conceptual Definitions**

This section describes various concepts of the study variables.

##### **2.2.1 Concept of Small and Medium Enterprises Performance**

The term “SME” encompasses a broad spectrum of definitions. The definition varies from country to country. Generally, these guidelines are based upon either headcount or sales or assets. For instance, SMEs are defined by the Inter-American Development Bank as businesses with less than \$3 million in revenue and no more than 100 employees. According to Algan, (2019), they are classified as having fewer than 250 employees in Europe and fewer than 500 employees in the US. As general guidelines, the World Bank defines SMEs as those enterprises with a maximum of 300 employees, \$15 million in annual revenue, and \$15 million in assets. In Kenya, there are different definitions of SMEs which are yet to be consolidated. For example, a national baseline

survey of MSEs carried out in 1999 defines a small enterprise as one which employs 6-10 people while a medium one is expected to have 11-100 employees (Malima, 2020; Lemma, 2020). According to MSE Act 2012, micro enterprises is defined as having most 10 employees, a small enterprise with 11-50 employees and medium /large enterprises have more than 50 employees.

According to Hernita et al., (2021), four metrics can be used to measure the SME performance: effectiveness, efficiency, relevance and financial viability. According to Nasrallah & El Khoury (2022), three items can broadly be used to measure the SME performance; financial performance, product market performance and shareholder return performance. In this context of this study, some of the indicators of the financial performance included profitability, return on assets, return on equity etc. while product market performance is examined in terms of sales and market share amongst others (Sulaiman, Mijinyawa & Isa, 2019). Finally, the shareholder return was measured using metrics such as total shareholder return, and economic value added amongst others.

SME performance can also be broadly examined using two performance metrics; non-financial indicators and financial indicators of performance (Abdullahi et al., 2021). In the context of this study, the financial performance indicators relate to profitability, return on assets, return on equity and sales turnover amongst other aspects. The non-financial performance indicators examine diverse aspects such as stakeholder management, customer satisfaction, product quality, and market share amongst others (Zarzycka & Krasodomska, 2022).

### **2.2.2 Concept of Networking Capabilities**

For businesses to properly take advantage of outside knowledge flows and resources, they must have networking capabilities. Numerous terms, including relational

capability, network competence (Pigola et al., 2023), network capabilities (Arasti, Garousi Mokhtarzadeh & Jafarpanah, 2022), and networking capability (Chen, Zou & Wang, 2009), have been used in the literature to discuss the phenomenon of inter-firm relationships. Most of these terms are interchangeable, and there are many similarities and overlaps between them.

Social capital, external links, and personal networks are other terms used to describe the network capabilities. Networking capabilities, according to Srećković (2018), also include the capacity to establish, maintain, and make use of connections with other parties. According to Srećković (2018), network capabilities consist of four elements: coordination, relational skills, partner knowledge, and internal communication. In contrast with the findings of Srećković (2018), Alinaghian and Razmdoost, (2018) demonstrated that network capabilities consist of three dynamics: network characteristics, network operations, and sub-indicators-dependent network resources. Relational capability, trust, and tie strength are the sub-indicators of the network characteristics (Alinaghian & Razmdoost, 2018).

The initiation of business relationships, coordination, and learning, on the other hand, are sub-indicators of network operations. In conclusion, according to Alinaghian & Razmdoost (2018), the network resources indicators consist of information sharing, network human capital, and synergy sensitive resources. In the context of this study, our components used comprised of networking capabilities: internal communication, partner knowledge, relational skills, and coordination.

The relationship within business networks requires coordination with a view of achieving maximum benefits from the coordination efforts. The coordination within a business network is successfully dependent on the initiator of the coordination aspects. The firms with the most valuable resources are likely to be more successful in

coordination aspects within a network as the other firms have much to gain from such as initiation. The firm possessing valuable resources becomes desirable for its business partners thus leading to improved business performance. Network coordination is critical in ensuring finalization of processes in a time efficient manner, an efficient operational aspects and achievement of mutual advantages.

Partner knowledge is defined as structured and organized data about the partners in the firm (Mueller, Syme & Haeussler, 2020). The data takes advantage of the limitations and possible resources that each possible partner may have. According to Martin, Romero and Wegner (2019), small-business owners and managers who possess knowledge about their partners can establish suitable governance structures and exchange mechanisms. These firms can also prevent or manage partnership instabilities to ensure the longevity of their relationship. Here, having knowledge of one's partner prevents needless arguments that might develop from networking with unsuitable partners (Maister, Galford and Green, 2021). Knowledge partner also refers to organised information about different partners to understand their needs, expectations, capabilities, resources and knowledge. Additionally, a company's ability to recognize partners with the right resources and capabilities to complement its own needs for those resources and capabilities—which are necessary for performance—is made possible by the knowledge of those partners.

Internal communication is a vital part of collaborative competence (Rattanaborworn, 2022). It includes assimilating and disseminating strategic data, agreements, and resources to every worker in the company to enhance the identification of partner synergies and concentrate efforts in areas that are more advantageous to the company. It permits the sharing of information and knowledge obtained from sources outside the company. For a company to maintain a competitive edge, internal communication is an

efficient way to transfer both explicit and tacit knowledge within the organization. Teklehaimanot et al. (2023) assert that formal processes of information acquisition and utilisation are what determine an information-based competitive advantage, independent of market conditions. Internal communication is one method of formally utilizing strategic information in this way to give businesses the competitive edge they need to succeed.

As per the definition provided by Salleh and Sapengin, (2023), networking capability refers to the capacity of the organization to establish, nurture, and leverage inter-organizational connections with diverse external partners for the benefit of the firm. The development and maintenance of relationships that are advantageous to the company is the focus of networking capability. An increased competitive advantage is the result of the firms' ability to access and complement resource requirements through such a relationship (Yang, Xun & Chong, 2022). In this situation, businesses need to be able to build and maintain positive relationships. In order to effectively use resources obtained through networking and to find possible partners with pertinent resources to fill in resource gaps for the company, a firm should also be able to coordinate resources both inside and outside of its boundaries (Radziwon & Bogers, 2019).

### **2.2.3 Concept of Entrepreneurial Competencies**

The concept of competency was first popularized by Boyatzis (1982) in his model of managerial competency, where he conducted a detailed study of over 2000 entrepreneurs. More than a hundred potential entrepreneurial competencies were identified and evaluated by him. According to his definition, competency is the ability possessed by an individual that results in behaviour that satisfies job requirements while operating within the constraints of an organizational environment and ultimately produces the intended outcomes. According to Boyatzi (1982) entrepreneurial

competencies relate to the ability to scan for desirable opportunities with knowledge, skills and abilities that are required to carry out entrepreneurial characters. Adapting to environmental opportunities enables entrepreneurs to understand the needs of today's consumers in line with the world's current movement. In particular, the entrepreneur's background, education, training, family history, and other demographic factors are thought to have an impact on their entrepreneurial competency (Bird, 2019).

The term competency was defined by Herrera-Bernal et al., (2020) as a combination of knowledge, skills and attitudes. That is, a person's capacity to implement ideas. It encompasses risk-taking, inventiveness, and creativity in addition to project management and planning skills that help people reach goals. In order to adapt to the changing external environment, imaginative, risk-taking, and creative entrepreneurs are necessary, according to Sobaih et al. (2022). Most management literature has been using the term "entrepreneurial competency" for a long time. Natural competence and unnatural competence are the two categories into which it falls. Qualities, disposition, self-concept, and social position comprise natural competence. Competencies that are acquired through theoretical and practical learning and are required to complete a task are known as learned or unnatural competence. Pereira, Amaral and Mendes, (2022) states that this comprises abilities, know-how, and experience. According to Sampene et al., (2021), entrepreneurial competencies are therefore the fundamental qualities that a person possesses that enable them to carry out the tasks in the most appropriate way.

Finding and seizing business opportunities that can boost an organization's performance is one of an entrepreneur's primary responsibilities. This is known as opportunity competency. According to Miidom and Elumeze (2024), opportunity competency is the ability to proactively seek out new opportunities and to recognize and capitalize on

them. One of the key elements that are essential to the success of the businesses is the favourable perception of the abundance of opportunities that are present in the market.

The ability to plan and schedule work, create programs, oversee delegation, encourage, direct, and manage the company's finances is known as organizing competency (Samson, Donnet & Daft, 2020). According to Atwood (2020), this competency is associated with managerial competency. It entails overseeing the organization's internal and external programs, such as marketing the company's products and services, handling finances responsibly, managing logistics, and managing human resources (Kertati, Jenita & Mee, 2023). Additionally, this competency includes the process of organizing the work into manageable tasks or duties, whereby the staff with the necessary qualifications will be in charge of carrying out the tasks as scheduled.

The entrepreneur can think creatively and beyond the box when they possess conceptual competencies. Conceptual competencies include the ability to take risks, be innovative, and make sound decisions, according to Ataei et al., (2020). In their businesses, entrepreneurs must make decisions. When those decisions involve unstructured problems, they must also come up with new ideas for solving those problems (Tan, 2021). Entrepreneurs must possess conceptual competencies in order to thrive in a dynamic environment by taking initiative, being creative, and coming up with new ideas. Distinguishing opinions from facts and attempting to view things from a broad perspective are examples of conceptual competencies.

With the aid of relationships, an entrepreneur can network with others and obtain important information that will facilitate the sourcing of resources, such as raw materials, and the exploration of new ventures. Additionally, it helps the business owner to network with others involved in related endeavors in order to exchange ideas and

knowledge about how to do tasks more effectively. Establishing a trustworthy rapport with clients and vendors allows the business owner to solicit advice on how to run their operations more efficiently and to obtain credit facilities from suppliers (Tan, 2021).

Competencies related to commitment include the ability to lead a business and the dedication to seeing the goals of the company realized (Tan, 2021). Drive, will, duty, responsibility, and perseverance are examples of commitment competencies (Maki, 2023). The skills that an entrepreneur needs to persevere after making errors and failing are known as commitment competencies.

#### **2.2.4 Concept of Entrepreneurial Self- Efficacy**

An essential motivational concept that affects personal decisions, objectives, feelings, effort, coping mechanisms, and perseverance is Self-Efficacy. It refers to individuals' convictions about their abilities, and consequently an important set of cognitions is Self-Efficacy or beliefs about one's capacity to perform at designated levels (Shkëmbi, F & Treska, V. 2023); Khalid, et al 2022). The foundation of Self-Efficacy is the social cognitive theory (SCT), which supports the idea of interaction as a process in which one's actions, one's own characteristics, and the environment all interact to determine one another.

Self-Efficacy is a motivational construct that is gradually accumulated through one's experiences (Wu and Rudnák, 2022). Self-Efficacy is very closely linked to personal experience in that factors important to individuals and instances of personal experience that influence them are largely dependent on the personality of the individuals. The extent to which external factors and experiences influence individuals develop over a long period of time and shapes their personalities (Zhai, *et al.*, 2018). In addition, Self-Efficacy can influence one's goals, persistence, and success (Schunk & DiBenedetto,

2021). Self-Efficacy involves dynamic self-beliefs that are specific to performance domains. These domains form part of complex interactions with other persons, behaviour, and environmental factors (Hardie, 2020). In addition, Self-Efficacy does not relate to measurable indices of abilities or skills. Instead, it refers to an individual's ideas as to his or her own chance of success in undertaking a task.

An individual's cognitive assessment of their capacity to gather the willpower, mental tools, and plan of action required to exert control over life events is known as their entrepreneurial Self-Efficacy. More precisely, it is self-belief in one's own abilities. Entrepreneurs need to believe that they can launch and expand their company under any set of conditions. The degree to which an individual believes that they are capable of carrying out the different roles and responsibilities of an entrepreneur is known as their entrepreneurial Self-Efficacy (Neneh, 2022).

According to McGee and Peterson (2019), businesses that have a high ESE seem to view the world as an opportunity rather than as full of risks; they also think they have the power to affect how well their goals are achieved and that there is little chance of failure. Sun et al., (2023) states that these authors claim that ESE may influence entrepreneurial decisions for several reasons. First, people with high ESE may assess a scenario as brimming with opportunities, but people with low ESE may perceive the very same scenario as loaded with costs and risks. Second, higher ESE individuals perceive themselves as more capable to address and deal with uncertainties risks, and hardships in contrast to those with low ESE. Third, those with high ESE anticipate different outcomes than people with low ESE.

Self-Efficacy serves as the foundation for an individual's beliefs about their abilities and zeal/power to apply those abilities in completing a particular task and in particular

situations (Barinua & Kipamo 2022). Whether true or not, these beliefs represent an assessment of an individual's capacity to use mental, physical, and emotional resources to achieve particular objectives (Ogden, 2019). According to Simarasl & Marzban (2022), there can be variation in an individual's entrepreneurial Self-Efficacy. Some people have exaggerated beliefs about their own abilities, which makes them more likely to exhibit overconfidence in their skills. Similarly, based on their prior business success, seasoned entrepreneurs may have a high entrepreneurial Self-Efficacy, which can then cause them to become overconfident (Puglisi et al., 2022).

Business-oriented theories of behaviour related to careers have been used to explain Self-Efficacy. Based on Bandura's (1986) social cognitive theory, social cognitive career theory posits that three main constructs interact to determine the psychological process underlying career decisions and behavior: goals, which are expressed in terms of an individual's determination to engage in a particular behavior, outcome expectations, which are defined as the expected consequences of a given behavior, and self-efficacy, which is defined as the dynamic set of beliefs about one's capacity to carry out a specific course of action within a given domain (Bandura, 1986; Lent et al., 1994). Furthermore, this goal construct includes a person's intention to carry out a particular behaviour.

Lent et al., 1994 cite Bandura (1982) as saying that the main ways in which role models influence people are through mastery of experiences (repeated performance accomplishments), observational learning (observing instead of directly participating), and social persuasion (believing that tasks can be completed). It is assumed that people with high entrepreneurial efficacy will have high entrepreneurial success since social cognitive theory suggests that people choose to take on tasks in which they are

confident, comfortable, and perceive competence (Bandura, 1986). Previous studies have shown that entrepreneurs are susceptible to cognitive biases when making decisions (Palich & Bagby, 1995). Divergent viewpoints exist concerning the connection between optimism and entrepreneurial experience. According to one argument, entrepreneurs eventually become less optimistic than more experienced business owners because they learn how to modify their level of optimism through the experience of launching subsequent ventures (Gottschalk & Müller, 2017). On the other hand, experience can elicit prejudices that lead to a rise in optimism (Thomas, 2018). Experienced business owners are more confident in their chances of success than their less experienced counterparts.

Therefore, the study opines that SME owners require ESE as a contact development ability. In addition to having the required networking skills, one must constantly have confidence in one's own abilities (Sharma, 2021). The latter is consistent with the theory of Self-Efficacy (Bandura, 1994), which posits that an individual's performance is positively correlated with a strong sense of Self-Efficacy. Higher Self-Efficacy entrepreneurs may view networking as a difficult chance to grow their own personal and professional networks, so they attempt to take full advantage of all the advantages provided by their social networks. This is the basis upon which the study objectives were guided.

### **2.3 Theoretical Framework**

This research was anchored on four theories; Resource Based View, Competency Based, Balanced Scorecard and Social Network theories in order to provide better understanding of relationship between the networking capabilities, entrepreneurial competencies, entrepreneurial self- efficacy and SME performance.

### **2.3.1 Resource Based View (RBV) Theory**

This thesis, anchored in the RBV theory, explores how SMEs in the North Rift Region of Kenya can enhance their performance by effectively leveraging internal resources such as networking capabilities, entrepreneurial competencies, and self-efficacy. By examining these factors through the lens of RBV, the study aims to uncover how these intangible assets contribute to sustainable competitive advantage and improved firm performance in a challenging economic environment.

The Resource Based View Theory is attributed to scholars such as Penrose and Wernerfelt (1997). These scholars examined the resource profile of firms with a view of determining their competitive advantages and hence superior performances (Ferlie et al., 2015). The RBV conceptualizes a firm as a bundle of both tangible and intangible resources. The tangible resource refers to those resources that can be touched and felt such as physical assets, and technological assets amongst others. On the other hand, the intangible resource refers to those resources that can't be touched such as branding aspects. RBV notes that firms are not homogeneous in relation to their resource profiles and these differences lead to their varied performance aspects. The control of the resources that are simultaneously: Valuable, Rare, difficult to be imitated and exploited by the Organization's processes (VRIO) leads to superior and sustainable performance levels.

The VRIO framework is critical in indicating the characteristics that the resources at the firm's disposal must have in order to create sustainable competitive advantages in a firm. The aspects of the resources being valuable relates to the capacity of the resource to enable the firm to either exploit opportunities in the business environment or eliminate the threat in the environment. The rarity of the resources relates to the number

of competitors with access to the resource and the ease of access to the given resources. The aspect of inimitability relates to what would be the cost of acquiring or imitating the resource and would it put the competitor at a disadvantage in them trying to do so. Finally, the aspect of organization in the VRIO model examines whether the firm's policies and procedures are organized in manner to exploit the valuable, rare and costly-to-imitate resources.

There are several concepts associated with the RBV theory including core distinctive competences, dynamic capabilities, absorptive capacity and organizational ambidexterity (Karia, 2021). The core distinctive competence refers to the ability of the firm to develop and use internal resources to develop sustainable competitive advantages. The organizational and strategic practices that businesses use to create new resource configurations when markets develop, collapse, split, change, and eventually die are related to the dynamic capabilities. On the other hand, the absorptive capacity relates to the process of knowledge transfer and application within the firm (Othman, Arshad, Aris & Arif, 2015). In this context, the SME firms may have capacity to recognize new, valuable and relevant knowledge that they can use in order to develop competitive advantages and superior performances. Finally, the organizational ambidexterity refers to a balance between the business demands and adoption of environmental change by the business in view of the firm's resource profile aspects (Ferlie *et al.* 2015).

Individual firms are the combination of accumulated tangible and intangible resource stocks that are unique to the firm (Ruzzier & Ruzzier, 2015; and Fahy, 2002). These stocks, in turn, can be described as internal attributes of the firm, including assets, capabilities, processes, routines, and knowledge, which are tied semi-permanently to the firm and controlled by it. Therefore, SMEs firm can also be an entity for knowledge

accumulation and a bundle of heterogeneous resources. It is the experienced-based knowledge developed within the firm that determines its capability to exploit and combine its stock of heterogeneous resources to produce specific services. Such knowledge gives each firm its unique character and a source of sustained competitiveness.

Resource-based view (RBV) logic identifies the kinds of resources and capabilities that require specific investment for their full economic value to be realized. When the realization of entrepreneurial depends on the use of socially complex or tacit resources and capabilities, it is more likely that a form of hierarchical governance (i.e., a firm) will be preferred over less hierarchical governance (i.e., the market). These ideas suggest that conditions requiring the efficient coordination and integration of knowledge are those in which entrepreneurial firms are likely to arise in the economy (Andersson 2000). In the current study SMEs will exploit the intangible resources in form of networking capabilities to develop competitive advantages and superior performances.

Diverse competencies can provide a firm with a competitive edge if they meet two requirements, according to Baia et al. (2020): first, they must be valuable enough to allow the firm to counter threats and take advantage of opportunities in the competitive environment; second, they must be unique to a small number of firms in that particular competitive environment. Because they possess a combination of particular competencies, entrepreneurs are able to take advantage of opportunities presented by external environments and leverage them to further elevate their business. As a result, different businesses' success can be differentiated according to their entrepreneurial competencies. It is noteworthy that not all entrepreneurs possess all essential competencies. The firm's competitiveness and performance, as well as the expansion

and success of the enterprise, are all correlated with entrepreneurial competencies (Man et al., 2002; Colombo & Grilli, 2005). According to this study, the performance of SMEs, which leads to entrepreneurial success, is strongly predicted by entrepreneurial competencies. It validates the idea of resource-based theory, which holds that a company's distinct resource set can provide it a competitive edge (Barney, 1991). This study investigated how entrepreneurial competencies moderated the relationship between networking capabilities and SME firm performance, using the RBV as a framework.

However, like any theoretical framework, the RBV has not been immune to critiques. One of the primary critiques levelled against the RBV is its lack of clarity in defining what constitutes a strategic resource and how to identify them. Critics argue that the RBV's conceptualization of resources as valuable, rare, imperfectly imitable, and non-substitutable (VRIN) is too ambiguous and subjective. Moreover, the theory often overlooks the dynamic nature of resources and fails to adequately address the role of capabilities in resource utilization and development (Barney, 1991). Another criticism of the RBV pertains to its limited applicability in explaining firm performance variations across different industries and contexts. While the RBV emphasizes the internal characteristics of firms, such as resources and capabilities, it may neglect the influence of external factors, such as market dynamics, industry structure, and institutional forces, which can significantly impact firm outcomes (Peteraf, 1993).

Besides, scholars have raised concerns about the RBV's static nature, arguing that it doesn't account for the temporal dimension of resource development and deployment. In today's fast-paced and constantly changing business environment, firms must continuously adapt and evolve their resources and capabilities to remain competitive. The RBV's focus on static resource endowments may thus be inadequate in explaining

the firms' ability to sustain competitive advantage over time (Teece et al., 1997). In addition, some critics contend that the RBV overlooks the importance of strategic alliances and networks in resource acquisition and leveraging. In an interconnected and globalized economy, firms often rely on collaborative relationships with other organizations to access complementary resources, share risks, and exploit new opportunities. However, the RBV's individualistic perspective may downplay the significance of interfirm cooperation as a source of competitive advantage (Dyer and Singh, 1998). To the managers, critiques say that while the theory provides valuable insights into the sources of competitive advantage, it offers little practical guidance on how firms can systematically identify, develop, and deploy strategic resources in practice. This gap between theory and actionable strategy may limit the RBV's utility for managers seeking practical guidance in strategic decision-making (Eisenhardt and Martin, 2000).

This theory of RBV explains how SME owners/managers themselves build their business from resources they currently possess or can realistically acquire to gain a sustained competitive advantage (Wekesa, 2015). According to the theory, an entrepreneur's ability to obtain and manage resources will determine their long-term success. The resource-based theory distinguishes between six categories of resources: Financial resources include cash and fungible financial stocks; physical resources are tangible assets used in production and administration; human resources comprise the

entrepreneur's and his team's knowledge, expertise, and experience; technological resources are embodied in a system, process, or physical transformation; reputation resources are perceptions in the firm's surroundings; and organization resources are the firm's structure, schedules, and frameworks. The company has distinct creative talents, reciprocal resources, and hierarchical schedules and capabilities, according to the Resource Based Theory definition of Goshal et al. (2002). Mughan et al. (2004) state that low managerial competencies, low aptitude dimensions, lack of ability, and inadequate management capacity are all significant reasons for the collapse of SMEs.

The Resource-Based View (RBV) theory was relevant to this thesis as it provided a framework for understanding how SMEs in the North Rift Region can leverage internal resources—such as networking capabilities, entrepreneurial competencies, and self-efficacy—to achieve competitive advantage and enhance performance. By focusing on these intangible assets as key drivers of firm success, RBV helps explain how their effective management and utilization can address systemic challenges and contribute to sustainable growth, thereby offering actionable insights into optimizing SME performance in a challenging economic environment.

### **2.3.2 Competency Based Theory**

Competency-Based Theory (CBT) has emerged as a significant framework in organizational psychology and management, offering insights into how individual competencies contribute to organizational effectiveness and success. Founded by David McClelland in the 1970s, CBT focuses on identifying and leveraging specific competencies or skills possessed by individuals to achieve superior performance in various organizational roles.

David McClelland, a prominent psychologist, introduced CBT as an alternative to traditional trait-based approaches to understanding human behaviour in organizations. McClelland's seminal work, particularly his 1973 book "Testing for Competence Rather than for Intelligence," laid the foundation for CBT. He argued that competencies, rather than innate traits, could be developed and measured, leading to improved organizational performance. At its core, CBT postulates that certain competencies, such as problem-solving, communication, leadership, and teamwork, are critical for effective job performance across different organizational contexts. These competencies can be identified, assessed, and developed through targeted interventions, such as training programs, feedback mechanisms, and performance appraisal systems.

Since its inception, CBT has undergone several developments and revisions to enhance its applicability and validity in organizational settings. One notable development is the distinction between generic and role-specific competencies. Generic competencies are those that are relevant across various job roles and industries, such as communication and teamwork skills, while role-specific competencies are tailored to specific job requirements and organizational contexts. Furthermore, the integration of CBT with other theoretical perspectives, such as social cognitive theory and emotional intelligence, has enriched its conceptualization and practical implications. For instance, researchers have explored the role of emotional competencies, such as self-awareness and empathy, in predicting job performance and leadership effectiveness (Boyatzis, Goleman, & Rhee, 2000).

Despite its contributions, CBT has not been immune to criticisms. One critique is its tendency to focus excessively on individual competencies while overlooking the influence of contextual factors, such as organizational culture, structure, and resources,

on job performance. Critics argue that an exclusive emphasis on competencies may neglect broader systemic issues that impact organizational effectiveness (Lawler, 1994). Moreover, the reliability and validity of competency assessments have been questioned, particularly concerning the subjective nature of competency frameworks and the challenges associated with measuring complex constructs like leadership and creativity (Spencer & Spencer, 1993).

Anything that gives access to a large range of markets, provides customers with tangible benefits, is costly or difficult for rivals to copy, and can be expanded to include additional products or markets in the future is considered a core competency. Compared to resource-based theory, competence-based theory seems to give entrepreneurs more hope. It is the duty of SMEs to identify the core competencies required to take advantage of a specific opportunity for innovation in their accomplishment and to maintain them (Wickham, 2006). According to Mitchelmore & Rowley (2010), competency is the caliber of an entrepreneur's actions that influence the success of their ventures. The establishment, survival, and expansion of ventures are linked to the entrepreneurial competencies (Colombo & Grilli, 2005). Furthermore, the literature focuses on various mechanisms through which performance can be impacted by competencies. Competent entrepreneurs start by looking for better business opportunities. Second, an entrepreneur's ability to formulate a venture strategy that better fits their business is correlated with their management competencies. Consequently, the theory is important to the research because it clarifies the impact of entrepreneurial competencies, which are utilized in this study as a predictor of firm performance.

Competency-Based Theory was therefore relevant to this study as it emphasized the critical role of specific skills, knowledge, and abilities—referred to as competencies—in driving organizational performance. In the context of this thesis, the theory highlighted how entrepreneurial competencies, such as strategic planning and risk management, are essential for SMEs to navigate challenges and achieve success. By focusing on these competencies, the study understood how they contributed to enhancing firm performance, providing insights into how developing and leveraging these competencies lead to more effective management and sustainable growth for SMEs in the North Rift Region of Kenya.

### **2.3.3 Balanced Scorecard**

The Balanced Scorecard (BSC) (Kaplan and Norton 1996) is perhaps the most well-known performance measurement framework. Many people even believe it is the most important and widely used management theory of the 20th century. Balanced Scorecard Card incorporates financial and non-financial measures in one measurement system. An organization's vision and strategy serve as the foundation for the BSC objectives and metrics. Executives are given a thorough framework by the Balanced Scorecard, which converts a company's vision and strategy into a logical set of performance metrics.

According to Kamunge *et al.*, (2014), balanced scorecard not only allows the monitoring of present performance, but also tries to capture information about how well the organization is positioned to perform in the future. Furthermore, the Balanced Scorecard has evolved to become a core management tool, in that it helps CEOs “not only to clarify and communicate strategy, but also to manage strategy.” In practice, companies use the BSC approach to accomplish four critical management processes

namely to clarify and translate vision and strategy, communicate and link strategic objectives and measures, plan, set targets, and align strategic initiatives and finally enhance strategic feedback and learning.

Kaplan and Norton (1992) introduced the Balanced Scorecard in the early 1990, s and the literature reveals that it still prevails as the dominant performance measurement system (Paranjape *et al.*, 2006). The basic idea with the Balanced Scorecard is that financial measurements alone cannot adequately reflect factors such as quality, customer satisfaction, and employee motivation (Gawankar *et al.*, (2015). This was the reason behind the development of the Balanced Scorecard, to balance the financial perspective with the perspective of customers, innovation and learning, and internal business process. Main characteristic of BSC is that it uses both financial and non-financial measures in order to establish a complete view regarding the company's performance (Giannopoulos *et al.*, 2013; Wongrassamee *et al.*, 2003). Over the years, the BSC has been improved and advanced into a measurement system but more importantly into a strategic management system.

The four perspectives in the BSC model are regarded as a chain of cause-and-effect. For example, financial performance depends on a customer's loyalty, which is influenced by an enterprise's internal/business processes. Similarly, internal business processes are dependent on employee's skills (learning and growth). A good Balanced Scorecard should have an appropriate mix of outcomes (lagging indicators) and performance drivers (leading indicators) of the business unit's strategy (Kaplan & Norton, 2001). The process of converting intangible assets into concrete financial and customer outcomes is outlined in the strategy map.

While the BSC has been praised for its ability to align strategic objectives with performance measures across multiple dimensions, it has also faced significant criticisms from scholars and practitioners alike. One of the primary criticisms of the Balanced Scorecard is its potential to create information overload. Critics argue that by incorporating multiple dimensions, perspectives, and performance measures, the BSC can overwhelm managers with an excessive amount of data, making it challenging to identify key priorities and take decisive action (Garengo & Bititci, 2007). Moreover, the complexity of the BSC may hinder its usability and effectiveness in driving strategic decision-making, particularly in fast-paced and dynamic environments where agility is paramount (Speckbacher *et al.*, 2003).

Another critique relates to the BSC's reliance on financial metrics as a key performance indicator. While the BSC advocates for a balanced approach by incorporating non-financial perspectives, such as customer satisfaction, internal processes, and learning and growth, critics argue that financial measures still dominate the framework (Ittner & Larcker, 2003). This overemphasis on financial metrics may lead to a narrow focus on short-term financial outcomes at the expense of long-term value creation and stakeholder interests (Neely *et al.*, 2002). Additionally, scholars have raised concerns about the BSC's static nature and limited adaptability to changing circumstances. The BSC typically involves the formulation of a set of strategic objectives and corresponding performance measures, which may become outdated or irrelevant in response to evolving market conditions, technological advancements, or organizational priorities (Mooraj *et al.*, 1999). As a result, the BSC may fail to provide timely and actionable insights needed to navigate uncertainty and capitalize on emerging opportunities.

There is also criticism regarding the BSC's implementation challenges, particularly regarding the alignment of performance measures with strategic objectives and the establishment of causal relationships between leading and lagging indicators (Norreklit, 2000). Achieving alignment and causality requires careful consideration of organizational context, stakeholder expectations, and the interdependencies between different strategic initiatives, which can be complex and time-consuming to address effectively.

Over the years the BSC has been improved and advanced into a measurement system but more importantly into a strategic management system. It converts the goals and objectives of an organization into a thorough set of performance metrics that serve as the foundation for strategic measurement and management systems. Additionally, BSC can align the management processes of a business and gives emphasis to the implementation of long-term strategy.

The Balanced Scorecard (BSC) was also relevant to this study as it provided a comprehensive framework for evaluating SME performance across multiple dimensions, including financial, customer, internal processes, and learning and growth perspectives. By incorporating the Balanced Scorecard approach, this thesis systematically assessed how networking capabilities, entrepreneurial competencies, and self-efficacy impacted various aspects of SME performance. This holistic perspective allowed for a more nuanced understanding of how these factors contributed to overall organizational effectiveness and strategic alignment, offering actionable insights for improving performance and achieving sustainable growth in the North Rift Region of Kenya.

### **2.3.4 Social Capital Theory**

While the roots of Social Capital Theory trace back to early sociological and economic thought, gained prominence in the late 20th century. Its modern conceptualization owes much to the work of Pierre Bourdieu, James Coleman, and Robert Putnam. Pierre Bourdieu, a French sociologist, introduced the concept of social capital in the 1980s as part of his broader theory of social reproduction. In his seminal work "The Forms of Capital" (1986), Bourdieu identified social capital as one of the key forms of capital alongside economic and cultural capital. He defined social capital as the resources embedded within social networks, including relationships, norms, and trust, which individuals can leverage to achieve their goals.

James Coleman, an American sociologist, further developed the concept of social capital in his influential book "Foundations of Social Theory" (1990). Coleman emphasized the role of social networks in facilitating cooperation and coordination among individuals, leading to collective outcomes that benefit the group. He highlighted the importance of trust and reciprocity in social exchanges and argued that social capital could enhance the efficiency of social systems.

Robert Putnam, an American political scientist, brought widespread attention to social capital through his seminal work "Bowling Alone: The Collapse and Revival of American Community" (2000). Putnam documented the decline of social capital in the United States, citing decreasing levels of civic engagement, trust, and social participation. He argued that the erosion of social capital had detrimental effects on democracy, social cohesion, and economic prosperity. Since then, Social Capital Theory has been further elaborated and applied across various disciplines, including sociology, economics, political science, and management. Scholars have explored its

implications for a wide range of phenomena, such as economic development, organizational performance, public health, and social inequality.

According to social capital theory, an individual or unit's total real resources are those that are ensconced in, accessible through, and generated from their network relationships (Read, 2014; Liao & Welsch, 2003). Kwon and Adler (2014) state that, similar to other resources, sources of social capital are found in the business structures that house network actors. According to Antoldi et al. (2011), an inter-firm network gives a firm access to social capital, fostering and supporting the creation of intellectual capital and ultimately enhancing its competitive advantage. Social capital can be categorized into three main categories, according to Lee (2009): structural, relational, and cognitive. Antoldi et al. (2011) assert that structural, relational, and cognitive social capital are clearly distinguished from one another. A given actor's network density, connectivity, hierarchy, and stability of ties between nodes are all considered aspects of the structural dimension of social capital. These include the number and types of actors involved as well as the presence or absence of direct ties between that actor's specific network. The argument posits that the relational dimension pertains to the behavioral assets of the network, which include obligations, expectations, and trustworthiness.

In general, social networks fall into two categories: those that exist between firms and are crucial for acquiring new skills and knowledge, and those that exist within the firm and involve networks amongst employees. The latter is essential for disseminating strategic information obtained from sources outside the company and for fortifying the company's knowledge base. According to this theory, social networks play a critical role in the procurement, sharing, and application of resources as well as in the

development of new skills that are essential for a firm's competitive advantage and overall performance (Kale et al., 2002).

Critiques of Social Capital Theory have been prominent in scholarly discourse, pointing out several limitations and challenges that the theory faces. One significant critique revolves around its conceptual ambiguity, where scholars argue that the term "social capital" lacks a universally agreed-upon definition, leading to inconsistency in its operationalization and measurement. This ambiguity hinders theoretical development and empirical research (Lin, 2001).

Measurement challenges represent another critique of Social Capital Theory. Scholars contend that capturing the multidimensional nature of social capital is difficult, leading to debates about the adequacy of existing measurement approaches. This methodological challenge has implications for the reliability and validity of research findings in the field (Krishna & Shrader, 2000).

Normative assumptions embedded within Social Capital Theory have also come under scrutiny. Some scholars argue that the theory tends to portray social networks and relationships as inherently positive forces, overlooking their potential negative consequences such as exclusion and discrimination. This critique calls for a more nuanced understanding of the diverse outcomes associated with social capital (Portes, 1998). Causality and endogeneity present significant challenges in establishing the relationship between social capital and outcomes. Critics argue that social capital may operate as both a cause and a consequence of positive outcomes, complicating efforts to identify clear causal pathways. This issue of endogeneity raises questions about the reliability of causal inferences drawn from empirical studies (Sobel, 2002).

The context dependence of social capital is another area of critique. Scholars argue that the significance and effects of social capital vary across different cultural, economic, and institutional contexts. This critique underscores the need for a contextualized approach to studying social capital and its implications (Woolcock & Narayan, 2000). Exclusionary effects associated with social capital have also been highlighted by critics. While social networks can facilitate cooperation within cohesive groups, they may also lead to the exclusion or marginalization of outsiders. This critique draws attention to the potential for social capital to perpetuate social inequalities and exclusionary practices (Portes, 1998).

Finally, some scholars argue that Social Capital Theory places an overemphasis on the structural aspects of social networks, such as network density and centrality, while neglecting relational and cognitive dimensions such as trust and reciprocity. This critique calls for a more comprehensive understanding of social capital that incorporates diverse forms of social relationships and interactions (Adler & Kwon, 2002).

Smith & Lohrke (2008) state that the relational perspective is more concerned with information and resources that are obtained through the entrepreneur's direct and personal relationships that have grown over time. This perspective covers a wide range of social context elements, including interpersonal relationships and social interactions (Claridge, 2018). Since network engagement, norms, and trustworthiness have the potential to result in organizational advantage, relational embeddedness is important to SMEs. In conclusion, the cognitive aspect of social capital pertains to the significant communication contexts that exist within and between actors (Claridge, 2018). To promote the sharing of information, expertise, and resources and ultimately result in better performance, the SMES will need to make use of these cognitive dimensions.

Social Capital Theory was relevant to this study as it emphasized the value of social networks and relationships in facilitating access to resources, information, and opportunities. In the context of SMEs, this theory highlighted how networking capabilities—the ability to build and leverage social connections—enhanced firm performance by providing critical support and creating business opportunities. By applying Social Capital Theory, the thesis aimed at exploring how the quality and extent of SME networks influence their performance, and how these social assets, alongside entrepreneurial competencies and self-efficacy, contributed to overcoming challenges and achieving business success in the North Rift Region of Kenya.

## **2.4 Empirical Review**

This section looked at the various empirical studies and how they discussed the key concepts as per the study objectives.

### **2.4.1 Networking Capabilities and SME Performance**

The impact of networking capabilities on firm performance has been the subject of numerous empirical studies conducted both domestically and abroad. Various metrics have been employed to assess the impact of networking capabilities on company performance, yielding inconsistent and ambiguous outcomes. Maina et al. (2016) conducted a study on the connection between firm performance and network among Kenyan manufacturing firms. Network structure, network governance, and network content were used in the study as elements of network relationships. Their research revealed a positive and substantial relationship between firm performance and network structure, governance, and content. The current study will use the networking capability dimensions of coordination, partner knowledge, internal communications, and relational skills, as well as how they affect the performance of SMEs.

According to Maina et al (2016), networking dimensions played an important role in the performance of manufacturing Small and medium Sized enterprises in Kenya. This was a study on the network dimensions and firm performance among manufacturing SMEs in Kenya. The study had networking dimensions conceptualized under two specific aspects of network intensity and range respectively. On the aspect of intensity, it was established that most of SMEs manager had known their counterparts for over five years. Further, it was established that majority of them maintained close relationship with each other. Finally, it was noted that most of them met frequently. The results corroborated the study by Maina et al. (2016), which found that resource sharing increased with member relationships. The performance of the firm was found to be predicted by network intensity, as reported by Seck and Mazzarol (2006), and this study confirms their findings. Furthermore, network intensity was found to influence supply chain performance by Lagat (2016), which was corroborated by this study.

Korir (2018) found that the networking aspects of network dynamics, network structure, and network capability improved firm performance. The study looked at how networking aspects affected Kenyan event management companies' performance. The study used covariance-based confirmatory research design to confirm indicators of the four variables under study, and to establish the causal link between networking dimensions and venture performance. A sample of 288 proprietors were drawn and using Structural Equation Modelling as the principal analysis approach, the study established that networking dimensions positively and significantly predicted events venture performance. Moreover, the measurement model confirmed that the customer and learning and growth perspectives were the main indicators of events venture performance.

A study on strategic networking and the expansion of technology-oriented SMEs in Singapore has been carried out by other researchers. The study demonstrated that, although intensity Seck and Mazzarol (2006) predicts, network range has no bearing on the firm's growth. The study by Hisrich and Dong (2015), on the other hand, examined networking, acquiring resources, and the performance of small and medium-sized enterprises in China. In three Chinese economic zones, they looked at 227 businesses. The study's independent variables were the range and intensity of the network. According to the study, network range, network intensity, and firm performance were all positively correlated.

The association between network features, network operation, network resources, and export performance among SMEs was investigated in an Irish study conducted by Kenny and Fahy (2011). Human capital resources, network coordination, strong ties within networks, and the export performance of SMEs were all positively correlated, according to the study. Furthermore, no relationship was discovered between the firm's financial, market, and export performance and weak ties, trust, network initiation, cooperation, sensitive resources, relational capability, network learning, and information sharing. Business networking has been found to have accumulated benefits for small and medium-sized enterprises (SMEs) (Beth et al., 2007). The study's findings indicated that networking contributed to the creation of wealth and jobs by local firms, accelerated the transfer of knowledge and technology upgrades, improved skills, standards, and capacity, attracted foreign direct investments (FDIs) through cluster effects, more diversified client and market structures, more stable relationships with buyer/producer organizations, shared risk through joint funding operations, facilitated access to finance, and offered opportunities for innovation, upgrading, and increasing competitiveness.

Locally Kirimi and Dorothy (2021) studied the influence of entrepreneurial networks on financial performance of Medium sized enterprises in Kenya. The results clearly showed that there was a positive and significant influence between entrepreneurial networks and financial among medium-sized enterprises in Kenya. The study findings indicated that the overall performance was positively affected by the various entrepreneurial networks adopted by medium-sized enterprises such as well laid and efficient structural holes, network structures, network density, network ties and network centrality. The study that concluded that enterprises become entrenched in various forms of network structure since they pursued varied competitive approaches, and this influenced their financial performance. Furthermore, it can be concluded that the enterprises that engaged with networks that are efficiency-driven, linkages to financiers and used personal networks to access valuable resources for the company had improved financial performance.

Bengasi (2014) found that the performance of SMEs was significantly impacted positively by three dimensions of network connectivity (NC): partners' knowledge, internal communication, and relational skills. However, one dimension of NC, coordination, had a negative impact on SMEs' performance. The study was looking at the influence of networking capability dimensions in SME performance among 291 SMEs in Tanzania. Given that SME performance is positively impacted by NC dimensions, it stands to reason that companies that have knowledge of their partners will be better able to find prospective networking partners who have the necessary resources and skills to fill in any gaps in their resources. The relationship between partners' knowledge and relational skills and internal communication is positively correlated, suggesting that firms with stronger relational skills and internal communication practices are more likely to exhibit patience, empathy, and trust toward

their networking partners. They also create an environment in which strategic information and resources that strengthen a firm's competitive advantage can be shared. Trust builds confidence to the networking partners, who then become willing to share strategic resources for the firm's advantage. Patience and empathy allow the firm to learn and understand partners' strengths and weaknesses. Bengasi (2014)'s network dimensions will be employed in this study to ascertain the impact networking capabilities have on the performance of SMEs in Kenya.

The positive impact of internal communication on the performance of SMEs has been documented. This implies that the sharing of strategic information and resources within the company helps employees acquire new skills, which in turn improves both short- and long-term performance. This may imply that in order for SMEs to gain from networking, a focus on exchanging strategic information and other resources obtained both inside and outside the company's walls may be necessary.

Networking capability is a critical component of EO and therefore firm performance aspects within the SME sector. SMEs must have the capacity to detect, pursue and exploit opportunities within their business environments. However, certain limitations may hinder these capacities due to insufficient resources and dynamic capabilities in resources utilization aspects. In such a context, the SME may need to develop networks with the purpose of enhancing opportunities exploitation, acquisition of knowledge and creation of learning opportunities from the combined experiences, knowledge, and expertise of the network. Thus, networking can be used for the purposes of accessing power, information, knowledge, technologies and capital aspects.

Networking capabilities have been associated with improved SME performance in different aspects across the world. In this context, networking capabilities create opportunities for new ideas creations, innovation aspects, acquisition of specialized

knowledge and competences, and resources. These aspects impart on the EO through leading to higher innovation levels amongst firms, pro-activeness and risk-taking capabilities of the firm. Collectively these aspects are linked with greater SME performance aspects.

#### **2.4.2 Networking Capabilities and Entrepreneurial Competencies**

Networking capabilities possessed by entrepreneurs in terms of coordination, internal communication, partner knowledge resource and relational skills acts as intangible resources which directly help entrepreneurs to improve their entrepreneurial competencies. Competencies are especially relevant to the establishment, continuation, and/or expansion of a business in the context of entrepreneurship (Galvão, Marques & Ferreira, 2020). In conclusion, it is widely acknowledged that people who start and grow their own businesses possess entrepreneurial competencies, and that the range of abilities and knowledge needed to manage a small business differs both quantitatively and qualitatively from that of larger organizations (Bougie & Sekaran, 2019).

A company gains a competitive advantage, according to Galvão, Marques and Ferreira, 2020), when it manages its resources in a way that rival companies cannot match or afford. This suggests that in order to effectively use resources, coordination is involved in gathering resources from both internal company sources and partner sources, allocating resources to the most practical operations, and overseeing the process to make sure resources provide the greatest return on investment, thereby giving the company a competitive advantage. Based on this premise, the current study contends that there is a direct correlation between SMEs' entrepreneurial competencies and their networking abilities.

Networks enable businesses to acquire knowledge, resources, technology, and new skills from networking partners, as stated by Abbas et al., (2019). This emphasis is especially important for businesses with limited resources if they can strategically allocate the resources they have acquired to create a competitive edge that ultimately ensures performance. According to Varga et al., (2020) entrepreneurial networks advanced the entrepreneurial value by increasing competitive advantage and resource approach without capital investment. This is one of the studies that link NC and EC. The study confirmed that networks can help entrepreneurs expose themselves to new opportunities, obtain knowledge, learn from experience and benefit from synergistic effect of pooled resources.

Small and Medium-sized Businesses have received more attention recently in the field of entrepreneurship research. This is because, as noted by Eikelenboom and de Jong (2019), SMEs are critical to economic development and growth. Both developed and developing nations are significantly impacted by SMEs. According to researchers like Asiimwe (2017), SMEs were crucial for achieving faster economic growth and industrialization even in developed nations like the United States and Europe. As per the 2019 report by the Uganda Bureau of Statistics, small and medium-sized enterprises (SMEs) account for approximately 45% of the workforce and make a noteworthy contribution of over 20% to the country's GDP. Due to this, SMEs are essential to socioeconomic development and the fight against poverty on a global scale in terms of creating jobs, GDP growth (Donkor et al., 2018; OECD, 2019), serving as engines for innovation (Maldonado-Guzmán et al., 2019), distributing income, utilizing resources (Hernández-Linares et al., 2021; Karami & Tang, 2019), and promoting regional development (Donkor et al., 2018).

In an environment of intense competition, small and medium-sized enterprises establish long-term entrepreneurial business networks to fortify and improve their dynamic capabilities (Hedvall, Jagstedt & Dubois, 2019; Guo, Xu, Tang, Liu-Thompkins, Guo & Dong, 2018). Small businesses and medium-sized enterprises (SMEs) rely on their business performance to survive, and this performance is linked to economic growth and vice versa (Rodrigo-Alarcón, García-Villaverde, Ruiz-Ortega & Parra-Requena, 2018). Small businesses' ability to grow and perform sustainably depends less on any one factor than it does on the resources that are available to them and how well their dynamic capabilities work together to fit all of these factors together (Raza, Minai & Hashim, 2017). Entrepreneurial networks are an intangible resource that boosts the productivity of small businesses and SMEs, according to Ibrahim, Ahmed, and Minai (2018). Academics held the belief that the entrepreneurial network, or EBN, is beneficial to business owners of small and medium-sized enterprises. Through business networking, these businesses may gain access to new information, valuable connections, and credibility. (Xu, Dang, Zhang, and Guo, 2018).

It is important to remember, though, that business networks are dynamic and not static. The ability of a small business to succeed and continue operating as a new venture or enterprise is determined by its business network power. Business growth is facilitated by and results from entrepreneurial networking (Johannisson, 2017). According to Tajuddin, Hashim, and Zainol (2017), small businesses must manage business networks in order to thrive in the face of intense competition. Consequently, one of the goals of this research is to ascertain how this may affect entrepreneurial networks and how it may affect small businesses' ability to perform sustainably (Abbas, Raza, Nurunnabi, Minai & Bano, 2019). In order to survive and grow in a particular era of an uncertain business environment, small and medium-sized businesses thus choose to act as

competitive by strengthening the entrepreneurial business network. Nonetheless, the corpus of research that supports and demonstrates the resource-based view indicates that small and medium-sized businesses use their resources and adaptable capabilities to achieve growth and sustainable performance. Ibrahim, Ahmed, and Minai (2018).

According to Das and Goswami (2019) many studies have argued that the performance of small firms depends on the help of people who can provide the support to identify opportunities and access to resources in the market. Networking boosts the business and allows it to easily fill in the missing resources: it feeds the companies with forward-looking information that helps reduce uncertainty in business (Mejri & Zouaoui, 2020), facilitates access to knowledge, technology and power (Tsouri, Hanson & Normann, 2021) and it helps to raise financial funds at a lower cost (Nguyen, 2022). According to Child et al., (2019), networking with others companies are associated with a higher growth rate since they allow better synergies, and reduce the costs and risks associated with the project. Milanesi, Guercini and Tunisini, (2020) consider it as the main characteristics of high-growth SMEs.

#### **2.4.3 Entrepreneurial Competencies and SME Performance**

Intrinsic traits like specialized knowledge, drives, self-perceptions, social standing, and skills that support the founding, survival, and expansion of enterprises are referred to as entrepreneurial competencies (Bird, 2019). Amini Sedeh, Pezeshkan, and Caiazza (2022) make a clear distinction between the learned and innate components of competency. According to Chen, Tang, and Han (2022) the entrepreneur's attitudes, traits, self-image, and social role are the fundamental components of competency. Concurrently, learned characteristics comprise elements like knowledge, experience, and skills that are acquired through various theoretical and practical training programs on the job; these elements are also known as internalized components (Peschl, Deng &

Larson, 2021). While externalized competence components were included by other researchers (Zainol & Al Mamun, 2018 and Silveyra, Herrero, and Pérez, 2021) discovered internalized competency factors. Although innate or natural components of competency are difficult to modify, the externalized form of a competency can be changed with the right training and educational initiatives (Sakib, Rabbani, Hawaldar, Jabber, Hossain and Sahabuddin, 2022). Empirical studies have been done by scholars (Kisubi et al., 2022; Khan et al., 2021 and Asenge *et al.*, 2018) and others on the importance of entrepreneurial competencies in business performance or business successes. Numerous studies have produced encouraging findings demonstrating that an entrepreneur's capacity to cultivate the appropriate combination of competencies will directly impact the success of their business. Research on entrepreneurship has demonstrated that the performance of SMEs is positively impacted by entrepreneurial competencies. High-entrepreneurial competency managers of businesses typically monitor and control their operating environment to identify new opportunities and strengthen their competitive positions (Kisubi, Aruo, Wakibi, Mukyala & Ssenyange, 2022).

Sánchez (2012) asserts that competencies are observable behaviors that are more closely associated with success than other aspects of entrepreneurship, such as motivations, intentions, or personality traits. Additionally, Kadir & Nursyamsi (2017) pointed out that entrepreneurial competencies have both direct and indirect effects on firm performance, making them a significant factor in improving firm performance. It is anticipated of an entrepreneur to engage with these external forces, necessitating his exceptional competence in a variety of domains, including technical, managerial, behavioural, intellectual, and attitude. As a result, entrepreneurs face ongoing

challenges in using a certain set of competencies to be successful in their business endeavours.

Research has shown that there are noteworthy correlations between entrepreneurial skills and business success. Once more, research by Khan, Zubair, Rathore, Ijaz, Khalil, and Khalil (2021) demonstrated a direct correlation between venture growth and entrepreneurial competencies. In contrast, CEOs' general competencies—organizational skill and opportunity recognition skill—had significant indirect effects on venture growth, according to Camisón-Haba, Clemente-Almendros, and Gonzalez-Cruz (2019). CEOs' specific competencies included industry skill and technical skill. The entrepreneurial competencies, which included technical skill, industry skill, opportunity skill, and management skill, were found to be positively correlated with venture growth in a different study conducted in 2021 by Ibudin, Ogundana, and Okonkwo using the same variables.

