

**ROLE OF RISK MANAGEMENT PRACTICES ON SUSTAINABILITY OF SMALL  
AND MEDIUM SIZED ENTERPRISES IN GARISSA COUNTY, KENYA**

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**A RESEARCH PROJECT REPORT SUBMITTED IN PARTIAL FULFILMENT OF  
THE REQUIREMENT FOR THE AWARD OF MASTER OF BUSINESS  
ADMINISTRATION DEGREE IN (STRATEGIC MANAGEMENT) OF  
MOUNT KENYA UNIVERSITY**

**AUGUST, 2024**

## DECLARATION AND APPROVAL

This research project report is my authentic work and has not been handed over for a degree in any other University.



**Sign:**

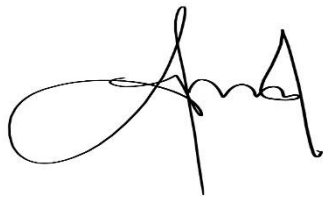
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### SUPERVISOR'S APPROVAL

This research project report has been submitted for examination with my approval as the university supervisor.



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**Date: 30<sup>th</sup> October 2024**

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## **DEDICATION**

I dedicate this project report to my entire family for their patience and endurance in the course of my study.



## **ACKNOWLEDGEMENT**

I thank Almighty Allah for granting me the opportunity, strength, knowledge, wisdom and the good health to undertake this course.

I also wish to be sincerely thankful to Dr. Henry Yatich who is my project supervisor. Grateful for the unwavering support and professional guidance throughout the development of this project report. To the Mount Kenya fraternity, it is so humbling for the opportunity to study and specially become a governance expert through this programme. My programme colleagues and lecturers, it was encouraging to participate in constructive discussions regarding the concept of governance.

To my family members, thank you so much for the moral support during my study period at Mount Kenya University.

To my work colleagues and friends, thank you for your moral support and encouragement throughout my study period.

## **ABSTRACT**

Small and Medium-sized Enterprises continue to fail to maintain their performances. Such failure was associated with fluctuations in levels of service delivery, infrastructure, demand for services and goods. The major objectives of the study were to conduct investigation of the influence of

practices of risk management on the sustainability of SMEs in Kenya's, Garissa County. The specific objectives included: To determine the influence of risk identification on the sustainability of SMEs in Garissa County; To examine the effect of evaluating business risks on the sustainability of SMEs in Garissa County; To establish how improvement in the risk mitigation process enhances the sustainability of SMEs in Garissa County. The theoretical framework in this study was guided by the Agency Theory. The study consisted of mixed methods approach. Qualitative and quantitative research was used since both approaches induced different aspects of risk management practices. The study adopted descriptive design since it is exploratory. The study was carried out in Garissa County. According to County Government of Garissa (2021) data on SMEs, there were over 6,000 in number with over 3,000 operating within Garissa township. This forms the target population in the study. Close to 254 traders had registered for bookkeeping and financial training to enhance their skills in business. This formed the accessible population in the study. Accessible population of 254 gave a sample size of 155 SMEs. The study sampled SMEs in different industries, and thus employ stratified sampling to sample the respondents. Each of the 11 identified industries contributed 14 traders in the sample. In addition, 5 financial services providers were sourced from the County to add up to the sample. Data collection involved the use of the semi-structured questionnaires. Qualitative data was collected using interviews with representatives of financial services organizations within Garissa County. Pre-testing entailed 10% of the sample size. Reliability of this study was tested using Cronbach alpha coefficient. The validity of the instruments was assessed through expert judgement. The questionnaires were administered directly to the respondents. The respondents filled the forms at their own free time. The data for the interviews was collected through recoding on phone for easier access, reference as well as transcription. Descriptive statistics including means, frequencies, percentages and generation of frequency distribution tables was used to analyze data through SPSS Version 24.0. Moreover, analysis of variance (ANOVA) was used to explore any relationships between the study variables. Lastly, the use of inferential statistics including regression analysis. The study found that risk identification influenced sustainability of SMEs in Garissa County in different ways including brainstorming about problems that may face the SMEs. The study also found that risk evaluation affected sustainability of SMEs despite the respondents not practicing the evaluations. The findings showed that mitigation of risk played different roles in sustainability of SMEs in Garissa County. The study concluded that about 50.9% of variations in sustainability of the SMEs in Garissa County were attributed to practices of risk management. The researcher recommended that SMEs owners should focus more resource input towards risk management. The County Government of Garissa should consider involving SMEs in entrepreneurial training to raise awareness about risk management. The financial institutions in Garissa County should support the SMEs to identify risks and raise awareness on their mitigation. Policy makers should use technology-based mechanisms in raising awareness about risk management practices. Future studies should be guided by the findings that low practices of risk management among the SMEs.