Asenge *et al.*, (2018) did a study on entrepreneurial competencies and entrepreneurial mind set as determinants of Small and Medium Scale Enterprises Performance among SMEs in developing country and specifically SMEs in Benue State, Nigeria. Using survey design questionnaire, a sample of 300 participants were derived using the Taro Yamane formula. The results of the study demonstrated that SMEs' performance was highly impacted by entrepreneurial competencies. The outcomes also showed that the performance of SMEs was significantly improved by an entrepreneurial mind-set. The study concluded that entrepreneurial competencies and an entrepreneurial mind set are significant predictors SMEs performance in developing countries.

Financial management has a positive impact on the performance of the youth enterprise, claim Miano and Bett (2018). Youth entrepreneurs were able to evaluate the level of

competition in the business sector and the market viability of their ventures thanks to their marketing skills. Marketing skills enabled youth entrepreneurs to draw a strategy for their business, enabled youth entrepreneurs to reach out to customers and to solicit market information. The study was conducted among youth enterprises in Manyatta Embu-Kenya. The study adopted descriptive statistics to establish the influence of entrepreneurial competencies on the performance of youth enterprises. The sample size of the study was 81 youth enterprises drawn from 6 wards in Manyatta constituency. Respondents were in agreement that they were trained on the importance of completing projects within provided timeframes, provided costing and delivering the quality promised at the time of signing a contract. The findings further showed that youth entrepreneurs acquired skills on implementation of projects, importance of monitoring projects, evaluating projects and planning projects.

Study done by Mgbemena *et al.* (2017) on the role of entrepreneurial competencies in promoting entrepreneurship used time, marketing, communication, decision making and financial competencies as the variables for entrepreneurial competencies. The study sampled 851 business owners and managers from Anambra State, Nigeria. According to the study, entrepreneurs must also develop their time management, communication, marketing, decision-making, and financial management skills in order to avoid business failures caused by limited access to capital. It was suggested, among other things, that the government support business owners in acquiring the skills necessary for successful operation of their enterprises in light of the findings.

Using a sample of 153 SMEs' owners and managers, Thomas' (2014) study examined the connections between entrepreneurial traits and firm performance. Using two constructs—competitive scope and organizational capabilities—the framework connected entrepreneurial competencies and SME performance. Through competitive

scope and organizational capabilities, the hypothesis testing results demonstrated the direct and indirect effects of the entrepreneur's opportunity, relationship, innovative, human, and strategic competencies on the long-term performance of a SMEs.

According to Gautam and Gautam (2024), literature review and interviews were done to managers to discover the dimensions called entrepreneurial supply chain among small and medium sized enterprises. This was in their study on entrepreneurial supply chain management competence and performance of manufacturing SMEs. The entrepreneurial SCM competences were measured in terms of five first-order constructs: innovation orientation, pro-activeness orientation, risk-taking characteristics, relational capital, and coordination capability. The study also proposed that these competences affected SMEs' performance directly and indirectly via the firm's SCM strategies. According to Azmi (2018), education significantly affected the development of entrepreneurial competencies among entrepreneurs, while the training before business set-up, training after business set-up and work experience had no effect on the development of entrepreneurial competencies. This was the result of study to investigate the impact of key factors that influence the development of entrepreneurial competencies in Malaysian SMEs, both in the manufacturing sector and services sector. Using a population of 407 owners and manager involved in SMEs, data was collected using questionnaires to evaluate entrepreneurial competencies and items that influence the development of entrepreneurial competencies.

Enterprise performance and entrepreneurial competency are supported by empirical data, claim Sakib et al. (2022). This research looked into how firm performance in Kaduna state, Nigeria, was affected by the entrepreneurial competencies of women-owned businesses. The results demonstrated a significant relationship between the firm performance of Nigerian women entrepreneurs and their organizing, opportunity, and

strategic competencies. Business success was impacted by entrepreneurial competencies in another research conducted by Umar et al., (2018). Competencies related to opportunity, organizing, and strategy had a major impact on the performance of SMEs, whereas competencies related to relationship, conceptual, and commitment had less of an impact on profitable operations.

In order for technicians to succeed in small-scale auto repair businesses in Lagos State, Adeniran et al., (2024) conducted research on the entrepreneurial competencies needed. According to the findings, technicians in Lagos State's small-scale auto repair business need to possess 24 personality competencies, 22 managerial competencies, and 15 marketing competencies to succeed. In order to prepare auto technicians in Lagos State, it was suggested that all of the identified entrepreneurial competencies be packaged and utilized.

According to Kamberidou (2020), women entrepreneurs in East London, South Africa, depend on their entrepreneurial competencies to thrive and perform. The goals of the research were to pinpoint the essential entrepreneurial skills that affect women business owners' performance, to establish a connection between these skills and their success, and to recommend tactics for enhancing the skills of female entrepreneurs. The study used primary and secondary data sources. An analytical research design was used in this study. First-hand information was gathered via a self-administered questionnaire.

Entrepreneurial skills and the performance of SMEs are positively correlated, according to Etim et al. (2022), particularly in Nigeria's developing economies' agro-based economic sectors. The data collection instrument for the study consisted of 232 copies of questionnaires that were given to managers and owners of agro-based businesses in Lagos State. To demonstrate the relationships between the variables, regression

analysis was used in the data analysis. The results showed a relationship between entrepreneurial competencies and the profitability, customer base, organizational effectiveness, and sales growth of the firms at various levels. According to the study, businesses that want to expand should deliberately work on becoming environmentally conscious and skilled at identifying market opportunities. The strategic, opportunity, conceptual, and commitment dimensions of entrepreneurial competencies—all of which the study used—had a major impact on the effectiveness of the organization.

Entrepreneurial competencies are positively and significantly associated with SMEs survival, according to a study conducted in Kakamega County, Kenya by Saka (2019). The investigation's findings supported the findings of other researchers, who discovered that entrepreneurial competencies have an impact on business success in the context of Malaysian SMEs, by showing a positive and significant relationship between SMEs survival and these competencies. According to certain research, the performance of businesses is significantly impacted by entrepreneurial traits. In other research, the relationship between entrepreneurial traits and business performance was found to be mediated by entrepreneurial competencies. In other words, stronger entrepreneurial traits will lead to an improvement in the owner's competency, which will ultimately affect the survival and performance of the business.

Local research on EC by Mwangi (2018) provides guidance that serves as the foundation for additional research on firm performance taking other variables into account in the Kenyan context. The study looked at how physically challenged entrepreneurs in Kiambu County performed in terms of their entrepreneurial abilities, both directly and indirectly. Organizing, Conceptual, Strategic, Opportunity, Commitment, and Relationship competencies were the EC constructs that were

employed. In addition, the study evaluated how entrepreneurship education affects the performance of businesses and individuals with disabilities. In order to control the relationship between the independent and dependent variables, the business external environment was included. A descriptive-survey research design was employed in this longitudinal study. This was primarily a quantitative study with some qualitative information added for triangulation. 172 respondents were chosen using simple sampling techniques and simple random sampling. After data analysis, it was determined that there is a significant positive linear relationship between all competencies and entrepreneurship performance. It was discovered that the relationship between the six competency areas and entrepreneurship performance was partially moderated by the business external environment.

The significance of entrepreneurial competencies on the performance of women entrepreneurs in South Africa was investigated by Zizile and Tendai (2018). This study looked into how South African women entrepreneurs performed and how important entrepreneurial competencies were. Finding important entrepreneurial competencies that affect women entrepreneurs' performance, establishing a link between these competencies and women entrepreneurs' performance, and proposing tactics for raising women entrepreneurs' entrepreneurial competencies were the main goals of this study. As the study's findings demonstrated, SMEs' performance and survival depend heavily on their ability to be entrepreneurial.

In order to create a successful business model canvas in Indonesia, Sundah, Langi, Maramis, and Tawalujan (2018) conducted research on the topic of developing entrepreneurial competencies. The empirical findings demonstrate that the entrepreneur's unique working attitude, together with their managerial, technical,

marketing, financial, and human relations competencies, all have a positive and significant impact on the business model canvas. Furthermore, the quantitative result is supported by the empirical cases and the conversations with two groups of entrepreneurs, which indicate that human relations competencies have a greater influence in achieving successful business model canvas.

#### **2.4.4 Entrepreneurial Self- Efficacy and SME performance**

According to personal assessments of one's managerial and technical abilities, entrepreneurial Self-Efficacy is the conviction that one can pursue entrepreneurial endeavors (Al-Ghazali & Afsar, 2021). High levels of task-specific Self-Efficacy led to higher performance standards, greater persistence, and greater effectiveness in the pursuit of goals and objectives (Lu, Chen & Qi, 2023).

Abiodun, (2020) studied the institutional environment, entrepreneurial orientation, and Self-Efficacy of small and medium-sized enterprises in Nigeria. He looked at how entrepreneurial Self-Efficacy contributed to the growth and direction of small and medium-sized businesses. Integrating Self-Efficacy was intended to address the aforementioned obstacles to the growth of SMEs in Nigeria that are founded on entrepreneurship. The study used a modified scale, and the owners of small and medium-sized businesses in Nigeria provided the data. The suggested mediation model was analysed using partial least squares structural equation modeling (SEM-PLS). The study's findings supported the idea that entrepreneurship can help establish a successful SME with an enterprise base. The study came to the conclusion that entrepreneurship is a crucial engine for long-term economic growth, independent of social, economic, or geopolitical factors. However, it became clear that creating and maintaining a thriving

small- and medium-sized business (SME) with an emphasis on entrepreneurship was a significant challenge.

McGee and Peterson's (2019) investigation examined the enduring effects of entrepreneurial Self-Efficacy and entrepreneurial orientation on venture performance within the state of Texas. Throughout a five-year period, the study gathered multi-wave survey data to evaluate the lagged effects of entrepreneurial Self-Efficacy (ESE) and entrepreneurial orientation (EO) on firm performance. The study's findings show that, although in quite different and intriguing ways, ESE and EO are both positively associated with firm performance. Entrepreneurially self-efficacious founder/managers may help improve the performance of very young firms but such benefits dissipate over time. An EO, on the other hand, did not appear to be particularly beneficial to very young firms. However, the results suggested that an EO may play an increasingly valuable role as new firms mature.

Self-Efficacy is a topic that has been studied in great detail. Related research has demonstrated that beliefs about one's own abilities can have a substantial impact on performance in a variety of domains of human functioning, including functioning related to one's job (Demetriou et al., 2020). Studies on the subject of entrepreneurship have shown a positive correlation between the degree of Self-Efficacy in the field and the performance of the firm as indicated by increases in revenue or employment.

The Social Cognitive Theory (Yusuff & Wahab, 2019) has been used to explain and support the effect. According to this theory, people who have high levels of Self-Efficacy tend to be more confident and do well at work. Conversely, people with low Self-Efficacy constantly questioned their skills and quickly lost faith in them, which made it harder for them to complete the tasks successfully. Conversely, high Self-

Efficacy can occasionally promote overconfidence, complacency, and a propensity to take on excessive risk, among other inefficient tactics.

Studies by Schunk, (2023) indicate that when possible, outcomes in each situation are unclear or uncertain, Self-Efficacy is more likely to have a negative impact on performance; this is typically the case in dynamic environments that change quickly and unexpectedly. While prior research has indicated a positive correlation between ESE and business performance, most of these studies have focused on university students rather than active business owners, and their sample populations lacked diversity (Garcia & Baack, 2023).

The growth of new ventures and individual success are significantly influenced by Self-Efficacy, according to McGee and Peterson, (2019). A strong belief that Self-Efficacy is beneficial for entrepreneurs can be found throughout the corpus of existing work. According to Gielnik, Bledow and Stark (2020), for instance, an entrepreneur with a high level of Self-Efficacy is more likely to “exert more effort for a greater length of time, persist through setbacks, and develop better plans and strategies for the task”.

In South Africa, women-owned SMEs (WO-SMEs) have become an integral part of economic growth in emerging markets. However, extant literature suggests that they are not performing as best as their male counterparts; thus, the need for researchers to give them special attention. Msimango-Galawe and Mazonde, (2021) thus set forth to look at entrepreneurial Self-Efficacy and performance of women-owned SMEs. A number of scholars had cited Multiple factors as reasons for the poor performance, however, this study opted to focus on one important factor, entrepreneurial Self-Efficacy of women entrepreneurs. This study set out to ascertain the degree of entrepreneurial Self-Efficacy (ESE) among female entrepreneurs.

Secondly, it was to examine the impact ESE has on the performance of these women owned SMEs in emerging markets. The scholars argued that much as there are a plethora of studies that deal with entrepreneurial Self-Efficacy and performance of SMEs in general, very few have focused on the ESE of women entrepreneurs in emerging markets. The study added that even those that focus on women entrepreneurs tend to lean more on comparisons between women and men-owned businesses. This study was therefore quantitative and used online questionnaires to collect primary data from 120 women entrepreneurs. The cross-sectional study adopted the positivist paradigm and analysed data using primarily multiple linear regression. The results showed that the level of entrepreneurial Self-Efficacy of women entrepreneurs in South Africa is low, leading to low performance. There was also evidence suggesting that the growth dimension of entrepreneurial Self-Efficacy influenced performance and emerged as the strongest predictor of performance (business growth and financial satisfaction).

A recent study on the influence of general Self-Efficacy among women micro-entrepreneurs in Malaysia was done by Yusrinadini *et al.*, (2019). The findings revealed that general Self-Efficacy had significant correlation and relationship with business performance. This was primarily because the respondents highly regarded their organizational skills and ability to handle a variety of tasks necessary for their business success. A study that attributes moderating role of ESE on performance relationship was carried out by Sun *et al.*, (2023). Results of the study showed that SMEs' performance and strategic improvement are significantly correlated, and that the relationship between performance and strategic improvisation is moderated by entrepreneurial Self-Efficacy. This study clearly shows that networking capability which is a strategic resource that has been shown to have a relationship with

performance of SMEs while being moderated by the ESE. The current study will build on this argument and that the ESE will moderate in networking capabilities-firm performance relationships.

The performance of firms has been found to be robustly predicted by entrepreneurial Self-Efficacy, as per the research conducted by Soomro and Shah, (2022). Their findings showed that when high entrepreneurial Self-Efficacy was paired with moderate optimism, it had a positive impact on firm performance in dynamic environments, but when high optimism was combined with it, a negative effect was observed. Nonetheless, the impacts of optimism did not mitigate the relatively minor effects of Self-Efficacy in stable environments. According to the overall findings, having a high level of Self-Efficacy is not always advantageous for entrepreneurs and can even have the opposite effect in certain situations.

Small, and Medium Enterprises (SME) management is highly dependent on the role of entrepreneurial leadership because it is one of the keys to success in the company. Entrepreneurial leadership is an act of change that leads to the increasing of creativity, innovation, intuition, leadership skills, motivation, and the courage to take risks in an organization. A leader must be able to influence subordinates' behaviour so that they can cooperate and work productively to achieve organizational goals. A number of researchers have studied the success factors for Small, and Medium Enterprises (SMEs) by discussing about human/ social and financial capital. But, it is found that only small numbers of researcher who analyze the role of socio-cognitive factors in the SMEs' success. One of the most important factors is Self-Efficacy. Self-Efficacy is particularly suited for entrepreneurial studies because it builds certain tasks, including an individual's self-esteem, both internal (personality) and external (environmental). The

population of this study is the Alumni of UNESA. The sampling technique is conducted by purposive sampling. Alumni who run a business and graduated at least 2 years before 2017 are chosen as sample. The data analysis technique used is multiple regression analysis. The results of this study conclude that there is influence between entrepreneurial leadership and financial Self-Efficacy on the performance of micro and small business amongst the alumni.

A direct positive relationship between ESE and firm performance has been consistently demonstrated in several studies (McGee & Peterson, 2019; Seet, Lindsay & Kropp, 2021 and Shen, 2021). This implies that business owners are more likely to guide their companies toward improved performance if they have greater confidence in their capacity to carry out entrepreneurial tasks. Entrepreneurs possessing elevated ESE levels consistently establish demanding performance benchmarks for their companies and utilize multiple approaches to accomplish these targets (Newman et al., 2019). Thus, this study's hypothesis is that ESE significantly improves firm performance, in keeping with the current line of discussion.

#### **2.4.5 Entrepreneurial competencies as a mediator in SME firm performance**

It is evident that several scholars have postulated a direct relationship between entrepreneurial competencies and firm performance. For instance, Hashim, Raza and Minai, (2018) aver that EC has a major impact on the growth and performance of businesses. Additionally, SMEs that compete successfully on a local and international level need to have robust EC. It was acknowledged by Costa and Castro, (2021) that SMEs must continuously enhance their EC for it to survive and be successful in today's competitive and rapidly changing environment. From the past studies it has been evidenced NC has a direct relationship on SME performance. The current study built

on the study Asmawiyah & Hamid (2020) and will examine EC as an indirect predictor to firm performance in the relationship between NC and SME performance.

Any firm's performance and growth are greatly influenced by its entrepreneurial competencies (Kisubi et al., 2022). SMME owners need to possess strong entrepreneurial competencies in order for their businesses to compete successfully on a local and international level. Individuals with entrepreneurial competencies start and expand their own businesses. SMEs must constantly improve their entrepreneurial competencies if they are to thrive in today's cutthroat and quickly evolving environment (Olanrewaju, 2024; Dwikat, Arshad & Mohd Shariff, 2023; Oztemel & Ozel, 2021; Mtengwa, 2023; Badiru, 2024).

Maru et al. (2015) looked at the moderating effects of networking capabilities on marketing capabilities and performance of small businesses in Kenya. The study concentrated on these two ideas and attempted to ascertain how networking capabilities influenced the relationship between small business performance and marketing capabilities. This study was grounded in the social capital theories and the resource-based view. Discussions were held regarding the findings of an explanatory survey conducted on a sample of 384 small businesses in Nairobi, Kenya. Self-administered questionnaires were used to collect data. The results of the multiple regression analysis indicated that small firm performance was positively impacted by both marketing and networking capabilities, but that the relationship between marketing capabilities and small firm performance was not significantly moderated by networking capabilities. Through the use of entrepreneurial competencies, this study examined the direct and indirect effects of NC on the performance of SME firms.

In their research, Aftab, Veneziani, Sarwar, and Ishaq (2022) asserted that one of the key elements influencing performance, particularly for small and medium-sized

businesses (SMEs), is entrepreneurial orientation. New research is needed to investigate this relationship, as the empirical studies yield inconsistent findings. Thus, the goal of their research was to ascertain the direct and indirect effects of entrepreneurial orientation (EO) on firm performance (via entrepreneurial competencies). Furthermore, the relationship between firm performance and entrepreneurial competencies was examined, as well as the moderating effect of environmental dynamism. Using a self-administered questionnaire, the study gathered data (N = 332) from managerial rank employees working in various SMEs in Pakistan. In addition, SmartPLS 3.2 was used to carry out structural equation modeling (SEM). The study's findings showed that entrepreneurial competencies have a mediating role in the relationship between EO and performance, and that EO positively affects both firm performance and entrepreneurial competencies. Further research revealed that environmental dynamism bolstered the positive correlation between performance and entrepreneurial competencies. From an empirical perspective, the study found that the lack of a clear correlation between EO and firm performance is caused by a lack of entrepreneurial competency. Through its explanation of how environmental dynamism functions as a boundary condition to strengthen the relationship between entrepreneurial competencies and SMEs' performance in an emerging economy, the study also made a contribution to the contingency perspective.

da Cruz, Ferreira and Kraus, (2021) looked at the relationship between EO and university spin-off performance empirically and found that NC had a moderating effect. The effect on organizational performance of entrepreneurial orientation (EO) and network capability (NC), which is defined as a firm's capacity to create and leverage inter-organizational relationships, was studied. According to the study, a spin-off's EO promoted competitive advantages and its NC had a positive impact on the spin-off's

performance. Sales growth, sales per employee, and profit attainment did not appear to be correlated with employee orientation (EO). The relationship between entrepreneurial orientation and spin-off performance was found to be strengthened by NC, according to the moderated hierarchical regression analysis. The present research aims to investigate and ascertain the indirect impact of NC on firm performance by means of entrepreneurial competencies.

In 235 Nigerian agricultural enterprises, Awomailo, Ayeni and Alagbe, (2023) conducted an empirical study on the relationships between networking ability, entrepreneurial orientations, institutional environmental factors, and export performance. The findings demonstrated a robust positive correlation between networking talents, institutional environment factors, entrepreneurial orientation, and the export performance of small and medium-sized enterprises in the agriculture sector. The findings indicated that the efficiency of Nigerian agricultural SMEs' exports was directly impacted by their capacity to be proactive, inventive, take calculated risks, manage their networking skills, and take advantage of institutional environment factors. The impact of networking skills and an entrepreneurial mind-set on the export performance of Nigerian agricultural SMEs was mitigated by institutional environment factors, such as government policies, methods, and regulations.

In Pakistan, Small and Medium Enterprises (SMEs) play a vital role in the development of an economy. Looking at this perspective, Khan, Rathore and Sial, (2020) in their study argued that it was imperative to develop the entrepreneurial orientation and to update the entrepreneurial competencies in order to perform in this competitive environment. The study focussed specifically on these aspects and attempted to establish the need of identifying entrepreneurial orientation and entrepreneurial competencies in entrepreneurs in order to enhance enterprise performance. The study

collected data from SMEs in Pakistan using simple random sampling technique. The data was analysed and the hypotheses were tested using structural equation modelling based on partial least squares. The results of the analysis showed that there are beneficial correlations between entrepreneurial performance and competences, as well as between entrepreneurial orientation and performance. Furthermore, it was shown that the relationship between entrepreneurial performance and orientation is mediated by entrepreneurial competency. The resource-based perspective clarified the significance of entrepreneurs as skilled resources who play a critical role in raising SMEs' performance levels. Lastly, the study can be used by different stakeholders to emphasize more on developing the competency level of entrepreneurs and determining the level of orientation towards better performance of enterprises.

Accordingly, Wang, Lee and Park, (2020) did a study on the effect of EO on the business performance and the role of networking capabilities among the SMEs in China. The paper mainly looked at the small to medium sized enterprises (SMEs) in the northeast of China. The study found out that entrepreneurial orientation (EO) had a positive effect on business performance, and more importantly network capabilities (NC) significantly moderated the relationship between entrepreneurial orientation and business performance.

The results of empirical research on how networking affects SMEs' performance have been inconsistent. Zahoor and Gerged, (2021) reported that a noteworthy positive correlation was observed between small and medium-sized enterprises' performance and their participation in diverse networks. Shah et al., (2019) also discovered that networking contributed to the better performance and longer survival of SMEs. Conversely, Zhang, Lu and Zheng, (2020) discovered a bad correlation between performance and networking. The current study therefore explores the indirect

influence of NC on firm performance via EC. Furthermore, Magni, (2022) examined 200 Italian SMEs in a study of internationalization, arguing that technological capability, marketing capability, and network capability were critical factors in promoting internationalization. Besides this, he found that by interacting with the entrepreneurial orientation, these capabilities played an essential role when entering new global markets and improving international performance. In other words, internationalization can be achieved by the interaction between entrepreneurial orientation and organizational capabilities (e.g., network capability).

Hashim, Raza and Minai, (2018) conducted a study on Relationship between entrepreneurial competencies and small firm performance and sought to find out whether dynamic capabilities are the missing link. The academics clarified in their papers how dynamic capabilities relate to the relationship between entrepreneurial competencies and the performance of small businesses. The relevant literature as well as the theoretical underpinnings of small firm performances, dynamic capabilities, and entrepreneurial competencies served as the basis for their investigation. A framework was developed based on the economic conditions in several nations where small businesses were experiencing a low growth trap despite making a significant economic contribution to the nation's economy.

This framework was supported by the Resource Based View and Dynamic Capabilities View. Dynamic capabilities and entrepreneurial competencies were seen as potential solutions for improving the performance of small businesses. Furthermore, it was thought that one of the most important factors influencing the performance of small businesses was the economic fluctuations accompanied by volatile and unpredictable markets. Thus, in order to examine how entrepreneurial competencies and dynamic

capabilities interact to impact small firm performance, this paper put forth a conceptual framework.

According to Fatai et al. (2018), entrepreneurial competencies have a moderating effect on the relationship between venture performance and the entrepreneurial climate. In this study, 400 Small and Medium-Sized Enterprises (SMEs) from three different regions of Nigeria that were members of particular professional associations were sampled. The suggested model was tested using Confirmatory Factor Analysis (CFA), Hierarchical Multiple Regression, and Structural Equation Modeling. The association between the entrepreneurial climate and venture performance was found to be significantly moderated by entrepreneurial competencies, according to the findings. Furthermore, there was a significant correlation between venture performance and the entrepreneurial climate and competencies. The study emphasized the importance of the various dimensions of entrepreneurial competency, the comprehension of the macro environmental complexities, and the necessity of concentrating attention on relevant entrepreneurial competencies. The current study tested entrepreneurial competencies as mediator to be able to further underscore its significance especially in the SMEs which continue to operate in very harsh environmental conditions in Kenya.

The aim of a study conducted in Malaysia by Umar, Omar, Hamzah, and Hashim (2018) was to determine the impact of innovation and entrepreneurial skills on the success of small and medium-sized enterprises. The study specifically examined the mediating function of process and product innovation in the relationship between entrepreneurial competencies and company success. 407 owners and managers of SMEs in the manufacturing, services, and other sectors comprised the statistical sample population for the study. 12 entrepreneurial competencies (strategic, commitment, conceptual, opportunity, organizing and leading, relationship, learning, personal, technical,

familialism, ethical, and social responsibility competencies), seven items for innovation (product & process innovation), and ten items for business success (financial & non-financial) were assessed using a standard questionnaire with a seven-point Likert scale and 72 items. The techniques utilized in this study were the structural equation model (SEM)-AMOS version 21.0 and SPSS version 21.0. The results showed that the impact of innovation and entrepreneurial skills on small and medium-sized enterprise (SME) success was both positive and significant. Additionally, all competencies' dimensions and business success showed a strong and positive correlation. Partially mediating the relationship between entrepreneurial competencies and business success were innovations in products and processes.

Human capital and entrepreneur competence are two crucial components that Small and Medium Enterprises (SMEs) need in order to meet environmental challenges in a dynamic and competitive business environment and achieve business performance, according to a study by Asmawiyah & Hamid (2020). The impact of entrepreneur competency and human capital on business performance was investigated in this study. 108 culinary SMEs made up the research sample that was gathered through the distribution of questionnaires. Partial Least Square (PLS) modeling with structural equation modeling is one method of data analysis. The findings demonstrated that entrepreneur competence was significantly impacted by human capital, that human capital was significantly impacted by business performance, and that entrepreneur competence, acting as a mediator, was significantly impacted by business performance. Expanding upon previous research, the current study ascertained the mediating role of EC in the association between NC and firm performance within the framework of Kenyan small and medium-sized enterprise performance.

Empirically Sarwoko *et al.* (2023) did a study on the mediating role of entrepreneurial competence on the relationship between entrepreneurial characteristics and performance of SME among 147 SMEs owner in Malang regency East Java Indonesia using survey instrument. Data was analysed using the Structural Equation Modelling performance. The result provided empirical evidence that entrepreneurship competence had a mediating role on the relationship between entrepreneurial characteristics and business performance. Entrepreneurial characteristics were able to improve business performance through the establishment of the entrepreneurial competencies; entrepreneurial competencies improved the business performance. To further the same argument SME firms that will portray networking capabilities characteristics will improve SME performance if mediated by entrepreneurial competence and hence the reason the objective of the study was underpinned.

Firm performance is the ultimate criterion in the theoretical model. To have a superior performance, networking capabilities and entrepreneurial competitive scope is a powerful tool for creating competitive advantage. Businesses that participate in these variables typically perform better overall (Aidara et al., 2021). According to Jordão and Novas (2024), companies that have more effective networking strategies typically obtain competitive information about other companies earlier, and this advantage in information leads to improved performance of new products. Thus, this study postulates that better utilization of entrepreneurial competencies will indirectly affect business owner/managers networking capabilities relationship and ultimately would lead to higher firm performance. Whereas it is evidenced that networking capabilities have yielded statistically positive significant effect on firm performance, the current study explored whether EC partially or fully mediated its relationship.

#### **2.4.6 Entrepreneurial Self-Efficacy as a moderator in the relationship between Networking capabilities and SME performance**

It has been confirmed by multiple authors that there may be a positive correlation between ESE and firm performance. (Newman, Obschonka, Schwarz, Cohen & Nielsen, 2019; and Ferreira-Neto, de Carvalho Castro, de Sousa-Filho and de Souza Lessa, 2023) Finding higher goals, demonstrating stronger commitment and determination in achieving goals, achieving higher levels of revenues and employment growth, etc. are some examples of the benefits associated with higher ESE. Given that previously the relationship between entrepreneurs and opportunities was acknowledged as the primary element of the entrepreneurial process (Brown, Mawson, & Rowe, 2019), the association between ESE and opportunity recognition could potentially account for the positive correlation that has been observed between NC and firm performance.

Igwe, Ogbo, Agbaeze, Abugu, Ezenwakwelu and Okwo, (2020) in their study examined Self-Efficacy and subjective norms (moral obligation, empathy, and perceived social support) as moderators of the effect networking competence has on social entrepreneurial intentions in Nigeria. The study conducted a survey on 541 budding entrepreneurs, which were students with a high entrepreneurial propensity. With the use of Andrew Hayes's PROCESS macro, a simultaneous regression analysis was performed to establish the interaction effect of the selected moderators. The results showed a positive main effect of networking competence on social entrepreneurial intentions, statistically significant interaction effects of empathy and perceived social support, no interaction effect of moral obligation, and a poor Self-Efficacy fit. The study extended theories of entrepreneurial intentions and the mediation (additive) models of Mair & Noboa, Krueger, and Hockerts. Suggestions were that other studies

should be carried out using Self-Efficacy among actual early-level entrepreneurs, with a likelihood that results could explain what role Self-Efficacy could have in predicting social entrepreneurial intentions.

According to Miao, Qian and Ma (2017), entrepreneurial self- efficacy (ESE) is an important construct in entrepreneurship research since it captures entrepreneurs' specific self- efficacy in accomplishing entrepreneurial tasks. The scholars argue that since various empirical results exist in past studies of the ESE- firm performance relationship, their study employed meta- analysis to review and synthesize the current literature concerning this relationship and to address moderators that influence it. The scholars meta- analysed 27 samples from 26 studies with a total sample size of 5,065 firms and found that the corrected ESE- firm performance correlation is 0.309. The study found that the firm performance measurement is a significant moderator and the study thus suggest that other scholars to further identify moderators.

According to study done by Gill et al (2021), ESE was found to moderate the relationship between environmental complexity and entrepreneurial alertness. The study population was SMEs in Malang and using purposive method 26 SMEs were picked. This is in line with study done by Bandura, (1982) which clearly demonstrates that an entrepreneur's personal adjustment or belief in how well he/she can execute action that is required to deal with prospective situation. In the current study the firm owners will need to bring in their strength on networking capabilities to influence SME performance in a more complex and dynamic environments as in Kenyan set up.

According to Riaz et al., (2024), recent studies have demonstrated that the knowledge, abilities, and mindset of entrepreneurs are the key factors that influence their networking process and how they use their social networks. Consequently, the belief, behavior, and effort that entrepreneurs put forth to enhance their interpersonal and

networking skills play a major role in determining the success of their networking endeavors. In 1998, Chen et al. introduced the idea of entrepreneurial Self-Efficacy (ESE) as a unique personality trait related to entrepreneurship. They described ESE as a person's strong belief in their ability to carry out particular tasks and roles in the entrepreneurial process. The aforementioned authors verified that the ESE construct is comprised of five elements, which are marketing, innovation, management, risk-taking, and financial control. Given that Self-Efficacy has been linked to an individual's performance, this explains why ESE is expected to moderate the relationship between networking capabilities and firm performance. Strength of relationship between networking capabilities and firm performance will depend on how confident and convinced the owner is to take on a task. The study's goal was to ascertain the moderating role of ESE on the association between NC and SME performance, based on this contention.

Alarjani, Anwar, Danial Aslam, Iqbal, and Ayub (2020) in Saudi Arabia highlight that entrepreneurship is an essential element of sustainable economic development, irrespective of social, geopolitical, and economic circumstances. However, the scholars contend that creating and sustaining successful small and medium-sized businesses (SMEs) is a daunting challenge. Therefore, the purpose of their article was to examine how the institutional environment and entrepreneurial Self-Efficacy (ESE) contribute to the growth of a successful SME that is based on entrepreneurship. It combined the theory of planned behaviour, Self-Efficacy, and institutional climate to address the aforementioned challenge within the framework of the Kingdom of Saudi Arabia. The study used a tool to gather information from Saudi SME owners, and SPSS Amos was used to analyse the suggested moderated mediation model. The study's conclusions

demonstrated how ESE and the institutional environment support an efficient, entrepreneurship-based SME's productivity.

The majority of Nigerian graduates have been deterred from starting their own businesses by the country's over-reliance on hired work in both the public and private sectors. This causes low economic growth, unemployment, and poverty, all of which contribute to insecurity. Na-Allah and Ahmad (2022) examined the relationship between individual-level entrepreneurial orientation (ILEO; innovativeness, risk-taking, and proactiveness) and venture creation (VC) among Nigerian graduates, using the formative perspective to examine the mediating role of Self-Efficacy (SELF) and the moderating effect of entrepreneurial support (ENTSP). 291 survey responses were used in a reflective/formative type II method to test the relationships in the model. Partial least squares structural equation modeling (PLS-SEM) results showed that ENTSP negatively moderated the indirect, positive, and significant relationship between ILEO and VC through SELF. This suggested that while ILEO can cause VC directly, not all ILEO cases would result in VC through SELF. Additionally, the results showed that ENTSP had no effect on enhancing the bond between SELF and VC. Although there was a methodological flaw that limited the results' generalizability, future research using a longitudinal survey was recommended. In order to improve the venture creation literature both theoretically and practically, the study expanded the entrepreneurial orientation model. The researchers suggested that intervention organizations start up an efficient ENTSP that includes the incubation, non-financial, and financial services needed to increase venture capital activity.

#### **2.4.7 Entrepreneurial competencies, Entrepreneurial Self-Efficacy and SME performance**

Moderation-mediation models try to explain a causal relationship under special conditions. Thus, this model provides a more comprehensive description than simple moderation or mediation models. It is acknowledged that many scholars have advocated for more attention on the relationship between firms' entrepreneurial orientations, and firm performance CE (Basco, Hernández-Perlines & Rodríguez-García, 2020; Khan et al., 2022). The numbers of studies that have attempted to bridge on the relationship between networking capabilities and firm performance have been few. Furthermore, majority of firm level entrepreneurship studies especially research and investigations regarding networking capabilities as an intangible resource base have been conducted in developed countries and the number of studies in developing countries is very low (Fernandes & Ferreira, 2022). Networking capabilities remains relatively unexamined in some developing countries.

According to Akbar et al., (2020) an analysis of past literature has indicated the existence of empirical concerns on the Entrepreneurial orientation – performance relationship. However, there is little empirical research on how entrepreneurs neither harness the potential of networking nor is much known about how such initiatives work. A study of networking configurations opens new areas to theory building research as it will focus attention on complex relationships among entrepreneurial activities by introducing the construct of entrepreneurial competences and ESE in determining firm performance.

A study on entrepreneurial Self-Efficacy and orientation for SME development was carried out by Eniola in 2020. In this study, the importance of entrepreneurial Self-Efficacy in small- and medium-sized business orientation and growth was investigated.

The objective is to incorporate Self-Efficacy, tackling the aforementioned obstacles to the growth of SMEs in Nigeria that are founded on entrepreneurship. This study used a modified scale, and the owners of small and medium-sized businesses in Nigeria provided the data. The suggested mediation model was analysed using partial least squares structural equation modeling (SEM-PLS). The study's findings supported the idea that entrepreneurship can help establish a successful SME with an enterprise base. Regardless of the social, economic, or geopolitical context, entrepreneurship is a key driver of long-term, sustainable economic growth. However, creating and maintaining a dynamic small- and medium-sized business (SME) with an emphasis on entrepreneurship is a significant challenge.

Upon recommendation of previous studies on ESE, the current study assumed that higher levels of self-efficacy in NC interactions improved the performance of SMEs. Given that social cognitive theory suggests people choose to take on tasks in which they feel competent, at ease, and confident, this study hypothesized that SME firms that maintain relatively high performance through networking capabilities via entrepreneurial competencies placed significant weight on their perception of fitness for entrepreneurial self-efficacy.

According to Sitinjak (2019), a key component of the ASEAN Economic Community (AEC) 2025 blueprint is the development of small and medium-sized businesses (SMEs). He based his research in Medan City, the third-biggest city in Indonesia, and discovered that it has a start-up Micro, Small, and Medium-Sized Enterprises (MSMEs) that are ranked third in Sumatra. The issue was that not all MSMEs in Indonesia were able to expand or endure. Therefore, the goal of the study was to ascertain how entrepreneurial competence and Self-Efficacy affected start-up MSMEs' success in Medan City as well as their decisions to enter the market. A purposive sampling

technique was used to select the sample, which consisted of 100 MSMEs' owners. Entrepreneurial competence has no significant impact on entrepreneurial entry decisions, according to the study's findings, but entrepreneurial Self-Efficacy (ESE) does. In Medan, however, entrepreneurial competence has a major impact on the success of MSME start-ups, whereas it does not for ESE. The study's conclusion was that in order to start a successful business, one needs to be very confident in oneself and possess necessary skills.

According to van Wetten, (2020), "a higher-level characteristic encompassing personality traits, skills, and knowledge that can be seen as the total ability of the entrepreneur to perform a job role successfully" is what is meant to be understood when one speaks of entrepreneurial competencies. According to Bird's (1995, quoted in Man and Lau, 2005:468) theory, entrepreneurial competencies play a role in the establishment, continuation, and/or expansion of a business venture. The behaviors and actions of the entrepreneur exhibit these competencies.

According to Hsu et al., (2019) research, Self-Efficacy tests that make use of entrepreneurial competencies can effectively distinguish between people who have strong entrepreneurial intentions and those who do not. Durnali, Orakci and Khalili, (2023) found that after finishing a course, students with higher levels of entrepreneurial competencies also reported higher levels of emotional support. Crespo, Belchior and Costa, (2020) used the ESE human competency description to assess the effect of ESE on the intention to pursue an entrepreneurial career. One hundred and forty volunteer undergraduate business students from South Eastern University in Florida participated in the study. Given that assessments of human competencies are less reliant on the specifics and intricacy of new venture entry domains, they proposed that ESE could be defined differently by taking into account the more general human. After finishing an

entrepreneurship course, students with higher levels of entrepreneurial competencies reported higher levels of Entrepreneurial Self-Efficacy (ESE) according to a study by Durnali, Orakci and Khalili, (2023) that links entrepreneurial self-competencies and entrepreneurial Self-Efficacy.

Sriasih, Kusumawijaya, Adi and Wartana, (2018) also conducted a study on Entrepreneurial Self-Efficacy mediation in entrepreneurial competency prediction to entrepreneurial orientation. The study aimed at getting the prediction of entrepreneurial competence to the entrepreneurial orientation mediated by the entrepreneurial Self-Efficacy. The study was conducted in SME's in Bali Province. As many as 123 questionnaires were returned from 135 questionnaires that were distributed so that the study had a response rate of 91.11%. Respondents selected by purposive sampling method were the managers and owners of export-oriented SMEs with the reason that they could show entrepreneurial competence, motivation and business orientation in creating competitiveness. Data collection techniques used were interviews and questionnaires with entrepreneurial competence research instruments based on Robles & Zaraga-Rodriguez (2015) study, for Self-Efficacy indicators of Indrawati et al. (2015) and entrepreneurial orientation dimension refer to Latif et al., (2016). Each research instrument used 5 (five) Likert scale measurement. Overall, if the result of the measurement model (outer model) met the validity criteria and reliability, then it could be continued with evaluation on structural model (inner model) for testing the research hypothesis. To test the research hypothesis was to estimate the structural model by measuring entrepreneurial competence, entrepreneurial self- efficacy and entrepreneurial orientation using WarpPLS 4.0 program. The results of hypothesis 1 testing indicated that the entrepreneurial competence of SME managers in Bali significantly influenced and improved entrepreneurial orientation. The results of

hypothesis 2 testing gave an idea that the entrepreneurial competence of SME managers in Bali influenced and improved entrepreneurial Self-Efficacy significantly. The result of hypothesis 3 testing showed that the entrepreneurial Self-Efficacy of SME managers in Bali is able to significantly accumulate the increase of entrepreneurial orientation. The results of hypothesis 4 testing indicated an idea that the entrepreneurial Self-Efficacy of SME managers in Bali accelerated the entrepreneurial competence significantly to entrepreneurial orientation. And the VAF calculation of the mediation variables in the study indicated that the value of entrepreneurial Self-Efficacy was included in the category of partial mediation variables

Because of this, the moderated mediation model postulated that EC had a mediating effect on NC-SME performance and that ESE had a moderating influence on the relationships between NC-SME performances. Even though networking companies benefit from these advantages regardless of their size and activity, empirical research indicates that the majority of SMEs encounter both internal and external barriers to taking advantage of networking opportunities (OECD, 2022). Furthermore, a primary cause of SMEs' underutilization of networking opportunities is their deficiency in motivation. The current study will therefore explore the complex relationship model between NC and SME performance in the Kenyan context.

To answer this recommendation and other insufficiencies e.g. lack of proper mediator/moderator models and necessity of contingency reasoning to explain the complexity of networking- performance relationship and to further this study in context for developing countries like Kenya, this study examined a moderated mediation model of networking capabilities-performance among SMEs in Kenya using ESE as a moderator and EC as a mediator respectively. Furthermore, since the nature of

networking capability –performance has not been fully exploited, testifying the models that incorporate some moderators and mediators may lead to more precise explanations.

As per the findings of Caliendo, Kritikos, Rodriguez, and Stier (2023), Self-Efficacy is a reflection of one's belief in oneself to consistently accomplish challenging and unfamiliar tasks while managing hardship. They are essential for successful entrepreneurial endeavours because these beliefs influence people's actions, thoughts, and behaviors. The current body of literature primarily examines the impact of the task-related construct of entrepreneurial Self-Efficacy. However, this study adopted a different tack and examined the relationship between start-up performance and generalized Self-Efficacy, using a representative sample of 1,405 German business founders, as determined by a wide range of business outcomes up to 19 months after the establishment of the business. Among the results were growth-oriented ones like employment creation and innovation, as well as start-up survival and entrepreneurial income. Stronger effects are observed when concentrating on the growth-oriented outcome of innovation. The researchers discovered statistically significant and economically significant benefits of high Self-Efficacy scores on start-up survival and entrepreneurial income. Moreover, the research findings revealed that the distribution of generalized Self-Efficacy was comparable for male and female entrepreneurs, albeit with somewhat greater effects for female founders. The results have implications for policy instruments that aim to foster the development of more focused offers for coaching, training, and incubators for aspiring entrepreneurs.

## 2.5 Summary of Empirical Review and Gaps in Knowledge

**Table 2. 1: Summary of Empirical Review and Gaps in Knowledge**

| Author                   | Methodology                                                                                                                                                                           | Findings and Conclusions                                                                                                                                                                                                                                                                                                   | Gap in knowledge                                                                                                                                                                                                                                                                                                                |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Miano& Bett (2018)       | The study adopted descriptive. The sample size of the study was 81 youth enterprises. The collected questionnaires were coded into SPSS Version 23.0 for analysis and interpretation. | The study established the influence of entrepreneurial competencies on the performance of youth enterprises in Manyatta Constituency, Embu County. The result confirmed that financial management skills, marketing skills and project management skills had a positive relationship with performance of youth enterprises | The study looked at the direct influence of financial management skills, marketing skills and project management skills on the performance of youth enterprises as entrepreneurial competencies. The current study used the variables as a mediator in relationship between NC and SME performance in Uasin Gishu County Kenya. |
| Rosli & Hatina (2016)    | The study used quantitative survey method to collect data from 368 SMEs in Malaysia. Partial least Square structural equation modelling used for data analysis.                       | The study revealed that ESE plays a moderating role in the relationship between strategic improvisation and SME performance.                                                                                                                                                                                               | The study looked at the direct moderating effect on strategic improvement –performance relationship with ESE as the moderator. The current study introduced ESE in the moderated mediation interaction on firm networking capabilities-performance relationships.                                                               |
| Yusrinadini et al (2019) | The study targeted 184 women micro-entrepreneurs in Malaysia using a survey method. Multiple regression was done to analyze data.                                                     | The study focused on influence of general Self-Efficacy on women entrepreneurs. There was significant positive correlation between general Self-Efficacy and business performance.                                                                                                                                         | The study looked at the direct effect of Self-Efficacy on business performance. The current study expanded on this and used the variable as a moderator to determine influence of networking capabilities on firm performance.                                                                                                  |
| Senelwa et al (2016)     | The study sampled 323 students and staff from top ten universities in Kenya. A combination of exploratory, descriptive and causal method of research was used.                        | The study focused on the moderating effect of university context on the relationship between ESE and creation of university spin-off firms. ESE had a strong effect on creation of spin-off firms among students and staff while university context moderated the relationship.                                            | The study looked at the students and staff use of ESE, the current study will use ESE as a moderator in SME performance settings to extend the knowledge on theory.                                                                                                                                                             |

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| Sriasih et al (2018)  | The study sampled 123 SMEs in Bali.                                                                                                                                                                                                                              | The study looked at the mediating effect of ESE on the relationship between entrepreneurial competency and entrepreneurial orientation. The results showed that ESE partially mediates the relationship between EC and entrepreneurial orientations.                                                                                                          | The study looked at ESE variable as a mediator, other studies have also shown that ESE would also be used as a moderator in SME performance relationships. The current study built on this and used the five dimensions of ESE (Chen et al 1998) as a moderator in networking - performance relationships.          |
| Muhammad et al (2017) | The utilized 180 academic leaders of selected higher education institution performance in Kano Nigeria .Data was analyzed using Smart PLS version 3.                                                                                                             | The study aim was to identify the effect of ESE dimensions on higher education institutions performance. The study showed that the three dimensions of ESE (financial control, innovation and risk taking) were significantly related to performance whereas two dimensions (management and marketing) were insignificant related to institution performance. | The study used all the five dimensions of ESE according to Chen et al 1998 with mixed results. The current study built on this and tested the effect of the moderating effect of ESE on networking- firm performance relationships using a moderated mediation model to test the effect of all the five dimensions. |
| Asenge et al. (2018)  | The study used survey research design to sample of 300 SME owners/ managers in Benue State in Nigeria. Using regression analysis and SPSS to analyze data. Regression analysis was used at 0.05 significance level. Data analysis was carried out using SPSS 21. | Findings of the study revealed that entrepreneurial competencies significantly affected the performance of SMEs in Benue State, Nigeria. Results also indicated that there was a positive significant effect of entrepreneurial mind set on SMEs performance.                                                                                                 | The study focused on the direct effect of EC and entrepreneurial mindset on SME performance. The current study had the EC as the mediator in determining effect of NC on performance of SMEs in Kenya.                                                                                                              |
| Adomako,et al. (2018) | The study gathered data from 203 SMEs in Ghana. The networking capabilities were measured in terms of business networking capabilities and social networking capabilities                                                                                        | The study found that social networking capabilities strengthened the relationship between entrepreneurial alertness and new venture performance. There was a positive correlation between entrepreneurial orientation and SME performance in firms with social networking capabilities.                                                                       | The performance as conceptualized in the reviewed study was on new ventures while the current study focuses on performance in all ventures of the SME in Kenya and introduces Entrepreneurial competencies as a mediator therefore a contextual and conceptual gap that this current study sought to fill.          |
| Bengesi et al (2014)  | The study used 291 SMEs as the sample size. The study used four dimensions to measure networking capabilities that is                                                                                                                                            | Using correlation analysis, the study found a positive correlation between coordination and profitability; coordination and return on assets,                                                                                                                                                                                                                 | The reviewed study was done in Tanzania and therefore there is need to carry out a study in Kenyan context, a gap that this current study seeks to fill. The current study                                                                                                                                          |

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|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                      | coordination activities and resources, relational skills, partner's knowledge, and internal communication.                                                                                                                                                                                        | relational skills and profitability, relational skills and return on assets, partner's knowledge and profitability, partner's knowledge and return on assets. The results were found to be statistically significant at 1% level of significance.                                                | used entrepreneurial competencies and ESE as mediator and moderator respectively on link between NC and SMEs performance. The current study adopted a moderated mediation model to fill the gap in NC-performance relationship.                                                                                                                                                                               |
| Maina,et al. (2016)  | Data was collected using self-administered questionnaires from a sample of 132 manufacturing SMEs operating in Kenya registered by KAM.The study used descriptive design. Quantitative and inferential analysis done by use of SPSS. Two variables of NC used namely network intensity and range. | Using Pearson correlation coefficient to establish the relationship between independent and dependent variables. The result showed that both network intensity and network range influence on firm performance was statistically significant meaning it has positive effect on SMEs performance. | The study focused on the direct effect of network dimensions namely intensity and range on SME performance. The current explored the indirect effect of NC on SME performance and used four dimensions of NC.EC as an antecedent variable is incorporated in the current study to measure SME performance.                                                                                                    |
| Korir,2018)          | Data was collected from 288 venture businesses proprietors in Kisumu, Nairobi and Eldoret. The study used a covariance-based confirmatory research design.                                                                                                                                        | Using Structural Equation Modelling as the principal analysis approach, the study established that networking dimensions namely network capability, network structure and network dynamic positively and significantly predict events venture performance.                                       | The study focused on the venture business as a function network dimensions namely network capability, network structure and network dynamic. The current study explored other NC dimensions and its direct and indirect effect on SME performance. The current study broadened the scope to other SMEs in Kenya and used process macro by Hayes to test the hypothesis unlike SEM that was used in the study. |
| Kimosop et al (2015) | The study used mixed research design where questionnaires and interviews were issued to SMEs Nairobi county                                                                                                                                                                                       | Using regression analysis, The correlation results of the study indicate that Marketing Capabilities, Network Capabilities and Small Firm Performance are correlated. Networking is however a way of marketing and so much of marketing is achieved through Networking.                          | The study reviewed the moderating effect of NC on the relationship between marketing capability and SME performance. The current study determined mediating effect of EC on the relationship between NC and SME performance with ESE being a buffer.                                                                                                                                                          |
| Zizile((2018)        | Sample of 200 women SME entrepreneurs in East London South Africa. The study used both primary and                                                                                                                                                                                                | Using Chi-Square test, the study showed that EC had an impact on performance of women entrepreneurs.                                                                                                                                                                                             | The study looked at the direct effect of EC on women entrepreneurs. The current study tested the impact of EC as a mediator to performance of SMEs in Kenya.                                                                                                                                                                                                                                                  |

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|                      | secondary data followed by quantitative research design.                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Fatai et al (2018)   | Sample of 400 SMEs in Nigeria.                                                                                                                | Hierarchical Multiple Regression, Structural Equation Modelling and Confirmatory Factor Analysis (CFA) used to test the proposed model. The study revealed that EC moderated the relationship between entrepreneurial climate and venture performance.                                                                                                                                 | The study used EC dimensions of strategic, opportunity, relationship and conceptual to measure EC. The current study used the same dimensions to measure EC and tested hypothesis using a moderated mediation model unlike hierarchical multiple regression and SEM used in the study.                                                                                                                                             |
| Etim et al (2022)    | Sample of 232 questionnaires were administered to agro-based business owners and managers in Lagos State. The study used primary data.        | Data analysis was carried out using regression analysis. The regression indicated that EC related with the firms' profitability, customer base, organisational effectiveness, and sales growth.                                                                                                                                                                                        | The study focused on the Agro-based business in Nigeria and used strategic, commitment, conceptual and opportunity competencies as a direct measure firm performance. The current study introduced a moderator to determine the complex relationship between NC and SME performance in Kenya using the same measures of EC as a mediator.                                                                                          |
| Umar et al (2018)    | The study sampled 407 owner and manager involved in SMEs, both manufacturing and services & other sectors in Malaysia. Primary data was used. | The SPSS version 21.0 and Structural equation model (SEM)-AMOS version 21.0 techniques were used. The study indicated a positive and significant relationship between the entrepreneurial competencies and innovation on business success in SMEs. The product innovation and process innovation served as partial mediator between entrepreneurial competencies and business success. | The study indicated that Opportunity, organizing, and strategic competency had a significant effect towards SMEs performance while other competencies such as relationship competency, conceptual competency, and commitment competency were less influence towards business success. The current study explored more using the same measures of EC but as a mediator in the relationship between NC and SME performance in Kenya. |
| Sarwoko et al (2013) | This study used 147 SMEs owner in Malang regency East Java Indonesia using survey instrument.                                                 | Data analysis used the Structural Equation Modelling. The results indicated that the entrepreneurial characteristics have a significant influence on business performance. Entrepreneurial competencies had a mediating role in the relationship between entrepreneurial characteristics and business performance.                                                                     | The current study used NC entrepreneurial characteristic in determining its direct and indirect effect on SME performance in Kenya but used the same measures of EC as mediator. The study also introduced ESE as a moderator in the relationship using a moderated mediation model.                                                                                                                                               |

|               |                                                                                                                                            |                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                           |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Mwangi (2018) | The sample size was 172 business owners who were physically challenged in Kiambu County, Kenya. Both primary and secondary data were used. | Data analysed used regression analysis and SPSS version 17. The study showed that there was a direct linear relationship between entrepreneurial competencies and entrepreneurial. The business external environment partially moderated the relationship between the variables. | The study used all the 6 constructs of EC to measure its effect entrepreneurial performance. Business external environment was used as a moderator. The current study utilised the six EC a mediator in the relationship between NC and SME performance and bring in the ESE as a buffer. |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**Source:** Researcher 2024

## 2.6 Conceptual Framework

Based on the summary of empirical literature review and identified gaps, the study proposed Figure 2.1 to address the conceptual gap. It also acted as a basis of testing the hypothesis for the conceptual models of the study. The four models were diagrammatically conceptualized as follows.

- 1) **Direct Model:** The direct effects of NC on SME performance (**H<sub>01</sub>**), EC on SME performance (**H<sub>02</sub>**), ESE on SME performance (**H<sub>03</sub>**) and NC on EC (**H<sub>04</sub>**)
- 2) **Mediation Model:** EC as a mediator in the relationship between NC and SME performance. **H<sub>05</sub> = (a<sub>1</sub> \* b<sub>1</sub>)**
- 3) **Moderating Model:** The moderating effect of ESE on NC and EC (**H<sub>06</sub>**), ESE on NC and SME performance (**H<sub>07</sub>**) and ESE on EC and SME performance. (**H<sub>08</sub>**)
- 4) **Moderated Mediation Model** (the conditional indirect effect of ESE on the relationship between NC and SME performance via EC (H<sub>09</sub>) = (a<sub>1</sub> + a<sub>3</sub>W) (b<sub>1</sub> + b<sub>2</sub>W) ).The above illustration is diagrammatically presented as per below.

### Conceptual Framework

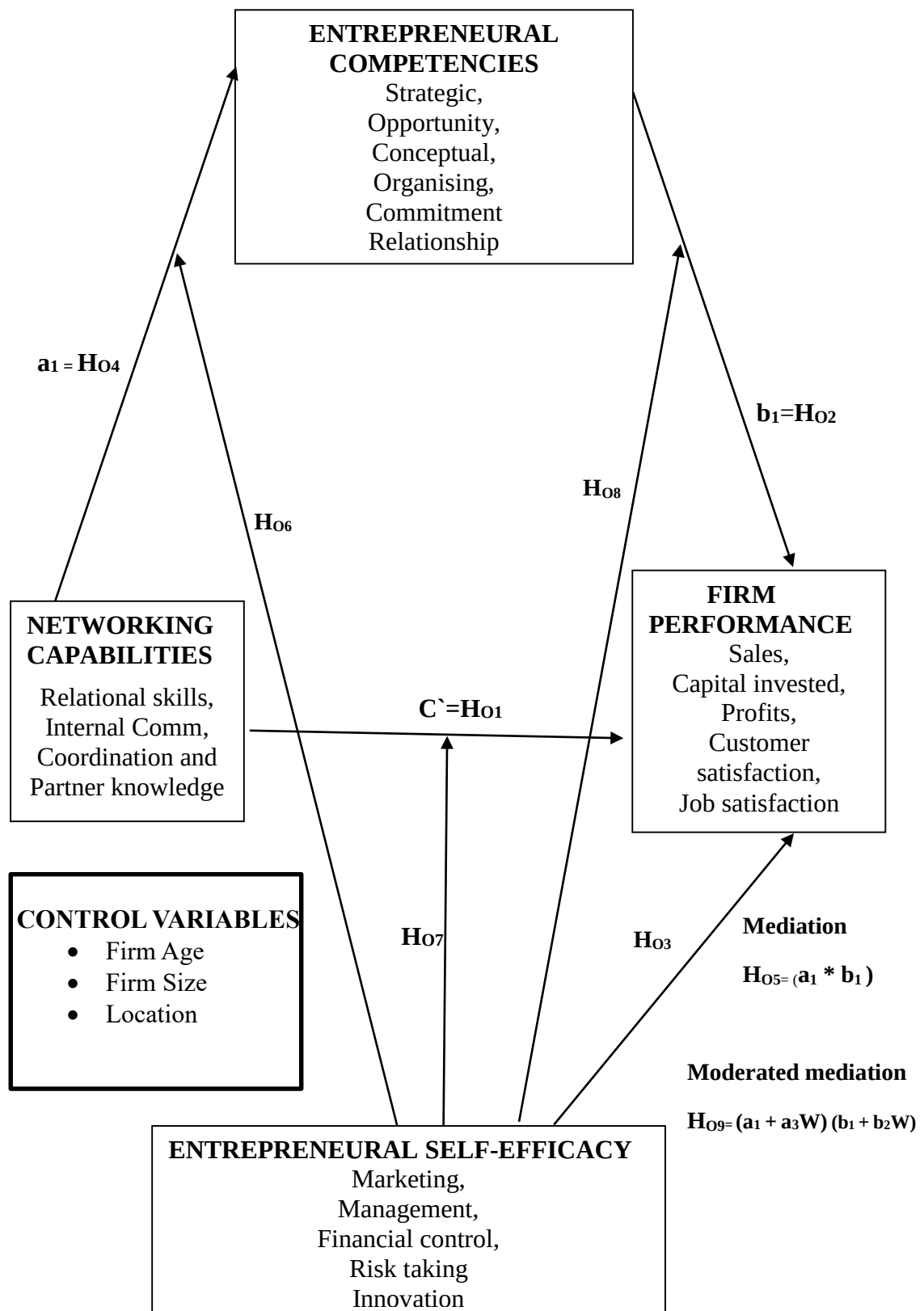


Figure 2. 1: The Conceptual Framework

Source: Adopted from Hayes (2013, 2018) Model 59

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter covered the research philosophy, research design, the study area and target population, data collection and instruments, measurement of variables, validity and reliability data processing and analysis, summary of hypothesis testing tools, and finally the ethical considerations.

#### **3.2 Research Philosophy**

Research philosophy as defined by Kirongo and Odoyo, (2020) refers to the belief in which data about an object or phenomenon should be gathered, analysed and used in meeting the objectives a given study. It applies in cases where there is difference between what is believed to be true and what is known to be true. The research was guided by positivism research philosophy. Positivism as a philosophy adheres to the view that knowledge based on facts gained through observation, including measurement, is trustworthy where no subjective status of individual is considered (Corry, Porter & McKenna, 2019).

The positivist approach involves trying to decipher which pieces of information in the data sets are associated and assesses the strength of the association by counterfactual thinking and problems of reliability and representativeness. Positivism derives a quantitative perspective that holds that there is objective reality that can be expressed numerically, with explanatory and predictive power (Zyphur and Pierides, 2020). According to Van Nes and Yamu, (2020) argument under this paradigm, theoretical models can be developed that are generalizable to explain cause-and-effect relationships.

There are two approaches to research philosophy, namely, deductive approach and inductive approach. The two approaches are concerned on what should come first between theory development and empirical work. Deductive approach proposes theory to be developed before the empirical work is done. The empirical work is developed after the theory for the purposes of testing the theory. This approach is closely related to quantitative data. This study used deductive approach since it is quantitative study. This study sought to test the reviewed theories using the study findings. In other words, the study findings were used to check whether the reviewed theories hold water.

Other research paradigms include Interpretivism which emphasizes the subjective nature of reality, focusing on understanding the meanings and experiences of individuals. Researchers using this paradigm employ qualitative methods such as interviews, focus groups, and case studies to gain in-depth insights into how people interpret their world and the social contexts that influence their perceptions. Interpretivist research is concerned with exploring the richness of human experience and seeks to provide a nuanced understanding of social phenomena from the participants' perspectives.

Critical Theory on the other hand challenges existing societal structures and power dynamics, aiming to address issues of inequality and social injustice. This paradigm often involves participatory research methods that engage marginalized groups, seeking to produce knowledge that can drive social change and empower communities. Critical theory research is characterized by its commitment to revealing and addressing power imbalances and fostering social transformation.

Constructivism posits that knowledge is actively constructed through social interactions and cultural contexts. It focuses on how individuals and groups create and understand

their realities based on their experiences. Research under this paradigm often uses qualitative methods to explore the ways people construct meaning and how their understandings are shaped by their interactions and cultural environments. Constructivist research highlights the subjective nature of knowledge and seeks to understand the processes through which individuals and groups develop their perceptions of reality.

Pragmatism offers a flexible approach that values practical solutions to real-world problems, combining both qualitative and quantitative methods. Researchers adopting a pragmatic paradigm are less concerned with adhering to a specific methodological approach and more focused on addressing research questions in a way that is contextually relevant and useful. Pragmatism emphasizes the application of findings to solve practical issues and often involves a mix of methods to capture a comprehensive view of the research problem.

### **3.3 Research Design**

Research design is the blueprint for the collection, measurement, analysis of data a plan to obtain research questions (Haydam & Steenkamp, 2020). The study employed explanatory research design. Cross sectional survey design helps in hypothesis formulation and testing the analysis of the relationship between variables (Zhang, Yan & Liu, 2022).

Explanatory research design was chosen as the most suitable method for the study because of the need to gain an understanding of the broader contexts of the relationships among the research variables. Explanatory research is used for understanding phenomenon in terms of likely causes. Explanatory research implies that the research

in question is intended to explain, rather than simply describe, the phenomena studied (Möttus, 2020).

Explanatory research design enabled a thorough examination of causal relationships and the underlying mechanisms between variables. This design was particularly suited for understanding how networking capabilities, entrepreneurial competencies, and self-efficacy influence SME performance, as it allowed for the exploration of direct and indirect effects within a complex interplay of factors (Creswell & Poth, 2018). Explanatory research provided a robust framework for identifying the causal links between these variables, thus offering actionable insights and practical recommendations for enhancing SME performance (Saunders et al., 2019). By employing this design, the study aimed to elucidate how these dimensions contributed to business success and to address gaps in the existing literature concerning the integration of these factors (Yegidis et al., 2020).

### **3.4 Study Area**

The study was conducted in North Rift –Kenya targeting SMEs in Eldoret, Kitale and Kapsabet towns. The North Rift region is made up of seven counties namely Uasin Gishu, Transoia, Nandi, Baringo, Turkana, West Pokot and Elgeyo Marakwet. The study selected Uasin Gishu, Kitale and Nandi because of its general economic vibrancy in all sectors of the economy and specifically in the SME sector. These are transit towns linking the whole of Western Kenya and the neighbouring country of Uganda. The areas surrounding the towns are known for its vast agricultural potential with numerous small farms and vast agricultural enterprises. The main crops grown include tea, wheat, barley, maize, and beans. North Rift towns of Eldoret, Kitale and Kapsabet are an

agricultural and commercial hub with a large population and have representation of all the business sectors in their commercial business district (CBD).

Eldoret town is one of the fastest growing towns in Kenya. It is characterised by a cosmopolitan setting and a population of approximately 900,000 people and covers approximately 3350 Km<sup>2</sup>. The study was conducted within the Central Business District of Eldoret town. Eldoret town is a town in Uasin Gishu County and is bordered by six counties namely Trans Nzoia, Elgeyo Marakwet, Baringo, Nandi, Kericho and Kakamega. The central business district of Eldoret runs from Bandaptai building to the East, Uganda road to the North, U.G Primary School to the west and Sosiani River to the South. The strategic location of the town being at the crossroads of important link roads of Nairobi and to northern Kenya, Uganda and South Sudan places it at the heart of significant flows of people and goods. This study carried out in Kitale town, Trans Nzoia County focused on the five centres namely town centre, Soko Mjinga, Nyayo market, Municipal market and Jua kali markets since it comprised of a high concentration of all types of SMEs in major sub sectors like commerce/trade, service and manufacturing.

### **3.5 Target Population**

Population is a group of individuals, objects or items from which samples will be taken for measurement or it is an entire group of persons, or elements that have at least one thing in common (Lohr, 2021). The population of this study comprised SMEs in retail and wholesale trade, service industry, production and manufacturing in the towns of Eldoret, Kitale and Kapsabet, within North Rift region, Kenya. These formed the range of SMEs registered by the County Governments based on the preliminary studies carried out at the Counties Headquarters.

The choice of the target population of SMEs was relevant to the study because each SME is composed of owners and managers, who play a day-to-day role in crafting and implementing strategies within their business. These were the actual respondents. The SMEs were identified through a profiling process based on the SMEs who had renewed their licenses by the year (2021) at the respective county licensing offices. Such registration for the year is used as an indication of the SMEs activity and continuity in business because using an alternative SME register such as the at the Chamber of Commerce offices may not lead to finding active respondents. This method of targeting has been used by Kiplagat (2016) in his study of E-commerce adoption by SMEs in Kericho County. In this study, the target population comprised 4596 licensed SMEs owners drawn from the three selected towns in North Rift region, Kenya namely Eldoret, Kitale and Kapsabet.

**Table 3. 1: Target Population distribution**

| <b>Towns</b> | <b>Number of SMEs</b> |
|--------------|-----------------------|
| Eldoret      | 2398                  |
| Kitale       | 1544                  |
| Kapsabet     | 654                   |
| <b>Total</b> | <b>4596</b>           |

**Source: County Governments of Uasin Gishu, Tranzoia and Nandi (2021)**

### **3.6 Sample Size and Sampling Technique**

A sample frame is a complete list in which each of the unit of analysis is mentioned only once (Lohr, 2021). According to Naseri (2024), sampling frame is defined as the list of elements from which a sample is drawn. The SMEs are in the three towns within the North Rift Region of Kenya and therefore stratified random sampling together with proportionate sampling from a sampling frame of 4,596 SMEs were used. The SMEs identified for the study were those which conformed to the provisions of Kenya's MSE Act (2012) in terms of annual turnover and employee numbers. The choice of these

sectors is derived from the Kenyan government in its report R.O.K. (2009); the report indicates that Kenya Vision 2030 has earmarked wholesale and retail trade for rapid growth and development. It adds that services sector is increasingly becoming the most important sector of the economy contributing 60% of GDP and 68% of the total employment.

According to Macorr Research solutions online (2014), sampling is the foundation of all research. Reliable sampling helps one to make business decisions with confidence.

In the current study, a sample of 323 (**Table 3.2**) the number of respondents were determined using Macorr's (2014) formula which is

$$n = Z^2 P (1-P) / C^2 \dots\dots\dots 3.1$$

Where, n = Sample size

Z= Z value obtained from statistical table (e.g 1.96 for 95% confidence level)

P= Percentage of picking a choice expressed as a decimal (30%)

C= confidence level (in this study it will be 0.05 at 95% confidence level)

Thus, computed as;  $n = 1.96^2 \cdot 0.3(1 - 0.3) / 0.05^2$

$$= 0.806736 / 0.0025$$

$$= 322.69$$

$$= 323$$

Macorr's formula uses similar parameters as Cochran's (1975) sampling formula which constitutes an equation to yield a representative sample for proportions of large samples.

$$N^0 = Z^2 p q / e^2 \dots\dots\dots 3.2$$

Where  $N^0$  = Sample size,

$Z$ =Z value obtained from statistical table,

$p$ =Percentage of picking a choice expressed as a decimal,

$q=1-p$  and  $e$ = the margin of error.

Using Stratified random sampling the study only considered active SMEs based on their current licenses to operate from the County Governments. The study utilized a sample size of 323 owners of SMEs distributed as follows: 169 respondents from Eldoret, 109 respondents from Kitale and 45 respondents from Kapsabet. The samples were picked from all the three strata (Eldoret, Kitale and Kapsabet).

The population of the study was distributed unequally within the 3 towns which make up part of North Rift towns. These towns were treated as strata. A proportionate stratified sampling technique was used to determine the desired sample size in each stratum. In selecting a sample from each stratum, a simple random sampling technique was used where a number is given to every subject member of the accessible population in the stratum, placing the number in a container and then picking any number at random. The subject corresponding to numbers picked were then be included in the sample (Hair Jr, Page and Brunsveld, (2019). Proportionate stratified sampling technique has been used in many studies including those by Rahman, (2022). The sample of 323 was subjected to proportionate stratified sampling to determine the sample size for each stratum.

This was proportionately allocated based on the population size of each strata as shown in **Table 3.2**.

**Table 3. 2: Sampling Frame**

| <b>Towns</b> | <b>Number of SMEs</b> | <b>Percentage</b> | <b>Sample Using Strata Formula<br/>[<math>ns=(Ns/N)n</math>]</b> |
|--------------|-----------------------|-------------------|------------------------------------------------------------------|
| Eldoret      | 2398                  | 52%               | 169                                                              |
| Kitale       | 1544                  | 34%               | 109                                                              |
| Kapsabet     | 654                   | 14%               | 45                                                               |
| <b>Total</b> | <b>4596</b>           | <b>100%</b>       | <b>Cumulative sample respondents=323</b>                         |

**Source: Research Data (2022)**

The strata formula [ $ns = (Ns/N) n$ ] was used to determine number of respondents in each strata where;

$ns$ = sample size of each stratum

$Ns$ = Population size for each stratum

$N$ = Total population size

$n$ = Total sample size

$s$ = representing each stratum where ( $h=1, 2, \&3$ )

### **3.7 Data Collection and Instruments**

#### **3.7.1 Types of Data Sources and Collection Instruments**

According to Heap and Waters (2019), data collection method is the gathering of data for purposes of analysing to make inferences from the data. Structured questionnaire was used in this study as a method of collecting primary data. According to Heap and Waters (2019), a questionnaire is generally a good tool for collecting structured data or information. Specifically, and in relation to strategic management research, questionnaires are the main tools used since they are popular and appropriate in studies in Strategic Management (Mazhar, 2021).

In the current study questionnaires was used after initial enquiries and discussions with the County Director of Trade, Chairman of the County Chamber of Commerce and the County Minister of Trade. The discussions were in relation to basic information regarding the nature and number of active SMEs in their respective towns within the three counties.

The questionnaires were formulated to capture all information needed to meet the study objectives. In this regard, each section in the questionnaire was conceptualized to measure one variable in the study. Section **A** dealt with the demographic descriptions such as gender, firm age, firm location, number of employees and industry type. Section **B** to **E** was to provide research objectives. The demographic questions are particularly important because of factor rotation. This helped to drop the factors below standard threshold and those that qualified retained to undergo standard multiple regression.

The unit of analysis in the study was the SMEs and as such questionnaires were hand delivered to all the SMEs in the sample. The target respondents were the owners of the SMEs. The questionnaires were administered using a drop and pick method. This process was carried out by the research assistants who also went through the questionnaires with the respondents in detail to make sure that they clearly understood the questions before completing the questionnaires.

### **3.8 Measurement of Variables**

#### **3.8.1 SME Performance (Dependent Variable)**

The study dependent variable was the SME performance which was measured using 5-point Likert scale since it generally presented simple but versatile approach to obtaining primary data (Russo et al., 2021). To enable running correlation and regression analyses with Likert scale data, which is typically ordinal, the researcher converted it into

interval scale data by computing a composite score by averaging or summing the Likert items, assuming equal intervals between scale points. These approach allowed the ordinal data to be treated as interval data, making it suitable for precise statistical analyses such as correlation and regression, thus facilitating a deeper exploration of the relationships between variables.

Different financial measures were also used to depict the firm performance. The study sought to establish the extent which the SMEs have achieved financial and non-financial performance measures. The period covered was four years (2018–2021). The financial and non-financial performance indicators were adopted and modified from Inta Kotane (2015). The financial comprised four perceptive indicators: sales, annual profits, capital invested and return on investment. Non-financial measures included customer satisfaction levels, customer service improvements and number of employees.

### **3.8.2 Networking Capabilities (Independent Variable)**

The study adopted and modified measures of networking capabilities from Bengesi and Roux (2014) and Walter et al. (2006) and developed by Keller & Holland (1975) and Mohr & Spekman (1994) namely internal communication resources, relational skills, partners knowledge and coordination activities. Internal communication applied five item measures that shows how the acquired information is shared within the firm. The relational skills used four measurement items to assess the degree in which networking partners can strengthen close ties. Partners' knowledge used four items to capture the information which explained the level of understanding of a networking partner for the potentials and constraints of the second partner. The coordination of activities and resources were the six measurement items, which assessed synchronization, planning and controlling business activities and resources within and beyond firm's boundaries.

This study used five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree.

### **3.8.3 Entrepreneurial Competencies (Mediating Variable)**

The study adopted and modified the six measures of entrepreneurial competencies derived from Man, Lau and Chau (2002). The measures adopted in this study were the constructs of Strategic, Opportunity, Conceptual, Organising, Commitment and Relationship competencies. The study used 9 items to measure Strategic competency level, 10 items to measure Opportunity competency, 11 items to measure Conceptual competency, 7 items to measure organising competency, 7 items to measure Commitment competency and 7 items to measure Relationship competency. This study used five-point Likert scale for all the measures ranging from 1 - Strongly disagree (SD), 2 – Disagree (D), 3 – Not Sure (NS), 4 - Agree (A), 5 - Strongly agree (SA).

### **3.8.4 Entrepreneurial Self- Efficacy (Moderating Variable)**

The study adopted the widely used measures of entrepreneurial Self-Efficacy developed by Newman, et al (2019). The measures adopted were the constructs of perceived capabilities in successfully completing task in five business domains namely marketing, management, financial, risk taking and innovation. The study used 6 items to measure marketing ESE, 6 items to measure management ESE, 4 items to measure financial ESE, 4 items to measure risk taking ESE, 5 items to measure innovation ESE. The study used five-point Likert scale for all the measures ranging from Strongly disagree (SD), 2 – Disagree (D), 3 – Not Sure (NS), 4 - Agree (A), 5 - Strongly agree (SA).

### **3.8.5 Control Variables**

Control variables help us to minimize the potential effect of the other factor that may be considered to affect the outcome of the other variables in a relationship therefore

they should be controlled for in the estimation. The firm age, firm location and firm size were controlled in the study.

### **3.9 Operationalization and Measurement of Variables**

The variables of the study were measured and operationalised as presented in Table 3.3.

**Table 3. 3: Operationalization and Measurement of Variables**

| Type of variable | Variable Definition                         | Indicators/ Measures                    | Items | Questionnaire part | Measurement Level/Transformation |
|------------------|---------------------------------------------|-----------------------------------------|-------|--------------------|----------------------------------|
| Control variable |                                             | Firm Age, Firm location, Firm size,     | 5     | Section A          |                                  |
| Dependent        | Performance of Small and Medium Enterprises | Financial and non-financial performance | 7     | Section B          | 5-point Likert Scale.            |
| Independent      | Networking Capabilities                     | Relational Skills                       | 4     | Section C          | 5-point Likert Scale.            |
|                  |                                             | Internal Communication skills           | 5     | Section C          | 5-point Likert Scale.            |
|                  |                                             | Coordination skills                     | 5     | Section C          | 5-point Likert Scale.            |
|                  |                                             | Partner Knowledge Skills                | 3     | Section C          | 5-point Likert Scale.            |
| Mediator         | Entrepreneurial Competencies                | Strategic                               | 10    | Section D          | 5-point Likert Scale.            |
|                  |                                             | Opportunity                             | 10    | Section D          | 5-point Likert Scale.            |
|                  |                                             | Conceptual                              | 11    | Section D          | 5-point Likert Scale.            |
|                  |                                             | Organizing                              | 7     | Section D          | 5-point Likert Scale.            |
|                  |                                             | Commitment                              | 7     | Section D          | 5-point Likert Scale.            |
|                  |                                             | Relationship                            | 7     | Section D          | 5-point Likert Scale.            |
| Moderator        | Entrepreneurial Self-Efficacy               | Marketing                               | 6     | Section E          | 5-point Likert Scale.            |
|                  |                                             | Management                              | 6     | Section E          | 5-point Likert Scale.            |
|                  |                                             | Financial Control                       | 4     | Section E          | 5-point Likert Scale.            |
|                  |                                             | Risk Taking                             | 4     | Section E          | 5-point Likert Scale.            |
|                  |                                             | Innovation                              | 5     | Section E          | 5-point Likert Scale.            |

**Source: Author (2022)**

### 3.10 Validity of Instruments

The research adopted the content validity to measure the validity of the instruments to be used. Content validity enabled data being collected to be reliable in representing the

specific content of a particular concept. An instrument that will yield valid data is designed and then subjected to subjects of similar samples; inferences are then made and compared to the existing theories. Content validity was established on three levels. The researcher critically considered each item to see if it contained a real representation of the desired content and to see if it could measure what it was supposed to measure. Developed instruments were then presented to the supervisors and the research experts in the School of Business to evaluate the applicability and appropriateness of the content, clarity and adequacy of construction of the instrument from a research perspective. Content validity measures the extent to which the instrument provides adequate coverage of the investigative questions guiding the study. Content validity was determined using expert input from my doctoral research supervisors, research experts and fellow colleagues in the doctoral programme. Content validity was further achieved by pilot testing questionnaires instruments among 35 selected SMEs in Nakuru town prior to actual data collection.

Upon completion of the pilot study, the data was reviewed and the items that were not clear were modified accordingly. The Content Validity Index (CVI) was used to quantify the content validity. The S-CVI was computed by averaging the I-CVIs. According to Polit and Beck (2008), the S-CVI should be 0.90 or higher.

Convergent validity was to measure the correlations of items in a single construct. The goal was to ensure that items are correlated and measured the same underlying dimensions. Individual item loading of at least 0.70 shows high degree in which individual items belong to the construct (Chin & Yao, 2021). Principal component analysis (PCA) was used to validate the items in the questionnaire by applying varimax rotation. However, the study first tested the suitability of the data for Principal component analysis. Two test was done namely; Kaiser-Meyer-Olkin measure of

sampling adequacy (KMO) and Bartlett's Test of Sphericity. The set threshold for KMO has is 0.50 and above and that of Bartlett's Test of Sphericity is a p-value less than significant level (0.05 for this study (Latif et al., 2019). The factor loading should be at least 0.5 and therefore an item with factor loading less than that of 0.5 was removed from the analysis (Shrestha, 2021).

### **3.11 Reliability of Instruments**

According to Stemler, (2019) reliability is defined as the level of consistency of research instruments in giving similar results over repeated trials using the same group of respondents. It is the trustworthiness of research instruments to giving true results. When the findings from methods and data sources converge one has more confidence in them, when they diverse, this presents an opportunity to take a closer look at all data to gain a better understanding of the phenomenon being studied (Walter et al., 2019). According to Louangrath (2018), reliability is the extent to which a given measuring instrument produces the same result each time it is used.

Reliability is the repeatability, stability or internal consistency of a questionnaire, (Louangrath, 2018). Typical methods to estimate test reliability in behavioural research are, test-retest reliability, alternative forms, split-halves, inter-rater reliability, and internal consistency, (Leventhal & Gregg, 2022). This study employed Cronbach's Alpha ( $\alpha$ ) and factor analysis (with Communality extraction Factor Loading - (FL). According to Revelle and Condon, (2019), Cronbach's alpha coefficient of at least 0.7 for a research instrument is believed to be reliable. It should be noted that, it is possible for a measurement to be reliable but invalid; however, if a measurement is unreliable, then it cannot be valid (Ahmed & Ishtiaq, 2021). The pilot study also helped address any other faults on the questionnaire.

### **3.12 Pilot Study**

To check the validity and reliability of the questionnaires in gathering data required for purpose of the study, pilot study was carried out. The purpose of pilot testing was to establish the accuracy and appropriateness of the research design and instrumentation (Malmqvist et al., 2019). The point was to test the unwavering quality and legitimacy of the questionnaire. It also aimed at determining if there were any flaws, limitations, or other weaknesses within the questionnaire design and therefore allow for revisions to be made to the questionnaire prior to the implementation of the study.

A pilot study was conducted in 35 selected SMEs with 7 respondents per sector (10% of sample size) within Nakuru town in Nakuru County, Kenya. According to In, (2017) extant literature suggests that a pilot study sample should be 10% of the sample projected for the larger parent study. Pre-testing was therefore done in order to test the validity and reliability of the data collecting instruments. The questionnaires were physically distributed and a good response rate was ensured by following up with the respondents through reminders. Two weeks was allowed after which the filled questionnaires were collected and analysed. Patterns in the responses that may indicate issues with specific questions or sections of the questionnaire were keenly investigated for amendment of the instrument. Feedback from the respondents about their experience with the questionnaire was also taken. Using this feedback, along with the data analysis, necessary adjustments were made to the questionnaire. This involved rephrasing questions, adding or removing items, or altering the questionnaire's structure.

### **3.13 Data Collection Procedure**

Data collection refers to the process of gathering raw and unprocessed information that can be processed into meaningful information, following the scientific process of data analysis (Gupta & Rani, 2019). The study used primary data.

Before collecting data, the researcher first obtained an approval from Moi University to conduct research. The researcher also sought permission from managers/owners of the selected SMEs after introducing himself and explaining the purpose of the study. Upon granted permission, he then proceeded to the respondents to whom he also explained the purpose of his visit. The respondents were assured of their confidentiality of any information they gave. Research permit was obtained from the National Commission for Science, Technology and Innovation (NACOSTI) and its copies presented to the relevant County Government offices of Uasin Gishu, Transzoia and Nandi in order to gain access to their areas of jurisdiction to conduct this study.

### **3.14 Data Processing and Analysis**

Data analysis is a practice in which raw data is ordered and organized so that useful information can be extracted from it (Gupta & Rani, 2019). Data obtained from the field was coded, cleaned, and entered into the computer for analysis using the SPSS. The process of data screening and cleaning helps in checking for and addressing errors that could have arisen as data is being entered into the software (Raffle, Mackie & Gray, 2019). This activity ensured that the data that was subjected to further statistical investigations is free of error in order to give a useful inference. The data was summarized in order to see emerging trends and issues around specific themes, which are dependent on the variables and objectives. The researcher averaged the scores from indicators for the variables to obtain the composite scores respectively.

### **3.14.1 Detection and Treatment of Missing Values and Outliers**

Outlier refers to those observations which appear at the extreme end of the data that is those observations which appear very far from measures of central tendency. The presence of outliers may sometimes make the data not to be normally distributed or may lead to biasness in the analysis. Outliers may arise as a result of a discrepancy in the measurement, or entry of data and they may indicate possible experimental errors (Osborne & Overbay, 2019). The study used the Mahalanobis distance ( $d^2$ ) to detect the outliers.

In order to determine missing data and treat the outliers being questionnaire responses that are uncertain from a coding aspect, more in-depth discussion of the specific cases was done to reach at the most accurate objective conclusion. If information or data is not displayed, it was coded as missing values to avoid incorrect conclusions.

### **3.14.2 Descriptive and Inferential Statistics**

Descriptive statistical procedures including cross-tabulations and frequency, reliability, factor analysis, correlation, multiple regression analysis was used. The central tendency measures like mean as well as dispersion measures like variance, distribution and standard was calculated. Regression analysis helps in generating equation that describes the statistical relationship between one or more predictor variables and the response variable. The regression analysis results were presented using regression model summary and beta coefficients.

### **3.14.3 Data Transformation**

Factor analysis is mainly concerned with internal-correlations among data to come up with internally consistent surrogates of the variable (Zhou et al., 2020). These correlations normally assist the researcher to formulate and interpret the components

(variables). Shrestha, (2021) suggest that variables with factor loading 0.7 are acceptable. However, a minimum of 0.4 value of factor loading is allowed as suggested by other researchers. In order to test for construct validity and highlight variability among observed variables and to also check for any correlated variables for redundancy in data to be reduced, factor analysis was important in the study as suggested by Osborne & Overbay, (2019).

The study adopted factor analysis to reduce the number of indicators which do not explain the effect of variables on the SME performance and retain the indicators which can explain the effect. The retained items were averaged to measure specific variables. The averaged scored items were used to measure the variables of the study.

#### **3.14.4 Assumptions of Regression Model**

Regression analysis assumes that the data is normally distributed, the relationship between the independent variables and dependent variable is linear, the residuals across the values of the independent variable is constant (homoscedastic), no relationship between the independent variables (multi-collinearity). Normality of distribution was analysed using the histogram to check whether the dependent variable is normal or not, thus, deducing the statistical significance leading to either rejecting or failing to reject the outcome.

The data to regress must meet the assumption of linearity before carrying out multiple regression analysis; referred to as linearity. Scatter plots were used to examine the relationship between the variables in the study.

Homoscedasticity indicates that dependent variable's variability is equal across values of an independent variable (Lee, 2020). Homoscedasticity was minimized or eliminated where possible by ensuring that the data used in the hypothesis testing is approximately

normal and is accurately transformed. The study used Breusch-Pagan / Cook-Weisberg test for homoscedasticity.

Heteroscedasticity normally occurs where variance is not uniform across the data (Schmidt & Finan, 2018). This phenomenon introduces bias in standard errors. Standard errors are crucial in calculating T and F statistics. Heteroscedasticity is normally tested visually where it is observed that residuals are not evenly distributed around the horizontal line.

Multicollinearity is defined as the undesirable situation where the correlations among the independent variables are strong. When this happens, standard errors and beta coefficients tend to have large values leading to their instability (Osborne & Overbay, 2019). Multi-collinearity is said to occur if there exists high inter-correlations between independent variables (Shrestha, 2020). It has to be dealt with as it can cause havoc on analysis and thus making interpretations problematic. Multicollinearity makes determining the effect of a given predictor difficult since its effect of the predictor gets confounded as a result of high correlations amongst themselves.

Multicollinearity was dealt with by first establishing the inter-correlations between the independent variables and those bivariate correlations of 0.9 and higher which is seen as good candidate for deletion (Shrestha, N. (2020). Variance Inflation factor (VIF) was conducted. Larger VIF greater than 10 is an indicator of multicollinearity. If the value of Tolerance is less than 0.2 or 0.1 and, simultaneously, the value of VIF is 10 and above, then the multicollinearity is problematic.

### 3.14.5 Model Specification

The study was categorised into four parts. The first part study examined whether;

- i. Networking capabilities have a direct effect on SME performance (**H<sub>01</sub>**)
- ii. Entrepreneurial competencies have a direct effect on SME performance (**H<sub>02</sub>**)
- iii. Entrepreneurial Self-Efficacy has a direct effect on SME performance (**H<sub>03</sub>**)
- iv. Networking capabilities have a direct effect on entrepreneurial competencies (**H<sub>04</sub>**)

The second part analysed the mediating effect of entrepreneurial competencies on the relationship between networking capabilities and SME performance (**H<sub>05</sub>**)

The third part established and determined the moderating effect of entrepreneurial Self-Efficacy on:

- i. The relationship between networking capabilities and entrepreneurial competencies (**H<sub>06</sub>**)
- ii. The relationship between networking capabilities and SME performance (**H<sub>07</sub>**)
- iii. The relationship between entrepreneurial competencies and SME performance (**H<sub>08</sub>**)

Finally, the study determined the moderating effect of entrepreneurial Self-Efficacy on the indirect relationship between networking capabilities and SME performance at different levels of the moderator via the mediator (**H<sub>09</sub>**).

To achieve the aim of the study, hierarchical regression model was used to test the direct effects. In the models, several regression models were built by adding variables to the previous model at each step with an aim of determining whether newly added variable show a significant improvement in  $R^2$ . The regression model is stated below;

### Model 1: Direct Effects

The model first tested the effect of the control variable on the dependent variable.

Hence

- i.  $Y = \beta_0 + \beta_1 (\text{Firm Age}) + \beta_2 (\text{Firm Location}) + \beta_3 (\text{Firm Size}) + \varepsilon$ . (How much of the variance control variable account for the DV).
- ii. Effect of NC on FP;  $Y = \beta_0 + C + \beta_1 X + \varepsilon$  ----- **H<sub>01</sub>**
- iii. Effect of EC on FP;  $Y = \beta_0 + C + \beta_1 X + \beta_2 M + \varepsilon$  ----- **H<sub>02</sub>**. The model tests the variance accounted for by the mediator (EC) in the dependent variable while controlling for the covariates and the independent variable (FP).
- iv. Effect of ESE on FP;  $Y = \beta_0 + C + \beta_1 X + \beta_2 M + \beta_3 W + \varepsilon$  ----- **H<sub>03</sub>** .... The model was used to test the variance in the dependent variable explained by the moderator while controlling for the covariates, the independent and the mediator variables.

Testing path  $a_1$  of the conceptual framework;

- i.  $M = \beta_0 + C + \beta_1 W + \varepsilon$  (Determining the effect of the control variables (C) and the moderator (ESE) on the mediator (EC)).
- ii.  $M = \beta_0 + C + \beta_1 W + \beta_2 X + \varepsilon$  --Determining the effect of the independent variable (FP) on the mediator (EC) while controlling the control variables and the moderator----- **H<sub>04</sub>**

Note:

$Y$  = Dependent variable (SME performance)

$\beta_0$  = the constant,  $\beta_1, \beta_2, \beta_3$  are parameters of estimates,  $\varepsilon$  -error term

$C$  = Covariates (Firm Age, Firm location, Firm size).

X=Independent variable (SME performance), M=Mediator (entrepreneurial competencies). W= Moderator (Entrepreneurial self- efficacy)

### Model 2: The Mediation Model

Mackinnon (2012) procedure was followed to test for mediation. The following conditions must be met for mediation to take place;

- i. X must have an effect on  $M=a_0+C+a_1X+\varepsilon$
- ii. M must have an effect on  $Y=b_0+C+b_1M+\varepsilon$
- iii. The effect of X on Y while controlling for M;  $Y=C'_0+C+\beta_1M+C'X+\varepsilon$  (Not mandatory for it to be significant for mediation to take place.
- iv. Total effect  $Y=(a_1*b_1) +C'$
- v. Mediation  $(a_1*b_1)$  or C (Total Effect)-C` (direct effect) -----**H<sub>05</sub>**

To test hypotheses on mediation, Model 4 of the Process Macro described by Hayes (2018) was used. The process allows testing of the mediating relationship with bootstrap confidence intervals for an indirect effect (the mediating role of EC in the relationship between NC and SME performance).

Indirect effect of X on Y through M  $i= a_1 b_1$

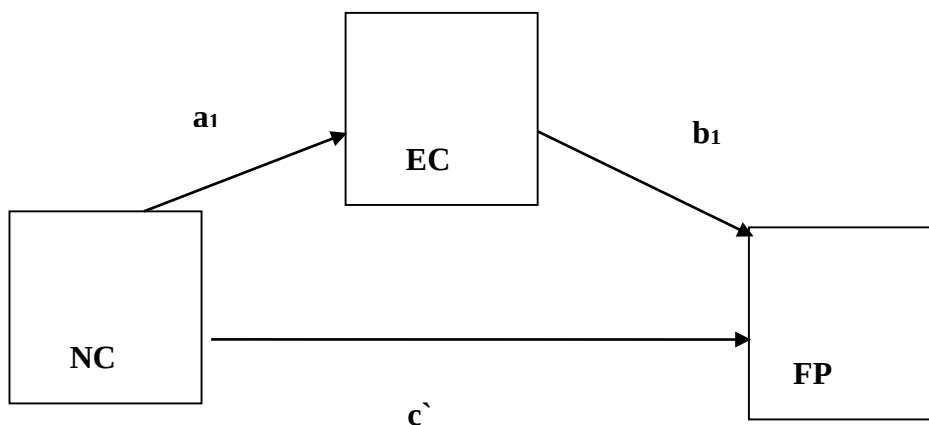


**Figure 3. 1: Mediation statistical Model 4 (developed by Hayes 2013)**

### Model 3. The Moderation Model

- i.  $M = a_0 + C + a_1X + a_2W + a_3XW + \varepsilon$  -----  $(a_0 + a_1 + a_3 W)$  .... (path  $a_1$  on the conceptual framework). ----- **H<sub>06</sub>**
- ii.  $Y = C'_0 + C + C'_1X + C'_2W + C'_3XW + \varepsilon$  ....  $(C'_0 + C'_1 + C'_3W)$  .... (path  $C'$  on the conceptual framework) --- **H<sub>07</sub>**
- iii.  $Y = b_0 + C + b_1M + b_2W + b_3MW + \varepsilon$  ...  $(b_0 + b_1 + b_3W)$  ... (path  $b_1$  on the conceptual framework) ---- **H<sub>08</sub>**

Hence; Moderation Model= One direct effect of X on Y, conditional on W:  $c_1' + c_3'W$

$$(Y = \alpha + b_1X + b_2X*W)$$

**Model 4: Moderated Mediation Model** = One indirect effect(s) of X on Y, conditional on W:

$$Y = a_0b_1 + a_1Xb_1 + a_2Wb_1 + a_3XWb_1 + a_0b_2 + a_1Xb_2 + a_2Wb_2 + a_3XWb_2,$$

Summarised as

$$Y = (a_1b_1 + a_3b_1W) + (a_1b_2W + a_3b_2W) = (a_1 + a_3W) (b_1 + b_2W) \text{ ---- } \mathbf{H_{09}}$$

The test hypothesis for moderation and moderated mediation models, Model 59 of the PROCESS macro described by Hayes (2013, 2018) was used. This allowed testing moderated mediation models to explore the conditional indirect effects. The number of bootstrap samples used to determine bias-corrected bootstrap confidence intervals of 95% was 10,000 for estimating the respective effects.

The PROCESS macro uses bootstrapping to estimate the indirect effects, which is preferred to the Sobel test (Baron & Kenny, 1986) because bootstrapping overcomes the problem of non-normality violations (Hayes, 2009; Preacher & Hayes, 2008). A growing literature now advocates the use of bootstrapping for assessing indirect effects

(Montoya & Hayes, 2017). In bootstrapping, the sample is conceptualized as a pseudo-population that represents the broader population from which the sample is derived, and the sampling distribution of any statistic can be generated by calculating the statistic of interest in multiple re-samples of the data set. Through the repeated sampling procedure, with replacement, and in repeated times, a new sample is formed for each repeated sampling. Using bootstrapping, no assumptions about the shape of the sampling distribution of the statistic are necessary when conducting inferential tests.

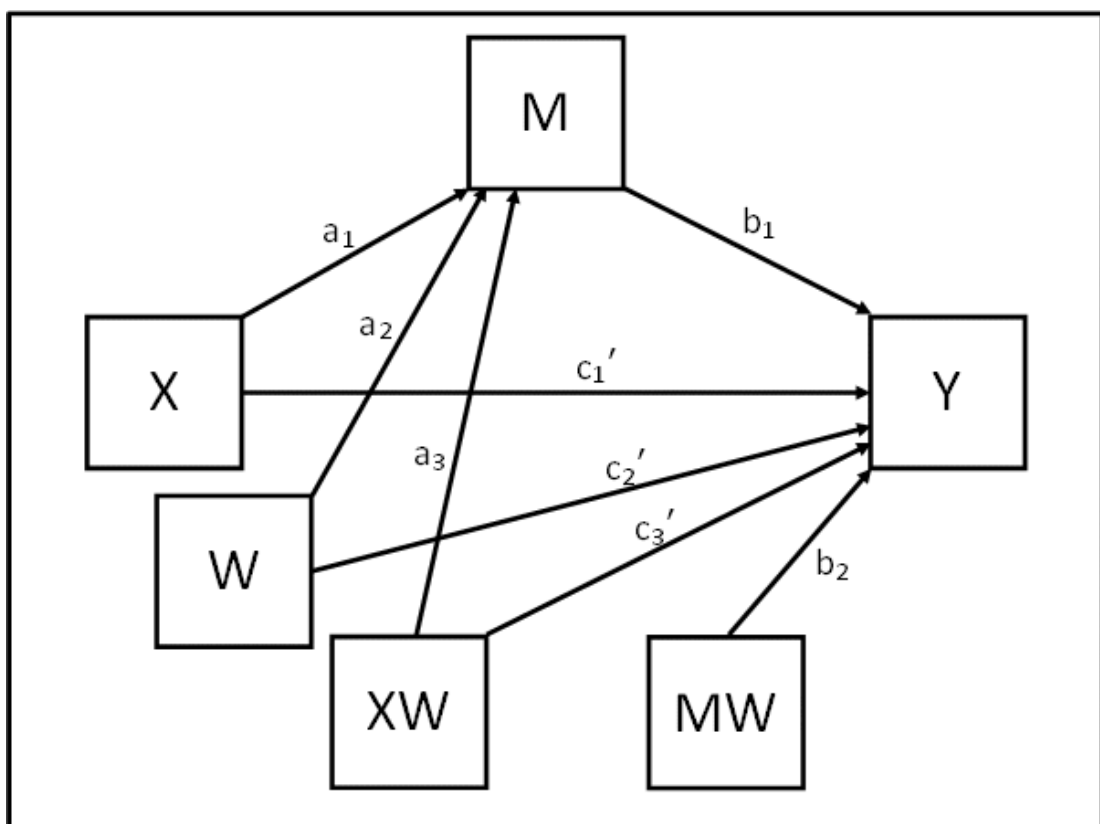


**Figure 3.2: The Moderated mediation statistical diagram for Hayes Model 59 (developed by Hayes 2013, 2018)**

Where X= Networking Capabilities, W-Moderator variable (Entrepreneurial Self - Efficacy), M=Mediator Variable (Entrepreneurial Competencies) and Y= Dependent variable (SME performance), C=Covariates (Firm location, Firm Size and Firm Age.  $\alpha_1$  and  $\alpha_2$  are the regression intercepts,  $e_m$  and  $e_y$  are the errors to estimate M and Y

respectively.  $a_1, a_2, a_3, b_1, b_2, b_3$  and  $c_1, c_2$  and  $\xi_3$  are the regression coefficients given the preceding variables of the model.

### 3.15 Summary of Hypothesis Testing and Interpretation

The hypothesis in the study was tested using both simple linear and multiple regression methods through Andrew Hayes macro process and interpreted as presented in Table 3.4

**Table 3.4: Summary of Hypothesis Testing and Interpretation**

| Hypothesis                                                                                                                                                               | Test statistics tools                               | Decision Indicators                                   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|-------------------------------------------------------|
| <b>Hypothesis 1</b><br>$H_{01}$ - NC have no significant effect on SME performance.                                                                                      | $\beta$ , p values, t-value, F, change in $R^2$     | Significant at $p \leq 0.05$<br>$t \geq 1.96$         |
| <b>Hypothesis 2</b><br>$H_{02}$ -EC have no significant effect on SME performance.                                                                                       | $\beta$ , p values, t- test, F, change in $R^2$     | Significant at $p \leq 0.05$<br>$t \geq 1.96$         |
| <b>Hypothesis 3</b><br>$H_{03}$ - ESE has no significant effect on SME performance.                                                                                      | $\beta$ , p values, t- test, F, change in $R^2$     | Significant at $p \leq 0.05$<br>$t \geq 1.96$         |
| <b>Hypothesis 4</b><br>$H_{04}$ - NC have no significant effect on EC.                                                                                                   | $\beta$ , p values, t- tests, F, change in $R^2$    | Significant at $p \leq 0.05$<br>$t \geq 1.96$         |
| <b>Hypothesis 5</b><br>$H_{05}$ -EC have no significant mediating effect on the relationship between NC and SME performance.                                             | $\beta$ , p values, t- value, LLCI and ULCI         | Significant with both LLCI and ULCI being non -zeros. |
| <b>Hypothesis 6</b><br>$H_{06}$ -ESE has no moderating effect on the relationship between NC and EC.                                                                     | $\beta$ , p values, F, t-values and change in $R^2$ | Significant at $p \leq 0.05$<br>$t \geq 1.96$         |
| <b>Hypothesis 7</b><br>$H_{07}$ - ESE has no moderating effect on the relationship between networking capabilities and SME performance                                   | $\beta$ , p values, F, t-values and change in $R^2$ | Significant at $p \leq 0.05$<br>$t \geq 1.96$         |
| <b>Hypothesis 8</b><br>$H_{08}$ -ESE has no moderating effect on the relationship between EC and SME performance.                                                        | $\beta$ , p values, F, t-values and change in $R^2$ | Significant at $p \leq 0.05$<br>$t \geq 1.96$         |
| <b>Hypothesis 9</b><br>$H_{09}$ - ESE has no significant conditional indirect effect on the strength of the mediated relationship between NC and SME performance via EC. | $\beta$ , LLCI and ULCI                             | Non-zeros in both LLCI and ULCI                       |

**Source: Author (2022)**

### **3.16 Ethical Considerations**

Ethical considerations were paramount in the study. Informed consent was crucial, ensuring participants were fully aware of the study's purpose, procedures, potential risks, and benefits, and that they agreed to participate voluntarily without coercion. Participants were informed that they could withdraw at any time without negative consequences, protecting their autonomy. Confidentiality and anonymity were also essential to safeguard participants' privacy, requiring researchers to ensure data was kept secure and personal identifiers removed. Furthermore, the principle of non-maleficence mandated that no harm should come to participants, with measures taken to mitigate any physical, psychological, or social risks. The researcher also adhered to beneficence, aiming for the study to benefit participants and the wider community by contributing to a better understanding of SME performance and informing policies that support SME growth.

Additionally, respect for autonomy involved providing information in an accessible format and ensuring participants understood their rights and involvement scope. Fairness and equity in participant selection prevented discrimination and ensured the sample represented the SME population's diverse demographics, making the findings broadly applicable. Conducting the study with transparency and integrity built trust and credibility, requiring the researcher to follow the approved protocol and disclose any conflicts of interest. Ethical approval from NACOSTI was also necessary and thus was acquired, ensuring the study met established standards. Finally, accurate and honest data handling and reporting was essential, with findings shared in a meaningful way to support evidence-based decision-making. Addressing these ethical considerations ensured the study respected participants' rights and well-being while contributing valuable insights to the field.