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## **LIST OF ABBREVIATIONS AND ACRONYMS**

AEC - African Entrepreneur Collective

ANOVA - Analysis of Variance

CS - Corporate Sustainability

EVA - Economic Value Added

EO - Entrepreneurial Orientation

ERM - Enterprise Risk Management

GDP - Gross Domestic Product

GRI – Global Reporting Initiative

KNBS - Kenya National Bureau of Statistics

LTO - Long-Term Orientation

MNC - Multi-National Corporations

KIPPRA - Kenya Institute for Public Policy Research and Analysis

MSE – Midsize Enterprise

NIS - National Innovation System

OLS - Ordinary Least Square

PESTLE - Political, Economic, Sociological, Technological, Legal and Environmental

SACCOs - Savings and Credit Co-operative

OECD - Economic Co-operation and Development

NACOSTI - National Commission for Science, Technology and innovation

SDGs - Sustainable Development Goals

SMEs - Small and Medium-Sized Enterprises

SPSS - Statistical Package for the Social Sciences

SSSC - Socially Sustainable Supply Chain

TNC - Transnational Corporations



## CHAPTER ONE: INTRODUCTION

### 1.0 Background to the Study

#### 1.0.1 Global Approach

Small and Medium-sized Enterprises (SMEs) in various dimensions including the industry that deals with fashion have progressed into a system that is complex global with persistent environmental and social challenges pertaining sustainability. Most sectors including public, private and the civil society sectors have caused these problems that are very persistent and demanded for the system change towards the fashion that is sustainable. Even though there have been emergencies of substitute practices and collaborations of industry through the whole system, they have not brought about any change to a sustainability transition. Rather, the system only shows signs of being trapped into unsustainability. In a US study by Buchel, Hebinck, Lavanga and Loorbach (2022) examining the transitioning state of the small industries via analysis of multilevel perspective system, the basis was on a research project that was co-created with the former C&A Foundation. In 2020 this enterprise became the Laudes Foundation where the analysis of transition displays that the fashion system is barred into a state of uncontrollability, disconnection, growth focus, disposability and extraction. The researchers used the analysis to come up with a set of strategic transformation pathways which can be pursued today throughout the system of fashion to speed up the transformation to a fashion which is sustainable.

In the period of economic globalization, SMEs are known to be the engine of economic development that is sustainable in the industrialized and developing countries. In writings, three rivary challenges: the global challenge, the technological challenge and the sustainability challenge are encountered by industrial businesses in the present globalized economy, and are classified (Gikenye, 2014). The literature's systemic perspective that is covering the theme of

technology and SMEs was undertaken by some of the researchers for the purpose of identifying how technological progress in the SMEs and correlate with SMEs improvement of survival in the worldwide competition (Nugroho et al., 2017). Six driving forces were identified by the review: link with Multi-National Corporations (MNCs) and Transnational Corporations (TNCs), social capital, networking and sharing, innovation, adoption of productivity and information technology that is improving technology while influencing technological upgrade in the SMEs (Nugroho et al., 2017). Two conditions were also identified by the review for successful adaptation of technology in the SMEs sectors which are an identification of openings of new technologies in the rivalry and availability of technologically skillful workforce in the economy. The two conditions can be seen in the macro atmosphere and stress the importance for the readiness of the economy concerning sustainability of SMEs and bringing about success.

Some of the biggest opportunities for SMEs as the global economy continues to develop towards increased integration will come from their ability to participate in the universal marketplace at the same time sustainably elevating their competitiveness. It is validly known that SMEs are becoming increasingly significant in terms of wealth creation, employment, and innovation development (World Bank, 2017). However, there are still existing doubts about the risk management quality in this important sector of economic development with policy-makers who suggest that there are weaknesses in innovation, marketing, insufficient financial acumen, entrepreneurial flair, human resource management and practical planning and management knowledge. As a result, numerous firms fail to reach their full potential and do not grow.

### **1.0.2 Regional Approach**

SMEs are the basis of an economic growth of country because of the great contribution to socioeconomic development and growth of such developing countries. The increasing significance

of SMEs mainly in African nations has gotten the consideration of researchers and policy makers in assessing SMEs' potential in a country's economy. Ferreira et al. (2019) points out that the informal division, the biggest sector in most of the African countries, such as Ghana and Nigeria is controlled by SMEs. According to Simota et al. (2018) SMEs' role is apparent in their capacity generate employment, eradicate poverty particularly among the vulnerable people in the society, enhance their living standards, improve invention, result in equitable allocation of income and aid in the growth of entrepreneurship skills. A study by Medium and Small Enterprises Development Agency of Nigeria (2013) revealed that over 37 million SMEs in Nigeria have created jobs for over 80% of the people. According to Eyiah (2018) most of the employment opportunities in Ghana are generated by SMEs. Similarly, SMEs play an important part in developed nations.