## **CHAPTER FOUR**

### **DATA ANALYSIS AND PRESENTATION**

#### **4.1 Introduction**

The chapter presents analysis of data derived from the study variables. The chapter tackles analysis, interpretation, and discussion of the study findings. The chapter is structured in a way that looks at the data processing, missing data, response rate, demographic characteristics for the respondents and finally the presentation of descriptive and inferential statistical results.

#### **4.2 Data Processing, Preparation and Screening**

Data processing involved classification and summarisation of data in order to make them manageable to analysis. It also involved determining the availability of suitable data, deciding on which methods were appropriate for answering the questions of interest, applying the methods, evaluating, summarising and communicating the results.

##### **4.2.1 Data processing**

Processing of data included coding the responses, cleaning, screening the data and selecting the appropriate data analysis strategy for testing the hypothesis. Coding involved assigning a numeric symbol to enable quick data entry and to minimise errors during the analysis. Each item in the questionnaire was assigned a code that upon completion was entered a statistical analysis software package IBM SPSS VERSION 23. Cleaning and screening the data involved checking for inconsistencies, missing responses and other errors to ensure accuracy and completeness.

##### **4.2.2 Missing data**

Missing data are observations in the measuring instrument which exist but have not been recorded or recorded and then lost. According to Enders, (2022) the best way to

avoid missing data issues is to have a good study design which reduces the chance of missing data occurring. Often the simplest method for handling missing data in the analysis, particularly in a questionnaire, is simply to use only those records which have been fully observed Enders, (2022). Missing data affects inference and prediction of the findings (Little & Rubin, 2019)

The researcher and his assistants attempted to reduce missing values right from the field at the time of questionnaire collection. Upon receipt of the completed questionnaire, the researcher/research assistants quickly checked by ensuring that all questions were appropriately answered. Attention of the respondents was drawn if a question(s) is ignored and asked kindly to complete filling the questionnaire accurately. According to Hair et al., 2013) missing values should be replaced using mean when there are less than 5% missing values per item. Before data analysis, descriptive statistics were used to check if any values were missing during data entry. Any anomaly was rectified immediately.

#### **4.3 Response Rate**

The researcher with the aid of two research assistants distributed self-administered questionnaires to SME owners in the three selected towns of North Rift (as discussed in the previous chapter). Three hundred and Twenty-Three (323) questionnaires were distributed to the respondents. However, after screening the data only three hundred and nine (309) were duly filled but fourteen (14) of them were dropped due to the respondent's inability to respond to the questions. The researcher received three hundred and twenty-two (323) questionnaires as indicated in Table 4.1, however only 309 were used in the final tally. In consultation with the supervisor, the 14 incomplete questionnaires were removed from the final tally of the study due to non-response. This

represented a 95.67% response rate which is a good representation of the study population. Hendra and Hill, (2019) argue that the higher the response rate the better. They suggest that 60% response rate would be marginal, 70% reasonable, 80% would be good while 90% would be excellent. Therefore, the 95.67% was an excellent rate and thus was adequate for the study to proceed.

**Table 4.1: Questionnaires returned for analysis**

| <b>Responses</b>         | <b>No. of questionnaires</b> | <b>Percentage (%)</b> |
|--------------------------|------------------------------|-----------------------|
| Effective questionnaires | 309                          | 95.67                 |
| Returned but defective   | 14                           | 4.33                  |
| <b>Total</b>             | <b>323</b>                   | <b>100</b>            |

**Source: Research data (2022)**

#### **4.4 Reliability of the Instruments**

It was important to determine reliability of the constructs used to measure the variables in question. This study tried to determine the internal consistency of the construct. It is the consistency of the SME's response across the items on a multiple- item measure.

This study adopted measures from already tested constructs but was necessary to carry out a test of the research instruments by examining if all items could produce consistent and valid result. This is in line with Lee Cronbach (1951) who states that reliability is a fundamental component of accuracy, thus it is desirable that the measure produce the same results when carried out under the same circumstances and should also distinguish between changes in the measure due to a genuine change in the condition being measured as opposed to changes that simply represent measurement error.

In this study, any items that had consistently low correlations across the board were removed from the instrument to make it more reliable. Furthermore, the individual

items Cronbach's alpha was considered to determine which item could be deleted to improve the reliability of the questionnaire as suggested by Mun et al., (2015). Hence this study provided the full list of items in the final version of the reliability test output of the instrument. All the items are supposed to reflect the same underlying constructs so that respondent's scores should be correlated with each other. If the responses of the people to different items are not the same or are not correlated with each other, then it could no longer make sense to claim that they are all measuring the same underlying constructs. Internal consistency can be assessed by collecting and analysing the data.

Cronbach alpha was used which is a measure of internal consistency. It is a measure of scale reliability. Table 4.2 shows the overall Cronbach's Alpha for the 6 items used to measure SME performance was .768 which is higher than the acceptable range of  $>0.70$ . The items used to measure networking capabilities had alpha of .816 representing 81.6 percent reliability whereas entrepreneurial competencies and self-efficacies also had high reliability of 93.5 and 84.6 percent respectively. The individual items in the table guide us to decide whether any of them needed to be removed to improve the overall Cronbach's Alpha. Most items appear to be worthy of retention. The results revealed that all the coefficients were within the accepted thresholds of 0.7 as postulated by Lee Cronbach in 1951. Therefore, it was concluded that the constructs used were reliable.

**Table 4.2: Cronbach Reliability Results**

| <b>Variables</b>              | <b>Average inter-<br/>item<br/>covariance</b> | <b>No. of items<br/>in the scale</b> | <b>Cronbach's<br/>alpha<br/>coefficient</b> |
|-------------------------------|-----------------------------------------------|--------------------------------------|---------------------------------------------|
| Firm Performance              | .284                                          | 6                                    | .768                                        |
| Networking Capabilities       | .296                                          | 17                                   | .816                                        |
| Entrepreneurial Competencies  | .295                                          | 51                                   | .935                                        |
| Entrepreneurial Self-Efficacy | .285                                          | 25                                   | .846                                        |
| Weighted mean                 | .292                                          | 99                                   | .841                                        |

**Source: Survey Data (2022)**

#### **4.5 Respondents' Demographic Information**

This section discusses the demographic characterises of the sample respondents in the study area. The information is used to provide a base for further analysis of the specific research objectives and their findings using descriptive statistics, frequency tables and percentages. The information is vital because it sheds light on the nature and calibre of the respondents from which interpretations would justifiably be made. An examination of the questionnaire responses for each of the 309 respondents pertains to gender, firm age, business location, firm size, and the sub-sector industry type of the SMEs. This is clearly tabulated in Table 4.3.

**Table 4.3: Demographic Characteristics of Respondents (N=309)**

| <b>Demographic factor</b> |                         | <b>Number of respondents</b> | <b>Percentage number of respondents</b> |
|---------------------------|-------------------------|------------------------------|-----------------------------------------|
| Gender                    | Female                  | 134                          | 43.4                                    |
|                           | Male                    | 175                          | 56.6                                    |
|                           | <b>Total</b>            | <b>309</b>                   | <b>100</b>                              |
| Firm Age                  | Below 3 years           | 79                           | 25.6                                    |
|                           | 4-6 years               | 89                           | 28.8                                    |
|                           | 7-10 years              | 67                           | 21.7                                    |
|                           | Above 10 years          | 74                           | 23.9                                    |
|                           | <b>Total</b>            | <b>309</b>                   | <b>100</b>                              |
|                           |                         |                              |                                         |
| Business Location         | Eldoret                 | 142                          | 46.0                                    |
|                           | Kitale                  | 107                          | 34.6                                    |
|                           | Kapsabet                | 60                           | 19.4                                    |
|                           | <b>Total</b>            | <b>309</b>                   | <b>100</b>                              |
| Firm Size                 | Fewer than 5            | 101                          | 32.7                                    |
|                           | 6-20                    | 109                          | 35.3                                    |
|                           | 21-50                   | 57                           | 18.4                                    |
|                           | 51-100                  | 33                           | 10.7                                    |
|                           | More than 100           | 9                            | 2.9                                     |
|                           | <b>Total</b>            | <b>309</b>                   | <b>100</b>                              |
|                           |                         |                              |                                         |
| Subsector Type            | Retail and wholesale    | 134                          | 43.4                                    |
|                           | Service                 | 104                          | 33.6                                    |
|                           | Production              | 71                           | 23.0                                    |
|                           | /manufacture/Agro based |                              |                                         |
|                           | <b>Total</b>            | <b>309</b>                   | <b>100</b>                              |

**Source: Research data (2022)**

#### **4.5.1 Respondents Gender**

The gender distribution of respondents shows that majority were male with 56.6 % (n=175), while female was represented by 43.4%, (n=134). This finding shows gender sensitive as almost equal number of respondents from the two genders were involved in the study. The respondents also offer a reflection on career orientation on entrepreneurship between female and male in the study.

#### **4.5.2 Respondents Firm Age**

The findings of this study indicates that majority of the respondents were those whose firm had been in existence for 4-6 years (n=89, 28.8%), followed by those firms aged

below 3 years being the least (25.6%, n=79). The third respondents' group were those firms above 10 years (23.9%, n=74) and least were those age between 7-10 years (21.7%, n=67). Firms that had been in existence for 6 years and below accounted for 54% of the respondents and firms with age more than 6 years accounted for 45% of the respondents. This implied that most of the respondents in the study accounted were almost equally distributed among firms with difference age experiences and hence capturing the context of the present study.

#### **4.5.3 Respondents Firm Location**

The findings of the study indicated that majority of the respondents were those from Eldoret (n=142, 46.0%) followed by respondents from Kitale with (n=107, 34.6%). The least respondents were from Kapsabet (n=60, 19.4%). This implied that more respondents were accounted from Eldoret due to the nature of business vibrancy as depicted in the study hence capturing the context of the study.

#### **4.5.4 Respondents Firm Size**

The findings in relation to firm size, the majority of the respondents were from firms with 6-20 employees (n=109,35.3%) which was followed closely by firms that had fewer than 5 employees (n=101,32.7%).The third respondent group were firms that had between 21-50 employees (n=57,18.4%).The least of the respondents were firms that had between 51-100 employees and those with more than 100 employees accounting for (n=33,10.7%) and (n= 9,2.9%) respectively.

#### **4.5.5 Respondents Subsector Industry Type**

Lastly in relation to the subsector industry type, the study indicated that retail and wholesale sectors had the highest respondents (n=134, 43.4%). This was distantly followed by respondents from the service sector with (n=104, 33.6%) and the least

respondents were from the Production/Manufacturing/ Agro- based sector with (n=71, 23.0%).

#### 4.6 Reliability Test of the Research instruments

##### 4.6.1 Reliability Test for SME firm performance

**Table 4.4: Reliability Test of the Research instruments**

|            | <b>Cronbach`s Alpha :.768<br/>Total Number of Items:6</b>                                                | <b>Corrected<br/>Item -Total<br/>Correlation</b> | <b>Cronbach`s<br/>Alpha If Item<br/>Deleted</b> |
|------------|----------------------------------------------------------------------------------------------------------|--------------------------------------------------|-------------------------------------------------|
| <b>FP1</b> | The firm`s sales have increased during the years due to increased demand in our products                 | .374                                             | .770                                            |
| <b>FP2</b> | Amount of capital invested has increased over the years due to growth in business                        | .575                                             | .719                                            |
| <b>FP3</b> | Annual profits have increased during the years due to increase in sales and cost control measures        | .125                                             | .802                                            |
| <b>FP4</b> | The level of customer satisfaction has increased due to improved customer service and reduced complaints | .667                                             | .688                                            |
| <b>FP5</b> | The number of employees has increased due to job satisfaction.                                           | .715                                             | .673                                            |
| <b>FP6</b> | The number of customers has increased due to increased demand in our products                            | .595                                             | .714                                            |

**Source: Research Data (2022)**

#### 4.6.2 Reliability Test for Networking capabilities

**Table 4. 5: Reliability Test for Networking Capabilities**

|      | <b>Cronbach Alpha:.816<br/>Total number of items:17</b>                                             | <b>Corrected<br/>item-Total<br/>correlation</b> | <b>Cronbach `s<br/>If item<br/>Deleted</b> |
|------|-----------------------------------------------------------------------------------------------------|-------------------------------------------------|--------------------------------------------|
| REL1 | My firm matches the use of resources (e.g. personnel, finances) to the partners relationship        | .358                                            | .809                                       |
| REL2 | The firm analyses what it would like and desire to achieve with which partner                       | .488                                            | .802                                       |
| REL3 | Regular discussions with partners how to support each other for their success occurs in my business | .371                                            | .808                                       |
| REL4 | Judgement in advance of possible partners to talk to about building up relationships occurs.        | .415                                            | .806                                       |
| IC1  | Regular meetings for every department / all workers to assess business progress are held            | .357                                            | .810                                       |
| IC2  | Regular meetings for every department or workers to develop business plan are held                  | .278                                            | .814                                       |
| IC3  | Business information across departments / all workers is often communicated                         | .451                                            | .804                                       |
| IC4  | I ensure that managers and employees give intensive feedback to each other                          | .477                                            | .802                                       |
| IC5  | I inform staff members of partners' goals, potential and strategies                                 | .390                                            | .807                                       |
| CO1  | I can deal flexibly with partners                                                                   | .492                                            | .801                                       |
| CO2  | We have the ability to build good personal relationship with business partners                      | .312                                            | .812                                       |
| CO3  | Problems are solved constructively with partners                                                    | .495                                            | .801                                       |
| CO4  | The firm puts itself in partners' position always                                                   | .352                                            | .810                                       |
| CO5  | We know our partners' potential and strategies                                                      | .479                                            | .802                                       |
| PK1  | I know my partners' markets                                                                         | .426                                            | .805                                       |
| PK2  | I deliberately study partners strength and weaknesses                                               | .421                                            | .805                                       |
| PK3  | I know which ways competitors attract customers                                                     | .382                                            | .808                                       |

**Source: Research Data (2022)**

#### 4.6.3 Reliability Test for Entrepreneurial competencies

**Table 4.6: Reliability Test for Entrepreneurial competencies**

|       | <b>Cronbach Alpha:.935<br/>Total Number of Items:51</b>                                               | <b>Corrected<br/>Item-Total<br/>Correlation</b> | <b>Cronbach`s<br/>If item<br/>Deleted</b> |
|-------|-------------------------------------------------------------------------------------------------------|-------------------------------------------------|-------------------------------------------|
| SC1   | I am able to determine long term issues, problems or opportunities                                    | .371                                            | .934                                      |
| SC2   | I am aware of the projected directions of the industry and how changes might impact the firm          | .424                                            | .934                                      |
| SC3   | I prioritise work in alignment with business goals                                                    | .761                                            | .933                                      |
| SC4   | I always re-design the department and or organisation to better meet long term objectives and changes | .439                                            | .934                                      |
| SC5   | I align current actions with strategic goals                                                          | .490                                            | .933                                      |
| SC6   | I assess and link short term, day to day tasks in the context of long term direction.                 | .475                                            | .933                                      |
| SC7   | I monitor progress towards strategic goals                                                            | .417                                            | .934                                      |
| SC8   | I always evaluate results against strategic goals                                                     | .394                                            | .934                                      |
| SC9   | I am able to determine strategic actions by weighing costs and benefits                               | .362                                            | .934                                      |
| OC1   | I constantly seek and act on high quality business opportunity                                        | .476                                            | .933                                      |
| OC2   | I always identify goods or services customers want                                                    | .477                                            | .933                                      |
| OC3   | I evaluate the advantages and disadvantages of potential business opportunities                       | .418                                            | .934                                      |
| OC4   | I conduct marketing and promotion activities for seeking new business opportunities                   | .463                                            | .934                                      |
| OC5   | I actively look for products or services that provide real benefit to customers                       | .391                                            | .934                                      |
| OC6   | I identify goods or services customers want.                                                          | .475                                            | .933                                      |
| OC7   | I have marketed very many new lines of products or services in the past 3 years.                      | .449                                            | .934                                      |
| OC8   | I always seize high-quality business opportunities                                                    | .416                                            | .934                                      |
| OC9   | I am able to perceive unmet consumer needs.                                                           | .888                                            | .934                                      |
| OC10  | I always look at old problems in new ways.                                                            | .404                                            | .932                                      |
| CONC1 | I possess creative innovative and imaginative dispositions                                            | .440                                            | .934                                      |
| CONC2 | I often take actions that go beyond job requirements or the demand of the situation.                  | .491                                            | .934                                      |
| CONC3 | I have credibility to absorb, analyse and understand complex situations.                              | .464                                            | .933                                      |

|        |                                                                         |      |      |
|--------|-------------------------------------------------------------------------|------|------|
| CONC4  | I have the mental ability to coordinate all the organisations interests | .399 | .934 |
| CONC5  | I make decisions concerning my business.                                | .396 | .934 |
| CONC6  | I take reasonable job-related risks in my business.                     | .515 | .933 |
| CONC7  | I monitor progress toward objectives in risky actions                   | .527 | .933 |
| CONC8  | I prioritize tasks to manage my time.                                   | .318 | .935 |
| CONC9  | I apply ideas I get from my business to different contexts.             | .506 | .933 |
| CONC10 | I make decisions concerning my business very fast                       | .424 | .934 |
| CONC11 | I explore new ideas that are helpful to my business                     | .406 | .934 |
| ORC1   | I delegate duties to my employees.                                      | .468 | .933 |
| ORC2   | I keep the records of my business.                                      | .448 | .934 |
| ORC3   | I plan the operations of my business.                                   | .437 | .934 |
| ORC4   | I always ensure my business runs smoothly.                              | .897 | .932 |
| ORC5   | I coordinate tasks.                                                     | .363 | .934 |
| ORC6   | I motivate people.                                                      | .469 | .933 |
| ORC7   | I plan the organization of different resources.                         | .443 | .934 |
| CC1    | I dedicate all my efforts to make my business work                      | .449 | .933 |
| CC2    | I refuse to let my business fail under any circumstance                 | .476 | .933 |
| CC3    | I commit to long-term business goals.                                   | .519 | .933 |
| CC4    | I possess an extremely strong internal drive.                           | .421 | .934 |
| CC5    | I go out of my way to learn new ideas about my business.                | .510 | .933 |
| CC6    | I apply learned skills and knowledge into practice.                     | .422 | .934 |
| CC7    | I always maintain a positive attitude in my business.                   | .483 | .933 |
| RC1    | I develop long-term trusting relationships with others                  | .464 | .934 |
| RC2    | I negotiate with others.                                                | .445 | .934 |
| RC3    | I interact with others with similar business as mine                    | .484 | .933 |
| RC4    | I always maintain a personal network of work contacts.                  | .420 | .934 |
| RC5    | I utilize business network to grow my business.                         | .411 | .934 |
| RC6    | I understand what others mean by their words/actions.                   | .878 | .932 |
| RC7    | I respond to constructive criticism.                                    | .246 | .935 |

**Source: Research Data (2022)**

#### 4.6.4 Reliability Test for Entrepreneurial Self- Efficacy

**Table 4.7: Reliability Test for Entrepreneurial Self- Efficacy**

|      | <b>Cronbach`s Alpha :846<br/>No of Items :25</b>                       | <b>Corrected<br/>Item-Total<br/>Correlation</b> | <b>Cronbach`s<br/>If Item<br/>Deleted</b> |
|------|------------------------------------------------------------------------|-------------------------------------------------|-------------------------------------------|
| ME1  | I can set and meet market share goals.                                 | .413                                            | .840                                      |
| ME2  | I can set and meet sales goals                                         | .400                                            | .840                                      |
| ME3  | I can establish a position in the marketplace                          | .316                                            | .843                                      |
| ME4  | I can conduct market analysis                                          | .429                                            | .839                                      |
| ME5  | I can identify new areas and territories for potential growth          | .409                                            | .840                                      |
| ME6  | I can develop new methods of production or systems                     | .371                                            | .841                                      |
| MSE1 | I can establish and achieve goals and objectives                       | .300                                            | .844                                      |
| MSE2 | I can reduce risk and deal with uncertainty                            | .284                                            | .844                                      |
| MSE3 | I can define organizational roles/responsibilities                     | .370                                            | .841                                      |
| MSE4 | I can manage time by setting goals                                     | .331                                            | .843                                      |
| MSE5 | I can identify and build management team                               | .400                                            | .840                                      |
| MSE6 | I can set up strategic plans for the organization                      | .470                                            | .838                                      |
| FCE1 | I can perform financial analysis                                       | .343                                            | .842                                      |
| FCE2 | I can develop a financial system and internal controls                 | .338                                            | .842                                      |
| FCE3 | I can recognize the costs associated with doing business               | .431                                            | .839                                      |
| FCE4 | I can control costs                                                    | .425                                            | .839                                      |
| RTI1 | I can make decisions under uncertainty and risk                        | .483                                            | .837                                      |
| RTI2 | I can work productively under continuous stress, pressure and conflict | .444                                            | .839                                      |
| RTI3 | I can tolerate unexpected changes in business conditions               | .385                                            | .841                                      |
| RTI4 | I can take responsibilities for ideas and decisions                    | .390                                            | .841                                      |
| IE1  | I can find new markets and territories                                 | .424                                            | .839                                      |
| IE2  | I can develop new business ideas                                       | .426                                            | .839                                      |
| IE3  | I can discover new ways to improve existing products/services          | .392                                            | .841                                      |
| IE4  | I can develop new methods of production or systems.                    | .479                                            | .837                                      |
| IE5  | I can develop new products or services                                 | .296                                            | .844                                      |

**Source: Research Data (2022)**

## 4.7 Descriptive Statistics

This section presents the descriptive statistics on each of the variables. Descriptive statistics in this case were the mean scores, standard deviation, skewness and the kurtosis of each item used in relation to firm performance, networking capabilities, entrepreneurial competencies and entrepreneurial Self-Efficacy.

### 4.7.1 Descriptive of Firm Performance

The study measured SME performance using various constructs. The response was categorized and coded as (1) Not at all (2) Less extent (3) Moderate extent (4) Large extent (5) Very Large extent. Respondents were required to indicate to what extent the statements describing firm's performance during the past four years or the actual period if you had involved with business for less than 4 years. Table 4.8 shows the results of the analysis.

**Table 4.8: Descriptive of firm performance**

| S/N        | Statement                                                                                                 |      |          |          |          |
|------------|-----------------------------------------------------------------------------------------------------------|------|----------|----------|----------|
|            | Firm Performance                                                                                          | Mean | Std. Dev | Skewness | Kurtosis |
| <b>FP1</b> | The firm's sales have increased during the years due to increased demand in our products                  | 3.58 | 1.169    | -.673    | -.409    |
| <b>FP2</b> | Amount of capital invested has increased over the years due to growth in business                         | 3.62 | 1.157    | -.724    | -.205    |
| <b>FP3</b> | Annual profits have increased during the years due to increase in sales and cost control measures         | 3.49 | .550     | .052     | -.095    |
| <b>FP4</b> | The level of customer satisfaction have increased due to improved customer service and reduced complaints | 3.59 | 1.280    | -.552    | -.732    |
| <b>FP5</b> | The number of employees have increased due to job satisfaction.                                           | 3.39 | 1.232    | -.480    | -.674    |
| <b>FP6</b> | The number of customers has increased due to increased demand in our products                             | 3.71 | 1.187    | -.690    | -.277    |

**Source: Research Data, 2022**

Results in Table 4.8 showed that on average, SMEs agreed that the firm's sales have increased during the years due to increased demand in our products (Mean = 3.58, std. dev = 1.169). Amount of capital invested had also increased over the years due to growth in business (Mean = 3.62, std. dev = 1.157). They further moderately agreed that annual profits have increased during the years due to increase in sales and cost control measures (Mean = 3.49, std. dev = .550). Furthermore, SMEs indicated that the level of customer satisfaction has increased due to improved customer service and reduced complaints and the number of customers has increased due to increased demand in our products as shown by an average respond of 3.59 and 3.71 which approximately corresponds to agreement to the 'large extend'. The values for skewness and kurtosis presented in Table 4.4 were below acceptable values of 3 for skewness and below 10 for kurtosis for variables to follow normal distribution which will be discussed later (Kline, 2005). Furthermore, SMEs indicated that the level of customer satisfaction has increased due to improved customer service and reduced complaints and the number of customers has increased due to increased demand in our products as shown by an average respond of 3.59 and 3.71 which approximately corresponds to agreement to the 'large extend'. The values for skewness and kurtosis presented in Table 4.4 were below acceptable values of 3 for skewness and below 10 for kurtosis for variables to follow normal distribution which will be discussed later (Kline, 2005).

#### **4.7.2 Descriptive of Networking Capabilities**

There were four measurements for networking capabilities in terms of relational skills, internal communication, coordination, and partner's knowledge. Each of these were measured using constructs. SMEs respondents were required to rate the extent they agreed the factors selected that affect the level of networking capabilities of relational

skills, internal communication, coordination, and partner knowledge. They were categorized as 5-Strongly Agree, 4-Agree, 3-Neutral, 2-Disagree, 1-Strongly Disagrees. The results are in Table 4.9.

**Table 4.9: Descriptive of Networking Capabilities**

| S/N                           | Statement                                                                                           | Mean | Std. Dev | Skewness | Kurtosis |
|-------------------------------|-----------------------------------------------------------------------------------------------------|------|----------|----------|----------|
| <b>Relational skills</b>      |                                                                                                     |      |          |          |          |
| REL1                          | My firm matches the use of resources (e.g. personnel, finances) to the partners relationship        | 4.33 | .913     | -1.818   | 3.817    |
| REL2                          | The firm analyses what it would like and desire to achieve with which partner                       | 3.96 | 1.070    | -1.021   | .512     |
| REL3                          | Regular discussions with partners how to support each other for their success occurs in my business | 3.98 | 1.046    | -1.017   | .468     |
| REL4                          | Judgement in advance of possible partners to talk to about building up relationships occurs.        | 3.73 | 1.143    | -.757    | -.131    |
| <b>Internal communication</b> |                                                                                                     |      |          |          |          |
| IC1                           | Regular meetings for every department / all worker`s to assess business progress are held           | 3.57 | 1.222    | -.606    | -.569    |
| IC2                           | Regular meetings for every department or workers to develop business plan are held                  | 3.61 | 1.151    | -.703    | -.301    |
| IC3                           | Business information across departments / all workers is often communicated                         | 3.59 | 1.244    | -.691    | -.524    |
| IC4                           | I ensure that managers and employees give intensive feedback to each other                          | 3.70 | 1.237    | -.668    | -.581    |
| IC5                           | I inform staff members of partners' goals, potential and strategies                                 | 3.85 | 1.158    | -.855    | -.176    |
| <b>Coordination</b>           |                                                                                                     |      |          |          |          |
| CO1                           | I can deal flexibly with partners                                                                   | 3.63 | 1.220    | -.651    | -.558    |
| CO2                           | We have the ability to build good personal relationship with business partners                      | 3.79 | 1.174    | -.862    | -.046    |
| CO3                           | Problems are solved constructively with partners                                                    | 3.71 | 1.248    | -.743    | -.460    |
| CO4                           | The firm puts itself in partners' position always                                                   | 3.61 | 1.253    | -.614    | -.722    |
| CO5                           | We know our partners' potential and strategies                                                      | 3.67 | 1.233    | -.592    | -.732    |
| <b>Partners knowledge</b>     |                                                                                                     |      |          |          |          |
| PK1                           | I know my partners' markets                                                                         | 3.75 | 1.223    | -.795    | -.329    |
| PK2                           | I deliberately study partners strength and weaknesses                                               | 3.59 | 1.236    | -.670    | -.511    |
| PK3                           | I know which ways competitors attract customers                                                     | 3.67 | 1.219    | -.683    | -.445    |

**Source: Research Data (2022)**

From the results on relational skills, majority agreed that their firm matches the use of resources (e.g. personnel, finances) to the partners relationship ( Mean = 4.33, std. dev = .913. Also agreed that regular discussions with partners on how to support each other for their success occurs in my business and judgement in advance of possible partners to talk to about building up relationships occurs as indicated by an average responds of 3.96 and 3.73 respectively.

Further, on internal communication, they ensured that managers and employees give intensive feedback to each other and inform staff members of partners' goals, potential and strategies (their respective mean responds of 3.70 and 3.85). They further agreed on coordination that they have the ability to build good personal relationship with business partners (Mean = 3.61, std. dev = 1.233). They also deliberately study partner's strength and weaknesses and they know which ways competitors attract customers. (Respective mean responds of 3.59 and 3.67)

#### **4.7.3 Descriptive of Entrepreneurial Competencies**

Entrepreneurial competencies were measured using strategic competencies, opportunity competencies, conceptual, organising, commitment and relational competencies. A five Likert scale was used to rate the responses. These are 1 - Strongly disagree (SD), 2 – Disagree (D), 3 –Not sure (NS), 4 – Agree (A), 5 –Strongly Agree (SA). The results are displayed in Table 4.10

**Table 4.10: Descriptive of Entrepreneurial Competencies**

| S/N | Statement                                                                                             | Mean | Std. Dev | Skewness | Kurtosis |
|-----|-------------------------------------------------------------------------------------------------------|------|----------|----------|----------|
|     | Strategic competency                                                                                  |      |          |          |          |
| SC1 | I am able to determine long term issues, problems or opportunities                                    | 3.39 | 1.346    | -.418    | -1.014   |
| SC2 | I am aware of the projected directions of the industry and how changes might impact the firm          | 3.66 | 1.263    | -.710    | -.553    |
| SC3 | I prioritise work in alignment with business goals                                                    | 3.50 | .545     | -.022    | -.646    |
| SC4 | I always re-design the department and or organisation to better meet long term objectives and changes | 4.07 | 1.153    | -1.221   | .600     |
| SC5 | I align current actions with strategic goals                                                          | 3.70 | 1.296    | -.698    | -.634    |
| SC6 | I assess and link short term, day to day tasks in the context of long term direction.                 | 3.62 | 1.303    | -.565    | -.864    |
| SC7 | I monitor progress towards strategic goals                                                            | 3.67 | 1.146    | -.540    | -.590    |
| SC8 | I always evaluate results against strategic goals                                                     | 3.57 | 1.197    | -.579    | -.555    |
| SC9 | I am able to determine strategic actions by weighing costs and benefits                               | 3.52 | 1.250    | -.560    | -.652    |
|     | <b>Opportunity Competency</b>                                                                         |      |          |          |          |
| OC1 | I constantly seek and act on high quality business opportunity                                        | 3.52 | 1.180    | -.532    | -.483    |
| OC2 | I always identify goods or services customers want                                                    | 3.64 | 1.213    | -.711    | -.406    |
| OC3 | I evaluate the advantages and disadvantages of potential business opportunities                       | 3.67 | 1.165    | -.633    | -.449    |
| OC4 | I conduct marketing and promotion activities for seeking new business opportunities                   | 3.73 | 1.178    | -.839    | -.044    |
| OC5 | I actively look for products or services that provide real benefit to customers                       | 3.75 | 1.200    | -.788    | -.290    |
| OC6 | I identify goods or services customers want.                                                          | 3.87 | 1.118    | -.992    | .380     |
| OC7 | I have marketed very many new lines of products or services in the past 3 years.                      | 3.70 | 1.188    | -.720    | -.349    |
| OC8 | I always seize high-quality business opportunities                                                    | 3.72 | 1.284    | -.791    | -.461    |

|                              |                                                                                      |      |       |        |       |
|------------------------------|--------------------------------------------------------------------------------------|------|-------|--------|-------|
| OC9                          | I am able to perceive unmet consumer needs.                                          | 3.70 | .638  | .007   | -.601 |
| OC10                         | I always look at old problems in new ways.                                           | 3.86 | 1.266 | -.947  | -.204 |
| <b>Conceptual Competency</b> |                                                                                      |      |       |        |       |
| CONC1                        | I possess creative innovative and imaginative dispositions                           | 3.88 | 1.187 | -1.040 | .233  |
| CONC2                        | I often take actions that go beyond job requirements or the demand of the situation. | 3.67 | 1.246 | -.620  | -.676 |
| CONC3                        | I have credibility to absorb, analyse and understand complex situations.             | 3.64 | 1.153 | -.700  | -.207 |
| CONC4                        | I have the mental ability to coordinate all the organisations interests              | 3.44 | 1.332 | -.438  | -.950 |
| CONC5                        | I make decisions concerning my business.                                             | 3.62 | 1.303 | -.681  | -.683 |
| CONC6                        | I take reasonable job-related risks in my business.                                  | 3.85 | 1.158 | -.969  | .228  |
| CONC7                        | I monitor progress toward objectives in risky actions                                | 3.55 | 1.264 | -.538  | -.705 |
| CONC8                        | I prioritize tasks to manage my time.                                                | 3.55 | 1.295 | -.516  | -.872 |
| CONC9                        | I apply ideas I get from my business to different contexts.                          | 3.61 | 1.206 | -.679  | -.402 |
| CONC10                       | I make decisions concerning my business very fast                                    | 3.63 | 1.227 | -.706  | -.418 |
| CONC11                       | I explore new ideas that are helpful to my business                                  | 3.66 | 1.164 | -.695  | -.296 |
| <b>Organising Competency</b> |                                                                                      |      |       |        |       |
| ORC1                         | I delegate duties to my employees.                                                   | 3.73 | 1.129 | -.764  | -.093 |
| ORC2                         | I keep the records of my business.                                                   | 3.55 | 1.254 | -.689  | -.502 |
| ORC3                         | I plan the operations of my business.                                                | 3.67 | 1.204 | -.702  | -.397 |
| ORC4                         | I always ensure my business runs smoothly.                                           | 3.66 | .654  | -.027  | -.638 |
| ORC5                         | I coordinate tasks.                                                                  | 3.99 | 1.099 | -1.053 | .515  |
| ORC6                         | I motivate people.                                                                   | 3.66 | 1.221 | -.648  | -.483 |
| ORC7                         | I plan the organization of different resources.                                      | 3.89 | 1.165 | -1.036 | .358  |
| <b>Commitment Competency</b> |                                                                                      |      |       |        |       |
| CC1                          | I dedicate all my efforts to make my business work                                   | 3.65 | 1.169 | -.660  | -.349 |
| CC2                          | I refuse to let my business fail under any circumstance                              | 3.68 | 1.181 | -.811  | -.156 |
| CC3                          | I commit to long-term business goals.                                                | 3.67 | 1.236 | -.787  | -.374 |

|                                |                                                          |      |       |       |       |
|--------------------------------|----------------------------------------------------------|------|-------|-------|-------|
| CC4                            | I possess an extremely strong internal drive.            | 3.68 | 1.205 | -.772 | -.266 |
| CC5                            | I go out of my way to learn new ideas about my business. | 3.63 | 1.206 | -.683 | -.442 |
| CC6                            | I apply learned skills and knowledge into practice.      | 3.61 | 1.155 | -.696 | -.223 |
| CC7                            | I always maintain a positive attitude in my business.    | 3.62 | 1.210 | -.661 | -.448 |
| <b>Relationship Competency</b> |                                                          |      |       |       |       |
| RC1                            | I develop long-term trusting relationships with others   | 3.53 | 1.202 | -.713 | -.358 |
| RC2                            | I negotiate with others.                                 | 3.66 | 1.104 | -.695 | -.145 |
| RC3                            | I interact with others with similar business as mine     | 3.68 | 1.155 | -.808 | -.047 |
| RC4                            | I always maintain a personal network of work contacts.   | 3.63 | 1.185 | -.697 | -.282 |
| RC5                            | I utilize business network to grow my business.          | 3.51 | 1.200 | -.578 | -.516 |
| RC6                            | I understand what others mean by their words/actions.    | 3.67 | .664  | -.225 | .302  |
| RC7                            | I respond to constructive criticism.                     | 1.25 | .431  | 1.186 | -.598 |

**Source: Researcher Data, (2022)**

Results from Table 4.10 indicates that majority of the SMEs agreed on the stated statements used to measure the entrepreneurial competencies (this is because their average responses are approximately 4 (agree)). Some were not sure (3 –Not sure) that they are able to determine long term issues, problems or opportunities (mean of 3.39) , had the mental ability to coordinate all the organisations interests (mean responds of 3.44) and finally they were they strongly disagreed that they respond to constructive criticism (mean of 1.25). According to Nerisa (2015), Shehnaz et al (2015) on the importance of entrepreneurial competencies in business performance or business successes have revealed positive results showing that the ability of the entrepreneur to develop the right mix of competencies would have a direct influence on business success.

#### 4.7.4 Descriptive of Entrepreneurial Self-Efficacies

Entrepreneurial Self-Efficacy were measured using Marketing, Management, Financial control, Risk taking and Innovation entrepreneurial self-efficacies. A five Likert scale was used to rate the responses. These are 1 - Strongly disagree (SD), 2 – Disagree (D), 3 –Not sure (NS), 4 – Agree (A), 5 –Strongly Agree (SA). The results are displayed in Table 4.11

**Table 4.11: Descriptive of Entrepreneurial Self-Efficacies**

| S/N                          | Statement                                                     | Mean | Std. Dev | Skewness | Kurtosis |
|------------------------------|---------------------------------------------------------------|------|----------|----------|----------|
| <b>Marketing ESE</b>         |                                                               |      |          |          |          |
| ME1                          | I can set and meet market share goals.                        | 3.25 | 1.358    | -.396    | -.984    |
| ME2                          | I can set and meet sales goals                                | 3.46 | 1.188    | -.517    | -.552    |
| ME3                          | I can establish a position in the marketplace                 | 3.53 | 1.152    | -.583    | -.243    |
| ME4                          | I can conduct market analysis                                 | 3.60 | 1.147    | -.537    | -.431    |
| ME5                          | I can identify new areas and territories for potential growth | 3.39 | 1.281    | -.521    | -.811    |
| ME6                          | I can develop new methods of production or systems            | 3.52 | 1.260    | -.648    | -.482    |
| <b>Management Skill ESE</b>  |                                                               |      |          |          |          |
| MSE1                         | I can establish and achieve goals and objectives              | 3.61 | 1.245    | -.605    | -.652    |
| MSE2                         | I can reduce risk and deal with uncertainty                   | 3.47 | 1.252    | -.384    | -.903    |
| MSE3                         | I can define organizational roles/responsibilities            | 3.35 | 1.327    | -.334    | -1.002   |
| MSE4                         | I can manage time by setting goals                            | 3.59 | 1.280    | -.552    | -.732    |
| MSE5                         | I can identify and build management team                      | 3.39 | 1.232    | -.480    | -.674    |
| MSE6                         | I can set up strategic plans for the organization             | 3.71 | 1.187    | -.690    | -.277    |
| <b>Financial Control ESE</b> |                                                               |      |          |          |          |
| FCE1                         | I can perform financial analysis                              | 3.61 | 1.253    | -.654    | -.580    |
| CE2                          | I can develop a financial system and internal controls        | 4.06 | 1.125    | -1.306   | 1.068    |
| FCE3                         | I can recognize the costs associated with doing business      | 3.72 | 1.155    | -.788    | -.101    |
| FCE4                         | I can control costs                                           | 3.64 | 1.252    | -.762    | -.347    |

| <b>Risk Taking ESE</b> |                                                                        |      |       |       |       |
|------------------------|------------------------------------------------------------------------|------|-------|-------|-------|
| RTI1                   | I can make decisions under uncertainty and risk                        | 3.54 | 1.220 | -.517 | -.576 |
| RTI2                   | I can work productively under continuous stress, pressure and conflict | 3.47 | 1.199 | -.460 | -.631 |
| RTI3                   | I can tolerate unexpected changes in business conditions               | 3.65 | 1.193 | -.649 | -.396 |
| RTI4                   | I can take responsibilities for ideas and decisions                    | 3.49 | 1.210 | -.480 | -.656 |
| <b>Innovation ESE</b>  |                                                                        |      |       |       |       |
| IE1                    | I can find new markets and territories                                 | 3.63 | 1.241 | -.670 | -.546 |
| IE2                    | I can develop new business ideas                                       | 3.68 | 1.247 | -.715 | -.511 |
| IE3                    | I can discover new ways to improve existing products/services          | 3.71 | 1.137 | -.763 | -.076 |
| IE4                    | I can develop new methods of production or systems.                    | 3.59 | 1.221 | -.567 | -.544 |
| IE5                    | I can develop new products or services                                 | 3.62 | 1.175 | -.686 | -.330 |

**Source: Research Data (2022)**

Table 4.11 presents descriptive statistics explaining the entrepreneurial Self-Efficacy. Five sub items were used. The marketing, management skills, financial control, risk taking and innovation self-efficacies. Though majority were not sure about the items used, they agreed on some of the items. For instance, the average responds for ‘I can set and meet market share goals’ was 3.25 which is approximate 3 for the code of not sure in the Likert scale. SMEs in North Rift region of Eldoret, Kitale and Kapsabet agreed on the marketing Self-Efficacy that they can establish a position in the marketplace and also can develop new methods of production or systems (mean responses of 3.53 and 3.52).

Further, majority on the management skill of entrepreneurial self-efficacies agreed that they can establish and achieve goals and objectives and can set up strategic plans for the organization, while on Financial Control, they can develop a financial system and

internal controls and can recognize the costs associated with doing business. On matters of Risk Taking and Innovations, they can tolerate unexpected changes in business conditions and can discover new ways to improve existing products/services. According to Bandura and Locke, (2003), the issue of Self-Efficacy has been extensively investigated, and it has been clearly established in related literature that Self-Efficacy beliefs can contribute significantly to the level of performance in diverse fields of human functioning including work-related functioning. Several studies have revealed a positive relationship between the level of entrepreneurial Self-Efficacy and firm performance (Kickul et al., 2009).

#### **4.7.5 Descriptive Statistics for the Constructs**

**Table 4.12** describes the summary statistics for the variables of the study with all variables having a mean score of above 3.73. Results indicate that networking capabilities had the highest mean of 3.75 and a standard deviation of .59 (Skewness=-.14, Kurtosis=-.57) with responses ranging from 3.13 to 5.0. This signifies that majority of the respondents have same opinion on the statements that describe networking capabilities affecting firm performance. Moreover, the study shows that respondents also concur on the statements describing firm performance with a mean of 3.73 and a standard deviation of .63 with responses ranging from 3.46 to 5.00 (skewness =-.09, Kurtosis=-.346).The construct of entrepreneurial competencies had a mean of 3.73 and a standard deviation of .59.The response of this variable ranged from 3.27 to 5.00 (skewness=.18, Kurtosis=-.35) showing the power of entrepreneurial competencies influencing firm performance. The respondents also agreed that entrepreneurial Self-Efficacy influence firm performance with a mean of 3.73 and a standard deviation of .70 (skewness=-.52, Kurtosis=.58).The response ranged from 4.00 to 5.00 on a 5 point Likert scale.

**Table 4.12: Summary of the Descriptive Statistics for the Constructs**

| <b>Variables</b>                     | <b>range</b> | <b>min</b> | <b>Max</b> | <b>Mean</b> | <b>Std dv</b> | <b>skewness</b> | <b>kurtosis</b> |
|--------------------------------------|--------------|------------|------------|-------------|---------------|-----------------|-----------------|
| <b>Firm Performance</b>              | 3.46         | 1.54       | 5.00       | 3.73        | .63           | -.09            | -.342           |
| <b>Networking Capabilities</b>       | 3.13         | 1.87       | 5.00       | 3.75        | .59           | -.14            | -.57            |
| <b>Entrepreneurial Competencies</b>  | 3.27         | 1.93       | 5.00       | 3.73        | .59           | .18             | -.35            |
| <b>Entrepreneurial Self Efficacy</b> | 4.00         | 1.00       | 5.00       | 3.73        | .70           | -.52            | .58             |

**Source: Research Data (2022), N=304 \*Five point Likert scale:5=Strongly Agree to 1=Strongly Disagree**

#### **4.8 Variable Reduction Using Factor Analysis under Principal Component Analysis (PCA)**

Before testing the hypotheses, factorability of the all the items of the study were examined to identify a small number of items which were used to test relationship among interrelated variables, and to investigate the validity of each construct through measurement purification process, items with factor loading less than .5 were omitted from the analysis to increase construct validity. According to Souza et al. (2017), construct validity measures the degree to which a scale measures what it intends to measure, and it is assessed by factor analysis in this research study.

Factor analysis is a statistical analysis reduction technique that explains correlation between multiple outcomes due to one or multiple underlying explanations or factors. It attempts to discover the unexplained factor that influences the covariance among multiple observations (Matsunaga, 2010). These factors represent underlying concepts that cannot be adequately measured by single variable. Eigen values are used to measure the total variance accounted by each factor. According to Kaiser (1974) those factors with eigen values equal or greater than one should be retained.

#### 4.8.1 Factor Loadings

Loadings are weights and correlation between each variable and the factor. The higher the loading, the more relevant in defining the factors' dimensionality. A negative value indicates an inverse impact on the factor. From the results in this study all the loadings for factor 1 were positive meaning the variables in this case had a positive impact to factor 1. Since only factor 1 had eigen value more than 1 and as per Kaiser criterion, this factor was retained. Considering factor 1, and according to Kaizer (1974), and Hair *et al.*, (2006), principal component analysis factors with loadings above 0.5 are extracted. Those with less than 0.5 are dropped. Uniqueness is the variance that is unique to the variables and not shared with other variables. Variables with higher loadings have less uniqueness to the rest of the constructs and the lower the loading the higher the construct becoming unique. The study further employed varimax rotational technique.

Varimax rotation is used to simplify the expression of a particular sub-space in terms of just a few major items. Varimax is so called because it maximizes the sum of the variances of the squared loadings. Varimax rotation is a statistical technique used at the first level of factor analysis to clarify the relationship between factors. In general, the procedure entails adjusting the coordinates of data obtained from a principal components analysis. The rotation or adjustment is intended to maximize the variance shared by items. By maximizing the shared variance, the results represent how data correlates with each principal component more discretely. In general, maximizing variance means increasing the squared correlation of items related to one factor while decreasing the correlation on any other factor. In other words, the varimax rotation simplifies item loadings by removing the middle ground and identifying the factor upon which data load is based.

#### 4.8.2 Factor Loadings on Firm Performance

Table 4.13 presents the constructs used to measure SME firm performance.

**Table 4. 13: Factor Loadings on Firm Performance**

|                                                                                                                                    | <b>Firm Performance (Eigen Value = 1.885)</b>                                                            | <b>Factor<br/>Extraction<br/>(loadings)</b> | <b>Uniqueness</b>  |
|------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|---------------------------------------------|--------------------|
| <b>FP1</b>                                                                                                                         | The firm's sales have increased during the years due to increased demand in our products                 | .3540                                       | .7634              |
| <b>FP2</b>                                                                                                                         | Amount of capital invested has increased over the years due to growth in business                        | .4505                                       | .6352              |
| <b>FP3</b>                                                                                                                         | Annual profits have increased during the years due to increase in sales and cost control measures        | .8696                                       | .2373              |
| <b>FP4</b>                                                                                                                         | The level of customer satisfaction has increased due to improved customer service and reduced complaints | .4585                                       | .7529              |
| <b>FP5</b>                                                                                                                         | The number of employees has increased due to job satisfaction.                                           | .5099                                       | .6486              |
| <b>FP6</b>                                                                                                                         | The number of customers has increased due to increased demand in our products                            | .5752                                       | .6200              |
| Extraction Method: Principal Component Analysis<br>a.1 components extracted.<br>Rotation Method: Varimax with Kaiser Normalization |                                                                                                          |                                             |                    |
| <b>KMO and Bartlett's Test</b>                                                                                                     |                                                                                                          |                                             |                    |
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy.                                                                                   |                                                                                                          |                                             | .768               |
| Bartlett's Test of Sphericity                                                                                                      |                                                                                                          |                                             | Approx. Chi-Square |
|                                                                                                                                    |                                                                                                          |                                             | df                 |
|                                                                                                                                    |                                                                                                          |                                             | 5                  |
|                                                                                                                                    |                                                                                                          |                                             | Sig.               |
|                                                                                                                                    |                                                                                                          |                                             | .000               |

**Source: Research Data, 2022**

Factor 1 with eigen 1.885 was the only factor that its loadings were extracted. Considering this factor, constructs such as 'Annual profits have increased during the years due to increase in sales and cost control measures', 'The number of employees has increased due to job satisfaction.' and 'The number of customers has increased due to increased demand in our products' had respective loadings of .8696, .5099 and .5752.

These are the only constructs retained while the rest were discarded. Thus, the retained constructs were used to generate the firm performance which is the dependent variable.

#### **4.8.3 Factor Loadings on Networking Capabilities**

Several items were used to measure networking capabilities among SMEs in the three towns of North Rift region. These were relational skills, internal communication, coordination, and partner's knowledge. Relational skills had four constructs, as per the responds, it had an eigen value under factor of 1.004 which was the only factor above 1 eigen value. Each construct had loadings and uniqueness as shown in Table 4.14. Under relational skills, two constructs were retained and the other two discarded. These were 'The firm analyses what it would like and desire to achieve with which partner (REL2=.5813)' and 'Judgement in advance of possible partners to talk to about building up relationships occurs (REL4=.5806.)' because they have factor loadings above .50.

Further, under internal communication, the eigen value for factor 1 was 1.125 and two constructs 'business information across departments / all workers is often communicated' and 'I ensure that managers and employees give intensive feedback to each other' were retained. This is because their respective loadings (IC3= .5429 and IC4=.5078) met the criteria to be retained. Under coordination, the eigen value factor 1 was 1.264 and three constructs were retained; 'I can deal flexibly with partners ', 'Problems are solved constructively with partners' and 'We know our partners' potential and strategies' (CO1=0.5265, CO3=0.5899 and CO5=0.5179 respectively). It is also clear that under partners knowledge only one construct was dismissed and the other two retained. All the retained constructs were used to generate a variable called networking capabilities (NC), the independent variable.

**Table 4. 14: Factor Loadings on Networking Capabilities**

| S/N                                                 | Statement                                                                                           | Factor Extraction (loadings) | Uniqueness |
|-----------------------------------------------------|-----------------------------------------------------------------------------------------------------|------------------------------|------------|
| <b>Relational skills (Eigen value = 1.0041)</b>     |                                                                                                     |                              |            |
| REL1                                                | My firm matches the use of resources (e.g. personnel, finances) to the partners relationship        | .4384                        | .8078      |
| REL2                                                | The firm analyses what it would like and desire to achieve with which partner                       | .5813                        | .6621      |
| REL3                                                | Regular discussions with partners how to support each other for their success occurs in my business | .4683                        | .7807      |
| REL4                                                | Judgement in advance of possible partners to talk to about building up relationships occurs.        | .5806.                       | .6671      |
| <b>Internal communication (Eigen value = 1.125)</b> |                                                                                                     |                              |            |
| IC1                                                 | Regular meetings for every department / all workers to assess business progress are held            | .3797                        | .8473      |
| IC2                                                 | Regular meetings for every department or workers to develop business plan are held                  | .3972                        | .8205      |
| IC3                                                 | Business information across departments / all workers is often communicated                         | .5429                        | .7036      |
| IC4                                                 | I ensure that managers and employees give intensive feedback to each other                          | .5078                        | .7354      |
| IC5                                                 | I inform staff members of partners' goals, potential and strategies                                 | .3727                        | .8411      |
| <b>Coordination (Eigen value = 1.264)</b>           |                                                                                                     |                              |            |
| CO1                                                 | I can deal flexibly with partners                                                                   | .5265                        | .6930      |
| CO2                                                 | We have the ability to build good personal relationship with business partners                      | .4386                        | .7681      |
| CO3                                                 | Problems are solved constructively with partners                                                    | .5899                        | .6263      |
| CO4                                                 | The firm puts itself in partners' position always                                                   | .4226                        | .7755      |
| CO5                                                 | We know our partners' potential and strategies                                                      | .5179                        | .7182      |
| <b>Partners knowledge (Eigen value = 1.1023)</b>    |                                                                                                     |                              |            |
| PK1                                                 | I know my partners' markets                                                                         | .4218                        | .8221      |
| PK2                                                 | I deliberately study partners strength and weaknesses                                               | .5616                        | .6846      |
| PK3                                                 | I know which ways competitors attract customers                                                     | .5529                        | .6943      |
| Extraction Method: Principal Component Analysis     |                                                                                                     |                              |            |
| a.1 components extracted.                           |                                                                                                     |                              |            |
| Rotation Method: Varimax with Kaiser Normalization  |                                                                                                     |                              |            |
| <b>KMO and Bartlett's Test</b>                      |                                                                                                     |                              |            |
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy.    |                                                                                                     |                              | .769       |
| Bartlett's Test of Sphericity                       |                                                                                                     |                              | 188.502    |
| Df                                                  |                                                                                                     |                              | 15         |
| Sig.                                                |                                                                                                     |                              | .000       |

**Source: Research Data, (2022)**

#### **4.8.4 Factor Loadings on Entrepreneurial Competencies**

Like the other variable explained previously, constructs measuring entrepreneurial competencies were subjected to factor analysis under PCA. Strategic competencies had nine items and eigen value of 2.771. Factor loadings presented by Table 4.15 indicate that these constructs SC4, SC5, SC7 and SC9 were removed and only the remainder were retained. For the opportunity competency, item OC3 'I evaluate the advantages and disadvantages of potential business opportunities' and OC10 'I always look at old problems in new ways' did not meet the threshold and thereby casted off. Similar procedure was applied to all the other items/constructs measuring conceptual, organising, commitment and relational competencies. Therefore, all the retained constructs were used to generate a variable called entrepreneurial competencies (EC), the mediating variable.

**Table 4.15: Factor Loadings on Entrepreneurial Competencies**

| S/N                                                 | Statement                                                                                             | Factor<br>Extraction<br>(loadings) | Uniqueness |
|-----------------------------------------------------|-------------------------------------------------------------------------------------------------------|------------------------------------|------------|
| <b>Strategic competency (Eigen value =2.771)</b>    |                                                                                                       |                                    |            |
| SC1                                                 | I am able to determine long term issues, problems or opportunities                                    | .5808                              | .5879      |
| SC2                                                 | I am aware of the projected directions of the industry and how changes might impact the firm          | .5192                              | .6738      |
| SC3                                                 | I prioritise work in alignment with business goals                                                    | .7955                              | .3106      |
| SC4                                                 | I always re-design the department and or organisation to better meet long term objectives and changes | .4483                              | .7162      |
| SC5                                                 | I align current actions with strategic goals                                                          | .4663                              | .7300      |
| SC6                                                 | I assess and link short term, day to day tasks in the context of long term direction.                 | .6137                              | .5481      |
| SC7                                                 | I monitor progress towards strategic goals                                                            | .4778                              | .7439      |
| SC8                                                 | I always evaluate results against strategic goals                                                     | .5295                              | .6368      |
| SC9                                                 | I am able to determine strategic actions by weighing costs and benefits                               | .4766                              | .7081      |
| <b>Opportunity Competency (Eigen value = 3.279)</b> |                                                                                                       |                                    |            |
| OC1                                                 | I constantly seek and act on high quality business opportunity                                        | .5556                              | .5417      |
| OC2                                                 | I always identify goods or services customers want                                                    | .5187                              | .6077      |
| OC3                                                 | I evaluate the advantages and disadvantages of potential business opportunities                       | .4747                              | .6431      |
| OC4                                                 | I conduct marketing and promotion activities for seeking new business opportunities                   | .5173                              | .6358      |
| OC5                                                 | I actively look for products or services that provide real benefit to customers                       | .5053                              | .6156      |
| OC6                                                 | I identify goods or services customers want.                                                          | .5766                              | .6167      |
| OC7                                                 | I have marketed very many new lines of products or services in the past 3 years.                      | .5428                              | .6211      |
| OC8                                                 | I always seize high-quality business opportunities                                                    | .5156                              | .6749      |
| OC9                                                 | I am able to perceive unmet consumer needs.                                                           | .9721                              | .0472      |
| OC10                                                | I always look at old problems in new ways.                                                            | .3387                              | .8145      |
| <b>Conceptual Competency (Eigen value =2.724)</b>   |                                                                                                       |                                    |            |
| CONC1                                               | I possess creative innovative and imaginative dispositions                                            | .4581                              | .7346      |
| CONC2                                               | I often take actions that go beyond job requirements or the demand of the situation.                  | .5465                              | .6234      |
| CONC3                                               | I have credibility to absorb, analyse and understand complex situations.                              | .5182                              | .6884      |
| CONC4                                               | I have the mental ability to coordinate all the organisations interests                               | .5281                              | .6124      |
| CONC5                                               | I make decisions concerning my business.                                                              | .4781                              | .6418      |
| CONC6                                               | I take reasonable job-related risks in my business.                                                   | .5375                              | .6958      |
| CONC7                                               | I monitor progress toward objectives in risky actions                                                 | .5129                              | .6948      |
| CONC8                                               | I prioritize tasks to manage my time.                                                                 | .3664                              | .8234      |
| CONC9                                               | I apply ideas I get from my business to different contexts.                                           | .5464                              | .6370      |
| CONC10                                              | I make decisions concerning my business very fast                                                     | .5299                              | .6584      |
| CONC11                                              | I explore new ideas that are helpful to my business                                                   | .4173                              | .7221      |
| <b>Organising Competency (Eigen value =2.269)</b>   |                                                                                                       |                                    |            |
| ORC1                                                | I delegate duties to my employees.                                                                    | .5656                              | .6629      |
| ORC2                                                | I keep the records of my business.                                                                    | .5642                              | .6615      |
| ORC3                                                | I plan the operations of my business.                                                                 | .5557                              | .6758      |
| ORC4                                                | I always ensure my business runs smoothly.                                                            | .8557                              | .2676      |
| ORC5                                                | I coordinate tasks.                                                                                   | .3901                              | .8004      |
| ORC6                                                | I motivate people.                                                                                    | .4994                              | .7094      |

|                                                      |                                                          |       |         |
|------------------------------------------------------|----------------------------------------------------------|-------|---------|
| ORC7                                                 | I plan the organization of different resources.          | .4385 | .7933   |
| <b>Commitment Competency (Eigen value =2.228)</b>    |                                                          |       |         |
| CC1                                                  | I dedicate all my efforts to make my business work       | .5204 | .7089   |
| CC2                                                  | I refuse to let my business fail under any circumstance  | .5706 | .6351   |
| CC3                                                  | I commit to long-term business goals.                    | .5992 | .6189   |
| CC4                                                  | I possess an extremely strong internal drive.            | .5406 | .6942   |
| CC5                                                  | I go out of my way to learn new ideas about my business. | .6525 | .5650   |
| CC6                                                  | I apply learned skills and knowledge into practice.      | .5207 | .6811   |
| CC7                                                  | I always maintain a positive attitude in my business.    | .5325 | .6872   |
| <b>Relationship Competency (Eigen value = 2.517)</b> |                                                          |       |         |
| RC1                                                  | I develop long-term trusting relationships with others   | .5788 | .5681   |
| RC2                                                  | I negotiate with others.                                 | .5089 | .6970   |
| RC3                                                  | I interact with others with similar business as mine     | .5993 | .5526   |
| RC4                                                  | I always maintain a personal network of work contacts.   | .6064 | .6176   |
| RC5                                                  | I utilize business network to grow my business.          | .5324 | .6721   |
| RC6                                                  | I understand what others mean by their words/actions.    | .9174 | .1577   |
| RC7                                                  | I respond to constructive criticism.                     | .2661 | .8743   |
| Extraction Method: Principal Component Analysis      |                                                          |       |         |
| a.1 components extracted.                            |                                                          |       |         |
| Rotation Method: Varimax with Kaiser Normalization   |                                                          |       |         |
| <b>KMO and Bartlett's Test</b>                       |                                                          |       |         |
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy.     |                                                          |       | .768    |
| Bartlett's Test of Sphericity                        |                                                          |       | 978.325 |
| df                                                   |                                                          |       | 50      |
| Sig.                                                 |                                                          |       | .000    |

**Source: Research Data (2022)**

#### **4.8.5 Factor Loadings on Entrepreneurial Self-Efficacies**

Marketing, management skills, financial control, risk taking, and innovations are categories of factor used to measure entrepreneurial Self-Efficacy. Each has constructs which were subjected to factor analysis. Table 4.16 indicates that under marketing, eigen value for factor 1 was 1.546. Items ME1 and ME3 had loadings below .50 and therefore there were more unique than the rest and thus rejected. Likewise, under management skills, MSE1 and MSE2 did not meet the threshold. Only FCE4 under finance control met the criteria. RTI1, RTI3, RTI4 and RTI5, and IE2, IE3 and IE4 for respective risk taking and innovation were retained. All the retained constructs were used to generate a variable called entrepreneurial self-efficacies (ESE), the moderating variable.

**Table 4.16: Factor Loadings on Entrepreneurial Self-Efficacies**

| S/N                                                | Statement                                                              | Factor<br>Etraction<br>(loadings) | Uniqueness |
|----------------------------------------------------|------------------------------------------------------------------------|-----------------------------------|------------|
| <b>Marketing ESE (Eigen value =1.546)</b>          |                                                                        |                                   |            |
| ME1                                                | I can set and meet market share goals.                                 | .4393                             | .7522      |
| ME2                                                | I can set and meet sales goals                                         | .5939                             | .6050      |
| ME3                                                | I can establish a position in the marketplace                          | .4455                             | .7349      |
| ME4                                                | I can conduct market analysis                                          | .5326                             | .6962      |
| ME5                                                | I can identify new areas and territories for potential growth          | .5111                             | .6585      |
| ME6                                                | I can develop new methods of production or systems                     | .5069                             | .6825      |
| <b>Management Skill ESE (Eigen value =1.493)</b>   |                                                                        |                                   |            |
| MSE1                                               | I can establish and achieve goals and objectives                       | .4158                             | .7745      |
| MSE2                                               | I can reduce risk and deal with uncertainty                            | .3624                             | .6766      |
| MSE3                                               | I can define organizational roles/responsibilities                     | .5828                             | .6161      |
| MSE4                                               | I can manage time by setting goals                                     | .5225                             | .6376      |
| MSE5                                               | I can identify and build management team                               | .5408                             | .6865      |
| MSE6                                               | I can set up strategic plans for the organization                      | .5330                             | .7145      |
| <b>Financial Control ESE (Eigen value= 1.892)</b>  |                                                                        |                                   |            |
| FCE1                                               | I can perform financial analysis                                       | .4175                             | .8257      |
| FCE2                                               | I can develop a financial system and internal controls                 | .4898                             | .7601      |
| FCE3                                               | I can recognize the costs associated with doing business               | .4588                             | .7895      |
| FCE4                                               | I can control costs                                                    | .5174                             | .7323      |
| <b>Risk Taking ESE (Eigen value =1.117)</b>        |                                                                        |                                   |            |
| RTI1                                               | I can make decisions under uncertainty and risk                        | .5607                             | .6856      |
| RTI2                                               | I can work productively under continuous stress, pressure and conflict | .4724                             | .7768      |
| RTI3                                               | I can tolerate unexpected changes in business conditions               | .5248                             | .7246      |
| RTI4                                               | I can take responsibilities for ideas and decisions                    | .5510                             | .6964      |
| <b>Innovation ESE (Eigen value = 1.239)</b>        |                                                                        |                                   |            |
| IE1                                                | I can find new markets and territories                                 | .4829                             | .7642      |
| IE2                                                | I can develop new business ideas                                       | .5050                             | .7419      |
| IE3                                                | I can discover new ways to improve existing products/services          | .5217                             | .7274      |
| IE4                                                | I can develop new methods of production or systems.                    | .5036                             | .7444      |
| IE5                                                | I can develop new products or services                                 | .4741                             | .7694      |
| Extraction Method: Principal Component Analysis    |                                                                        |                                   |            |
| a.1 components extracted.                          |                                                                        |                                   |            |
| Rotation Method: Varimax with Kaiser Normalization |                                                                        |                                   |            |

**KMO and Bartlett's Test**

|                                                  |                    |
|--------------------------------------------------|--------------------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | .826               |
| Bartlett's Test of Sphericity                    | Approx. Chi-Square |
|                                                  | Df                 |
|                                                  | Sig.               |
|                                                  | 641.229            |
|                                                  | 24                 |
|                                                  | .000               |

**Source: Research data (2022)**

Table 4.17 shows the summary of the factor loadings and reliability measurements of the study variables.

**Table 4. 17: Reliability and Validity Measurement of Variables**

|                                                                                                                             | <b>Factor<br/>Extraction<br/>(loadings)</b> | <b>Cronbach's<br/>Alpha If<br/>Item Deleted</b> |
|-----------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|-------------------------------------------------|
| <b>Firm Performance (Eigen Value = 1.885, KMO = 0.768, Bartlett's Test of Sphericity = 978.325, Cronbach's Alpha: .768)</b> |                                             |                                                 |
| Annual profits have increased during the years due to increase in sales and cost control measures                           | 0.87                                        | 0.80                                            |
| The number of employees has increased due to job satisfaction.                                                              | 0.51                                        | 0.67                                            |
| The number of customers has increased due to increased demand in our products                                               | 0.58                                        | 0.71                                            |
| <b>Networking Capabilities (KMO = 0.769, Bartlett's Test of Sphericity = 188.502, Cronbach Alpha: .816)</b>                 |                                             |                                                 |
| The firm analyses what it would like and desire to achieve with which partner                                               | 0.58                                        | 0.80                                            |
| Judgement in advance of possible partners to talk to about building up relationships occurs.                                | 0.58                                        | 0.81                                            |
| Business information across departments / all workers is often communicated                                                 | 0.54                                        | 0.80                                            |
| I ensure that managers and employees give intensive feedback to each other                                                  | 0.51                                        | 0.80                                            |
| I can deal flexibly with partners                                                                                           | 0.53                                        | 0.80                                            |
| Problems are solved constructively with partners                                                                            | 0.59                                        | 0.80                                            |
| We know our partners' potential and strategies                                                                              | 0.52                                        | 0.80                                            |
| I deliberately study partners strength and weaknesses                                                                       | 0.56                                        | 0.81                                            |
| I know which ways competitors attract customers                                                                             | 0.55                                        | 0.81                                            |
| <b>Entrepreneurial Competencies (KMO = 0.768, Bartlett's Test of Sphericity = 978.325, Cronbach Alpha: .935)</b>            |                                             |                                                 |
| I am able to determine long term issues, problems or opportunities                                                          | 0.58                                        | 0.93                                            |
| I am aware of the projected directions of the industry and how changes might impact the firm                                | 0.52                                        | 0.93                                            |
| I prioritise work in alignment with business goals                                                                          | 0.80                                        | 0.93                                            |
| I assess and link short term, day to day tasks in the context of long-term direction.                                       | 0.61                                        | 0.93                                            |
| I always evaluate results against strategic goals                                                                           | 0.53                                        | 0.93                                            |
| I constantly seek and act on high quality business opportunity                                                              | 0.56                                        | 0.93                                            |
| I always identify goods or services customers want                                                                          | 0.52                                        | 0.93                                            |
| I conduct marketing and promotion activities for seeking new business opportunities                                         | 0.52                                        | 0.93                                            |
| I actively look for products or services that provide real benefit to customers                                             | 0.51                                        | 0.93                                            |
| I identify goods or services customers want.                                                                                | 0.58                                        | 0.93                                            |
| I have marketed very many new lines of products or services in the past 3 years.                                            | 0.54                                        | 0.93                                            |
| I always seize high-quality business opportunities                                                                          | 0.52                                        | 0.93                                            |
| I am able to perceive unmet consumer needs.                                                                                 | 0.97                                        | 0.93                                            |
| I often take actions that go beyond job requirements or the demand of the situation.                                        | 0.55                                        | 0.93                                            |
| I have credibility to absorb, analyse and understand complex situations.                                                    | 0.52                                        | 0.93                                            |
| I have the mental ability to coordinate all the organisations interests                                                     | 0.53                                        | 0.93                                            |
| I take reasonable job-related risks in my business.                                                                         | 0.54                                        | 0.93                                            |
| I monitor progress toward objectives in risky actions                                                                       | 0.51                                        | 0.93                                            |
| I apply ideas I get from my business to different contexts.                                                                 | 0.55                                        | 0.93                                            |
| I make decisions concerning my business very fast                                                                           | 0.53                                        | 0.94                                            |
| I delegate duties to my employees.                                                                                          | 0.57                                        | 0.93                                            |
| I keep the records of my business.                                                                                          | 0.56                                        | 0.93                                            |
| I plan the operations of my business.                                                                                       | 0.56                                        | 0.93                                            |
| I always ensure my business runs smoothly.                                                                                  | 0.86                                        | 0.93                                            |

|                                                                                                                   |      |      |
|-------------------------------------------------------------------------------------------------------------------|------|------|
| I dedicate all my efforts to make my business work                                                                | 0.52 | 0.93 |
| I refuse to let my business fail under any circumstance                                                           | 0.57 | 0.93 |
| I commit to long-term business goals.                                                                             | 0.60 | 0.93 |
| I possess an extremely strong internal drive.                                                                     | 0.54 | 0.93 |
| I go out of my way to learn new ideas about my business.                                                          | 0.65 | 0.93 |
| I apply learned skills and knowledge into practice.                                                               | 0.52 | 0.93 |
| I always maintain a positive attitude in my business.                                                             | 0.53 | 0.93 |
| I develop long-term trusting relationships with others                                                            | 0.58 | 0.93 |
| I negotiate with others.                                                                                          | 0.51 | 0.93 |
| I interact with others with similar business as mine                                                              | 0.60 | 0.93 |
| I always maintain a personal network of work contacts.                                                            | 0.61 | 0.93 |
| I utilize business network to grow my business.                                                                   | 0.53 | 0.93 |
| I understand what others mean by their words/actions.                                                             | 0.92 | 0.93 |
| <b>Entrepreneurial Self -Efficacy (KMO = 0.826, Bartlett's Test of Sphericity = 641.229, Cronbach Alpha:.846)</b> |      |      |
| I can set and meet sales goals                                                                                    | .59  | 0.84 |
| I can conduct market analysis                                                                                     | 0.53 | 0.84 |
| I can identify new areas and territories for potential growth                                                     | 0.51 | 0.84 |
| I can develop new methods of production or systems                                                                | 0.51 | 0.84 |
| I can define organisational roles/responsibilities                                                                | 0.58 | 0.84 |
| I can manage time by setting goals                                                                                | 0.52 | 0.84 |
| I can identify and build management team                                                                          | 0.54 | 0.84 |
| I can set up strategic plans for the organisation                                                                 | 0.53 | 0.84 |
| I can control costs                                                                                               | 0.52 | 0.84 |
| I can make decisions under uncertainty and risk                                                                   | 0.56 | 0.84 |
| I can tolerate unexpected changes in business conditions                                                          | 0.52 | 0.84 |
| I can take responsibilities for ideas and decisions                                                               | 0.55 | 0.84 |
| I can develop new business ideas                                                                                  | 0.51 | 0.84 |
| I can discover new ways to improve existing products/services                                                     | 0.52 | 0.84 |
| I can develop new methods of production or systems                                                                | 0.50 | 0.84 |

**Source: Research data (2022)**

#### **4.9 Analysis of Variance (ANOVA)**

One way ANOVA was conducted to determine whether any differences exist in relation to responses between the groups on the variables in the study. The main purpose of ANOVA is to test if two or more groups differ from each other significantly in one or more characteristics.

##### **4.9.1 Analysis of Variance by Gender**

In terms of gender, results in Table 4.18 indicates a mixed result. There was no statistically significant differences between group means in terms of SME performance (FP) ( $F=1.342$ ,  $p=.248>.05$ ), networking capabilities (NC) ( $F=1.461$ ,  $p=.228>.05$ ), entrepreneurial competencies (EC) ( $F=.846$ ,  $p=.358>.05$ ) but a significant difference

between entrepreneurial Self-Efficacy (ESE) and gender as determined by one-way ANOVA with  $F=7.612$ ,  $p=.006<.05$ .

**Table 4.18: ANOVA by Gender**

|     |                | ANOVA          |     |             |       |      |
|-----|----------------|----------------|-----|-------------|-------|------|
|     |                | Sum of Squares | df  | Mean Square | F     | Sig. |
| FP  | Between Groups | .680           | 1   | .680        | 1.342 | .248 |
|     | Within Groups  | 155.591        | 307 | .507        |       |      |
|     | Total          | 156.271        | 308 |             |       |      |
| NC  | Between Groups | .530           | 1   | .530        | 1.461 | .228 |
|     | Within Groups  | 111.326        | 307 | .363        |       |      |
|     | Total          | 111.856        | 308 |             |       |      |
| ESE | Between Groups | 4.474          | 1   | 4.474       | 7.612 | .006 |
|     | Within Groups  | 180.441        | 307 | .588        |       |      |
|     | Total          | 184.915        | 308 |             |       |      |
| EC  | Between Groups | .312           | 1   | .312        | .846  | .358 |
|     | Within Groups  | 112.869        | 306 | .369        |       |      |
|     | Total          | 113.181        | 307 |             |       |      |

**Source: Research data, 2022**

#### 4.9.2 Analysis of Variance by Firm Age

From Table 4.19 respondent's firm age gave mixed results. Responses on SME performance (FP) had similar opinions in terms of their firm age as there were no significant differences in their responses ( $F=.566$ ,  $p=.638>.05$ ). Further firm age showed statistically insignificant differences regarding to networking capabilities, at,  $F=1.059$ ,  $p=.367>.05$ , entrepreneurial Self-Efficacy also indicated insignificant differences with  $F=2.269$ ,  $p=.081>.05$  with those firms aged. Entrepreneurial competencies also had no significant difference with firm age ( $F=.345$ ,  $p=.793>.05$ ).

**Table 4.19: ANOVA by Firm Age**

|     |                | ANOVA          |     |             |       |      |
|-----|----------------|----------------|-----|-------------|-------|------|
|     |                | Sum of Squares | df  | Mean Square | F     | Sig. |
| FP  | Between Groups | .865           | 3   | .288        | .566  | .638 |
|     | Within Groups  | 155.406        | 305 | .510        |       |      |
|     | Total          | 156.271        | 308 |             |       |      |
| NC  | Between Groups | 1.153          | 3   | .384        | 1.059 | .367 |
|     | Within Groups  | 110.703        | 305 | .363        |       |      |
|     | Total          | 111.856        | 308 |             |       |      |
| ESE | Between Groups | 4.036          | 3   | 1.345       | 2.269 | .081 |
|     | Within Groups  | 180.879        | 305 | .593        |       |      |
|     | Total          | 184.915        | 308 |             |       |      |
| EC  | Between Groups | .384           | 3   | .128        | .345  | .793 |
|     | Within Groups  | 112.797        | 304 | .371        |       |      |
|     | Total          | 113.181        | 307 |             |       |      |

**Source: Research data (2022)**

#### 4.9.3 Analysis of Variance by Firm Size

The findings in Table 4.20 indicate a statistically significant difference among responses in relation to firm size (number of employees) and firm performance ( $F=2.09$ ,  $p=.022<.05$ ). Additionally, responses on networking capabilities also shows significant differences ( $F=3.48$ ,  $p=.004<.05$ ) with the firm size. Further, results on firm size of the SMEs in relation to ESE and EC were statistically significant difference among the firm size with  $F=3.720$ ,  $p=.006<.05$  and  $F=3.350$ ,  $p=.011<.05$  respectively.

Findings of firm size and SME performance can be explained based on the arguments of Doğan, M. (2013) and Sritharan, V. (2015) and who states that due to the phenomenon of economies of scale, size of a firm plays vital role in competing with competitors through the cost reduction and take and hold more opportunities. Further based on this concept the firm's size is a factor in determining the firm's profitability and reveals a positive association between size and firm's profitability. Doğan (2013) also supportively said to this concept as big firms can have more profit since they have

a bigger market share. So based on these situations, the big size firms work in more profitable with little competition is expected.

According to the authors, finally findings of firm size in relation to networking capabilities can be explained in terms of innovative activities and that the use of networks is associated with innovation in some sector-firm size categories. Specifically, small manufacturing firms exhibit a positive association between networking and innovation (Rogers, M. (2004). Walter et al 2008 also support this argument that networking capabilities is being embraced by firms and has become an important dimension where business owners connect with their partners.

**Table 4.20: ANOVA by Firm Size**

| ANOVA |                |                |     |             |       |      |
|-------|----------------|----------------|-----|-------------|-------|------|
|       |                | Sum of Squares | df  | Mean Square | F     | Sig. |
| FP    | Between Groups | 5.762          | 4   | 1.440       | 2.909 | .022 |
|       | Within Groups  | 150.510        | 304 | .495        |       |      |
|       | Total          | 156.271        | 308 |             |       |      |
| NC    | Between Groups | 4.155          | 4   | 1.039       | 2.932 | .021 |
|       | Within Groups  | 107.701        | 304 | .354        |       |      |
|       | Total          | 111.856        | 308 |             |       |      |
| ESE   | Between Groups | 8.629          | 4   | 2.157       | 3.720 | .006 |
|       | Within Groups  | 176.286        | 304 | .580        |       |      |
|       | Total          | 184.915        | 308 |             |       |      |
| EC    | Between Groups | 4.793          | 4   | 1.198       | 3.350 | .011 |
|       | Within Groups  | 108.388        | 303 | .358        |       |      |
|       | Total          | 113.181        | 307 |             |       |      |

**Source: Research data (2022)**

#### 4.9.4 Analysis of Variance by Firm Location

Responses on the firm location also produced mixed results. The findings in Table 4.21 indicates that there were no statistically significant differences in SME owners' responses regardless of its physical location in relation to networking capabilities (NC) and entrepreneurial Self-Efficacy (EC) with  $F=1.211$ ,  $p=.299>.05$  and  $F=3.021$ ,  $p=.050$

respectively. However, results relating to firm performance shows that there is statistically significant difference in responses with  $F=3.030$ ,  $p=.048<.05$ .

In addition, responses on Self-Efficacy were also found to have a significant difference with  $F=5.768$ ,  $p=.003<.05$ . The significance differences associated with location can be argued that right location attracts a large customer base to organization as well as it creates the right sort of talent to make the business successful. Besides, locations help in establishing a brand and image since it is placed in the middle of a city/place that carries a business reputation.

**Table 4.21: ANOVA by Firm Location**

|     |                | ANOVA          |     |             |       |      |
|-----|----------------|----------------|-----|-------------|-------|------|
|     |                | Sum of Squares | df  | Mean Square | F     | Sig. |
| FP  | Between Groups | 3.025          | 2   | 1.512       | 3.020 | .050 |
|     | Within Groups  | 153.246        | 306 | .501        |       |      |
|     | Total          | 156.271        | 308 |             |       |      |
| NC  | Between Groups | .878           | 2   | .439        | 1.211 | .299 |
|     | Within Groups  | 110.977        | 306 | .363        |       |      |
|     | Total          | 111.856        | 308 |             |       |      |
| ESE | Between Groups | 6.717          | 2   | 3.359       | 5.768 | .003 |
|     | Within Groups  | 178.197        | 306 | .582        |       |      |
|     | Total          | 184.915        | 308 |             |       |      |
| EC  | Between Groups | 2.199          | 2   | 1.099       | 3.021 | .050 |
|     | Within Groups  | 110.982        | 305 | .364        |       |      |
|     | Total          | 113.181        | 307 |             |       |      |

**Source: Research data (2022)**

These findings are supported by prior studies of Barnard et al., 2011 who have all indicated that the physical location does affect performance of enterprises. Generally, the starting point of many start-up enterprises initially is from informal locations, for example, the home of the business owners from where they improve and gradually grow, to the extent of deciding to relocate to more spacious and formal premises. This expansion most often results in the creation of additional job opportunities (Barnard et al., 2011). These differences can be further explained in terms of socioeconomic status

of the different locations in terms of firm owners' perceptions with regard to ease of doing business, infrastructure and support especially after the advent of devolution and coming in of county governments.

#### 4.9.5 Analysis of Variance by Firm Subsector

Results on sub sector type (Table 4.22) of the SMEs in relation to the study variables reveals that responses on networking capabilities were not statistically difference among the groups with  $F=1.371$ ,  $p=.255$ . Further, the findings indicate a statistically insignificant difference among responses in relation to industry sub-sector type and firm performance ( $F=2.471$ ,  $p=.086$ ). Additionally, responses on Self-Efficacy also shows insignificant differences ( $F=2.011$ ,  $p=.136$ ). Finally, responses on entrepreneurial competencies also showed a statistically insignificant differences ( $F=2.018$ ,  $p=.135$ ). In contrary to the findings, Walter et al 2008 argued that network capabilities are being embraced by firms and has become an important dimension where business owners connect with their partners.

**Table 4. 22: ANOVA by Industrial Sector**

|     |                | ANOVA          |     |             |       |      |
|-----|----------------|----------------|-----|-------------|-------|------|
|     |                | Sum of Squares | df  | Mean Square | F     | Sig. |
| FP  | Between Groups | 2.483          | 2   | 1.242       | 2.471 | .086 |
|     | Within Groups  | 153.788        | 306 | .503        |       |      |
|     | Total          | 156.271        | 308 |             |       |      |
| NC  | Between Groups | .994           | 2   | .497        | 1.371 | .255 |
|     | Within Groups  | 110.862        | 306 | .362        |       |      |
|     | Total          | 111.856        | 308 |             |       |      |
| ESE | Between Groups | 2.399          | 2   | 1.200       | 2.011 | .136 |
|     | Within Groups  | 182.515        | 306 | .596        |       |      |
|     | Total          | 184.915        | 308 |             |       |      |
| EC  | Between Groups | 1.478          | 2   | .739        | 2.018 | .135 |
|     | Within Groups  | 111.703        | 305 | .366        |       |      |
|     | Total          | 113.181        | 307 |             |       |      |

**Source: Research Data (2022)**

#### **4.10 Diagnostic Tests**

Before drawing conclusions about the results of a statistical analysis, several multiple regression assumptions must be made. However, if such assumptions are violated, expected results will be unreliable, potentially leading to misleading conclusions and recommendations. To ensure that the data met the threshold, normality, linearity, multicollinearity, and homoscedasticity tests were performed in this study. According to Hair et al., (2010), regression analysis assumptions are critical to ensuring that the results obtained are truly representative of the sample and that the best results are obtained.

##### **4.10.1 Normality Test**

According to Hair *et al.*, (2010), normality is a critical assumption in multivariate analysis. It assumes that the errors in the prediction value of dependent variable are normally distributed. The normality of the residuals was tested using degrees of skewness and kurtosis of the residuals and checked through histograms and standardized residuals as shown in Figure 4.1 The figure shows a bell-shaped distribution of the standardized residuals. Majority of the values are around the mean confirming data is normally distribution

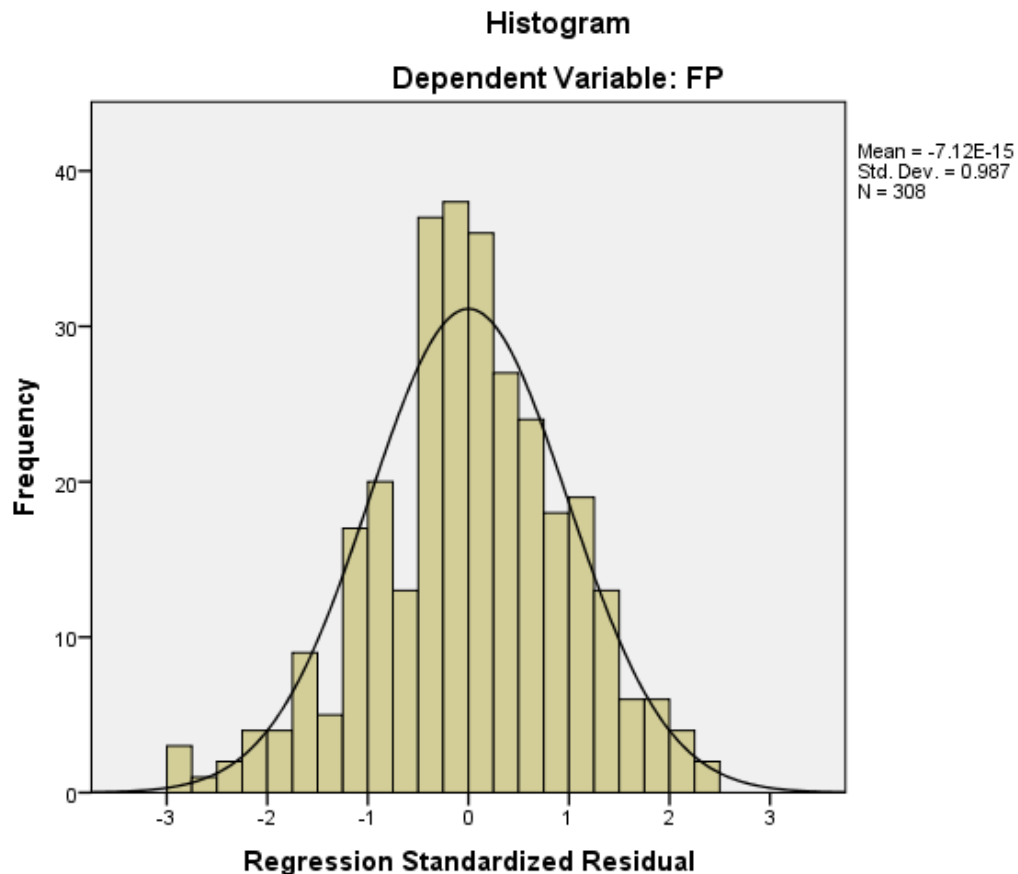


**Figure 4.1: Graph showing Normality Distribution of Residuals**

Source: Survey Data (2022)

#### **4.10.2 Linearity Test**

In a general linear model, it is assumed that the independent variables have a linear relationship with the dependent variable. Linearity is defined as the amount of change or rate of change between two variables that is constant across the entire range of scores for the variables. Scatter plots were used to examine the relationship between the variables in the study. Figure 4.2 shows that the relationship between the standardized values of the dependent variable and the residual of the independent variables is linear. Further, Figure 4.3 indicate a normal P-P plot showing a linear relationship between the regression standardized residuals.

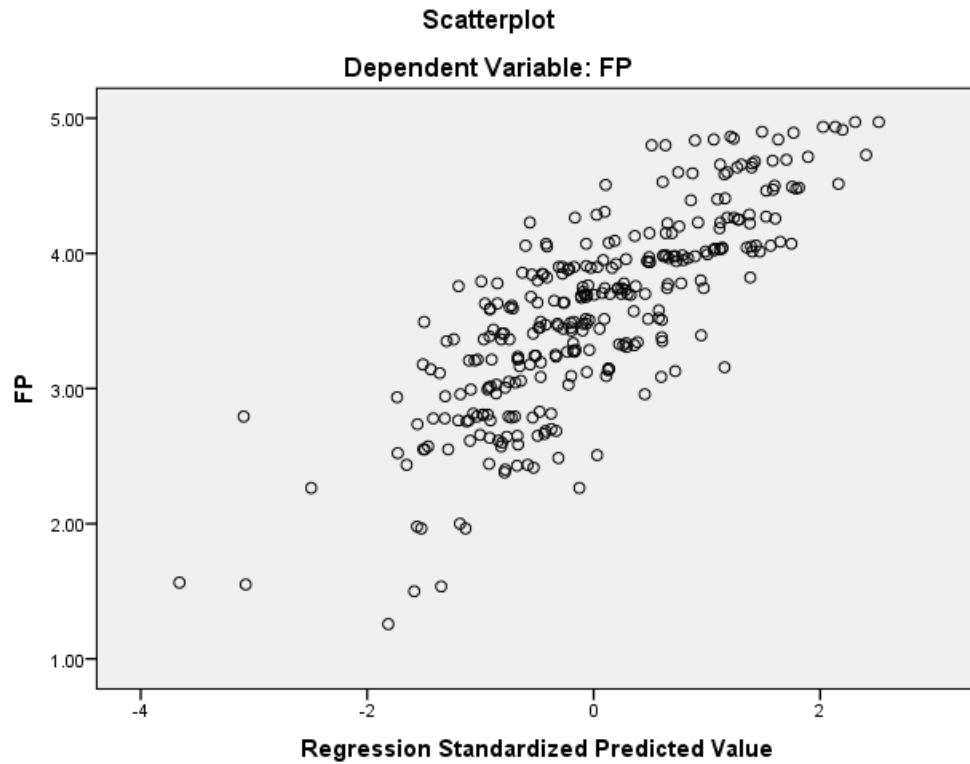


**Figure 4.2: Standardized values of FP Versus Residuals of Independent Variables**

Source: Survey Data (2022)

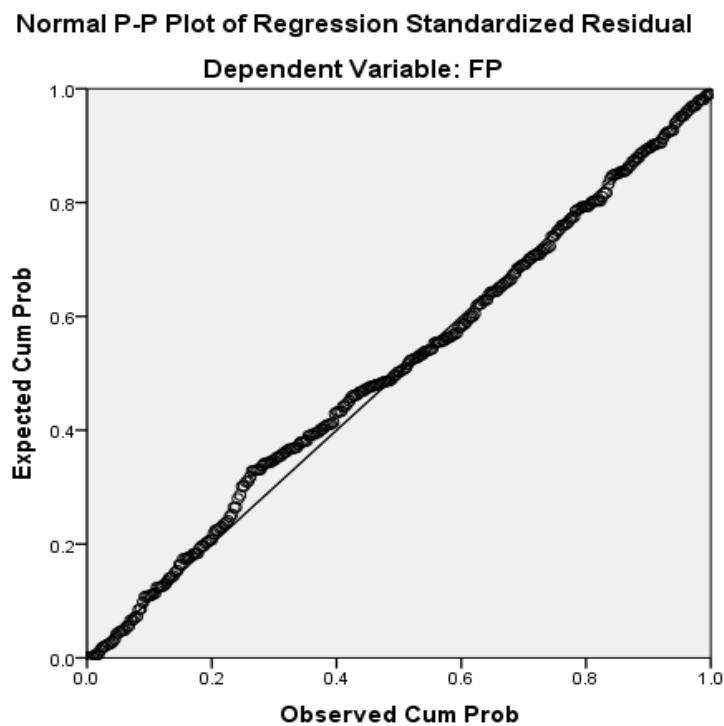


**Figure 4.3: Normal P-P Plot of Regression Standardized Residuals**

Source: Survey Data (2022)

#### 4.10.3 Multicollinearity Test

Another multiple regression assumption is multicollinearity. It refers to situation where the independent variables that are correlated with each other. Multicollinearity occurs when the model includes multiple factors that are correlated not just to the response variable, but also to each other. The presence of multicollinearity can adversely affect your regression results.

In regression analysis, multicollinearity is detected using the variance inflation factor (VIF). It calculates how much the variance of a regression coefficient is inflated due to model multicollinearity. As a rule, a value of 1 indicates that there is no relationship between this independent variable and any others. VIFs between 1 and 5 indicate that variables are moderately correlated, whereas VIFs greater than 5 indicate critical levels of multicollinearity in which the coefficients are poorly estimated, and the p-values are questionable. Because the values for VIF are less than 5, all of the variables in Table 4.23 do not have a collinear relationship with each other.

**Table 4. 23: Variance Inflation Factors test for Multicollinearity**

| Variable (Standardized)       | VIF   | Tolerance (1/VIF) |
|-------------------------------|-------|-------------------|
| Gender                        | 1.734 | .577              |
| Firm age                      | 1.024 | .977              |
| Firm size                     | 1.066 | .938              |
| Firm location                 | 1.496 | .668              |
| Firm sub-sector               | 1.376 | .727              |
| Networking Capability         | 1.647 | .607              |
| Entrepreneurial Self-Efficacy | 1.648 | .607              |
| Entrepreneurial Competencies  | 1.642 | .609              |

**Source: Research Data (2022)**

#### 4.10.4 Homoscedasticity Test

Table 4.24 Breusch-Pagan / Cook-Weisberg test for homoscedasticity. The variance of the residuals is assumed to be similar across the independent variables. The study used Breusch-Pagan / Cook-Weisberg test for homoscedasticity.

**Table 4.24: Test for Homoscedasticity**

|                                               |          |
|-----------------------------------------------|----------|
| Ho: Constant variance (Homoscedasticity)      |          |
| Variables: Fitted values of (standardized FP) |          |
| Chi2(1)                                       | = 1.09   |
| Prob >Chi2                                    | = 0.0619 |

**Source: Survey Data (2022)**

#### 4.11 Correlation Analysis

Correlation demonstrates how variables are related to one another in terms of magnitude and strength of association. The correlation coefficient  $r$  ranges between -1 and +1. When the value for ( $r$ ) is +1, variables have perfect positive association; when it is -1, variables have perfect negative association. Values close to zero are considered weakly correlation; otherwise, they are considered strong correlation.

**Table 4.25** presents Pearson correlation coefficients ( $r$ ) and its significance. The correlation results indicated that all the variables were positively correlated with firm performance. A higher correlation was evident between firm performance (FP) and entrepreneurial competencies (EC) with  $r = .705$ ,  $\rho < .01$ . This was followed by networking capabilities with  $r = .687$ ,  $\rho < .01$ . Finally firm performance had a positive but lower association with entrepreneurial self- efficacy at  $r = .533$ ,  $\rho < .01$ .

The study did not exhibit multicollinearity challenge since the highest correlation coefficient  $r = .705$  is less than .80.

**Table 4.25: Pearson Correlation Coefficients**

| Variable (N=304)               |                     | Zscore(FP) |        |        |     |
|--------------------------------|---------------------|------------|--------|--------|-----|
| Firm Performance               | Pearson Correlation | 1          |        |        |     |
|                                | Sig. (2-tailed)     |            |        |        |     |
|                                | N                   | 304        |        |        |     |
| Networking capabilities        | Pearson Correlation | .687**     | 1      |        |     |
|                                | Sig. (2-tailed)     | .000       |        |        |     |
|                                | N                   | 304        |        |        |     |
| Entrepreneurial Competencies   | Pearson Correlation | .705**     | .566** | 1      |     |
|                                | Sig. (2-tailed)     | .000       | .000   |        |     |
|                                | N                   | 304        | 304    | 304    |     |
| Entrepreneurial Self- Efficacy | Pearson Correlation | .533**     | .532** | .503** | 1   |
|                                | Sig. (2-tailed)     | .000       | .000   | .000   |     |
|                                | N                   | 304        | 304    | 304    | 304 |

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

**Source: Research data (2022)**

#### 4.12 Regression Results and Test of Hypotheses

The study had nine objectives. The first four tested the direct effects of whether; NC affects SME performance (**H<sub>01</sub>**), EC affects SME performance (**H<sub>02</sub>**), ESE affects SME performance (**H<sub>03</sub>**) and NC affects EC (**H<sub>04</sub>**). The second part looked at EC as the mediator in the relationship between NC and SME performance (**H<sub>05</sub>**). Thirdly the study assessed the moderating effect of ESE on NC and EC (**H<sub>06</sub>**), ESE on NC and SME performance (**H<sub>07</sub>**) and finally the moderating effect of ESE on EC and SME performance (**H<sub>08</sub>**). Lastly the study assessed the moderating effect of ESE on the indirect relationship between NC and SME performance via EC (**H<sub>09</sub>**). In all the models carried out, the results were tabulated using data without outliers (N=304) since the study realised improved coefficients of determination R-square as opposed to the data that had the outliers (N=309)).

##### 4.12.1 Direct Effects

Results in Table 4.26 are for the direct effects. **Model 1** tests the effects of control variables in the study. These covariates in this study were the firm age, firm size and firm location. Using the data without outliers, the study showed that firm age does not

significantly affect firm performance having a coeff  $\beta = .069, p = .227$ ). Firm size significantly affects firm performance having coeff ( $\beta = .129, p = .025$ ) Lastly firm location as a control variable had insignificant influence on firm performance ( $\beta = .067, p = .249$ ). Though the  $R^2$  in this model is small, the model explained 2.9% of the variance ( $R^2 .029$ , F change= 2.973 and significance at .032 which is  $<.05$ ).

The second model (**Model 2**) provides the results of the hierarchical regression where inclusion of networking capabilities is introduced to the hierarchy. The independent variable (networking capabilities) is included in the first model to test hypothesis (**H<sub>01</sub>**). The aim is to test the direct effect of NC on FP while controlling for firm age, firm size and firm location. The presence of three covariates, firm age ( $\beta = .024, p = .572$ ) firm size ( $\beta = .035, p = .411$ ) and firm location ( $\beta = .037, p = .390$ ) had insignificant effect on SMEs performances in the three regions of North Rift, Kenya. The study clearly indicates that networking capabilities has direct positive significant effect on firm performance ( $\beta = .678, p = .000$ ). The findings reveal an increase in parameter estimate with the model introduction of the independent variable explaining 44.7% of the variance in firm performance ( $\Delta R^2 = .447$ ,  $F = 254.962$   $P = .000$ ). The influence of networking capabilities together with controls variables explained 47.6% of the total variation of SMEs performance ( $R^2 = .476$ ).

The study therefore concludes that (**H<sub>01</sub>**) **is rejected** and state that networking capabilities have a direct effect on SME performance.

The third model assessed hypotheses (**H<sub>02</sub>**) of the study objective. The hypothesis postulated that entrepreneurial competencies does not have a significant effect of SME firm performance. The model introduces the mediator (EC) while controlling for the covariates and the independent variable (NC).

The study showed that the presence of three covariates, firm age ( $\beta = .031, p = .387$ ) firm size ( $\beta = .030, p = .402$ ) and firm location ( $\beta = .004, p = .911$ ) had an insignificant effect on SMEs performances in the three regions of North Rift ( $\beta = .323, p = .000$ ). The study further revealed that entrepreneurial competencies has direct significant positive effect on firm performance ( $\beta = .465, p = .000$ ). The findings reveal an increase in parameter estimate with the model introduction of the mediator (EC) explaining 15% of the total variance in firm performance ( $\Delta R^2 = .145, F = 114.450, p = .000$ ). The influence of the mediator (EC) together with controls variables and the independent variable (NC) explained 62% of the total variation of SMEs performance ( $R^2 = .621$ ).

The study therefore concludes that **H<sub>02</sub> is rejected** and state that entrepreneurial competencies have a direct effect on SME performance.

In Model 4, the study sought to test objectives **H<sub>03</sub>** which is to determine the effect of entrepreneurial Self-Efficacy on SME performance. The study controlled for covariates, the independent variable (NC) and the mediator (EC). The study indicates that the presence of three covariates, firm age ( $\beta = .028, p = .434$ ) firm size ( $\beta = .038, p = .295$ ) and firm location ( $\beta = .001, p = .983$ ) had an insignificant effect on SMEs performances in the three regions of North Rift. The study further revealed that entrepreneurial Self-Efficacy has direct significant positive effect on firm performance ( $\beta = .115, p = .009$ ). The findings reveal an increase in parameter estimate with the model introduction of the moderator (ESE) explaining 0.9% of the total variance in firm performance ( $\Delta R^2 = .009, F = 6.871, p = .000$ ). The influence of the moderator together with the independent variable (NC), mediator (EC) and the controls variables explained 63% of the total variation of SMEs performance ( $R^2 = .630$ ).

The study therefore concludes that **H<sub>03</sub> is rejected** and state that entrepreneurial Self-Efficacy has a direct effect on SME performance.

The final part of the direct model was to assess the direct effect of networking capabilities on entrepreneurial competencies (**H<sub>04</sub>**). The study revealed mixed results with firm age and firm size covariates having insignificant effect on the outcome variable (entrepreneurial competencies) with firm age ( $\beta = -.022, p = .625$ ) firm size ( $\beta = .027, p = .554$ ) . Firm location indicated positive significant effect on the outcome variable (EC) ( $\beta = .092, p = .047$ ) . Networking capabilities has direct significant positive effect on entrepreneurial competencies ( $\beta = .404, p = .000$ ).The findings reveal an increase in parameter estimate with the model introduction of the networking capability (NC) explaining 11.4% of the total variance in entrepreneurial competencies ( $\Delta R^2 = .114, F = 55.215, p = .000$ ). The influence of the networking capabilities together with the moderator (ESE) and the controls variables explained 38.7% of the total variation of entrepreneurial competencies ( $R^2 = .387$ ).

The study therefore concludes that **H<sub>04</sub> is rejected** and stated that networking capabilities has a direct effect on entrepreneurial competencies.

**Table 4.26: Regression for Covariates and Direct Effects**

|                | Model 1 |        |      | Model 2 |         |      | Model 3 |        |      | Model 4 |        |      |
|----------------|---------|--------|------|---------|---------|------|---------|--------|------|---------|--------|------|
|                | $\beta$ | t      | p    | $\beta$ | T       | p    | $\beta$ | t      | p    | $\beta$ | t      | p    |
| Constant       |         | -2.718 | .000 |         | -1.341  | .181 |         | -.914  | .362 |         | -1.064 | .288 |
| F. Age         | .069    | 1.211  | .227 | .024    | .566    | .572 | .031    | .867   | .387 | .028    | .783   | .434 |
| F. Size        | .129    | 2.249  | .025 | .035    | .823    | .411 | .030    | .840   | .402 | .038    | 1.048  | .295 |
| F.Location     | .067    | 1.154  | .249 | .037    | 1.811   | .862 | .004    | -.112  | .911 | .001    | .021   | .983 |
| NC             |         |        |      | .678    | 15.968  | .000 | .418    | 9.585  | .000 | .375    | 8.144  | .000 |
| EC             |         |        |      |         |         |      | .465    | 10.698 | .000 | .430    | 9.541  | .000 |
| ESE            |         |        |      |         |         |      |         |        |      | .115    | 2.621  | .009 |
| R <sup>2</sup> |         | .029   |      |         | .476    |      |         | .621   |      |         | .630   |      |
| $\Delta R^2$   |         | .029   |      |         | .447    |      |         | .145   |      |         | .009   |      |
| F-statistic    |         | 2.973  |      |         | 254.962 |      |         | 114.45 |      |         | 6.871  |      |
| P>F            |         | .032   |      |         | .000    |      |         | .000   |      |         | .009   |      |

**Source: Research Data (2022)**

#### **4.12.2 Mediating Effect of Entrepreneurial Competencies**

Mediation processes are defined by intermediate variables that exist between an independent variable and a dependent variable, with a total of three variables required. For example, in this study, the intermediate variable is entrepreneurial competencies (EC), the independent variable is SME's networking capabilities (NC), and the dependent variable is SME's firm performance (FP). The causal effect of NC is hypothesized to be transmitted to FP via EC. That is, can a SME's firm's networking capabilities affect its entrepreneurial competencies, which in turn affects performance? The total effect of NC on FP is referred to as total effect, and it is then divided into a direct effect of NC on FP and an indirect effect of EC on FP.

Mediation processes was tested using PROCESS macro bootstrapping to estimate the indirect effects, which is preferred to the Sobel test (Baron & Kenny, 1986) because bootstrapping overcomes the problem of non-normality violations (Hayes, 2009; Preacher & Hayes, 2008). MacKinnon et al., (2004) and Preacher & Hayes (2004) advocated the use of bootstrapping for assessing indirect effects. In bootstrapping, the sample is conceptualized as a pseudo-population that represents the broader population from which the sample is derived, and the sampling distribution of any statistic can be generated by calculating the statistic of interest in multiple re-samples of the data set. Through the repeated sampling procedure, with replacement, and in repeated times, a new sample is formed for each repeated sampling. Using bootstrapping, no assumptions about the shape of the sampling distribution of the statistic are necessary when conducting inferential tests.