### **Local Approach**

A study in Kenya on strategic planning and sustainability among SMEs using an exploratory desktop review determined SME Business development. Strategic Planning for SMEs Growth and Sustainability was employed by the study. It entailed the following: SMEs Business Control Structure, Benefits, and importance of Strategic Planning for SMEs and display reason as to why SMEs fail to execute Strategic Planning. The study showed that many SMEs suffer suitability as very few celebrated their second birthdays.

SMEs continue to fail to maintain their performances (Njoroge, 2017). Such failure is associated with fluctuations in levels of service delivery, cash flow, economic conditions, appropriate management strategies, infrastructure, demand for services and goods (Business Daily, 2015). According to the survey released in 2018 by the Kenya National Bureau of Statistics (KNBS) indicated that about 400,000 micro-enterprises, small-enterprises and medium enterprises fail to celebrate their second birthday (Wakianga, 2022). This survey discovered that just a few SMEs

are able to reach their fifth birthday, which leads to concerns of sustainability in this important sector (Wakianga, 2022). While opening the SMEs Financing Africa Forum 2018 in May, Central Bank of Kenya (CBK) Governor Patrick Njoroge informed out that about 46 percent of SMEs in Kenya close just within a year after foundation (Anyanzwa, 2019).

SMEs apply risk management to cushion them from unstable business environments to ensure their growth and sustainability (Njoroge, 2017). Deliberate planning helps SMEs to focus on the future and be careful in their handling of different circumstances. SMEs practicing risk management are expected to have high returns on investment, futuristic plans, and low chances of business failure.

## **1.2 Statement of the Problem**

SMEs continue to fail to maintain their performances (Njoroge, 2017). Such failure is associated with fluctuations in levels of service delivery, cash flow, economic conditions, appropriate management strategies, infrastructure, demand for services and goods (Business Daily, 2015). According to the survey released in 2018 by the Kenya National Bureau of Statistics (KNBS) indicated that about 400,000 micro-enterprises, small-enterprises and medium enterprises fail to celebrate their second birthday (Wakianga, 2022). This survey discovered that just a few SMEs are able to reach their fifth birthday, which leads to concerns of sustainability in this important sector (Wakianga, 2022). While opening the SMEs Financing Africa Forum 2018 in May, Central Bank of Kenya (CBK) Governor Patrick Njoroge informed out that about 46 percent of SMEs in Kenya close just within a year after foundation (Anyanzwa, 2019). These louds the challenge suffered by SMEs in Kenya in the aspect of sustainability. SMEs have the potential to create employment and spur economic growth.

"SMEs play a crucial role in the economic development of Garissa County, Kenya, accounting for approximately 80% of the county's employment opportunities and contributing significantly to the local GDP. However, the sustainability of these enterprises is often threatened by a myriad of risks, including financial instability, market fluctuations, and operational challenges. Despite their importance, a substantial proportion of SMEs in Garissa County fail within the first five years of operation, with recent statistics indicating a failure rate of nearly 60%".

To Al-Shabaab security threats (Business Daily, 2015), concerns of risk management cannot be exempted. Sustainable operations of the SMEs may highly be determined by risk management practices which are concerned with the focus on handling the unforeseen threats to a business. Thus, the need to carry out investigation on the influence of practices of risk management on the sustainability of SMEs in Garissa County.

### **1.3 Purpose of the Study**

To investigate the Role of Risk Management Practices in Ensuring the Sustainability of SMEs in Garissa County, Kenya

#### **1.3.1 Objectives of the Study**

- i. To determine the influence of risk identification on the sustainability of SMEs in Garissa County
- ii. To examine the effect of evaluating business risks on the sustainability of SMEs in Garissa County
- iii. To establish how improvement in the risk mitigation process enhances the sustainability of SMEs in Garissa County.

#### **1.4 Research Questions**

- i. What is the influence of risk identification on the sustainability of SMEs in Garissa County?
- ii. What are the effects of evaluating business risks on the sustainability of SMEs in Garissa County?
- iii. What is the role of mitigation process in the sustainability of SMEs in Garissa County?

#### **1.5 Significance of the Study**

SMEs play an important role in the economies of all the countries around the globe by contributing to the national economic growth and employment (Sustainability Knowledge Group, 2019). Currently, in a complex, volatile and competitive business environment, the adopting principles of sustainability is the most efficient for a steady and sustainable growth of SMEs and their survival depend on it to a large extent. Though, the connection between the small and medium sized enterprises and sustainability is mutually interdependent and the agenda of success of sustainability is very much instilled by small and medium sized enterprises, but the growth of SMEs are not able to be achieved without integrating the principles of sustainability into their business plans.