Table 4.27 presents the mediation results that was analysed using Hayes (2018) Process Macro version 3.5 (Model 4). All the three covariates were found to be insignificant with firm size ( $p = .411$ ), firm age ( $p = .572$ ) and firm location ( $p = .390$ ).

One of the conditions for mediation to occur, is that there has to be an association between independent variable and the mediator. The result revealed that in the first step networking capabilities had a significant direct effect on entrepreneurial with an increased  $\text{coeff}=.559$ ,  $p = .000$  and an improved  $R^2 .328$  with a significant  $F (36.492)$ ,  $p = .000$ . The model therefore explains 32% of the variance in entrepreneurial competencies.

The second condition for mediation to occur, there must be an association between the mediator and the dependent variable. In this stage, the study assessed whether entrepreneurial competencies have a direct effect on SME performance. The result of the covariates revealed insignificant effect (firm size;  $p = .402$ ), firm age ;  $p = .387$  and firm location ( $p = .911$ ) on firm performance. Further, the study showed that entrepreneurial competencies had a positive and significant effect on SME performance with  $\text{coeff}=.465$ ,  $p = .000$ ,  $R^2 .621$  with a significant  $F=97.775$ ,  $p = .000$ . The model therefore explains 62% of the variance in firm performance.

The third step in the mediation process determined whether there was significant association between the independent variable and the dependent variable while controlling for the mediator. The study therefore assessed the effect of networking capabilities on firm performance while controlling for entrepreneurial competencies. The results were picked from the same model as that used in establishing path b'. The result showed that networking capabilities had a significant direct effect on firm

performance with  $\text{coeff}=.465$ ,  $p = .000$ . Therefore, the mediation condition three was confirmed.

It can be proven according to Barron and Kenney (2012) and Zhao et.al., (2010) that  $ab + c' = c$ . Using bootstrap analysis at 95% confidence level and 5000 bootstrap samples, there was a positive and significant as both CI was none zero (LLCI=.194, ULCI=.334). The significance of path `ab` indicates mediation effect. In this study, the coefficient is .260 which is the coefficient product of path  $a*b$  (.559\*.465). The model explains 47.6% which is significant with  $F(67.85)$  and  $p = .000$ . The results from the control variable were statistically insignificant with  $p > .05$  for all the three covariates. The study concluded that since the confidence intervals for the indirect effect is non -zero, then mediation exists. The study therefore concludes that **H<sub>05</sub> is rejected** and stated that entrepreneurial competencies mediate the relationship between networking capabilities and firm performance.

**Table 4. 27: Mediating Effect of Entrepreneurial Competencies**

| Path 'a'       |         |      | Path 'b' and 'c' |         |      | Indirect effect of EC<br>( $a * b$ ) |      |
|----------------|---------|------|------------------|---------|------|--------------------------------------|------|
|                | $\beta$ | p    |                  | $\beta$ | p    | Bootstraps                           |      |
| constant       | -.185   | .287 | Constant         | -.119   | .362 | Effect                               | .260 |
| NC             | .559    | .000 | NC               | .418    | .000 | BootLLCI                             | .194 |
|                |         |      | EC               | .465    | .000 | BootULCI                             | .334 |
|                |         |      |                  |         |      | BootSE                               | .035 |
| R <sup>2</sup> | .328    |      | R <sup>2</sup>   | .621    |      |                                      |      |
| F              | 36.492  |      | F                | 97.775  |      |                                      |      |
| P>F            | .000    |      | P>F              | .000    |      |                                      |      |

#### 4.12.3 Moderation Analysis

A major part of the thesis was to analyse the moderating role of entrepreneurial self-efficacies. Table 4.28 provides the result from the Hayes (2018) Model 59 analysed in Process Macro version 3.5

The first part of the multiple regression model tested **H<sub>06</sub>**. The study tested whether entrepreneurial Self-Efficacy has a moderating effect on the relationship between networking capabilities and entrepreneurial competencies. The results revealed that networking capabilities and entrepreneurial Self-Efficacy had a significant effect on entrepreneurial competencies with  $\text{coeff} = .411$ ,  $p = .000$  and  $\text{coeff} = .285$ ,  $p = .000$  respectively. The resultant  $R^2 .389$  was significant with  $F=31.454$ ,  $p = .000$  indicating that the model explains 38.9% of the variance in entrepreneurial competencies. The results of the covariates produced mixed results with firm location being statistically significant at  $p = .047$  while firm age and firm size were statistically insignificant with  $p$  values above .05. The study went further to reveal that the interaction of entrepreneurial self- efficacy between the networking capabilities and entrepreneurial competencies was insignificant with  $\text{coeff}=.034$ ,  $p = .392$ . The study **failed to reject H<sub>06</sub>** and concluded that entrepreneurial self -efficacy does not moderate the relationship between networking capabilities and entrepreneurial competencies.

The second part of the multiple regression tested **H<sub>07</sub>**. The study tested whether entrepreneurial Self-Efficacy has a moderating effect on the relationship between networking capabilities and SME performance. The results revealed that networking capabilities, entrepreneurial competencies and entrepreneurial Self-Efficacy had a significant effect on SME performances with  $\text{coeff} = .389$ ,  $p = .000$  and  $\text{coeff} = .430$ ,  $p = .000$  and  $\text{coeff} = .112$ ,  $p = .011$  respectively. The study went further to reveal

that the interaction of entrepreneurial self- efficacy between the networking capabilities and firm performance was significant with  $\text{coeff}=.101$ ,  $p = .013$ . The resultant  $R^2.638$  was significant with  $F=65.026$ ,  $p = .000$  indicating that the model explains 63.8% of the variance in firm performance. The results of all the three control variables were statistically insignificant with  $p > .05$ . The interaction of entrepreneurial self- efficacy between the networking capabilities and SME performance was significant with  $\text{coeff}=.101$ ,  $p = .013$ . ,  $\Delta R^2 .008$  significant at  $F=6.243$ ,  $p = .013$ . **H<sub>07</sub> was rejected** and study concluded that entrepreneurial Self-Efficacy moderates the relationship between networking capabilities and SME performance.

Figure 4.4 shows the two lines graphical representation indicating at two levels of low and high levels of NC, that ESE moderates the relationship between NC and firm performance. It reveals that at low levels of networking capabilities among SME firms in the selected towns in North Rift Kenya, with firms having both low and high levels of entrepreneurial Self-Efficacy, the firms performed same. However, as NC increases, then we see the firm performance significantly increasing with firms having high efficacy but marginally increases with firms having low level of efficacy at the increase in networking capabilities.

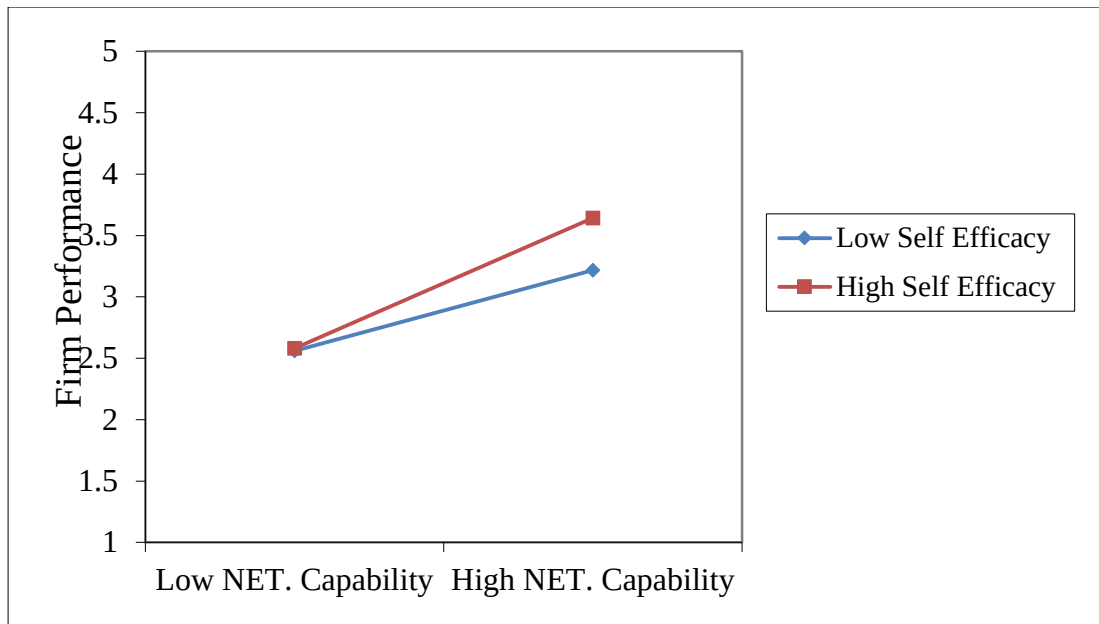


**Figure 4. 4: Moderation Graph of effect of ESE between NC and FP**

The third part of the multiple regression tested **H<sub>08</sub>**. The study determined whether entrepreneurial Self-Efficacy has a moderating effect on the relationship between entrepreneurial competencies and SME performance. The study established that the interaction of entrepreneurial self- efficacy between the entrepreneurial competencies and firm performance was significant with  $\text{coeff} = .090$ ,  $p = .030$ .  $\Delta R^2 = .006$  significant at  $F = 4.779$ ,  $p = .030$ . **H<sub>08</sub> was Rejected** and study concluded that entrepreneurial Self-Efficacy moderates the relationship between entrepreneurial competencies and SME performance. Figure 4.5 shows the two lines graphical representation indicating at two levels of low and high levels of EC and ESE, that ESE moderates the relationship between EC and firm performance. At low levels of entrepreneurial competencies dimensions, SME firm performance in the three towns of North Rift is high for firms with high levels of ESE than those with low ESE. However, as firms continue to exhibit entrepreneurial competencies, firm performance continues to increase but the increases continue to increase with firms having high and low Self-Efficacy performing equally.

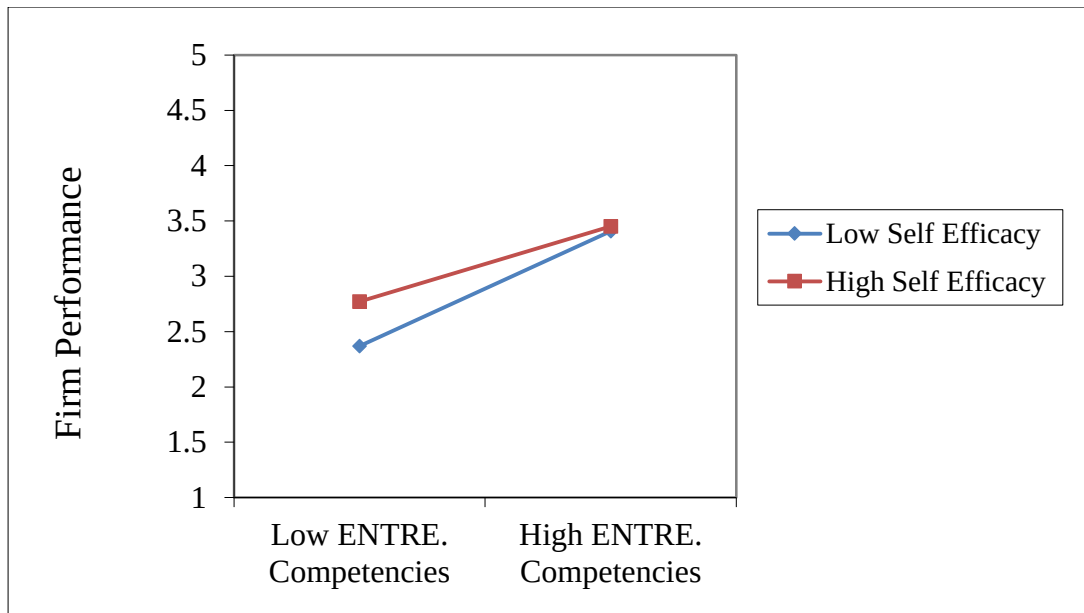


**Figure 4. 5: Moderation Graph of effect of ESE between EC and FP**

Table 4.28 provides summary of the results for the moderating effects of entrepreneurial Self-Efficacy on the study variables as derived in Hypothesis **H<sub>06</sub>**, **H<sub>07</sub>** and **H<sub>08</sub>**.

**Table 4. 28: Moderation Analysis of Entrepreneurial Self-Efficacy.**

| 1 <sup>st</sup> moderation<br>(EC) |         |      | 2 <sup>nd</sup> moderation<br>(FP) |         |      | 3 <sup>rd</sup> moderation<br>(FP) |         |      |
|------------------------------------|---------|------|------------------------------------|---------|------|------------------------------------|---------|------|
|                                    | $\beta$ | p    |                                    | $\beta$ | p    |                                    | $\beta$ | P    |
| constant                           | -.227   | .000 | Constant                           | -.144   | .266 | Constant                           | -.144   | .901 |
| NC                                 | .411    | .846 | NC                                 | .389    | .000 | EC                                 | .430    | .000 |
| ESE                                | .285    | .309 | SE                                 | .112    | .011 | SE                                 | .112    | .927 |
| NC*ESE                             | .034    | .392 | NC*ESE                             | .101    | .013 | EC*ESE                             | -.090   | .030 |
| <b>R<sup>2</sup></b>               | .389    |      | <b>R<sup>2</sup></b>               | .638    |      | <b>R<sup>2</sup></b>               | .638    |      |
| <b><math>\Delta R^2</math></b>     | .002    |      | <b><math>\Delta R^2</math></b>     | .008    |      | <b><math>\Delta R^2</math></b>     | .006    |      |
| F                                  | .734    |      | F                                  | 6.243   |      | F                                  | 4.779   |      |
| P>F                                | .392    |      | P>F                                | .013    |      | P>F                                | .030    |      |

**Source: Research Data (2022)**

#### 4.12.4 Moderated Mediation Analysis

The final part of the study determined the conditional indirect effect on the strength of the mediated relationship between networking capabilities and SME performance via entrepreneurial competencies. The hypothesis was tested at three different levels of

entrepreneurial Self-Efficacy. The finding in Table 4.28 indicates that conditional indirect effects were found between NC and FP via EC with one standard deviation below the mean of ESE (coeff = .288, SE = .051, LLCI = .098, ULCI = .300). Further the study found that conditional indirect effect were found between NC and FP via EC at the mean level of ESE (coeff = .177, SE = .035, LLCI = .112, ULCI = .250). Finally at the third level, study found that conditional indirect effect were found between NC and FP via EC at the higher levels of ESE (coeff = .151, SE = .042, LLCI = .078, ULCI = .244).

The study concluded that the conditional indirect effect was much stronger with firms having lower levels of ESE (coeff = .196, SE = .051, LLCI = .098 and ULCI = .300).

The confidence interval (BootLLCI) and bootstrap upper limit confidence interval (BootULCI) were nonzero at three interval levels and therefore the study **Rejected Hypothesis H<sub>09</sub>**. In conclusion, entrepreneurial Self-Efficacy has significant conditional indirect effect on the strength of the mediated relationship between networking capabilities and SME performance via entrepreneurial competencies. Figure 4.6 clearly shows that impact of low levels of Self-Efficacy in strengthening the positive indirect effect of networking capabilities on SME firm performance via entrepreneurial competencies.

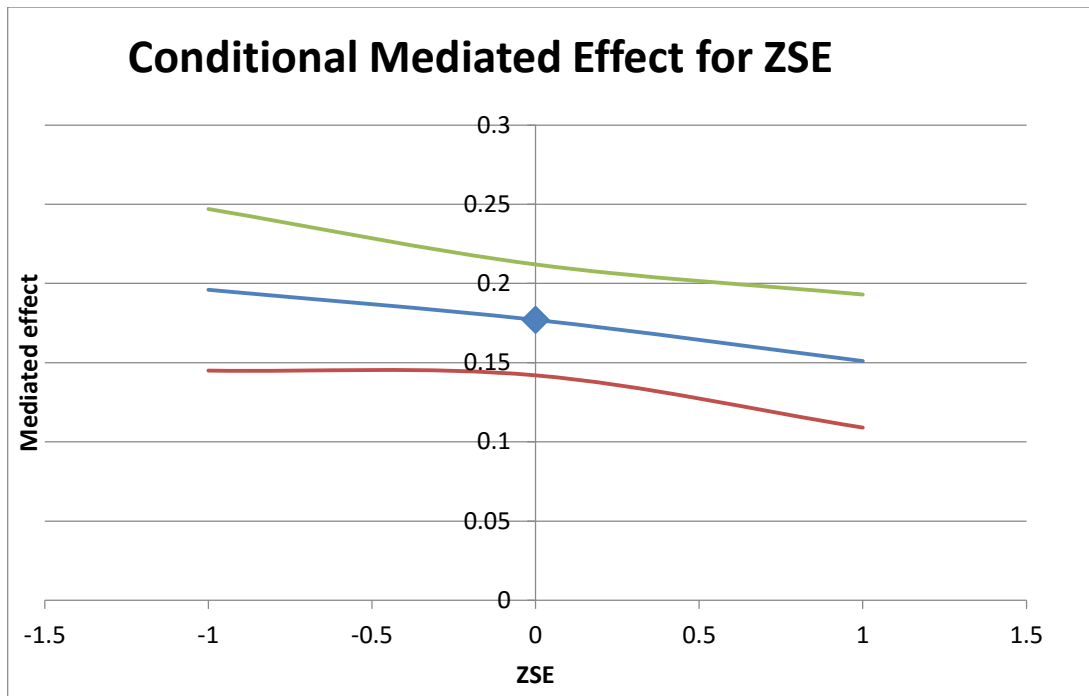


**Figure 4.6: Moderation Graph of effect of indirect effect of ESE on the strength of the mediated link between NC on firm performance via EC.**

Table 4.29 below gives the summary of the conditional process analysis of the indirect effects at three levels of entrepreneurial Self-Efficacy.

**Table 4. 29: Moderated Mediation Analysis**

| Levels of ESE     | Effect | Boot SE | LLCI | ULCI |
|-------------------|--------|---------|------|------|
| Low level of ESE  | .196   | .051    | .098 | .300 |
| Mean level of ESE | .177   | .035    | .112 | .250 |
| High Level of ESE | .151   | .042    | .078 | .244 |

**Source: Research Data (2022) CI=95% confidence interval for indirect effect.**

#### 4.12.5 Summary Results of the Hypothesis

The following Table 4.30 provides a summary of models and hypotheses tested. It further provides the parameters used such as coefficients  $\beta$ , standard T or Z-values, probabilities, bootstrap confidence levels and also gives a remark on whether the hypothesis is rejected or not. It is a replica of what has been discussed previously.

**Table 4. 30: Summary of Models and Hypothesis tested**

| <b>Hypothesis</b>                                                                                                  | <b>Coeff</b> | <b>p-v</b> | <b>LLCI</b> | <b>ULCI</b> | <b>Decision</b>                      |
|--------------------------------------------------------------------------------------------------------------------|--------------|------------|-------------|-------------|--------------------------------------|
| Hypothesis: NC have no significant effect on SME performance                                                       | .68          | .000       | -           | -           | <b>H<sub>01</sub> rejected</b>       |
| Hypothesis: EC have no significant effect on SME performance                                                       | .465         | .000       | -           | -           | <b>H<sub>02</sub> Rejected</b>       |
| Hypothesis: ESE has no significant effect on SME performance                                                       | .115         | .009       | -           | -           | <b>H<sub>03</sub> Rejected</b>       |
| Hypothesis: NC have no significant effect on EC                                                                    | .404         | .000       | -           | -           | <b>H<sub>04</sub> Rejected</b>       |
| Hypothesis: EC have no significant mediating effect on relationship between NC and SME performance                 | -            | .194       | .334        |             | <b>H<sub>05</sub> Rejected</b>       |
| Hypothesis: ESE has no significant moderating effect on the relationship between NC and EC                         | .304         | .392       | -.044       | .111        | <b>H<sub>06</sub> Fail to Reject</b> |
| Hypothesis: ESE has no significant moderating effect on the relationship between NC and SME perf.                  | .101         | .013       | <b>.022</b> | <b>.188</b> | <b>H<sub>07</sub> Rejected</b>       |
| Hypothesis: ESE has no significant moderating effect on the relationship between EC and SME perf.                  | .090         | .030       | -.172       | -.009       | <b>H<sub>08</sub> Rejected</b>       |
| Hypothesis: ESE has no significant conditional indirect effect on the relationship between NC and SME perf. via EC | .196         | -          | <b>.097</b> | <b>.299</b> | <b>H<sub>09</sub> Rejected</b>       |

**Source: Research Data (2022)**

## CHAPTER FIVE

### SUMMARY FINDINGS, CONCLUSION AND RECOMMENDATIONS

#### 5.1 Introduction

This chapter contains summary discussion of findings, followed by conclusions of the study, implications of the study in theory, managerial and policy recommendations made thereof. Finally, it offers the suggestions for further research.

#### 5.2 Summary of Research Findings

The aim of the study was to carry out an empirical study of networking capabilities, entrepreneurial competencies, entrepreneurial Self-Efficacy, and performance of SMEs in selected towns of North Rift Region -Kenya. The study had nine research hypotheses formulated and tested using various models and discussed as below. The study utilised hierarchical regression model to test all the four direct effects hypotheses. The study found NC, EC and ESE all had a significant direct effect on SME performance. Furthermore, NC had a significant positive effect on EC. To determine the mediating effect of EC on the relationship between NC and SME performance, regression analysis using Hayes (2018), Model 4 was modelled. The study established that EC have a significant mediating effect on the relationship between NC and SME performance. Hayes (2018) Model 59 using Process Macro was adopted to test hypotheses **H<sub>06</sub>**, **H<sub>07</sub>**, **H<sub>08</sub>** and **H<sub>09</sub>**. The results of the study indicated that ESE does not moderate the relationship between NC and EC. However, ESE had a significant moderating effect on the relationship between NC and SME performance. Further ESE had a significant moderating effect on the relationship between EC and SME performance. Lastly the study revealed a significant conditional indirect effect on the relationship between NC and SME performance.

### 5.2.1 Effect of Networking Capabilities on SME performance

The first hypothesis stated that **H<sub>01</sub>**: Networking capabilities have no significant effect on SME performance. Results presented in Table 4.26 on the direct effects of networking capability on firm performance was positive and significant with coefficient  $\beta = .678$  ( $p = .000 < .05$ ). The model explained 44.7% ( $R^2 .447$ ) of the total variance in SME performance. The study alludes that networking capabilities is about creation and sustaining of network relationship with a view of allowing exchange of strategic resources and capabilities to the firm's advantage.

The findings of the study agree with the study done by Bengasi (2014) who utilised three of the NC dimensions to determine its role on SMEs performance in the neighbouring country of Tanzania. According to Bengesi & Roux (2014) networking capabilities refers to the ability of the firm to initiate, maintain and utilize the firm's relationship with various partners to the firm's advantage. The network capabilities have also been referred to social capital, external links and personal networks.

The positive influence in the study suggests that firms with strong partners knowledge, relational skills, and internal communication are likely to share and harness strategic resources to its competitive advantage. The positive influence of networking capabilities suggests that sharing of strategic information and resources within the firms instil learning new capabilities that would foster improved performance.

The results of the study further agree and extends prior study done by Maina, 2016 who determined the effect of the networking capabilities (intensity and range) on the performance of manufacturing SMEs in Kenya. Further locally Korir (2018), Obura et al (2010) have used different networking capabilities dimensions such as network structure, and network dynamic, and its effect on different venture performance. The study result indicated a significant direct effect among the variables.

The significant effect of networking capabilities on firm performance can be alluded to the fact that firms use resources to partner relationship. Further, firms conduct regular discussions with partners on how to support each other and advance talks with partners about building up relationships that help improve performance. The findings corroborated Ahuja's (2000) observation that the closer the relationship among members, the faster the rate of resource sharing. This study backs up the findings of Seck and Mazzarol (2006), who discovered that network intensity predicts firm performance.

Networking in the context of a small firm could be defined as activities in which entrepreneurially oriented SME owners build and manage personal relationships with specific individuals in their environment (Rogers, M. (2004)). Conway, S., and Jones, O. (2006) define networking as having four components: actors, connections, flows, and mechanisms. Individuals and entities that comprise the network are referred to as actors. The arches that connect individuals and represent the relationship between actors are known as links or ties. The flows represent the exchanges that take place between the actors in the network, which primarily involve the flow of resources. Finally, network mechanisms are the modes and rules of interaction used by network actors (Ford, *et. al.*, (2003)).

Networking is part of the complex and continuous interaction that occurs, and the outcomes are frequently muddled. Firms learn from networking, and their subsequent networking decisions are influenced by how their results evolve (Ford, *et. al.*, 2003)). The findings also support other researchers who studied the strategic networking and growth of technology-oriented SMEs in Singapore. According to the findings, the firm's

growth is independent of network range but is predicted by intensity Seck and Mazzarol (2006).

According to Beth et al., (2007), there were accumulated benefits on SMEs as a result of business networking. The study findings revealed that networking resulted in increased employment and wealth creation by local firms, acceleration of knowledge transfer and technology upgrading, enhanced skills and market structures, and more stable relationships to buyer / producer organizations.

### **5.2.2 Effect of Entrepreneurial Competencies on SME performance**

The second objective was hypothesized as **H<sub>02</sub>** and stated that entrepreneurial competencies have no significant effect on SME performance. Table 4.26 showed that entrepreneurial competencies is a predictor of SME performance. The direct effect of entrepreneurial competencies on firm performance was positive and significant with coefficient of  $\beta = .465$  ( $p = .000 < .05$ ). The model explained 14.5% ( $R^2 .145$ ) of the total variance in SME performance.

It is highly regarded that the performance of the small and medium firms is determined by the entrepreneurial competencies. The findings support prior literature on entrepreneurial competencies showing that EC is closely related to firm performance. In the light of above arguments, (Ahmad et al., 2010b) proposed that there is direct relationship between entrepreneurial competency and small and medium firm performance and consider that entrepreneurs hold different roles to manage their firms. Consistent with the above discussion, Mitchelmore & Rowley (2013) and Mohsin et al. (2017) carried out an empirical study aiming at investigating the impact of entrepreneurial competencies on firm performance. Similarly, Sanchez (2012) also conducted research to study the effect of entrepreneurial competencies on the small

firm performance and develop a causal model. Entrepreneurial competencies are significantly related with the firm performance and also helpful for gaining the sustainable competitive advantage (Ahmad et al., 2018). Further, empirically, significant relationships between entrepreneurial competencies and firm performance are reported. Chandler and Jansen (1992) found that the founder's self-assessed entrepreneurial competencies are positively related to firm growth. Chandler and Hanks (1994) again showed that entrepreneurial competencies are directly correlated with venture growth.

Other research works have found that the ability of the entrepreneur to develop the right mix of competencies has a direct influence on business success. Enterprises with high levels of entrepreneurial competency tend to scan and manage their environment to find new opportunities and consolidate their competitive positions. According to Baum et al. (2001), CEOs' specific competencies, industry skills and technical skill, had a significant direct effect on venture growth. Sony and Iman (2005) found that entrepreneurial competencies such as management skill, industry skill, opportunity skill, and technical skill were positively related to venture growth.

The findings also support other studies that have found direct effect of entrepreneur's ability to develop the right mix of competencies and its impact on business success. Entrepreneurial competencies, according to entrepreneurship research by, have a positive impact on SME performance. Entrepreneurial competencies are closely related to firm performance and competitive capacity development (Man, 2001; Bengesi and Roux, 2014). It is also strongly linked to business growth and success. Acquiring and leveraging entrepreneurial competencies is critical for entrepreneurs who want to achieve high performance.

According to Chaston (1997), different competencies are required at different stages of business development, whereas Man (2001) believes that entrepreneurial competencies are more important during the start-up phase and managerial competencies are more important during the growth stage.

According to Sanchez, J. (2012), entrepreneurial competence is one of factors that affects firm performance. The study investigated the impact of entrepreneurial competencies on the performance of small businesses by developing a causal model based on data collected from Spanish entrepreneurs. The model captured how entrepreneurs' competencies affected firm performance, competitive scope, and organizational capability in a direct or indirect way. The findings showed that entrepreneurial competence influences organizational capability and competitive scope, as well as having a direct impact on firm performance.

According to Mitchelmore and Rowley (2013), the presence or absence of strategic planning is a critical factor in business success. Furthermore, strategic planning is defined as a continuous process of monitoring and evaluating the company's strategic goals. A strategic goal includes the business goals (vision, mission, and objectives), such as identifying long-term and short-term issues, problems, and opportunities (Mitchelmore & Rowley, 2013). This demonstrates that strategic planning being entrepreneurial competency dimension improves firm performance.

### **5.2.3 Effects of Entrepreneurial Self- Efficacy on SME performance**

Entrepreneurial self- efficacy effect on SME performance as an objective was hypothesized as **H<sub>03</sub>**. Entrepreneurial self- efficacy has no significant effect on SME performance. The direct effect of entrepreneurial Self-Efficacy on firm performance

was positive and significant with  $\beta = .115$  ( $p = .009 < .05$ ). The model explained 0.9% ( $R^2 .009$ ) of the total variance in SME performance.

The study findings is supported by prior scholars that conducted their research in western countries and found positive relationship between entrepreneurial Self-Efficacy and entrepreneurial intentions or actions (Fitzsimmons & Douglas, 2005; Chen et al. 1998; Zhao, et al. 2005; Wood & Bandura, 1989; Markman, Balkin & Baron, 2002; Chen & He 2011). The current study findings has been done in an emerging economy and the results are replicated confirming a strong link between entrepreneurial Self-Efficacy and SME firm performance.

Earlier scholars (Powers, 1991; Bandura and Jourden, 1991) argued that individuals with strong efficacy tend to have strong confidence and self-belief among themselves. The end result is that little effort is put towards individual performance as a result of increased optimism in perception or clearly no incentive to increase degree of effort to achieve the desired performance goal. These arguments have been contradicted by our findings that which argues that individuals with Self-Efficacy are able to scan the market and as they build their confidence and beliefs firm performance increases significantly. Thus, our focus on the role of Self-Efficacy on entrepreneurial performance is appropriate. Baum and Locke, (2004) established a robust, active relationship between Self-Efficacy and work-related performance, demonstrating that Self-Efficacy is an entrepreneurial feature that might anticipate performance.

The SME owners in our study perceived that they have the ability to develop new products and market opportunities to build an innovative environment, initiate investor relationship. Furthermore, they can define core purpose, are able cope with unexpected challenges and even develop critical human resources.

#### 5.2.4 Effects of Networking Capabilities on Entrepreneurial Competencies

The fourth hypothesis stated as hypothesis **H<sub>04</sub>**. The direct effect of networking capabilities on entrepreneurial competencies was positive and significant ( $\beta = .404, p = .000 < .05$ ). The model explained 38.7% ( $R^2 .387$ ) of the total variance in entrepreneurial competencies.

This study suggests that when SME owners/managers are exhibiting networking capabilities such coordination, internal communication, partner knowledge resource, and relational skills, they become entrepreneurially competent enough. The market linkages enhance firm owners' competencies ultimately enhancing performance through efficiency in their operations. Entrepreneurial competencies enable managers to mobilize and beef up the firm's internal capabilities.

Numerous research has been done on the relationship between entrepreneurial competencies and performance with positive associations being established (Barazandeh et al., 2015; Khalid & Bhatti, 2015 and Sarwoko, 2016). We still have scarce empirical literature that directly links the relationship between networking capabilities and entrepreneurial competencies especially in developing countries like Kenya. The current study therefore provides initial empirical evidence on the direct influence of networking capabilities on entrepreneurial competencies.

The findings of our study build on the study by Teece (2014), dynamic capabilities such networking capability in our context would ideally enhance firm's ability to integrate, build and reconfigure internal and external competencies to helps firm adjust to the rapidly changing environments. According to the dynamic capabilities theory (Teece, 2014), firm owners or managers, entrepreneurial competencies have a strategic role to play in creating value of firm capabilities to performance. In linking firm capabilities

and firm performance, entrepreneurial competencies such as opportunism, organisational aptitude, strategic orientation and entrepreneurial networking play a key role (Man *et al.*, 2002; Mohamad *et al.*, 2011).

Recent study done by Kisame et al., (2022) among SMEs firms in Uganda found a direct relationship between entrepreneurial competencies and firm capabilities. In summary, there is agreement that entrepreneurial competencies are possessed by individuals who start and transform their businesses, and there is widespread agreement that the range of skills and competencies required to run a small firm is qualitatively and quantitatively different from those required in larger organizations (Walker and Webster, 2007).

The study alludes that entrepreneurs' networking abilities in aspects of coordination, internal communication, partner knowledge resource, and relational skills serve as intangible assets that directly assist entrepreneurs in improving their entrepreneurial competencies. The study finding also support results of Okpara (2011) and Fatima *et al.* (2016) who found a critical reflection on the challenges that relate to entrepreneurial competencies and firm networking capabilities.

#### **5.2.5 Mediating Effects of Entrepreneurial Competencies on the relationship between Networking Capabilities and SME performance.**

Objective five of the study was formulated as hypothesis **H<sub>05</sub>**. The study found a mediating role of entrepreneurial competencies on the relationship between networking capabilities and SME performance. This is evident by having a nonzero bootstrapping confidence interval of .194 and .334 for bootstrap lower and upper limit confidence level respectively. The model revealed a complimentary mediation since indirect path

**a\*b = .559\*.465=.259** and the direct **C`=.418** with both paths being significant with a positive sign.

The results can be supported by the findings of Sarwoko et al (2013) which showed that entrepreneurial competencies mediate the relationship between entrepreneurial characteristics and performance among SME firms in Indonesia. To further the argument of Sarwoko et al 2013, firms that portray networking capabilities have a significant positive correlation when intervened by entrepreneurial competencies.

As postulated by Mitchelmore & Rowley, 2010), entrepreneurial competencies contribute significantly to any firm's performance and growth. SMEs must continuously improve their entrepreneurial competencies to survive and thrive in today's competitive and rapidly changing environment (Song & Kee, 2013).

The current study findings build on the work of Adelaide (2018), which looked at entrepreneurial competency as an indirect predictor of firm performance in the context of the relationship between network capability and SME performance. The results agree with the prior study that confirms, entrepreneurial competency acts as a bridge between network capability and entrepreneurial performance. The study also agrees with the work of Asmawiyah & Hamid (2020) whose results showed that human capital had a significant positive effect on entrepreneur competence, human capital had a significant effect on business performance and entrepreneur competence as mediator had a significant positive effect on business performance.

Previous research has found that entrepreneurial actions and inactions have a significant impact on the growth of a business. According to Camuffo, Gerli, and Gubitta (2012), it is critical for SMEs owners to have a diverse set of skills, knowledge, imagination, creativity, and the ability to identify opportunities. The specific set of knowledge, skills,

and abilities. Competencies can be acquired and learned through knowledge and experience (Man et al., 2002; Volery et al., 2015; Wagener et al., 2010) and can be improved using adoption of technology (Lekovic et al., 2020).

#### **5.2.6 The Moderating Effect of Entrepreneurial Self-Efficacy on the relationship between networking capabilities and entrepreneurial competencies**

Objective six of the study was formulated as hypothesis **H<sub>06</sub>**. The moderation results indicated that entrepreneurial Self-Efficacy did not moderate the relationship between networking capabilities and entrepreneurial competencies. The interaction of entrepreneurial self- efficacy between the networking capabilities and entrepreneurial competencies was insignificant with  $\text{coeff}=.034$ ,  $p = .392 > .05$ . The study results revealed an antagonistic moderation which reversed the effect of networking capabilities from being significant on entrepreneurial competencies to being insignificant.

The study findings supports the work of Indrawati et al 2015, who was looking at the moderation effects of entrepreneurial Self-Efficacy in relation between environmental dimension and entrepreneurial alertness and the effect on entrepreneurial commitment. In their study, ESE does not moderate effect of entrepreneurial dynamism on entrepreneurial alertness, but it was a predictor variable, furthermore ESE did not moderate effect of entrepreneurial complexity on entrepreneurial alertness, but it was a predictor variable. The findings here are inconsistent with research of Tang (2008) that entrepreneurial Self-Efficacy is moderator in relation of environmental munificence on entrepreneurial alertness.

To capitalize on existing opportunities, entrepreneurs must have a high level of trust and self-confidence. Entrepreneurs with high confidence can maintain a higher level of

vigilance in the presence of environmental calamity than entrepreneurs with low confidence (Tony Fu, 2001). Self-Efficacy positively orients to psychology aspects that emerged in realm of behaviour organizations and include most relevant aspects, at least for organizational behaviour text because Self-Efficacy is based on social cognitive theory.

First Self-Efficacy definition formally proposed by Bandura (1982) through social cognitive theory that includes social environment and cognitive elements, as well as behaviour itself. The Self-Efficacy is defined as personal adjustment or belief in "how well one can execute action that required to deal with prospective Situations" (Bandura, 1982). Luthans (2001), argued that Self-Efficacy is explained in terms of psychological function in environmental events, personal factors in form of cognitive, and behavioural patterns. Self-Efficacy is belief of individual strength that he has ability to successfully perform entrepreneurial roles and tasks (Tang, 2008).

According to Lopez and Snyder (2011), Self-Efficacy also reflects an individual's belief about whether or not he can perform a specific action. In fact, this construct is used as a reliable predictor of a variety of behaviours. Some scholars define Self-Efficacy in the context of entrepreneurship as the strength of an individual's belief that he has enough ability to perform entrepreneurial action successfully (Segal et al., 2005; Tsai et al., 2014).

Furthermore, it is argued that Self-Efficacy is an important predictor of entrepreneurial intention (Krueger, 2000) and entrepreneurial activity (Zieba & Golik, 2018). Individuals with high entrepreneurial Self-Efficacy have more intrinsic interests in business venture actions, are more willing to put forth effort, and exhibit persistence when confronted with challenges and obstacles. So, Self-Efficacy influences an

individual's choices, how long he persists at a task, and how he feels about it. If an individual believes that performing a specific action is within his abilities, he can act, even if the action is difficult, because he sees successful completion of the action as a feasible achievement given his belief in himself. A person with high Self-Efficacy can demonstrate greater ability to pursue and achieve their goals (Bandura, 1997). As a result, an individual's intention to start their own business can be influenced by his sense of Self-Efficacy (Chen et al., 1998). Indeed, entrepreneurial Self-Efficacy is an effective predictor of start-up intention and behaviour (Lee et al., 2011), and it is argued that Self-Efficacy has both direct and indirect influences on entrepreneurial performance (Krueger et al., 2000).

#### **5.2.7 The Moderating effect of entrepreneurial Self-Efficacy on the relationship between networking capabilities and SME performance**

The seventh objective was stated as hypothesis **H<sub>07</sub>**. The interaction of entrepreneurial self- efficacy between the networking capabilities and SME performance was significant with ( $\beta = .101, p = .013 < .05$ ).  $\Delta R^2 .008$  significant at  $F=6.243, p = .013$ . The study revealed a partial and enhancing moderation as both the direct and moderation effects were found to be significant with moderation model having an increased from  $R^2 .447$  (direct effect) to  $R^2 .638$  (moderation model).

The concept of entrepreneurial Self-Efficacy as a distinctive entrepreneurial personality trait is characterized as a strength of one's belief in his or her capabilities to successfully perform specific tasks and roles in the entrepreneurial process.

The study found a great significant moderating role of entrepreneurial Self-Efficacy on the relationship between networking capability and SME performance. Based on this finding, we argue that an ESE is effective in influencing goal commitment, aspiration

levels, task persistence and work attitude. As a distinct entrepreneurial personality trait, entrepreneurial Self-Efficacy is defined as the strength of one's belief in one's own abilities to successfully perform specific tasks and roles in the entrepreneurial process.

The findings conform to the work of Indrawati et al. (2015) who discovered that entrepreneurial Self-Efficacy moderates the relationship between environmental complexity and entrepreneurial alertness. To capitalize on existing opportunities, entrepreneurs must have a high level of trust and self-confidence. Entrepreneurs with high confidence can maintain a higher level of vigilance in the presence of environmental calamity than entrepreneurs with low confidence (Tony Fu, 2001)

The study result is also consistent with the findings of Hmieleski and Corbett (2008) who found that ESE positively increases the relationship between improvisational behaviour and performance of firms. In another study by Rosli Mahmood et al (2016) with interaction of ESE, the relationship between strategic improvisation and performance was significant. Building on the previous studies, the current study reinforces their findings and agree that SMEs owners with high belief in their networking capabilities and abilities, tend to be efficient and in turn improve firm performance. ESE of the SME owner is needed to meet the emerging opportunities and threats as firms continue build network and linkages in order to survive and be sustainable in the current volatile macro environments such as in Kenyan context.

#### **5.2.8 The Moderating effect of Entrepreneurial Self-Efficacy on the relationship between Entrepreneurial Competencies and SME performance.**

The eighth objective was stated as hypothesis **H<sub>08</sub>**. The study established that the interaction of entrepreneurial self- efficacy between the entrepreneurial competencies and SME firm performance was significant with coeff= .090,  $p = .03 < .05$   $\Delta R^2 .006$

significant at  $F=4.779$ ,  $p = .030$ . The study revealed a partial and enhancing moderation since both direct and interactions effects were significantly affecting SME performance. There was an increased moderation model ( $R^2 .638$ ) as compared to the direct effect model ( $R^2 .145$ ).

According to studies done by Bergenholtz et al (2021), Miao et al.(2017); Schmitt et al.(2018), individuals with higher ESE are more willing to accept the challenges of altering their business models. They become entrepreneurial competent by introducing new products or services, proactively exploiting environmental opportunities, and embracing riskier actions to realize greater potential returns because they are confident in their abilities to succeed.

#### **5.2.9 Moderating effect of Entrepreneurial Self-Efficacy on the strength of the indirect link between Networking Capabilities and SME Performance via Entrepreneurial Competencies.**

Lastly, the final and ninth objective was stated as hypothesis **H<sub>09</sub>**. The result of the lower confidence interval (BootLLCI) and bootstrap upper limit confidence interval (BootULCI) were nonzero at three interval levels showing that a positive and significant moderated mediation analysis occurred. More importantly, the conditional indirect effect was significantly higher with firms having lower levels of ESE with magnitude effect (coeff=.196, SE=.051, CI=.09, .30). Further the conditional indirect effect was significantly weak with moderate ESE (coeff=.177, SE=.035, CI=.11, .25). and significantly lower with higher levels of ESE (coeff=.151, SE=.041, CI=.079, .24). The study brings in new knowledge findings that entrepreneurial Self-Efficacy has significant conditional indirect effect on the strength of the mediated relationship

between networking capabilities and SME performance via entrepreneurial competencies.

According to Hayes (2013) whenever we test the moderated mediation model relationship, four conditions have to be attained without which moderated mediation do not exist. The suggestions are following, a) the relationship between exogenous and endogenous should significant; b) the interaction of moderator and mediator on endogenous should be significant; c) the relationship between the mediator and the endogenous variable should be significant; d) the degree of conditional indirect effect has to be different at low, medium and high levels for moderator. Our study strived to have all the condition met and found that entrepreneurial Self-Efficacy moderates the mediated relationship between networking capabilities and SME performance by entrepreneurial competencies.

The new knowledge in our study states that if SME owners engage in networking capabilities, it builds their entrepreneurial competencies which leads to increase in SME performance. This is further strengthened by entrepreneurial Self-Efficacy of the SME owners since exhibiting higher ESE exert great effort to overcome potential obstacles created by an external disequilibrating event than their less efficacious peers. They are also more persistent when confronted with difficulties and tend to engage in new and novel behaviours (Bandura, 2012).

The results are supported by the works of Wang Jiatong et al (2021) who found entrepreneurial Self-Efficacy moderates the mediated relationship between cognitive flexibility and entrepreneurial intention by entrepreneurial alertness, in the way that the mediated relationship will be stronger for those who are higher in entrepreneurial Self-Efficacy. The study confirmed a partial moderated mediation and confirmed that

entrepreneurial alertness and entrepreneurial Self-Efficacy have a negative but significant moderated mediation effect on entrepreneurial intention.

The study findings are in line with previous literature that suggested the concept of entrepreneurial Self-Efficacy associated with the individual belief and ability to perform the task for developing new business ventures MC Gee and Peterson (2019).

### **5.3 Conclusion of the Study**

This study extended the research on the association between networking capabilities and SME performance by developing a moderated mediation model. This research examined whether entrepreneurial competencies mediate this association. This study also investigated whether entrepreneurial Self-Efficacy moderates this mediation model by conducting a moderated mediation model.

The findings of the study confirm that networking capabilities, entrepreneurial competencies and entrepreneurial Self-Efficacy have a positive and significant direct effect on SME performance. Further, networking capabilities positively and significantly affects entrepreneurial competencies. The study revealed a complimentary mediation and confirm that entrepreneurial competencies mediate the relationship between networking capabilities and SME performance.

Even though the study showed that entrepreneurial Self-Efficacy has a direct effect on entrepreneurial competencies, it does not moderate the relationship between networking capabilities and entrepreneurial competencies. The study found that entrepreneurial Self-Efficacy moderates the link between networking capabilities and firm performance and also the link between entrepreneurial competencies and SME performance in the three regions of North Rift Kenya. Finally, the study concluded that entrepreneurial Self-Efficacy moderates the strength of the indirect relationship

between networking capabilities and SME performance via entrepreneurial competencies in such a way that it is weaker when entrepreneurial Self-Efficacy is higher and much stronger when entrepreneurial Self-Efficacy is lower.

Being network capable is critical for establishing trust and confidence with networking partners. SME owners should be willing to share core competitive resources; otherwise, the relationship will be fraught and ambiguous, with no benefits shared by networking partners.

#### **5.4 Theoretical Implications of the study**

This study provides theoretical and practical implications as discussed below.

##### **5.4.1 Implications for Theory**

The study revealed that networking capabilities, entrepreneurial competences and entrepreneurial Self-Efficacy directly influenced SME performance and was further enhanced through moderated mediation effects. The findings of the study have contributed to existing body of literature by using evidence from Kenya, developing nation. It is clear that SME in developing economies is failing in the first five years of establishment. The study findings contribute to an understanding of how to improve SME performance. Furthermore, the study findings are consistent with other scholars who have established that networking capabilities, entrepreneurial competencies and entrepreneurial Self-Efficacy have a significant direct effect on firm performance. New knowledge has been added to existing literature where entrepreneurial competencies and entrepreneurial Self-Efficacy complementarily mediate and moderate SME performance. The study further provides theoretical contribution to the existing scholarly literature where entrepreneurial competencies and entrepreneurial Self-Efficacy acts as a mediator and moderator and an enhanced predictive power

established by moderated mediation analysis. The effect was enhanced as opposed to testing the effect on the outcome variables as direct, mediating or moderating alone.

The study builds on Resource Based View, competency based and social network and social capital theories. RBV conceptualises a firm as a bundle of both tangible and intangible resources which are unique to the firms. The logic of RBV identifies the kind of resources and capabilities that are specific to the firm for purpose of full economic realisation. The VRIO framework clearly indicates the resources at firm's disposal that helps create sustainable competitive advantage. The heterogeneous intangible resources in form of networking capabilities fosters growth of firm performance. Furthermore, Resource Based View (RBV) theory is important in understanding this trend because people's competencies are context-specific, and in the case of entrepreneurship, such skills can be effectively utilized in improving entrepreneurs' performance.

The findings further concur with resource-based view that competency and networking add value to the organisation. Moreover, the findings allude the contribution of competency-based theory which state that SMEs have a responsibility to recognize what core competences are necessary to exploit a particular opportunity to innovate in their achievement and to sustain them. Competency based theory shares many features as resource-based theory but it emphasises on the narrow competence. Competency refers to the quality of entrepreneur's action that contributes to venture outcomes. The entrepreneurial competencies are associated with the formation, survival and venture's growth. SMEs need to recognise the core competencies necessary to exploit a particular opportunity and to be able to sustain it especially in a very volatile and dynamic macro environment as Kenya.

Social capital theory emphasis on the sum of the actual resources embedded within, available through and derived from the network relationships possessed by an individual or unit (Nahapiet and Ghosal, 1988). According to Alder & Kwon (2002), just like any other resources, sources of social capital lie in business structures within which network actor is located. An inter-firm network places social capital at the firm's disposal, promoting and supporting the production of intellectual capital which ultimately fosters the competitive advantage of firms (Antoldi *et al.* (2011).

#### **5.4.2 Practical/Managerial Implications of the study**

The findings emphasise the importance of Self-Efficacy, networking capabilities and competencies of the entrepreneurs as a predictor to improved firm performance. SMEs should consider developing policies, allocate resources and come up with strategies that will enhance their networking capabilities. Firms should strive to engage in trainings and capacity building that will promote competencies and built capability of the firm owners to have a strong belief and confidence during their entrepreneurial engagements which will ultimately improve their performance.

Entrepreneurs should ensure that their employees are involved in the decision-making process and have the capacity and confidence to implement and deliver on strategy. It is important that employees are well trained to enhance their entrepreneurial Self-Efficacy because high efficacy in employees will increase business performance. Training and development practices can promote entrepreneurial competency to the extent that they are applicable to a broad range of job situations and encourage high employee participation. Firm owners with high entrepreneurial Self-Efficacy feel more competent to address and deal with uncertainties risks, and hardships than those with low entrepreneurial Self-Efficacy. Those with high entrepreneurial Self-Efficacy anticipate different outcomes than people with low entrepreneurial Self-Efficacy.

## **5.5 Limitations and Suggestions for Further Studies**

### **5.5.1 Limitations of the study**

Despite the significant contribution of this study, it had some limitations. One major limitation was the reliance on cross-sectional data, which captured only a snapshot in time but did not account for temporal changes or the evolution of networking capabilities and entrepreneurial competencies. This limitation hindered the ability to assess causal relationships and the long-term impact of these variables on SME performance. Additionally, the study's focus on a specific geographic location North Rift Region, while it could provide a rich context, the unique challenges and opportunities faced by SMEs in this area may not fully represent those in other regions or countries, potentially affecting the applicability of the results beyond the study area and therefore its generalizability.

Another limitation was the potential for measurement bias in assessing networking capabilities, entrepreneurial competencies, and self-efficacy. These constructs are complex and may be subject to subjective interpretations, leading to inconsistencies in how they are reported by different participants. Moreover, the study's reliance on self-reported data might have introduced response biases, such as social desirability bias, where some participants overstated their competencies or self-efficacy. This affected the accuracy of the findings and their implications for understanding the relationship between these variables and SME performance.

### **5.5.2 Recommendations for Future studies**

Future studies could consider employing longitudinal research designs to capture the dynamic nature of networking capabilities, entrepreneurial competencies, and self-efficacy over time. Longitudinal studies can provide insights into how these factors

evolve and their long-term impact on SME performance, offering a more comprehensive understanding of causal relationships. Additionally, expanding the geographic scope of the research to include different regions or countries could enhance the generalizability of the findings. Comparing SMEs across various contexts would help identify region-specific and universal factors influencing performance, enriching the overall understanding of the interplay between networking, competencies, and self-efficacy.

Furthermore, incorporating mixed-methods approaches could address the limitations of relying solely on quantitative self-reported data. Qualitative methods, such as interviews or focus groups, can provide deeper insights into the nuances of networking capabilities and entrepreneurial competencies, reducing the risk of response biases. Lastly, ensuring a diverse and representative sample of SMEs, including various industries and sizes, would also improve the reliability and applicability of the findings. By integrating diverse methodologies and broader samples, future research can build on existing knowledge, offering more robust recommendations for supporting SME growth and performance in varying contexts.

## REFERENCES

- Abbas, J., Raza, S., Nurunnabi, M., Minai, M. S., & Bano, S. (2019). The impact of entrepreneurial business networks on firms' performance through a mediating role of dynamic capabilities. *Sustainability*, 11(11), 3006.
- Abdelwahed, N. A. A., Soomro, B. A., Shah, N., & Saraih, U. N. (2022). Effect of institutional support and entrepreneurial knowledge on women's entrepreneurial Self-Efficacy and venture performance in a developing country. *International Journal of Innovation Science*.
- Abdul, R. O. (2019). *Effect of entrepreneurial competencies on the survival of small and medium enterprises in Kenya* (Doctoral dissertation, JKUAT-COHRED).
- Abdullahi, U., Ardo, Y., Hassan, A., & Ibrahim, G. (2021). Assessment of financial and non-financial performance indicators used by small and medium construction firms in Nigeria. *FUTY Journal of the Environment*, 15(2), 48-58.
- Abiodun, E. A. (2020). Entrepreneurial Self-Efficacy, entrepreneurial orientation, and institutional environment: SME in Nigeria. *SCMS Journal of Indian Management*, 17(1), 16-27.
- Adeniran, A. O., Olorunfemi, S. O., Akinsehinwa, F. O., & Ilugbami, J. O. (2024). Technical skills required by standard automobile mechanical workshop in Akure, Nigeria. *Journal of Contemporary Research in Business, Economics and Finance*, 6(1), 13-22.
- Aftab, J., Veneziani, M., Sarwar, H., & Ishaq, M. I. (2022). Entrepreneurial orientation and firm performance in SMEs: The mediating role of entrepreneurial competencies and moderating role of environmental dynamism. *International Journal of Emerging Markets*.
- Ahmed, I., & Ishtiaq, S. (2021). Reliability and Validity: Importance in medical research. *Methods*, 12(1), 2401-2406.
- Aidara, S., Mamun, A. A., Nasir, N. A. M., Mohiuddin, M., Nawli, N. C., & Zainol, N. R. (2021). Competitive advantages of the relationship between entrepreneurial competencies and economic sustainability performance. *Sustainability*, 13(2), 864.
- Akbar, F., Khan, R. A., Wadood, F., & Bon, A. T. B. (2020). Entrepreneurial orientation dimension affects firm performance: A perspective from the Malaysian furniture industry. *Entrepreneurial Business and Economics Review*, 8(4), 157-181.
- Al Koliby, I. S., Mehat, N. A. B., Al-Swidi, A. K., & Al-Hakimi, M. A. (2024). Is knowledge management a missing link? Linking entrepreneurial competencies and sustainable performance of manufacturing SMEs. *The Bottom Line*, 37(1), 71-97.

- Alarjani, F. N. F., Anwar, B., Danial Aslam, H., Iqbal, S., & Ayub, A. (2020). A moderated mediation model of entrepreneurial self-efficacy, institutional environment, and entrepreneurial orientation for SME development. *SAGE Open*, 10(3), 2158244020941000.
- Algan, N. (2019, June). The importance of SMEs on world economies. In *Proceedings of International Conference on Eurasian Economies, Turkish Republic of Northern Cyprus* (Vol. 12).
- Alinaghian, L., & Razmdoost, K. (2018). How do network resources affect firms' network-oriented dynamic capabilities? *Industrial Marketing Management*, 71, 79-94.
- Amini Sedeh, A., Pezeshkan, A., & Caiazza, R. (2022). Innovative entrepreneurship in emerging and developing economies: the effects of entrepreneurial competencies and institutional voids. *The Journal of Technology Transfer*, 47(4), 1198-1223.
- Apriana, D., Kristiawan, M., & Wardiah, D. (2019). Headmaster's competency in preparing vocational school students for entrepreneurship. *International Journal of Scientific & Technology Research*, 8(8), 1316-1330.
- Arasti, M., Garousi M. N., & Jafarpanah, I. (2022). Networking capability: a systematic review of literature and future research agenda. *Journal of Business & Industrial Marketing*, 37(1), 160-179.
- Asmawiyah, M. M., Taba, M. I., & Hamid, N. (2020). The Role Entrepreneur Competence as Mediation Human Capital on Business Performance. *International Journal of Innovative Science and Research Technology*, 5(6), 812-819.
- Ataei, P., Karimi, H., Ghadermarzi, H., & Norouzi, A. (2020). A conceptual model of entrepreneurial competencies and their impacts on rural youth's intention to launch SMEs. *Journal of Rural Studies*, 75, 185-195.
- Atwood, C. (2020). *Succession planning basics*. Association for Talent Development.
- Awomailo, L. B., Ayeni, J. O., & Alagbe, O. T. (2023). Entrepreneurship Orientation and Networking as Correlate to Employment Generation in Nigeria.
- Badiru, N. (2024). Entrepreneurial Behaviour and the Performance of Small and Medium Enterprises in South-West, Nigeria. *Business & Management Compass*, 68(1), 25-44.
- Baia, E., Ferreira, J. J., & Rodrigues, R. (2020). Value and rareness of resources and capabilities as sources of competitive advantage and superior performance. *Knowledge Management Research & Practice*, 18(3), 249-262.
- Banu, S. R., Jayakani, S., Farzana, M. S., Fastina, M. M., & Vikraman, M. K. (2024). Ensure The Long-Term Viability Of Sustainable Development. *International Journal of Multidisciplinary Research in Arts, Science and Technology*, 2(3), 07-22.

- Barinua, V., & Kipamo, V. A. Entrepreneur's Personality Traits and Ventures Performance. *African Journal of Business and Economic Development ISSN*, 2782, 7658.
- Basco, R., Hernández-Perlines, F., & Rodríguez-García, M. (2020). The effect of entrepreneurial orientation on firm performance: A multigroup analysis comparing China, Mexico, and Spain. *Journal of Business Research*, 113, 409-421.
- Bird, B. (2019). Toward a theory of entrepreneurial competency. In *Seminal ideas for the next twenty-five years of advances* (Vol. 21, pp. 115-131). Emerald Publishing Limited.
- Bougie, R., & Sekaran, U. (2019). *Research methods for business: A skill building approach*. John Wiley & Sons.
- Brown, R., Mawson, S., & Rowe, A. (2019). Start-ups, entrepreneurial networks and equity crowdfunding: A processual perspective. *Industrial Marketing Management*, 80, 115-125.
- Cabeza-Pullés, D., Fernández-Pérez, V., & Roldán-Bravo, M. I. (2020). Internal networking and innovation ambidexterity: The mediating role of knowledge management processes in university research. *European Management Journal*, 38(3), 450-461.
- Caliendo, M., Kritikos, A. S., Rodriguez, D., & Stier, C. (2023). Self-Efficacy and entrepreneurial performance of start-ups. *Small Business Economics*, 61(3), 1027-1051.
- Camisón-Haba, S., Clemente-Almendros, J. A., & Gonzalez-Cruz, T. (2019). How technology-based firms become also highly innovative firms? The role of knowledge, technological and managerial capabilities, and entrepreneurs' background. *Journal of Innovation & Knowledge*, 4(3), 162-170.
- Cartwright, S., & Davies, I. A. (2022). The development of B2B social networking capabilities. *Industrial Marketing Management*, 106, 139-151.
- CBS. (1999). *Kenya National Micro and Small Enterprise*. Nairobi: CBS.
- Chamberlain, W. O. (2019). Inclusive business as employment generator in rural settlements.
- Chege, S. M., Wang, D., & Suntu, S. L. (2020). Impact of information technology innovation on firm performance in Kenya. *Information Technology for Development*, 26(2), 316-345.
- Chen, H., Tang, Y., & Han, J. (2022). Building students' entrepreneurial competencies in Chinese universities: Diverse learning environment, knowledge transfer, and entrepreneurship education. *Sustainability*, 14(15), 9105.
- Child, J., Faulkner, D., Tallman, S., & Hsieh, L. (2019). *Cooperative strategy: Managing alliances and networks*. Oxford University Press.

- Chin, C. L., & Yao, G. (2021). Convergent validity. In *Encyclopedia of quality of life and well-being research* (pp. 1-2). Cham: Springer International Publishing.
- Corry, M., Porter, S., & McKenna, H. (2019). The redundancy of positivism as a paradigm for nursing research. *Nursing Philosophy*, 20(1), e12230.
- Costa, J., & Castro, R. (2021). SMEs must go online—E-commerce as an escape hatch for resilience and survivability. *Journal of Theoretical and Applied Electronic Commerce Research*, 16(7), 3043-3062.
- Crespo, N. F., Belchior, R., & Costa, E. B. (2020). Exploring individual differences in the relationship between entrepreneurial Self-Efficacy and intentions: Evidence from Angola. *Journal of Small Business and Enterprise Development*, 27(1), 1-30.
- da Cruz, M. D. F. P., Ferreira, J. J., & Kraus, S. (2021). Entrepreneurial orientation at higher education institutions: State-of-the-art and future directions. *The International Journal of Management Education*, 19(2), 100502.
- Demetriou, A., Kazi, S., Makris, N., & Spanoudis, G. (2020). Cognitive ability, cognitive self-awareness, and school performance: From childhood to adolescence. *Intelligence*, 79, 101432.
- Durnali, M., Orakci, Ş., & Khalili, T. (2023). Fostering creative thinking skills to burst the effect of emotional intelligence on entrepreneurial skills. *Thinking Skills and Creativity*, 47, 101200.
- Dwikat, S. Y., Arshad, D., & Mohd Shariff, M. N. (2023). Effect of competent human capital, strategic flexibility and turbulent environment on sustainable performance of SMEs in manufacturing industries in palestine. *Sustainability*, 15(6), 4781.
- Eikelenboom, M., & de Jong, G. (2019). The impact of dynamic capabilities on the sustainability performance of SMEs. *Journal of Cleaner Production*, 235, 1360-1370.
- Enders, C. K. (2022). *Applied missing data analysis*. Guilford Publications.
- Eniola, A. A. (2020). Entrepreneurial Self-Efficacy and orientation for SME development. *Small Enterprise Research*, 27(2), 125-145.
- Etim, A. S., Ogundana, O. M., & Okonkwo, A. (2022). Entrepreneurial competencies and the performance of informal SMEs: The contingent role of business environment. In *Entrepreneurship and the Informal Sector* (pp. 28-50). Routledge.
- Etim, N. A. A., Udoh, E. J., & King, E. E. (2022). Entrepreneurial orientation and the performance of the agro-allied enterprises in Akwa Ibom State, Nigeria. *Journal of Social Commerce*, 2(1), 24-33.
- Fernandes, A. J., & Ferreira, J. J. (2022). Entrepreneurial ecosystems and networks: a literature review and research agenda. *Review of Managerial Science*, 16(1), 189-247.

- Ferreira-Neto, M. N., de Carvalho Castro, J. L., de Sousa-Filho, J. M., & de Souza Lessa, B. (2023). The role of Self-Efficacy, entrepreneurial passion, and creativity in developing entrepreneurial intentions. *Frontiers in Psychology*, 14, 1134618.
- Galvão, A., Marques, C., & Ferreira, J. J. (2020). The role of entrepreneurship education and training programmes in advancing entrepreneurial skills and new ventures. *European Journal of Training and Development*, 44(6/7), 595-614.
- Ganguly, A., Talukdar, A., & Chatterjee, D. (2019). Evaluating the role of social capital, tacit knowledge sharing, knowledge quality and reciprocity in determining innovation capability of an organization. *Journal of knowledge management*, 23(6), 1105-1135.
- Garcia, R., & Baack, D. W. (2023). The invisible racialized minority entrepreneur: Using white solipsism to explain the white space. *Journal of Business Ethics*, 188(3), 397-418.
- Garousi Mokhtarzadeh, N., Amoozad Mahdiraji, H., Jafarpanah, I., Jafari-Sadeghi, V., & Cardinali, S. (2020). Investigating the impact of networking capability on firm innovation performance: using the resource-action-performance framework. *Journal of Intellectual Capital*, 21(6), 1009-1034.
- Gautam, D. K., & Gautam, P. K. (2024). Stress and resilience to migrant entrepreneur-managers of small and medium enterprises during COVID-19 pandemic. *Benchmarking: An International Journal*, 31(6), 2129-2150.
- Gielnik, M. M., Bledow, R., & Stark, M. S. (2020). A dynamic account of Self-Efficacy in entrepreneurship. *Journal of Applied Psychology*, 105(5), 487.
- Gill, S. A., Bencheva, N., Karayel, S., & Usman, M. (2021). Does entrepreneurial Self-Efficacy moderate effects of cognitive flexibility and entrepreneurial alertness on entrepreneurial Intentions? *Entrepreneurial Business and Economics Review*, 9(3), 25-41.
- Glyptis, L., Christofi, M., Vrontis, D., Del Giudice, M., Dimitriou, S., & Michael, P. (2020). E-Government implementation challenges in small countries: The project manager's perspective. *Technological Forecasting and social change*, 152, 119880.
- Gupta, D., & Rani, R. (2019). A study of big data evolution and research challenges. *Journal of information science*, 45(3), 322-340.
- Hair Jr, J., Page, M., & Brunsveld, N. (2019). *Essentials of business research methods*. Routledge.
- Hardie, B. (2020). *Studying situational interaction: Explaining behaviour by analysing person-environment convergence*. Springer Nature.
- Hashim, N. A. B., Raza, S., & Minai, M. S. (2018). Relationship between entrepreneurial competencies and small firm performance: are dynamic capabilities the missing link?. *Academy of Strategic Management Journal*, 17(2), 1-10.

- Hatch, MJ, & Cunliffe, AL (2006). *Organization Theory: Modern, Symbolic and Postmodern Perspectives*. USA: Oxford University
- He, M. (2024). Financial and non-financial performance measures in small and medium businesses.
- Heap, V., & Waters, J. (2019). Data collection methods. In *Mixed methods in criminology* (pp. 141-176). Routledge.
- Hedvall, K., Jagstedt, S., & Dubois, A. (2019). Solutions in business networks: Implications of an interorganizational perspective. *Journal of Business Research*, 104, 411-421.
- Hernita, H., Surya, B., Perwira, I., Abubakar, H., & Idris, M. (2021). Economic business sustainability and strengthening human resource capacity based on increasing the productivity of small and medium enterprises (SMES) in Makassar city, Indonesia. *Sustainability*, 13(6), 3177.
- Herrera-Bernal, J. A., del Carmen Ramírez-Hernández, D., & Ramírez-Montoya, M. S. (2020). Applied competences for students by using m-learning devices in higher education: Knowledge, skills, and attitudes. In *Mobile devices in education: breakthroughs in research and practice* (pp. 44-67). IGI Global.
- Hilmersson, M., Johanson, M., Papaioannou, S., & Lundberg, H. (2022). Business unpredictability, improvisation and business network commitment in small and medium-sized enterprise market entry. *International Small Business Journal*, 40(8), 991-1018.
- Hsu, D. K., Burmeister-Lamp, K., Simmons, S. A., Foo, M. D., Hong, M. C., & Pipes, J. D. (2019). "I know I can, but I don't fit": Perceived fit, Self-Efficacy, and entrepreneurial intention. *Journal of business venturing*, 34(2), 311-326.
- Hunger, J. D. (2020). Essentials of strategic management.
- Ibudin, A. S., Ogundana, O. M., & Okonkwo, A. (2021). Entrepreneurial competencies and the performance of informal SMEs: The contingent role of business environment. *Journal of African Business*, 22(4), 468-490.
- Ibudin, A. S., Ogundana, O. M., & Okonkwo, A. (2022). Entrepreneurial competencies and the performance of informal SMEs: The contingent role of business environment. In *Entrepreneurship and the Informal Sector* (pp. 28-50). Routledge.
- Igwe, A., Ogbo, A., Agbaeze, E., Abugu, J., Ezenwakwelu, C., & Okwo, H. (2020). Self-Efficacy and subjective norms as moderators in the networking competence–social entrepreneurial intentions link. *SAGE Open*, 10(3), 2158244020934878.
- In, J. (2017). Introduction of a pilot study. *Korean journal of anesthesiology*, 70(6), 601.

- Ishikawa, H. (2024). Hypothesis. In *Hypothesis Generation and Interpretation: Design Principles and Patterns for Big Data Applications* (pp. 33-69). Cham: Springer International Publishing.
- Jæger, K., & Pedersen, A. G. J. (2020). Understanding organizational boundaries. *Globe: A Journal of Language, Culture and Communication*, 9, 1-14.
- Jamai, K., De Steur, H., Abidar, A., & Gellynck, X. (2021). The impact of innovation type on financial and non-financial performance of SMES. A scoping review. *Journal of Innovation Management*, 9(3), 27-57.
- Jordão, R. V. D., & Novas, J. C. (2024). Information and knowledge management, intellectual capital, and sustainable growth in networked small and medium enterprises. *Journal of the Knowledge Economy*, 15(1), 563-595.
- Kamberidou, I. (2020). “Distinguished” women entrepreneurs in the digital economy and the multitasking whirlpool. *Journal of Innovation and Entrepreneurship*, 9(1), 3.
- Kanini, K. S., & Muathe, S. M. (2019). Nexus between social capital and firm performance: A critical literature review and research agenda. *International Journal of Business and Management*, 14(8), 70-82.
- Karia, N. (2021). A comparative benchmark model for SMEs: viable entrepreneur emotional intelligence. *Benchmarking: An International Journal*, 28(3), 813-829.
- Kenya National Bureau of Statistics (2020). Economic Survey 2016. KNBS, Nairobi. p 157. <http://www.knbs.or.ke>
- Kenya National Bureau of Statistics, & UNICEF. Kenya Country Office. (2021). Child poverty in Kenya: A multidimensional approach. Kenya National Bureau of Statistics (KNBS).
- Kenya National Bureau of Statistics. (2020). Economic survey 2019. Nairobi.
- Kertati, I., Jenita, J., & Mee, L. C. (2023). Synergity Of Human Resources Proficiency With Financial Management As A Policy In Guaranteing The Quality Of Government Welfare. *Multicultural Education*, 9(01), 74-88.
- Khan, E. A., Chowdhury, M. M. H., Hossain, M. A., Mahmud, A. S., Baabdullah, A. M., & Dwivedi, Y. K. (2022). Performance of small firms in a circular economy: configuring challenges and entrepreneurial orientation. *Management decision*.
- Khan, M. A., Rathore, K., & Sial, M. A. (2020). Entrepreneurial orientation and performance of small and medium enterprises: Mediating effect of entrepreneurial competencies. *Pakistan Journal of Commerce and Social Sciences (PJCSS)*, 14(2), 508-528.

- Khan, M. A., Zubair, S. S., Rathore, K., Ijaz, M., Khalil, S., & Khalil, M. (2021). Impact of entrepreneurial orientation dimensions on performance of small enterprises: do entrepreneurial competencies matter? *Cogent Business & Management*, 8(1), 1943241.
- Kimathi, D. K. (2020). *Effect of Entrepreneurial Marketing on the Performance of Micro, Small and Medium Enterprises in Kenya* (Doctoral dissertation, JKUAT-COHRED).
- Kirimi, D. G. (2021). Influence of Entrepreneurial Networks on Financial Performance of Medium Sized Enterprises in Kenya (Doctoral dissertation, JKUAT-COHRED).
- Kirongo, A., & Odoyo, C. (2020). Research philosophy design and methodologies: A systematic review of research paradigms in information technology.
- Kisubi, M. K., Aruo, F., Wakibi, A., Mukyala, V., & Ssenyange, K. (2022). Entrepreneurial competencies and performance of Ugandan SMEs: The mediating role of firm capabilities. *Cogent Business & Management*, 9(1), 2115622.
- Kisubi, M. K., Aruo, F., Wakibi, A., Mukyala, V., & Ssenyange, K. (2022). Entrepreneurial competencies and performance of Ugandan SMEs: The mediating role of firm capabilities. *Cogent Business & Management*, 9(1), 2115622.
- KNBS, E. (2021). Kenya National Bureau of Statistics: Nairobi.
- KNBS, K. (2019). Kenya Population and Housing Census Volume I: Population by County and Sub-County. Vol. I, 2019.
- Kozlinska, I., Rebmann, A., & Mets, T. (2023). Entrepreneurial competencies and employment status of business graduates: the role of experiential entrepreneurship pedagogy. *Journal of Small Business & Entrepreneurship*, 35(5), 724-761.
- Kuratko, D. F., Fisher, G., & Audretsch, D. B. (2021). Unraveling the entrepreneurial mindset. *Small Business Economics*, 57(4), 1681-1691.
- Kurniawan, R., Budiastuti, D., Hamsal, M., & Kosasih, W. (2021). Networking capability and firm performance: the mediating role of market orientation and business process agility. *Journal of Business & Industrial Marketing*, 36(9), 1646-1664.
- Latif, N. A. I. A., Abidin, I. M. Z., Azaman, N., Jamaludin, N., & Mokhtar, A. A. (2019, June). A feature extraction technique based on factor analysis for pulsed eddy current defects categorization. In IOP Conference Series: Materials Science and Engineering (Vol. 554, No. 1, p. 012001). IOP Publishing.
- Lee, D. K. (2020). Data transformation: a focus on the interpretation. *Korean journal of anesthesiology*, 73(6), 503-508.

- Lekovic, B., Vojinovic, Z., & Milutinović, S. (2020). Cooperation as a Mediator between Entrepreneurial Competences and Internationalization of New Venture. *Engineering Economics*, 31(1), 72-83.
- Lemma, M. G. (2020). Determinants of Micro and Small Enterprise Performance: The Case of Bole Sub City, Addis Ababa.
- Leventhal, B., & Gregg, N. (2022). Reliability and Measurement Error.
- Li, C., Ashraf, S. F., Shahzad, F., Bashir, I., Murad, M., Syed, N., & Riaz, M. (2020). Influence of knowledge management practices on entrepreneurial and organizational performance: a mediated-moderation model. *Frontiers in Psychology*, 11, 577106.
- Lin, N. (2001). Social capital: A theory of social structure and action. Cambridge University Press.
- Little, R. J., & Rubin, D. B. (2019). *Statistical analysis with missing data* (Vol. 793). John Wiley & Sons.
- Lohr, S. L. (2021). *Sampling: design and analysis*. Chapman and Hall/CRC.
- Louangrath, P. (2018). Reliability and validity of survey scales. *Int J Soc Res Methodol*, 4(1), 50-62.
- Lu, H., Chen, X., & Qi, C. (2023). Which is more predictive: Domain- or task- specific self- efficacy in teaching and outcomes?. *British Journal of Educational Psychology*, 93(1), 283-298.
- Luthans, Fred. 2001. "Organizational Behavior". Ninth Edition. McGraw-Hill Irwin. New York. America
- Magni, D., Chierici, R., Fait, M., & Lefebvre, K. (2022). A network model approach to enhance knowledge sharing for internationalization readiness of SMEs. *International Marketing Review*, 39(3), 626-652.
- Maheshwari, G., & Kha, K. L. (2022). Investigating the relationship between educational support and entrepreneurial intention in Vietnam: The mediating role of entrepreneurial self-efficacy in the theory of planned behavior. *The International Journal of Management Education*, 20(2), 100553.
- Maister, D. H., Galford, R., & Green, C. (2021). *The trusted advisor*. Free Press.
- Maki, P. L. (2023). *Assessing for learning: Building a sustainable commitment across the institution*. Routledge.
- Maksum, I. R., Rahayu, A. Y. S., & Kusumawardhani, D. (2020). A social enterprise approach to empowering micro, small and medium enterprises (SMEs) in Indonesia. *Journal of Open Innovation: Technology, Market, and Complexity*, 6(3), 50.
- Malima, M. J. (2020). *Factors affecting performance of micro, small and medium enterprises (MSMEs) in Arumeru District* (Doctoral dissertation, Institute Of Accountancy Arusha).

- Malmqvist, J., Hellberg, K., Möllås, G., Rose, R., & Shevlin, M. (2019). Conducting the pilot study: A neglected part of the research process? Methodological findings supporting the importance of piloting in qualitative research studies. *International journal of qualitative methods*, 18, 1609406919878341.
- Martin, D., Romero, I., & Wegner, D. (2019). Individual, organizational, and institutional determinants of formal and informal inter- firm cooperation in SMEs. *Journal of Small Business Management*, 57(4), 1698-1711.
- Mazhar, S. A., Anjum, R., Anwar, A. I., & Khan, A. A. (2021). Methods of data collection: A fundamental tool of research. *Journal of Integrated Community Health (ISSN 2319-9113)*, 10(1), 6-10.
- McClelland, D. C. (1973). Testing for competence rather than for intelligence. *American Psychologist*, 28(1), 1-14.
- McGee, J. E., & Peterson, M. (2019). The long- term impact of entrepreneurial self-efficacy and entrepreneurial orientation on venture performance. *Journal of small business management*, 57(3), 720-737.
- Mejri, R., & Zouaoui, M. (2020). Entrepreneurial competencies and growth of new micro small and medium businesses. *Open Journal of Business and Management*, 8(3), 1151-1163.
- Miano, R., & Bett, S. (2018). Entrepreneurial competencies on the performance of youth enterprises in Manyatta Constituency, Embu County, Kenya. *International Academic Journal of Innovation, Leadership and Entrepreneurship*, 2(2), 152-172.
- Miidom, D. F., & Elumeze, E. (2024). Digital Talent Capabilities and Organisational Proactivity: A Theoretical Perspective. *International Journal of Advanced Academic Research*, 10(6), 166-181.
- Milanesi, M., Guercini, S., & Tunisini, A. (2020). Exploring SMEs' qualitative growth and networking through formalization. *Competitiveness Review: An International Business Journal*, 30(4), 397-415.
- Mondal, A. G. R., & Rahman, M. M. (2022). Identifying Entrepreneurial Success Factors of Micro, Small and Medium Enterprises: A Study in Bangladesh. *International Journal of Entrepreneurship*, 26(6).
- Möttus, R., Wood, D., Condon, D. M., Back, M. D., Baumert, A., Costantini, G., ... & Zimmermann, J. (2020). Descriptive, predictive and explanatory personality research: Different goals, different approaches, but a shared need to move beyond the Big Few traits. *European Journal of Personality*, 34(6), 1175-1201.
- Msimango- Galawe, J., & Mazonde, N. B. (2021). Entrepreneurial Self-Efficacy and performance of women-owned SMEs. *African Review of Economics and Finance*, 13(1), 239-263.
- Mtengwa, E. (2023). *Developing an entrepreneurial framework for increasing beef production through small and medium enterprises (SMEs) in Zimbabwe* (Doctoral dissertation, North-West University (South Africa)).

- Mueller, E., Syme, L., & Haeussler, C. (2020). Absorbing partner knowledge in R&D collaborations—the influence of founders on potential and realized absorptive capacity. *R&d Management*, 50(2), 255-276.
- Mwangi, M. W. (2018). Relationship between Entrepreneurial Competencies and Entrepreneurship Performance of Graduates with Physical Challenges in Kiambu County in Kenya (Doctoral dissertation, COHRED-JKUAT).
- Na-Allah, S. R., & Ahmad, N. H. (2022). Entrepreneurial orientation and venture creation in Nigerian context: Assessing mediating and moderating roles of Self-Efficacy and entrepreneurial support among graduates. *Sustainability*, 14(9), 4904.
- Naseri, R. N. N., Yahya, W. K., & Abdullah, R. N. (2024, April). Sampling frame development of individual items in the absence of a sampling frame: Quantitative approach. In *AIP Conference Proceedings* (Vol. 2799, No. 1). AIP Publishing.
- Nasrallah, N., & El Khoury, R. (2022). Is corporate governance a good predictor of SMEs financial performance? Evidence from developing countries (the case of Lebanon). *Journal of Sustainable Finance & Investment*, 12(1), 13-43.
- Neneh, B. N. (2020). Entrepreneurial Self-Efficacy and a student's predisposition to choose an entrepreneurial career path: the role of self-perceived employability. *Education+ Training*, 62(5), 559-580.
- Newman, A., Obschonka, M., Schwarz, S., Cohen, M., & Nielsen, I. (2019). Entrepreneurial Self-Efficacy: A systematic review of the literature on its theoretical foundations, measurement, antecedents, and outcomes, and an agenda for future research. *Journal of vocational behavior*, 110, 403-419.
- Ngiri, G., & Njagi, E. (2022). Influence of Strategic Resource Mobilization on the Performance of Building Construction Companies in Nairobi Kenya. *International Journal of Business Management, Entrepreneurship and Innovation*, 4(2), 69-78.
- Nguyen, B. (2022). Small business investment: The importance of financing strategies and social networks. *International Journal of Finance & Economics*, 27(3), 2849-2872.
- Ogden, J. (2019). *Health Psychology*, 6e. McGraw Hill.
- Olanrewaju, M. (2024). The Impact of Entrepreneurship Education on Improving Small and Medium-size Enterprises (SMEs) Performance in Kwara and Oyo States, Nigeria.
- Osadolor, V., Agbaeze, K. E., Ejikeme, E. I., & Olabosinde, S. T. (2021). Entrepreneurial Self-Efficacy and entrepreneurial intention: The mediating role of the need for independence.
- Osano, H. M. (2019). Global expansion of SMEs: role of global market strategy for Kenyan SMEs. *Journal of Innovation and Entrepreneurship*, 8(1), 13.

- Osborne, J. W., & Overbay, A. (2019). The power of outliers (and why researchers should always check for them). *Practical Assessment, Research, and Evaluation*, 9(1), 6.
- Oztemel, E., & Ozel, S. (2021). A conceptual model for measuring the competency level of Small and Medium-sized Enterprises (SMEs). *Advances in Production Engineering & Management*, 16(1).
- Pennetta, S., Anglani, F., & Mathews, S. (2024). Navigating through entrepreneurial skills, competencies and capabilities: A systematic literature review and the development of the entrepreneurial ability model. *Journal of Entrepreneurship in Emerging Economies*, 16(4), 1144-1182.
- Pereira, T., Amaral, A., & Mendes, I. (2022, September). A Competency definition based on the knowledge, skills, and human dispositions constructs. In *International Conference on Internet of Everything* (pp. 29-38). Cham: Springer Nature Switzerland.
- Peschl, H., Deng, C., & Larson, N. (2021). Entrepreneurial thinking: A signature pedagogy for an uncertain 21st century. *The International Journal of Management Education*, 19(1), 100427.
- Pigola, A., & da Costa, P. R. (2023). Relational Capabilities into Small-and Middle-Sized Firms: a Mind-Blowing Strategic Asset. *Journal of the Knowledge Economy*, 2(2) 1-25.
- Pushkarskaya, H., Fortunato, M. W. P., Breazeale, N., & Just, D. R. (2021). Enhancing measures of ESE to incorporate aspects of place: Personal reputation and place-based social legitimacy. *Journal of Business Venturing*, 36(3), 106004.
- Radziwon, A., & Bogers, M. (2019). Open innovation in SMEs: Exploring inter-organizational relationships in an ecosystem. *Technological Forecasting and Social Change*, 146, 573-587.
- Raffle, A. E., Mackie, A., & Gray, J. M. (2019). *Screening: evidence and practice*. Oxford University Press, USA.
- Rahman, M. M., Tabash, M. I., Salamzadeh, A., Abduli, S., & Rahaman, M. S. (2022). Sampling techniques (probability) for quantitative social science researchers: a conceptual guidelines with examples. *Seeu Review*, 17(1), 42-51.
- Revelle, W., & Condon, D. M. (2019). Reliability from  $\alpha$  to  $\omega$ : A tutorial. *Psychological assessment*, 31(12), 1395.
- Riaz, S., Yanqing, W., Ishaq, M. I., Raza, A., & Siddiqui, R. A. (2024). Role of Social Networks and Entrepreneurial Success: Understanding the Dynamics of Knowledge Acquisition and Green Entrepreneurial Orientation. *Journal of Cleaner Production*, 143065.
- Russo, G. M., Tomei, P. A., Serra, B., & Mello, S. (2021). Differences in the use of 5- or 7-point likert scale: an application in food safety culture. *Organizational Cultures*, 21(2), 1.

- Sakib, M. N., Rabbani, M. R., Hawaldar, I. T., Jabber, M. A., Hossain, J., & Sahabuddin, M. (2022). Entrepreneurial competencies and SMEs' performance in a developing economy. *Sustainability*, 14(20), 13643.
- Salleh, I., & Sapengin, F. (2023). Exploring the Impact of Technological Capability on Inter-Firm Relationships in Malaysian Manufacturing Supply Chains. *Journal of Policy Options*, 6(4), 40-48.
- Sampene, A. K., Li, C., Agyeman, F. O., Robert, B., Nicholas, L., Moses, S., & Salomon, A. A. (2021). A critical assessment of the role of entrepreneurship development in the 21st century. *European Journal of Business and Innovation Research*, 9(5), 1-26.
- Sampene, A. K., Li, C., Agyeman, F. O., Robert, B., Nicholas, L., Moses, S., & Salomon, A. A. (2021). A critical assessment of the role of entrepreneurship development in the 21st century. *European Journal of Business and Innovation Research*, 9(5), 1-26.
- Samson, D., Donnet, T., & Daft, R. L. (2020). *Management*. Cengage AU.
- Schmidt, A. F., & Finan, C. (2018). Linear regression and the normality assumption. *Journal of clinical epidemiology*, 98, 146-151.
- Schunk, D. H. (2023). Self-regulation of Self-Efficacy and attributions in academic settings. In *Self-regulation of learning and performance* (pp. 75-99). Routledge.
- Schunk, D. H., & DiBenedetto, M. K. (2021). Self-Efficacy and human motivation. In *Advances in motivation science* (Vol. 8, pp. 153-179). Elsevier.
- Seet, P. S., Lindsay, N., & Kropp, F. (2021). Understanding early-stage firm performance: the explanatory role of individual and firm level factors. *International Journal of Manpower*, 42(2), 260-285.
- Shah, H. A., Yasir, M., Majid, A., & Javed, A. (2019). Impact of networking capability on organizational survival of SMEs: Mediating role of strategic renewal. *Pakistan Journal of Commerce and Social Sciences (PJCSS)*, 13(3), 559-580.
- Sharma, P. (2021). *Soft Skills 3rd Edition: Personality Development for Life Success (English Edition)*. BPB publications.
- Shen, Y., Wang, Q., Hua, D., & Zhang, Z. (2021). Entrepreneurial learning, Self-Efficacy, and firm performance: Exploring moderating effect of entrepreneurial orientation. *Frontiers in psychology*, 12, 731628.
- Shrestha, N. (2020). Detecting multicollinearity in regression analysis. *American Journal of Applied Mathematics and Statistics*, 8(2), 39-42.
- Shrestha, N. (2021). Factor analysis as a tool for survey analysis. *American journal of Applied Mathematics and statistics*, 9(1), 4-11.
- Shrestha, N. (2021). Factor analysis as a tool for survey analysis. *American journal of Applied Mathematics and statistics*, 9(1), 4-11.

- Sigey, R. K., Omwenga, J., & Sije, A. (2023). Entrepreneurial Orientation and Performance of Small and Medium Enterprises in Kenya. *Journal of Entrepreneurship & Project Management*, 3(2), 19-35.
- Silveyra, G., Herrero, Á., & Pérez, A. (2021). Model of teachable entrepreneurship competencies (M-TEC): Scale development. *The International Journal of Management Education*, 19(1), 100392.
- Sitinjak, I. (2019). The effect of entrepreneurial Self-Efficacy and entrepreneurial competence on the entrepreneurial entry decision and the success of start-up MSMEs in Medan City. *Jurnal Ekonomi Bisnis Dan Kewirausahaan*, 8(3), 204.
- Sobaih, A. E. E., Hasanein, A., & Elshaer, I. A. (2022). Higher education in and after COVID-19: The impact of using social network applications for e-learning on students' academic performance. *Sustainability*, 14(9), 5195.
- Soomro, B. A., & Shah, N. (2022). Entrepreneurship education, entrepreneurial Self-Efficacy, need for achievement and entrepreneurial intention among commerce students in Pakistan. *Education+ Training*, 64(1), 107-125.
- Spencer, L. M., & Spencer, S. M. (1993). *Competence at work: Models for superior performance*. John Wiley & Sons.
- Srećković, M. (2018). The performance effect of network and managerial capabilities of entrepreneurial firms. *Small Business Economics*, 50, 807-824.
- Sriasih, A. A., Kusumawijaya, I. K., Adi, I. K., & Wartana, I. M. (2018). Entrepreneurial Self-Efficacy mediation in entrepreneurial competency prediction to entrepreneurial orientation. *International Journal of Multidisciplinary Educational Research*, 7(8), 2.
- Staniewski, M. W., Awruk, K., Leonardi, G., & Słomski, W. (2024). Family determinants of entrepreneurial success-The mediational role of self-esteem and achievement motivation. *Journal of Business Research*, 171, 114383.
- Stemler, S. E. (2019). A comparison of consensus, consistency, and measurement approaches to estimating interrater reliability. *Practical Assessment, Research, and Evaluation*, 9(1), 4.
- Sulaiman, A. S., Mijinyawa, U. M., & Isa, K. T. (2019). Effects of financial performance, capital structure and firm size on firms' value of listed consumer-goods firms in Nigeria. *Dutse International Journal of Social and Economic Research*, 2(1), 1-10.
- Sun, J., Zhao, Y., Wu, S., & Zhou, Y. (2023). How Entrepreneurial Self-Efficacy Promotes Part-Time Entrepreneurial Behavior: The Moderating Role of Entrepreneurial Resources. *Sustainability*, 15(17), 1305
- Surya, B., Menne, F., Sabhan, H., Suriani, S., Abubakar, H., & Idris, M. (2021). Economic growth, increasing productivity of SMEs, and open innovation. *Journal of Open Innovation: Technology, Market, and Complexity*, 7(1), 20.

- Taleb, T. S., Hashim, N., & Zakaria, N. (2023). Entrepreneurial leadership and entrepreneurial success: the mediating role of entrepreneurial opportunity recognition and innovation capability. *Sustainability*, 15(7), 5776.
- Tan, O. S. (2021). *Problem-based learning innovation: Using problems to power learning in the 21st century*. Gale Cengage Learning.
- Tarifi, N. (2021). A critical review of theoretical aspects of strategic planning and firm performance. *Open Journal of Business and Management*, 9(4), 1980-1996.
- Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509-533.
- Tony Fu-Lay Yu. 2001. "Entrepreneurial Alertness and Discovery". *The Review of Austrian Economics*, Vol.14. No.1. pp. 47–63
- Tsouri, M., Hanson, J., & Normann, H. E. (2021). Does participation in knowledge networks facilitate market access in global innovation systems? The case of offshore wind. *Research Policy*, 50(5), 104227.
- Uganda Bureau of Statistics. (2019). "Statistical abstract". Uganda Bureau of Statistics. <https://www.ubos.org/publications/statistical/>
- Upagade, V., & Shende, D. A. (2012). *Research Methodology*, 2nd Editions, S. Chand & Company Ltd. New Delhi–2011.
- Van Nes, A., & Yamu, C. (2020). Exploring challenges in space syntax theory building: The use of positivist and hermeneutic explanatory models. *Sustainability*, 12(17), 7133.
- van Wetten, S. J. L. (2020). Human capital and employee entrepreneurship: The role of skills, personality characteristics and the work context.
- Varga, A., Sebestyén, T., Szabó, N., & Szerb, L. (2020). Estimating the economic impacts of knowledge network and entrepreneurship development in smart specialization policy. *Regional studies*.
- Varshney, D., & Varshney, N. K. (2020). Workforce agility and its links to emotional intelligence and workforce performance: A study of small entrepreneurial firms in India. *Global Business and Organizational Excellence*, 39(5), 35-45.
- Venesaar, U., Malleus, E., Arro, G., & Toding, M. (2021). Entrepreneurship competence model for supporting learners development at all educational levels. *Administrative Sciences*, 12(1), 2.
- Walter, S. L., Seibert, S. E., Goering, D., & O'Boyle, E. H. (2019). A tale of two sample sources: Do results from online panel data and conventional data converge?. *Journal of Business and Psychology*, 34, 425-452.
- Wang, X., Lee, S., & Park, S. W. (2020). The effect of entrepreneurial orientation, social network, and resource acquisition on firm performance in Chinese SMEs: The mediating effect of resource acquisition. *Global Business & Finance Review (GBFR)*, 25(3), 1-18.

- Wang, X., Lee, S., & Park, S. W. (2020). The effect of entrepreneurial orientation, social network, and resource acquisition on firm performance in Chinese SMEs: The mediating effect of resource acquisition. *Global Business & Finance Review (GBFR)*, 25(3), 1-18.
- Waziri, T. S., & Njoroge, J. (2023). The role of information and communication technology on profitability of small and medium enterprises: Case of Nairobi City County. *International Academic Journal of Arts and Humanities*, 1(3), 409-421.
- Wernerfelt, B. (1997). 10 A Resource-Based View of the Firm. Resources, Firms, and Strategies: A Reader in the Resource-based Perspective, 117.
- Whatmore, S., Lowe, P., & Marsden, T. (2023). Artisan or entrepreneur? Refashioning rural production. In *Rural Enterprise* (pp. 1-11). Routledge.
- Wu, L., Jiang, S., Wang, X., Yu, L., Wang, Y., & Pan, H. (2022). Entrepreneurship education and entrepreneurial intentions of college students: The mediating role of entrepreneurial self-efficacy and the moderating role of entrepreneurial competition experience. *Frontiers in psychology*, 12, 727826.
- Wu, W., Wang, H., & Wu, Y. J. (2021). Internal and external networks, and incubatees' performance in dynamic environments: entrepreneurial learning's mediating effect. *The Journal of Technology Transfer*, 46, 1707-1733.
- Yamane, T. (1967). *An introductory analysis*. Harper and Row, New York.
- Yang, T., Xun, J., & Chong, W. K. (2022). Complementary resources and SME firm performance: the role of external readiness and E-commerce functionality. *Industrial management & data systems*, 122(4), 1128-1151.
- Yani, A., Eliyana, A., Hamidah, I., & Buchdadi, A. D. (2020). The impact of social capital, entrepreneurial competence on business performance: An empirical study of SMEs. *Systematic Reviews in Pharmacy*, 11(9), 779-787.
- Yusrinadini Zahirah, Y., Maliani, M., & Nur Yuhainis, A. W. (2019). The Influence Of General Self-Efficacy On Women Entrepreneurs' Business Performance. *Academy of Entrepreneurship Journal (AEJ)*, 25(1), 1-6.
- Yustian, O., Suryana, S., Furqon, C., & Hendrayati, H. (2021). The mediating role of competitiveness between entrepreneurial competence and business success. *Management Science Letters*, 11(1), 93-100.
- Zahoor, N., & Gerged, A. M. (2021). Relational capital, environmental knowledge integration, and environmental performance of small and medium enterprises in emerging markets. *Business Strategy and the Environment*, 30(8), 3789-3803.
- Zaman, U., Florez-Perez, L., Farías, P., Abbasi, S., Khwaja, M. G., & Wijaksana, T. I. (2021). Shadow of your former self: exploring project leaders' post-failure behaviors (resilience, self-esteem and self-efficacy) in high-tech startup projects. *Sustainability*, 13(22), 12868.

- Zarzycka, E., & Krasodomska, J. (2022). Non-financial key performance indicators: what determines the differences in the quality and quantity of the disclosures?. *Journal of Applied Accounting Research*, 23(1), 139-162.
- Zhang, D., Yan, Y., & Liu, T. F. (2022). Key factors influencing the effectiveness of hospital quality management tools: using the quality control circle as an example—a cross-sectional study. *BMJ open*, 12(2), e049577.
- Zhang, Y., Lu, B., & Zheng, H. (2020). Can buzzing bring business? Social interactions, network centrality and sales performance: An empirical study on business-to-business communities. *Journal of Business Research*, 112, 170-189.
- Zhou, X., Liang, W., Kevin, I., Wang, K., & Yang, L. T. (2020). Deep correlation mining based on hierarchical hybrid networks for heterogeneous big data recommendations. *IEEE Transactions on Computational Social Systems*, 8(1), 171-178.
- Zubair, D. S. S., & Khan, M. (2021). Entrepreneurial Self-Efficacy and small business performance in Pakistan. *Management Science Letters*, 11(6), 1715-1724.
- Zyphur, M. J., & Pierides, D. C. (2020). Making quantitative research work: From positivist dogma to actual social scientific inquiry. *Journal of Business Ethics*, 167, 49-62.

## APPENDICES

### Appendix I: Questionnaires

#### SECTION A: DEMOGRAPHIC INFORMATION.

In this section the study would like you to provide some background information about yourself and your firm. This information will, like the rest of the questionnaire, be treated confidentially. Please fill in the blank or tick (✓) appropriately. Note: only one tick for each question.

1. What is your Gender?

A. Female ☐ B. Male ☐

2. For how long has the business been in existence? Below 3 years ☐

4-6 years ☐ 7- 10years ☐ More than 10 years ☐

3. In which town is your business located?

Eldoret ☐ Kitale ☐ Kapsabet ☐

4. How many employees does your company have?

Fewer than 5 ☐ 6-20 ☐ 21-50 ☐

51-100 ☐ More than 100 ☐

5. Specify the Sub-Sector type of your SME

Retail and Wholesale ☐ Service ☐

Production/Man/ Agro- based ☐ Others (Specify) ☐

## SECTION B: FIRM PERFORMANCE

Please complete below questions in relation to performance indicators.

On a scale of 1-5, kindly indicate to what extent the following statements describe your firm's performance during the past four years (2017 -2020) or the actual period if you have involved with business for less than 4 years.

The categories are: (1) Not at all (2) Less extent (3) Moderate extent (4) Large extent (5) Very Large extent

| S/N        | Statements -Performance indicator                                                                         | NA(1) | LE (2) | ME (3) | LE (4) | VLE (5) |
|------------|-----------------------------------------------------------------------------------------------------------|-------|--------|--------|--------|---------|
| <b>FP1</b> | The firm's sales have increased during the years due to increased demand in our products                  | 1     | 2      | 3      | 4      | 5       |
| <b>FP2</b> | Amount of capital invested has increased over the years due to growth in business                         | 1     | 2      | 3      | 4      | 5       |
| <b>FP3</b> | Annual profits have increased during the years due to increase in sales and cost control measures         | 1     | 2      | 3      | 4      | 5       |
| <b>FP4</b> | The level of customer satisfaction have increased due to improved customer service and reduced complaints | 1     | 2      | 3      | 4      | 5       |
| <b>FP5</b> | The number of employees have increased due to job satisfaction.                                           | 1     | 2      | 3      | 4      | 5       |
| <b>FP6</b> | The number of customers has increased due to increased demand in our products                             | 1     | 2      | 3      | 4      | 5       |

## SECTION C: NETWORKING CAPABILITIES

To what extent is are you rated in the following aspects of networking capabilities?

Kindly indicate with a tick (✓), the extent to which you agree with the following factors affecting the level of networking capabilities of Relational skills, Internal Communication, Coordination and Partner knowledge. The categories are:

1-Strongly Agree, 2-Agree, 3-Neutral, 4-Disagree, 5-Strongly Disagrees

| S/No | Statement                                                                                           | SD(1) | D(2) | N(3) | A(4) | SA(5) |
|------|-----------------------------------------------------------------------------------------------------|-------|------|------|------|-------|
|      | <b>Relational skills</b>                                                                            |       |      |      |      |       |
| REL1 | My firm matches the use of resources (e.g. personnel, finances) to the partners relationship        | 1     | 2    | 3    | 4    | 5     |
| REL2 | The firm analyses what it would like and desire to achieve with which partner                       | 1     | 2    | 3    | 4    | 5     |
| REL3 | Regular discussions with partners how to support each other for their success occurs in my business | 1     | 2    | 3    | 4    | 5     |
| REL4 | Judgement in advance of possible partners to talk to about building up relationships occurs.        | 1     | 2    | 3    | 4    | 5     |
|      | <b>Internal communication</b>                                                                       |       |      |      |      |       |
| IC1  | Regular meetings for every department / all workers to assess business progress are held            | 1     | 2    | 3    | 4    | 5     |
| IC2  | Regular meetings for every department or workers to develop business plan are held                  | 1     | 2    | 3    | 4    | 5     |
| IC3  | Business information across departments / all workers is often communicated                         | 1     | 2    | 3    | 4    | 5     |
| IC4  | I ensure that managers and employees give intensive feedback to each other                          | 1     | 2    | 3    | 4    | 5     |
| IC5  | I inform staff members of partners' goals, potential and strategies                                 | 1     | 2    | 3    | 4    | 5     |
|      | <b>Coordination</b>                                                                                 |       |      |      |      |       |
|      |                                                                                                     | SD(1) | D(2) | N(3) | A(4) | SA(5) |
| CO1  | I can deal flexibly with partners                                                                   | 1     | 2    | 3    | 4    | 5     |
| CO2  | We have the ability to build good personal relationship with business partners                      | 1     | 2    | 3    | 4    | 5     |
| CO3  | Problems are solved constructively with partners                                                    | 1     | 2    | 3    | 4    | 5     |
| CO4  | The firm puts itself in partners' position always                                                   | 1     | 2    | 3    | 4    | 5     |
| CO5  | We know our partners' potential and strategies                                                      | 1     | 2    | 3    | 4    | 5     |
|      | <b>Partners knowledge</b>                                                                           |       |      |      |      |       |
| PK1  | I know my partners' markets                                                                         | 1     | 2    | 3    | 4    | 5     |
| PK2  | I deliberately study partners strength and weaknesses                                               | 1     | 2    | 3    | 4    | 5     |
| PK3  | I know which ways competitors attract customers                                                     | 1     | 2    | 3    | 4    | 5     |

## SECTION D: ENTREPRENEURIAL COMPETENCIES

To what extent are you rated in the following aspects of entrepreneurial competencies?

Kindly indicate with a tick (✓), the extent to which you agree with the following factors affecting the level of entrepreneurial competencies of Strategic, Opportunity, Conceptual, Organising, Commitment, and Relationship. The categories are:

1 - Strongly disagree (SD), 2 – Disagree (D), 3 –Not sure (NS), 4 – Agree (A), 5 –Strongly Agree (SA),

| S/No                          | Statement                                                                                             | SD(1) | D(2) | NS(3) | A(4) | SA(5) |
|-------------------------------|-------------------------------------------------------------------------------------------------------|-------|------|-------|------|-------|
| <b>Strategic competency</b>   |                                                                                                       |       |      |       |      |       |
| SC1                           | I am able to determine long term issues, problems or opportunities                                    | 1     | 2    | 3     | 4    | 5     |
| SC2                           | I am aware of the projected directions of the industry and how changes might impact the firm          | 1     | 2    | 3     | 4    | 5     |
| SC3                           | I prioritise work in alignment with business goals                                                    | 1     | 2    | 3     | 4    | 5     |
| SC4                           | I always re-design the department and or organisation to better meet long term objectives and changes | 1     | 2    | 3     | 4    | 5     |
| SC5                           | I align current actions with strategic goals                                                          | 1     | 2    | 3     | 4    | 5     |
| SC6                           | I assess and link short term, day to day tasks in the context of long term direction.                 | 1     | 2    | 3     | 4    | 5     |
| SC7                           | I monitor progress towards strategic goals                                                            | 1     | 2    | 3     | 4    | 5     |
| SC8                           | I always evaluate results against strategic goals                                                     | 1     | 2    | 3     | 4    | 5     |
| SC9                           | I am able to determine strategic actions by weighing costs and benefits                               | 1     | 2    | 3     | 4    | 5     |
| <b>Opportunity Competency</b> |                                                                                                       |       |      |       |      |       |
| OC1                           | I constantly seek and act on high quality business opportunity                                        | 1     | 2    | 3     | 4    | 5     |
| OC2                           | I always identify goods or services customers want                                                    | 1     | 2    | 3     | 4    | 5     |
| OC3                           | I evaluate the advantages and disadvantages of potential business opportunities                       | 1     | 2    | 3     | 4    | 5     |
| OC4                           | I conduct marketing and promotion activities for seeking new business opportunities                   | 1     | 2    | 3     | 4    | 5     |
| OC5                           | I actively look for products or services that provide real benefit to customers                       | 1     | 2    | 3     | 4    | 5     |
| OC5                           | I identify goods or services customers want.                                                          | 1     | 2    | 3     | 4    | 5     |
| OC7                           | I have marketed very many new lines of products or services in the past 3 years.                      | 1     | 2    | 3     | 4    | 5     |
| OC8                           | I always seize high-quality business opportunities                                                    | 1     | 2    | 3     | 4    | 5     |
| OC9                           | I am able to perceive unmet consumer needs.                                                           | 1     | 2    | 3     | 4    | 5     |
| OC10                          | I always look at old problems in new ways.                                                            | 1     | 2    | 3     | 4    | 5     |
| <b>Conceptual Competency</b>  |                                                                                                       |       |      |       |      |       |
| CONC1                         | I possess creative innovative and imaginative dispositions                                            | 1     | 2    | 3     | 4    | 5     |
| CONC2                         | I often take actions that go beyond job requirements or the demand of the situation.                  | 1     | 2    | 3     | 4    | 5     |
| CONC3                         | I have credibility to absorb, analyse and understand complex situations.                              | 1     | 2    | 3     | 4    | 5     |

|               |                                                                         |   |   |   |   |   |
|---------------|-------------------------------------------------------------------------|---|---|---|---|---|
| <b>CONC4</b>  | I have the mental ability to coordinate all the organisations interests | 1 | 2 | 3 | 4 | 5 |
| <b>CONC5</b>  | I make decisions concerning my business.                                | 1 | 2 | 3 | 4 | 5 |
| <b>CONC6</b>  | I take reasonable job-related risks in my business.                     | 1 | 2 | 3 | 4 | 5 |
| <b>CONC7</b>  | I monitor progress toward objectives in risky actions                   | 1 | 2 | 3 | 4 | 5 |
| <b>CONC8</b>  | I prioritize tasks to manage my time.                                   | 1 | 2 | 3 | 4 | 5 |
| <b>CONC9</b>  | I apply ideas I get from my business to different contexts.             | 1 | 2 | 3 | 4 | 5 |
| <b>CONC10</b> | I make decisions concerning my business very fast                       | 1 | 2 | 3 | 4 | 5 |
| <b>CONC11</b> | I explore new ideas that are helpful to my business                     | 1 | 2 | 3 | 4 | 5 |
|               | <b>Organising Competency</b>                                            |   |   |   |   |   |
| <b>ORC1</b>   | I delegate duties to my employees.                                      | 1 | 2 | 3 | 4 | 5 |
| <b>ORC2</b>   | I keep the records of my business.                                      | 1 | 2 | 3 | 4 | 5 |
| <b>ORC3</b>   | I plan the operations of my business.                                   | 1 | 2 | 3 | 4 | 5 |
| <b>ORC4</b>   | I always ensure my business runs smoothly.                              | 1 | 2 | 3 | 4 | 5 |
| <b>ORC5</b>   | I coordinate tasks.                                                     | 1 | 2 | 3 | 4 | 5 |
| <b>ORC6</b>   | I motivate people.                                                      | 1 | 2 | 3 | 4 | 5 |
| <b>ORC7</b>   | I plan the organization of different resources.                         | 1 | 2 | 3 | 4 | 5 |
|               | <b>Commitment Competency</b>                                            |   |   |   |   |   |
| <b>CC1</b>    | I dedicate all my efforts to make my business work                      | 1 | 2 | 3 | 4 | 5 |
| <b>CC2</b>    | I refuse to let my business fail under any circumstance                 | 1 | 2 | 3 | 4 | 5 |
| <b>CC3</b>    | I commit to long-term business goals.                                   | 1 | 2 | 3 | 4 | 5 |
| <b>CC4</b>    | I possess an extremely strong internal drive.                           | 1 | 2 | 3 | 4 | 5 |
| <b>CC5</b>    | I go out of my way to learn new ideas about my business.                | 1 | 2 | 3 | 4 | 5 |
| <b>CC6</b>    | I apply learned skills and knowledge into practice.                     | 1 | 2 | 3 | 4 | 5 |
| <b>CC7</b>    | I always maintain a positive attitude in my business.                   | 1 | 2 | 3 | 4 | 5 |
|               | <b>Relationship Competency</b>                                          |   |   |   |   |   |
| <b>RC1</b>    | I develop long-term trusting relationships with others                  | 1 | 2 | 3 | 4 | 5 |
| <b>RC2</b>    | I negotiate with others.                                                | 1 | 2 | 3 | 4 | 5 |
| <b>RC3</b>    | I interact with others with similar business as mine                    | 1 | 2 | 3 | 4 | 5 |
| <b>RC4</b>    | I always maintain a personal network of work contacts.                  | 1 | 2 | 3 | 4 | 5 |
| <b>RC5</b>    | I utilize business network to grow my business.                         | 1 | 2 | 3 | 4 | 5 |
| <b>RC6</b>    | I understand what others mean by their words/actions.                   | 1 | 2 | 3 | 4 | 5 |
| <b>RC7</b>    | I respond to constructive criticism.                                    | 1 | 2 | 3 | 4 | 5 |

## SECTION E: ENTREPRENEURIAL SELF- EFFICACY

To what extent are you rated in the following aspects of entrepreneurial self-efficacies?

Kindly indicate with a tick (✓), the extent to which you agree with the following factors of marketing, management, financial control, risk taking and innovation entrepreneurial self-efficacies. The categories are:

1 - Strongly disagree (SD), 2 – Disagree (D), 3 –Not sure (NS), 4 – Agree (A), 5 –Strongly Agree (SA),

| S/No |                                                                        | SD(1) | D(2) | NS (3) | A (4) | SA (5) |
|------|------------------------------------------------------------------------|-------|------|--------|-------|--------|
|      | <b>Marketing ESE</b>                                                   |       |      |        |       |        |
| ME1  | I can set and meet market share goals.                                 | 1     | 2    | 3      | 4     | 5      |
| ME2  | I can set and meet sales goals                                         | 1     | 2    | 3      | 4     | 5      |
| ME3  | I can establish a position in the market place.                        | 1     | 2    | 3      | 4     | 5      |
| ME4  | I can conduct market analysis                                          | 1     | 2    | 3      | 4     | 5      |
| ME5  | I can identify new areas and territories for potential growth          | 1     | 2    | 3      | 4     | 5      |
| ME6  | I can develop new methods of production or systems                     | 1     | 2    | 3      | 4     | 5      |
|      | <b>Management Skill ESE</b>                                            |       |      |        |       |        |
| MSE1 | I can establish and achieve goals and objectives                       | 1     | 2    | 3      | 4     | 5      |
| MSE2 | I can reduce risk and deal with uncertainty                            | 1     | 2    | 3      | 4     | 5      |
| MSE3 | I can define organizational roles/responsibilities                     | 1     | 2    | 3      | 4     | 5      |
| MSE4 | I can manage time by setting goals                                     | 1     | 2    | 3      | 4     | 5      |
| MSE5 | I can identify and build management team                               | 1     | 2    | 3      | 4     | 5      |
| MSE6 | I can set up strategic plans for the organization                      | 1     | 2    | 3      | 4     | 5      |
|      | <b>Financial Control ESE</b>                                           |       |      |        |       |        |
| FCE1 | I can perform financial analysis                                       | 1     | 2    | 3      | 4     | 5      |
| FCE2 | I can develop a financial system and internal controls                 | 1     | 2    | 3      | 4     | 5      |
| FCE3 | I can recognize the costs associated with doing business               | 1     | 2    | 3      | 4     | 5      |
| FCE4 | I can control costs                                                    | 1     | 2    | 3      | 4     | 5      |
|      | <b>Risk Taking ESE</b>                                                 |       |      |        |       |        |
| RTE1 | I can make decisions under uncertainty and risk                        | 1     | 2    | 3      | 4     | 5      |
| RTE2 | I can work productively under continuous stress, pressure and conflict | 1     | 2    | 3      | 4     | 5      |
| RTE3 | I can tolerate unexpected changes in business conditions               | 1     | 2    | 3      | 4     | 5      |
| RTE4 | I can take responsibilities for ideas and decisions                    | 1     | 2    | 3      | 4     | 5      |
|      | <b>Innovation ESE</b>                                                  |       |      |        |       |        |
| IE1  | I can find new markets and territories                                 | 1     | 2    | 3      | 4     | 5      |
| IE2  | I can develop new business ideas                                       | 1     | 2    | 3      | 4     | 5      |
| IE3  | I can discover new ways to improve existing products/services          | 1     | 2    | 3      | 4     | 5      |

|            |                                                     |   |   |   |   |   |
|------------|-----------------------------------------------------|---|---|---|---|---|
| <b>IE4</b> | I can develop new methods of production or systems. | 1 | 2 | 3 | 4 | 5 |
| <b>IE5</b> | I can develop new products or services              | 1 | 2 | 3 | 4 | 5 |

***Thank you for your Time and Participation!***

## Appendix 2: Reliability test results from pilot study

### Reliability test for the dependent variable-SME Performance

#### Before deletion

| Reliability Statistics |                                              |            |
|------------------------|----------------------------------------------|------------|
| Cronbach's Alpha       | Cronbach's Alpha Based on Standardized Items | N of Items |
| .576                   | .677                                         | 7          |

| Item-Total Statistics |                            |                                |                                  |                              |                                  |
|-----------------------|----------------------------|--------------------------------|----------------------------------|------------------------------|----------------------------------|
|                       | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
| FP1                   | 23.74                      | 7.079                          | .476                             | .488                         | .487                             |
| FP2                   | 24.14                      | 6.832                          | .461                             | .605                         | .482                             |
| FP3                   | 23.89                      | 6.045                          | .638                             | .710                         | .406                             |
| FP4                   | 23.69                      | 7.810                          | .343                             | .613                         | .535                             |
| FP5                   | 23.37                      | 7.299                          | .286                             | .382                         | .541                             |
| FP6                   | 24.60                      | 7.953                          | -.067                            | .398                         | .751                             |
| FP7                   | 23.37                      | 7.123                          | .364                             | .463                         | .515                             |

#### Reliability test result after deletion

| Reliability Statistics |                                              |            |
|------------------------|----------------------------------------------|------------|
| Cronbach's Alpha       | Cronbach's Alpha Based on Standardized Items | N of Items |
| .751                   | .762                                         | 6          |

**Item-Total Statistics**

|     | Scale Mean if Item Deleted |       | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
|-----|----------------------------|-------|----------------------------------|------------------------------|----------------------------------|
| FP1 | 20.54                      | 5.785 | .572                             | .488                         | .695                             |
| FP2 | 20.94                      | 5.644 | .517                             | .579                         | .707                             |
| FP3 | 20.69                      | 5.222 | .594                             | .633                         | .684                             |
| FP4 | 20.49                      | 6.198 | .559                             | .461                         | .706                             |
| FP5 | 20.17                      | 6.382 | .246                             | .300                         | .785                             |
| FP7 | 20.17                      | 5.558 | .531                             | .459                         | .703                             |

**Reliability test results for the independent variable-Networking capabilities****Reliability Statistics**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardized Items | N of Items |
|------------------|----------------------------------------------|------------|
| .942             | .941                                         | 17         |

**Item-Total Statistics**

|      | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
|------|----------------------------|--------------------------------|----------------------------------|------------------------------|----------------------------------|
| REL1 | 60.97                      | 131.499                        | .647                             | .703                         | .939                             |
| REL2 | 61.00                      | 129.706                        | .653                             | .754                         | .939                             |
| REL3 | 61.26                      | 127.961                        | .706                             | .867                         | .938                             |
| REL4 | 61.17                      | 129.087                        | .636                             | .876                         | .939                             |
| IC1  | 60.80                      | 129.282                        | .642                             | .736                         | .939                             |
| IC2  | 60.69                      | 130.045                        | .707                             | .768                         | .938                             |
| IC3  | 60.49                      | 134.551                        | .493                             | .571                         | .942                             |
| IC4  | 60.74                      | 126.903                        | .708                             | .797                         | .938                             |
| IC5  | 60.91                      | 127.904                        | .765                             | .873                         | .936                             |
| CO1  | 61.09                      | 126.787                        | .728                             | .826                         | .937                             |
| CO2  | 60.89                      | 130.516                        | .645                             | .852                         | .939                             |
| CO3  | 61.31                      | 128.928                        | .709                             | .809                         | .938                             |
| CO4  | 61.63                      | 132.005                        | .543                             | .690                         | .941                             |
| CO5  | 61.11                      | 132.987                        | .591                             | .708                         | .940                             |
| PK1  | 61.00                      | 124.706                        | .815                             | .880                         | .935                             |
| PK2  | 60.80                      | 124.576                        | .789                             | .826                         | .936                             |
| PK3  | 60.49                      | 125.904                        | .710                             | .771                         | .938                             |

### Reliability test results for the mediator-Entrepreneurial competencies

**Reliability Statistics**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardized Items | N of Items |
|------------------|----------------------------------------------|------------|
| .898             | .904                                         | 51         |

**Item-Total Statistics**

|       | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
|-------|----------------------------|--------------------------------|----------------------------------|------------------------------|----------------------------------|
| SC1   | 211.83                     | 182.970                        | .092                             | .                            | .899                             |
| SC2   | 212.11                     | 183.692                        | .031                             | .                            | .899                             |
| SC3   | 211.57                     | 181.546                        | .243                             | .                            | .897                             |
| SC4   | 211.66                     | 182.350                        | .126                             | .                            | .898                             |
| SC5   | 211.63                     | 184.005                        | .035                             | .                            | .899                             |
| SC6   | 211.86                     | 180.008                        | .292                             | .                            | .897                             |
| SC7   | 211.60                     | 183.953                        | .036                             | .                            | .899                             |
| SC8   | 211.69                     | 180.398                        | .241                             | .                            | .897                             |
| SC9   | 211.57                     | 176.664                        | .402                             | .                            | .895                             |
| OC1   | 211.34                     | 178.585                        | .420                             | .                            | .896                             |
| OC2   | 211.09                     | 181.139                        | .257                             | .                            | .897                             |
| OC3   | 211.40                     | 178.071                        | .467                             | .                            | .895                             |
| OC4   | 211.37                     | 176.652                        | .398                             | .                            | .895                             |
| OC5   | 211.14                     | 178.950                        | .414                             | .                            | .896                             |
| OC6   | 211.00                     | 180.059                        | .394                             | .                            | .896                             |
| OC7   | 212.23                     | 172.005                        | .328                             | .                            | .899                             |
| OC8   | 211.40                     | 175.953                        | .512                             | .                            | .894                             |
| OC9   | 211.46                     | 174.138                        | .515                             | .                            | .894                             |
| OC10  | 211.83                     | 177.323                        | .454                             | .                            | .895                             |
| CONC1 | 212.06                     | 180.408                        | .208                             | .                            | .898                             |
| CONC2 | 211.74                     | 176.961                        | .458                             | .                            | .895                             |
| CONC3 | 212.11                     | 173.281                        | .567                             | .                            | .893                             |
| CONC4 | 211.77                     | 174.240                        | .562                             | .                            | .893                             |
| CONC5 | 211.23                     | 178.770                        | .409                             | .                            | .896                             |
| CONC6 | 211.46                     | 176.726                        | .435                             | .                            | .895                             |

|        |        |         |      |   |      |
|--------|--------|---------|------|---|------|
| CONC7  | 211.71 | 172.916 | .602 | . | .893 |
| CONC8  | 211.26 | 176.373 | .479 | . | .895 |
| CONC9  | 211.63 | 177.476 | .326 | . | .896 |
| CONC10 | 211.54 | 178.373 | .216 | . | .899 |
| CONC11 | 211.31 | 178.751 | .406 | . | .896 |
| ORC1   | 211.97 | 179.264 | .143 | . | .901 |
| ORC2   | 211.40 | 173.129 | .597 | . | .893 |
| ORC3   | 211.37 | 177.476 | .508 | . | .895 |
| ORC4   | 211.26 | 178.785 | .405 | . | .896 |
| ORC5   | 211.60 | 173.953 | .529 | . | .894 |
| ORC6   | 211.71 | 173.151 | .523 | . | .894 |
| ORC7   | 211.60 | 171.482 | .709 | . | .892 |
| CC1    | 211.31 | 175.987 | .615 | . | .894 |
| CC2    | 211.51 | 177.257 | .357 | . | .896 |
| CC3    | 211.86 | 174.126 | .486 | . | .894 |
| CC4    | 211.66 | 179.703 | .253 | . | .897 |
| CC5    | 211.49 | 177.669 | .465 | . | .895 |
| CC6    | 211.40 | 177.071 | .377 | . | .896 |
| CC7    | 211.17 | 181.440 | .169 | . | .898 |
| RC1    | 211.71 | 178.739 | .263 | . | .897 |
| RC2    | 211.46 | 178.667 | .348 | . | .896 |
| RC3    | 211.23 | 176.123 | .546 | . | .894 |
| RC4    | 211.37 | 173.123 | .527 | . | .894 |
| RC5    | 211.29 | 178.092 | .317 | . | .897 |
| RC6    | 212.17 | 176.617 | .436 | . | .895 |
| RC7    | 211.86 | 178.891 | .181 | . | .900 |

### Reliability Test Results for the Moderator-Entrepreneurial Self-Efficacy

#### Reliability Statistics

| Cronbach's Alpha | Cronbach's Alpha Based on Standardized Items | N of Items |
|------------------|----------------------------------------------|------------|
| .899             | .909                                         | 25         |

#### Item-Total Statistics

|      | Scale Mean if<br>Item Deleted | Scale Variance<br>if Item Deleted | Corrected Item-<br>Total<br>Correlation | Squared<br>Multiple<br>Correlation | Cronbach's<br>Alpha if Item<br>Deleted |
|------|-------------------------------|-----------------------------------|-----------------------------------------|------------------------------------|----------------------------------------|
| ME1  | 99.74                         | 98.844                            | .429                                    | .                                  | .897                                   |
| ME2  | 99.57                         | 99.840                            | .414                                    | .                                  | .897                                   |
| ME3  | 100.03                        | 96.087                            | .604                                    | .                                  | .893                                   |
| ME4  | 99.97                         | 98.558                            | .453                                    | .                                  | .896                                   |
| ME5  | 99.57                         | 99.429                            | .335                                    | .                                  | .899                                   |
| ME6  | 100.66                        | 95.350                            | .426                                    | .                                  | .898                                   |
| MSE1 | 99.66                         | 99.232                            | .539                                    | .                                  | .895                                   |
| MSE2 | 99.74                         | 98.903                            | .552                                    | .                                  | .895                                   |
| MSE3 | 99.77                         | 100.829                           | .437                                    | .                                  | .897                                   |
| MSE4 | 99.49                         | 98.198                            | .468                                    | .                                  | .896                                   |
| MSE5 | 99.63                         | 94.358                            | .655                                    | .                                  | .892                                   |
| MSE6 | 99.83                         | 97.205                            | .593                                    | .                                  | .894                                   |
| FCE1 | 99.94                         | 91.879                            | .633                                    | .                                  | .892                                   |
| FCE2 | 100.51                        | 88.492                            | .754                                    | .                                  | .888                                   |
| FCE3 | 99.51                         | 97.904                            | .704                                    | .                                  | .893                                   |
| FCE4 | 99.43                         | 97.429                            | .527                                    | .                                  | .895                                   |
| RTE1 | 99.54                         | 98.667                            | .562                                    | .                                  | .895                                   |
| RTE2 | 99.91                         | 97.904                            | .419                                    | .                                  | .897                                   |
| RTE3 | 100.00                        | 99.529                            | .323                                    | .                                  | .899                                   |
| RTE4 | 99.46                         | 100.079                           | .480                                    | .                                  | .896                                   |
| IE1  | 99.40                         | 100.188                           | .422                                    | .                                  | .897                                   |
| IE2  | 99.51                         | 97.551                            | .603                                    | .                                  | .894                                   |
| IE3  | 99.40                         | 100.541                           | .389                                    | .                                  | .897                                   |
| IE4  | 100.57                        | 94.370                            | .429                                    | .                                  | .899                                   |
| IE5  | 100.46                        | 92.726                            | .492                                    | .                                  | .897                                   |

### Reliability Test for SME performance

#### Reliability Statistics

| Cronbach's<br>Alpha | Cronbach's<br>Alpha Based on<br>Standardized<br>Items | N of Items |
|---------------------|-------------------------------------------------------|------------|
| .768                | .747                                                  | 6          |

|     | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
|-----|----------------------------|--------------------------------|----------------------------------|------------------------------|----------------------------------|
| FP1 | 19.8544                    | 9.743                          | .374                             | .253                         | .770                             |
| FP2 | 19.7656                    | 9.154                          | .575                             | .377                         | .719                             |
| FP3 | 20.3816                    | 11.920                         | .125                             | .033                         | .802                             |
| FP4 | 19.8610                    | 7.701                          | .667                             | .593                         | .688                             |
| FP5 | 19.8873                    | 7.694                          | .715                             | .609                         | .673                             |
| FP6 | 19.6538                    | 9.030                          | .595                             | .414                         | .714                             |

### Reliability Test for Entrepreneurial Competencies

#### Reliability Statistics

| Cronbach's Alpha | Cronbach's Alpha Based on Standardized Items | N of Items |
|------------------|----------------------------------------------|------------|
| .935             | .941                                         | 51         |

#### Item-Total Statistics

|       | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
|-------|----------------------------|--------------------------------|----------------------------------|------------------------------|----------------------------------|
| SC1   | 181.5005                   | 792.570                        | .371                             | .                            | .934                             |
| SC2   | 181.2274                   | 790.873                        | .424                             | .                            | .934                             |
| SC3   | 181.3946                   | 799.032                        | .761                             | .                            | .933                             |
| SC4   | 180.8163                   | 792.401                        | .439                             | .                            | .934                             |
| SC5   | 181.2011                   | 785.059                        | .490                             | .                            | .933                             |
| SC6   | 181.2768                   | 785.856                        | .475                             | .                            | .933                             |
| SC7   | 181.2242                   | 794.072                        | .417                             | .                            | .934                             |
| SC8   | 181.3130                   | 794.230                        | .394                             | .                            | .934                             |
| SC9   | 181.3722                   | 795.257                        | .362                             | .                            | .934                             |
| OC1   | 181.3722                   | 789.260                        | .476                             | .                            | .933                             |
| OC2   | 181.2505                   | 788.251                        | .477                             | .                            | .933                             |
| OC3   | 181.2209                   | 793.535                        | .418                             | .                            | .934                             |
| OC4   | 181.1551                   | 790.545                        | .463                             | .                            | .934                             |
| OC5   | 181.1255                   | 794.685                        | .391                             | .                            | .934                             |
| OC6   | 181.0235                   | 791.253                        | .475                             | .                            | .933                             |
| OC7   | 181.1913                   | 791.101                        | .449                             | .                            | .934                             |
| OC8   | 181.1682                   | 790.704                        | .416                             | .                            | .934                             |
| OC9   | 181.1936                   | 790.108                        | .888                             | .                            | .932                             |
| OC10  | 181.0268                   | 791.867                        | .404                             | .                            | .934                             |
| CONC1 | 180.9972                   | 791.512                        | .440                             | .                            | .934                             |
| CONC2 | 181.2143                   | 786.714                        | .491                             | .                            | .933                             |
| CONC3 | 181.2439                   | 790.890                        | .464                             | .                            | .934                             |
| CONC4 | 181.4413                   | 790.829                        | .399                             | .                            | .934                             |
| CONC5 | 181.2570                   | 791.694                        | .396                             | .                            | .934                             |
| CONC6 | 181.0301                   | 787.498                        | .515                             | .                            | .933                             |
| CONC7 | 181.3393                   | 783.404                        | .527                             | .                            | .933                             |
| CONC8 | 181.3327                   | 797.430                        | .318                             | .                            | .935                             |

|        |          |         |      |   |      |
|--------|----------|---------|------|---|------|
| CONC9  | 181.2735 | 786.952 | .506 | . | .933 |
| CONC10 | 181.2472 | 791.766 | .424 | . | .934 |
| CONC11 | 181.2373 | 794.381 | .406 | . | .934 |
| ORC1   | 181.1551 | 791.516 | .468 | . | .933 |
| ORC2   | 181.3294 | 789.529 | .448 | . | .934 |
| ORC3   | 181.2143 | 791.395 | .437 | . | .934 |
| ORC4   | 181.2226 | 789.407 | .897 | . | .932 |
| ORC5   | 180.8985 | 798.826 | .363 | . | .934 |
| ORC6   | 181.2176 | 789.148 | .469 | . | .933 |
| ORC7   | 180.9873 | 792.161 | .443 | . | .934 |
| CC1    | 181.2406 | 788.423 | .499 | . | .933 |
| CC2    | 181.2011 | 789.667 | .476 | . | .933 |
| CC3    | 181.2176 | 785.076 | .519 | . | .933 |
| CC4    | 181.1978 | 792.591 | .421 | . | .934 |
| CC5    | 181.2603 | 786.730 | .510 | . | .933 |
| CC6    | 181.2538 | 793.990 | .422 | . | .934 |
| CC7    | 181.2669 | 788.274 | .483 | . | .933 |
| RC1    | 181.3492 | 789.793 | .464 | . | .934 |
| RC2    | 181.2242 | 793.754 | .445 | . | .934 |
| RC3    | 181.2011 | 789.810 | .484 | . | .933 |
| RC4    | 181.2636 | 793.120 | .420 | . | .934 |
| RC5    | 181.3755 | 793.263 | .411 | . | .934 |
| RC6    | 181.2103 | 790.020 | .878 | . | .932 |
| RC7    | 183.6419 | 816.109 | .246 | . | .935 |

### Reliability Test for Networking Capabilities

**Reliability Statistics**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardized Items | N of Items |
|------------------|----------------------------------------------|------------|
| .816             | .815                                         | 17         |

**Item-Total Statistics**

|      | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
|------|----------------------------|--------------------------------|----------------------------------|------------------------------|----------------------------------|
| REL1 | 59.28                      | 94.102                         | .358                             | .224                         | .809                             |
| REL2 | 59.65                      | 90.233                         | .488                             | .315                         | .802                             |
| REL3 | 59.63                      | 92.721                         | .371                             | .215                         | .808                             |
| REL4 | 59.88                      | 90.932                         | .415                             | .229                         | .806                             |
| IC1  | 60.06                      | 91.495                         | .357                             | .212                         | .810                             |
| IC2  | 60.02                      | 93.785                         | .278                             | .155                         | .814                             |
| IC3  | 60.03                      | 89.158                         | .451                             | .273                         | .804                             |
| IC4  | 59.91                      | 88.692                         | .477                             | .282                         | .802                             |
| IC5  | 59.76                      | 91.351                         | .390                             | .189                         | .807                             |
| CO1  | 59.99                      | 88.548                         | .492                             | .321                         | .801                             |
| CO2  | 59.82                      | 92.936                         | .312                             | .221                         | .812                             |
| CO3  | 59.89                      | 88.262                         | .495                             | .340                         | .801                             |
| CO4  | 60.01                      | 91.323                         | .352                             | .196                         | .810                             |
| CO5  | 59.94                      | 88.679                         | .479                             | .272                         | .802                             |
| PK1  | 59.86                      | 90.045                         | .426                             | .216                         | .805                             |
| PK2  | 60.02                      | 90.009                         | .421                             | .253                         | .805                             |

|     |       |        |      |      |      |
|-----|-------|--------|------|------|------|
| PK3 | 59.93 | 91.006 | .382 | .235 | .808 |
|-----|-------|--------|------|------|------|

### Reliability Test for Entrepreneurial Self- Efficacy

**Reliability Statistics**

| Cronbach's Alpha | Cronbach's Alpha Based on Standardized Items | N of Items |
|------------------|----------------------------------------------|------------|
| .846             | .846                                         | 25         |

**Item-Total Statistics**

|      | Scale Mean if Item Deleted | Scale Variance if Item Deleted | Corrected Item-Total Correlation | Squared Multiple Correlation | Cronbach's Alpha if Item Deleted |
|------|----------------------------|--------------------------------|----------------------------------|------------------------------|----------------------------------|
| ME1  | 86.27                      | 178.615                        | .413                             | .322                         | .840                             |
| ME2  | 86.06                      | 181.290                        | .400                             | .340                         | .840                             |
| ME3  | 85.98                      | 184.280                        | .316                             | .320                         | .843                             |
| ME4  | 85.92                      | 180.993                        | .429                             | .387                         | .839                             |
| ME5  | 86.13                      | 179.776                        | .409                             | .376                         | .840                             |
| ME6  | 85.99                      | 181.307                        | .371                             | .349                         | .841                             |
| MSE1 | 85.90                      | 183.832                        | .300                             | .270                         | .844                             |
| MSE2 | 86.04                      | 184.213                        | .284                             | .329                         | .844                             |
| MSE3 | 86.16                      | 180.571                        | .370                             | .435                         | .841                             |
| MSE4 | 85.95                      | 182.370                        | .331                             | .363                         | .843                             |
| MSE5 | 86.13                      | 180.729                        | .400                             | .382                         | .840                             |
| MSE6 | 85.81                      | 179.282                        | .470                             | .391                         | .838                             |
| FCE1 | 85.91                      | 182.381                        | .343                             | .291                         | .842                             |
| FCE2 | 85.49                      | 183.657                        | .338                             | .246                         | .842                             |
| FCE3 | 85.82                      | 180.648                        | .431                             | .336                         | .839                             |
| FCE4 | 85.90                      | 179.577                        | .425                             | .293                         | .839                             |
| RTI1 | 85.99                      | 178.188                        | .483                             | .349                         | .837                             |
| RTI2 | 86.07                      | 179.586                        | .444                             | .305                         | .839                             |
| RTI3 | 85.88                      | 181.601                        | .385                             | .314                         | .841                             |
| RTI4 | 86.05                      | 181.209                        | .390                             | .349                         | .841                             |
| IE1  | 85.92                      | 179.674                        | .424                             | .274                         | .839                             |
| IE2  | 85.85                      | 179.614                        | .426                             | .291                         | .839                             |
| IE3  | 85.82                      | 182.153                        | .392                             | .288                         | .841                             |
| IE4  | 85.97                      | 178.194                        | .479                             | .327                         | .837                             |
| IE5  | 85.91                      | 184.494                        | .296                             | .229                         | .844                             |

**Coefficients<sup>a</sup>**

| Model |              | Unstandardized Coefficients |            | Standardized Coefficients | t      | Sig. |
|-------|--------------|-----------------------------|------------|---------------------------|--------|------|
|       |              | B                           | Std. Error | Beta                      |        |      |
| 1     | (Constant)   | -.388                       | .179       |                           | -2.174 | .030 |
|       | FirmAge      | -.007                       | .044       | -.008                     | -.161  | .872 |
|       | FirmSize     | .074                        | .046       | .080                      | 1.617  | .107 |
|       | FirmLocation | .141                        | .065       | .108                      | 2.159  | .032 |
|       | Zscore(SE)   | .501                        | .049       | .501                      | 10.138 | .000 |
| 2     | (Constant)   | -.215                       | .166       |                           | -1.295 | .196 |
|       | FirmAge      | -.020                       | .041       | -.022                     | -.489  | .625 |
|       | FirmSize     | .025                        | .043       | .027                      | .592   | .554 |
|       | FirmLocation | .120                        | .060       | .092                      | 1.996  | .047 |
|       | Zscore(SE)   | .288                        | .054       | .288                      | 5.355  | .000 |
|       | Zscore(NET)  | .404                        | .054       | .404                      | 7.431  | .000 |

a. Dependent Variable: Zscore(EC)

### Descriptive statistics results (Results without outliers)

[illegible]

### Descriptive Statistics (results with outliers)

[illegible]

## Correlation results

**Correlations**

|             |                     | Zscore(FP) | Zscore(NET) | Zscore(EC) | Zscore(SE) |
|-------------|---------------------|------------|-------------|------------|------------|
| Zscore(FP)  | Pearson Correlation | 1          | .687**      | .705**     | .533**     |
|             | Sig. (2-tailed)     |            | .000        | .000       | .000       |
|             | N                   | 304        | 304         | 304        | 304        |
| Zscore(NET) | Pearson Correlation | .687**     | 1           | .566**     | .532**     |
|             | Sig. (2-tailed)     | .000       |             | .000       | .000       |
|             | N                   | 304        | 304         | 304        | 304        |
| Zscore(EC)  | Pearson Correlation | .705**     | .566**      | 1          | .503**     |
|             | Sig. (2-tailed)     | .000       | .000        |            | .000       |
|             | N                   | 304        | 304         | 304        | 304        |
| Zscore(SE)  | Pearson Correlation | .533**     | .532**      | .503**     | 1          |
|             | Sig. (2-tailed)     | .000       | .000        | .000       |            |
|             | N                   | 304        | 304         | 304        | 304        |

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

## Regression Results

### Model Statistics for the Covariate and Direct Effect.

Model Summary

| Model | R                 | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics |          |     |     |               |
|-------|-------------------|----------|-------------------|----------------------------|-------------------|----------|-----|-----|---------------|
|       |                   |          |                   |                            | R Square Change   | F Change | df1 | df2 | Sig. F Change |
| 1     | .170 <sup>a</sup> | .029     | .019              | .99037122                  | .029              | 2.973    | 3   | 300 | .032          |
| 2     | .690 <sup>b</sup> | .476     | .469              | .72881732                  | .447              | 254.962  | 1   | 299 | .000          |
| 3     | .788 <sup>c</sup> | .621     | .615              | .62053808                  | .145              | 114.450  | 1   | 298 | .000          |
| 4     | .794 <sup>d</sup> | .630     | .622              | .61451452                  | .009              | 6.871    | 1   | 297 | .009          |

a. Predictors: (Constant), FirmLocation, FirmAge, FirmSize

b. Predictors: (Constant), FirmLocation, FirmAge, FirmSize, Zscore(NET)

c. Predictors: (Constant), FirmLocation, FirmAge, FirmSize, Zscore(NET), Zscore(EC)

d. Predictors: (Constant), FirmLocation, FirmAge, FirmSize, Zscore(NET), Zscore(EC), Zscore(SE)

### Coefficient Results for the Covariates and the Direct Effects.

Coefficients<sup>a</sup>

| Model |              | Unstandardized Coefficients |            | Standardized Coefficients | t      | Sig. |
|-------|--------------|-----------------------------|------------|---------------------------|--------|------|
|       |              | B                           | Std. Error | Beta                      |        |      |
| 1     | (Constant)   | -.559                       | .206       |                           | -2.718 | .007 |
|       | FirmAge      | .062                        | .051       | .069                      | 1.211  | .227 |
|       | FirmSize     | .119                        | .053       | .129                      | 2.249  | .025 |
|       | FirmLocation | .087                        | .075       | .067                      | 1.154  | .249 |
| 2     | (Constant)   | -.205                       | .153       |                           | -1.341 | .181 |
|       | FirmAge      | .021                        | .038       | .024                      | .566   | .572 |
|       | FirmSize     | .032                        | .039       | .035                      | .823   | .411 |
|       | FirmLocation | .048                        | .055       | .037                      | .862   | .390 |
|       | Zscore(NET)  | .678                        | .042       | .678                      | 15.968 | .000 |
| 3     | (Constant)   | -.119                       | .131       |                           | -.914  | .362 |
|       | FirmAge      | .028                        | .032       | .031                      | .867   | .387 |
|       | FirmSize     | .028                        | .033       | .030                      | .840   | .402 |
|       | FirmLocation | -.005                       | .047       | -.004                     | -.112  | .911 |
|       | Zscore(NET)  | .418                        | .044       | .418                      | 9.585  | .000 |
|       | Zscore(EC)   | .465                        | .043       | .465                      | 10.698 | .000 |
| 4     | (Constant)   | -.138                       | .130       |                           | -1.064 | .288 |
|       | FirmAge      | .025                        | .032       | .028                      | .783   | .434 |
|       | FirmSize     | .035                        | .033       | .038                      | 1.048  | .295 |
|       | FirmLocation | .001                        | .047       | .001                      | .021   | .983 |
|       | Zscore(NET)  | .375                        | .046       | .375                      | 8.144  | .000 |
|       | Zscore(EC)   | .430                        | .045       | .430                      | 9.541  | .000 |
|       | Zscore(SE)   | .115                        | .044       | .115                      | 2.621  | .009 |

a. Dependent Variable: Zscore(FP)

### Results of the direct effect of NC on EC

| Model Summary |                   |          |                   |                            |                   |          |     |     |               |
|---------------|-------------------|----------|-------------------|----------------------------|-------------------|----------|-----|-----|---------------|
| Model         | R                 | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics |          |     |     |               |
|               |                   |          |                   |                            | R Square Change   | F Change | df1 | df2 | Sig. F Change |
| 1             | .523 <sup>a</sup> | .273     | .264              | .85805928                  | .273              | 28.134   | 4   | 299 | .000          |
| 2             | .622 <sup>b</sup> | .387     | .377              | .78946619                  | .114              | 55.215   | 1   | 298 | .000          |

a. Predictors: (Constant), Zscore(SE), FirmSize, FirmAge, FirmLocation

b. Predictors: (Constant), Zscore(SE), FirmSize, FirmAge, FirmLocation, Zscore(NET)

## Mediation results

Run MATRIX procedure:

\*\*\*\*\* PROCESS Procedure for SPSS Version 4.2 beta \*\*\*\*\*

Written by Andrew F. Hayes, Ph.D. [www.afhayes.com](http://www.afhayes.com)

Documentation available in Hayes (2022). [www.guilford.com/p/hayes3](http://www.guilford.com/p/hayes3)

\*\*\*\*\*

Model : 4

Y : ZFP

X : ZNET

M : ZEC

Covariates:

FirmAge FirmSize FirmLoca

Sample

Size: 304

\*\*\*\*\*

OUTCOME VARIABLE:

ZEC

Model Summary

| R    | R-sq | MSE  | F      | df1   | df2     | p    |
|------|------|------|--------|-------|---------|------|
| .573 | .328 | .681 | 36.492 | 4.000 | 299.000 | .000 |

Model

|          | coeff | se   | t      | p    | LLCI  | ULCI |
|----------|-------|------|--------|------|-------|------|
| constant | -.185 | .173 | -1.066 | .287 | -.526 | .156 |
| ZNET     | .559  | .048 | 11.637 | .000 | .465  | .654 |
| FirmAge  | -.014 | .043 | -.326  | .744 | -.098 | .070 |
| FirmSize | .009  | .045 | .206   | .837 | -.078 | .097 |
| FirmLoca | .114  | .063 | 1.817  | .070 | -.009 | .238 |

\*\*\*\*\*

OUTCOME VARIABLE:

ZFP

## Model Summary

| R    | R-sq | MSE  | F      | df1   | df2     | p    |
|------|------|------|--------|-------|---------|------|
| .788 | .621 | .385 | 97.775 | 5.000 | 298.000 | .000 |

## Model

|          | coeff | se   | t      | p    | LLCI  | ULCI |
|----------|-------|------|--------|------|-------|------|
| constant | -.119 | .131 | -.914  | .362 | -.376 | .138 |
| ZNET     | .418  | .044 | 9.585  | .000 | .332  | .503 |
| ZEC      | .465  | .043 | 10.698 | .000 | .380  | .551 |
| FirmAge  | .028  | .032 | .867   | .387 | -.035 | .091 |
| FirmSize | .028  | .033 | .840   | .402 | -.038 | .094 |
| FirmLoca | -.005 | .047 | -.112  | .911 | -.099 | .088 |

\*\*\*\*\* TOTAL EFFECT MODEL \*\*\*\*\*

OUTCOME VARIABLE:

ZFP

## Model Summary

| R    | R-sq | MSE  | F      | df1   | df2     | p    |
|------|------|------|--------|-------|---------|------|
| .690 | .476 | .531 | 67.858 | 4.000 | 299.000 | .000 |

## Model

|          | coeff | se   | t      | p    | LLCI  | ULCI |
|----------|-------|------|--------|------|-------|------|
| constant | -.205 | .153 | -1.341 | .181 | -.506 | .096 |
| ZNET     | .678  | .042 | 15.968 | .000 | .594  | .762 |
| FirmAge  | .021  | .038 | .566   | .572 | -.053 | .096 |
| FirmSize | .032  | .039 | .823   | .411 | -.045 | .110 |
| FirmLoca | .048  | .055 | .862   | .390 | -.061 | .157 |

\*\*\*\*\* TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y \*\*\*\*\*

## Total effect of X on Y

| Effect | se   | t      | p    | LLCI | ULCI |
|--------|------|--------|------|------|------|
| .678   | .042 | 15.968 | .000 | .594 | .762 |

## Direct effect of X on Y

| Effect | se   | t     | p    | LLCI | ULCI |
|--------|------|-------|------|------|------|
| .418   | .044 | 9.585 | .000 | .332 | .503 |

## Indirect effect(s) of X on Y:

|     | Effect | BootSE | BootLLCI | BootULCI |
|-----|--------|--------|----------|----------|
| ZEC | .260   | .036   | .194     | .334     |

\*\*\*\*\* ANALYSIS NOTES AND ERRORS \*\*\*\*\*

Level of confidence for all confidence intervals in output:

95.0000

Number of bootstrap samples for percentile bootstrap confidence intervals:

5000

WARNING: Variables names longer than eight characters can produce incorrect output

when some variables in the data file have the same first eight characters. Shorter

variable names are recommended. By using this output, you are accepting all risk

and consequences of interpreting or reporting results that may be incorrect.

----- END MATRIX -----

## **Moderation and moderated mediation results**

Run MATRIX procedure:

\*\*\*\*\* PROCESS Procedure for SPSS Version 4.2 beta \*\*\*\*\*

Written by Andrew F. Hayes, Ph.D. [www.afhayes.com](http://www.afhayes.com)

Documentation available in Hayes (2022). [www.guilford.com/p/hayes3](http://www.guilford.com/p/hayes3)

\*\*\*\*\*

Model : 59

Y : ZFP

X : ZNET

M : ZEC

W : ZSE

Covariates:

FirmAge FirmSize FirmLoca

Sample

Size: 304

\*\*\*\*\*

OUTCOME VARIABLE:

ZEC

Model Summary

| R    | R-sq | MSE  | F      | df1   | df2     | p    |
|------|------|------|--------|-------|---------|------|
| .623 | .389 | .624 | 31.454 | 6.000 | 297.000 | .000 |

Model

|          | coeff | se   | t      | p    | LLCI  | ULCI |
|----------|-------|------|--------|------|-------|------|
| constant | -.227 | .167 | -1.365 | .173 | -.555 | .101 |
| ZNET     | .411  | .055 | 7.474  | .000 | .303  | .519 |
| ZSE      | .285  | .054 | 5.286  | .000 | .179  | .391 |
| Int_1    | .034  | .039 | .857   | .392 | -.044 | .111 |
| FirmAge  | -.020 | .041 | -.497  | .620 | -.101 | .060 |
| FirmSize | .023  | .043 | .544   | .587 | -.061 | .107 |
| FirmLoca | .120  | .060 | 1.992  | .047 | .001  | .238 |

Product terms key:

Int\_1 : ZNET x ZSE

Test(s) of highest order unconditional interaction(s):

|     | R2-chng | F    | df1   | df2     | p    |
|-----|---------|------|-------|---------|------|
| X*W | .002    | .734 | 1.000 | 297.000 | .392 |

\*\*\*\*\*

OUTCOME VARIABLE:

ZFP

Model Summary

| R    | R-sq | MSE  | F      | df1   | df2     | p    |
|------|------|------|--------|-------|---------|------|
| .799 | .638 | .372 | 65.026 | 8.000 | 295.000 | .000 |

Model

|          | coeff | se   | t      | p    | LLCI  | ULCI  |
|----------|-------|------|--------|------|-------|-------|
| constant | -.144 | .129 | -1.114 | .266 | -.398 | .110  |
| ZNET     | .389  | .046 | 8.417  | .000 | .298  | .481  |
| ZEC      | .430  | .045 | 9.594  | .000 | .342  | .518  |
| ZSE      | .112  | .043 | 2.564  | .011 | .026  | .197  |
| Int_1    | .101  | .041 | 2.499  | .013 | .022  | .181  |
| Int_2    | -.090 | .041 | -2.186 | .030 | -.172 | -.009 |
| FirmAge  | .026  | .032 | .809   | .419 | -.037 | .088  |
| FirmSize | .041  | .033 | 1.234  | .218 | -.024 | .107  |
| FirmLoca | -.009 | .047 | -.191  | .849 | -.101 | .083  |

Product terms key:

```
Int_1      :          ZNET      x          ZSE
Int_2      :          ZEC       x          ZSE
```

Test(s) of highest order unconditional interaction(s):

|     | R2-chng | F     | df1   | df2     | p    |
|-----|---------|-------|-------|---------|------|
| X*W | .008    | 6.243 | 1.000 | 295.000 | .013 |
| M*W | .006    | 4.779 | 1.000 | 295.000 | .030 |

-----

```
Focal predict: ZNET      (X)
Mod var: ZSE      (W)
```

Conditional effects of the focal predictor at values of the moderator(s):

| ZSE    | Effect | se   | t     | p    | LLCI | ULCI |
|--------|--------|------|-------|------|------|------|
| -1.000 | .288   | .057 | 5.044 | .000 | .176 | .400 |
| .000   | .389   | .046 | 8.417 | .000 | .298 | .481 |
| 1.000  | .491   | .066 | 7.471 | .000 | .362 | .620 |

-----

```
Focal predict: ZEC      (M)
Mod var: ZSE      (W)
```

Conditional effects of the focal predictor at values of the moderator(s):

| ZSE    | Effect | se   | t     | p    | LLCI | ULCI |
|--------|--------|------|-------|------|------|------|
| -1.000 | .520   | .062 | 8.416 | .000 | .399 | .642 |
| .000   | .430   | .045 | 9.594 | .000 | .342 | .518 |
| 1.000  | .339   | .060 | 5.648 | .000 | .221 | .458 |

\*\*\*\*\* DIRECT AND INDIRECT EFFECTS OF X ON Y \*\*\*\*\*

Conditional direct effects of X on Y

| ZSE    | Effect | se   | t     | p    | LLCI | ULCI |
|--------|--------|------|-------|------|------|------|
| -1.000 | .288   | .057 | 5.044 | .000 | .176 | .400 |
| .000   | .389   | .046 | 8.417 | .000 | .298 | .481 |
| 1.000  | .491   | .066 | 7.471 | .000 | .362 | .620 |

Conditional indirect effects of X on Y:

## INDIRECT EFFECT:

| ZNET | -> | ZEC    | ->     | ZFP    |          |          |
|------|----|--------|--------|--------|----------|----------|
|      |    | ZSE    | Effect | BootSE | BootLLCI | BootULCI |
|      |    | -1.000 | .196   | .051   | .098     | .300     |
|      |    | .000   | .177   | .035   | .112     | .250     |
|      |    | 1.000  | .151   | .042   | .078     | .244     |

\*\*\*\*\* ANALYSIS NOTES AND ERRORS \*\*\*\*\*

Level of confidence for all confidence intervals in output:

95.0000

Number of bootstrap samples for percentile bootstrap confidence intervals:

5000

W values in conditional tables are the mean and +/- SD from the mean.

NOTE: The following variables were mean centered prior to analysis:

ZSE      ZNET      ZEC

WARNING: Variables names longer than eight characters can produce incorrect output

when some variables in the data file have the same first eight characters. Shorter

variable names are recommended. By using this output, you are accepting all risk

and consequences of interpreting or reporting results that may be incorrect.

----- END MATRIX -----

### Appendix 3: Letters of Authority to collect data



**MOI UNIVERSITY**  
**POSTGRADUATE OFFICE**  
**SCHOOL OF BUSINESS AND ECONOMICS**

Tel: 0790940508  
 0771336914  
 0736138770  
 Fax No: (053) 43047  
 Telex No. MOIVARSITY 35047

P.O. Box 3900  
 Eldoret.  
 Kenya.

---

**RE: MU/SBE/PGR/ACD/21B**

**DATE: 14<sup>th</sup> July, 2023**

**TO WHOM IT MAY CONCERN:**

Dear Sir/Madam,

**RE: BISHAR ADAN ALI - SBE/DPHIL/BM/022/15**

The above named is a bonafide student of Moi University, School of Business and Economics. He is pursuing a degree course leading to Doctor of Philosophy in Business Management (Strategic Management Option)

Mr. Ali successfully completed coursework and defended his proposal. He is proceeding to the field to collect data for his research titled: *"Networking Capabilities, Entrepreneurial Competencies, Self Efficacy and Performance among Small and Medium Enterprises in Selected Towns of North Rift Region-Kenya."*

Any assistance accorded to him will be highly appreciated.

Yours faithfully,



SCHOOL OF BUSINESS &  
 ECONOMICS  
 MOI UNIVERSITY  
 P. O. Box 3900 ELDORET 30100

**DR. RONALD BONUKE**  
**ASSOCIATE DEAN AND CHAIR POSTGRADUATE STUDIES, SB&E**

/pn

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(ISO 9001:2015 Certified Institution)

|                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p>NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION<br/>REPUBLIC OF KENYA</p> |  <p>NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY &amp; INNOVATION</p>                                                                                                                                                                                                                                                                                                     |
| <p>Ref No: 877176</p>                                                                                                                                                     | <p>Date of Issue: 02/August/2023</p>                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <p><b>RESEARCH LICENSE</b></p>                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                                                                                          | <p>This is to Certify that Mr. BISHAR ADAN ALI of Moi University, has been licensed to conduct research in per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Nandi, Transmara, Uasin-Gishu on the topic: NETWORKING CAPABILITIES, ENTREPRENEURIAL COMPETENCIES, SELF-EFFICACY AND PERFORMANCE AMONG SMALL AND MEDIUM ENTERPRISES IN SELECTED TOWNS OF NORTH RIFT REGION, KENYA for the period ending: 02/August/2024.</p> |
| <p>Applicant Identification Number: 877176</p>                                                                                                                            | <p>License No: NACOSTI/P/23/28150</p>                                                                                                                                                                                                                                                                                                                                                                                                                       |
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| <p><b>NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY &amp; INNOVATION</b></p>                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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| <p><b>See overleaf for conditions</b></p>                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

## Appendix 4: Plagiarism Certificate



SR505

ISO 9001:2019 Certified Institution

### THESIS WRITING COURSE

### *PLAGIARISM AWARENESS CERTIFICATE*

This certificate is awarded to

**BISHARADAN ALI**

**SBE/DPHIL/BM/022/15**

In recognition for passing the University's plagiarism

Awareness test for Thesis entitled: **NETWORKING CAPABILITIES, ENTREPRENEURIAL COMPETENCIES, SELF EFFICACY AND PERFORMANCE AMONG SMALL AND MEDIUM ENTERPRISES IN SELECTED TOWNS OF NORTH RIFT REGION-KENYA** with similarity index of 16% and striving to maintain academic integrity.

**Word count: 53930**

Awarded by

Prof. Anne Syomwene Kisilu

CERM-ESA Project Leader    Date: 30/04/2024