Additionally, SMEs contribute a lot in job creation and the overall economy growth. According to the OECD 2017 report, SMEs account for about 99% of all firms in improving the contributions of SMEs in a worldwide and Digital Economy in the area of OECD. They contribute approximately 70 percent wholesome employment besides being the major contributors to creation of value through generation of between 50 and 60 percent of value added on average. In economies that are developing, small and medium sized enterprises contribute approximately 33 percent of GDP and

45 percent of all employment opportunities (Sustainability Knowledge Group, 2019). These certainties show that the part played by SMEs in Sustainability is of significance for agenda of sustainability to be realized besides proving that the relationship that exists between SMEs and sustainability is interdependent.

Even though SMEs comprise a bigger part of both economies of national and global, their participation in Sustainability is hardly adequate because a minimum number of them have embraced and incorporated sustainability principles in their business plans, strategies and day-to-day operations. In light to GRI's Sustainability Disclosure Database (SDD), sustainability reporting by SMEs in 2017 accounted for 10.22% and 15% in 2018 (without submission of numerous reports yet) from wholesome number of sustainability reports that were obtained in that year, and this figure has persisted close to constant for the seven years that have elapsed. So, a question is posed on why Sustainability is still unestablished in small and medium sized enterprises.

This study is important; it may serve purposes for different parties. For the SMEs community, the study findings may help in reducing the uncertainty that exists. Uncertainty is not good for any business and from its rationale, "is difficult to quantify". Warren Buffett said once before that, "risk comes from not knowing what you are doing." Therefore, understanding SMEs' internal and external aspects is a fundamental basis of having the knowledge of how to protect it. The threat posed by uncertainty to the businesses of SMEs owners is inversely proportional to the knowledge of protection, which is where an exhaustive PESTLE analysis can be utilitarian.

The owners of SMEs may also gain from this study as it will disclose the vital besides critical requirements for business planning that is successful. Victory in the field of business hardly comes by accident, there is almost no probability of such, success in business is a result of wonderful

planning and resilient execution (Kaushik, 2020). Events that are not foreseen have the ability to influence the victory of your business in case you don't have integrated counter measures in your plans. In the event that the owners of SMEs ignore management risk entirely, every other step executed will carry with it a high probability of business failure which actually affects sustainability.

Study findings may also benefit the new market entry business owners, the Government and some financial institutions on how to decrease losses and expenses. Risks can be categorized depending on their impression nature on your finances i.e., expense risk and income risk (Kaushik, 2019). Any event that decreases business productivity of business or their capability to impart services to their customers may automatically lead to income loss. Thus, the findings that come from the proposed study will enable sealing up of these mishaps.

### **1.7 Scope of the Study**

This study took place in Garissa County, Kenya with a population of about 3097 SMEs. It was limited to a target population of about 3097 SMEs that have the required formation for ensuring successful adoption of risk management practices. The target population was the SMEs' managers or owners. It explored the relationship that existed between practices of risk management and organizational performance of SMEs in Garissa County. It was conducted within a span of six months in 2024 from January 2024 to July 2024, with the presentation of a report. The conceptual scope entailed risk identification, evaluating business risks, and improvement in the risk mitigation process that enhances the sustainability of SMEs.

### **1.8 Limitations of the Study**

There were some difficulties experienced by the researcher during gathering of data since some of the respondents were too reluctant to relay important information needed to accomplish the study.

This was because some of the respondents believe that business information was too confidential to be shared by any other people who are not direct business stakeholders.

The seven Sub-Counties are in different parts of Garissa County to imply that geographical locations also presented a big challenge to the researcher. Therefore, meeting with the respondents to issue them with questionnaires and carry out the interviews as expected was challenging. To counter that challenge, the researcher was forced to use extra resources to ensure that he was able to meet the respondents.

Accessing some SMEs owners in some parts of Garissa County was also a challenge particularly Dadaab, Ijara and Fafi Sub Counties due to the prevailing security situations and terror threats from suspected Al- Shabab militia group.

Poor road network particularly in the Southern parts of Garissa County was also a major challenge. This was compounded by the heavy rains witnessed in the area which rendered several roads impassable thus greatly hampering transport activities in the area as a result the transport charges have doubled hence the researcher had to use extra resources to reach the respondents.

### **1.9 Delimitations**

To solve this problem of reluctant respondents, the researcher had to give assurance to them of confidentiality of any obtained information from them and in addition assured them that the data collected was solely used for the purpose of the academics.

To mitigate the limitation of concealing private information, researcher provided a letter issued by the University for Introduction to assure the participants that the data collected will be useful for academic purposes only. To resolve the literacy issue, the researcher, used simple language in the research instruments and in addressing the respondents. The researcher was also available

during data collection to assist the respondents where necessary. To solve the issue of time, the researcher conducted some activities simultaneously to save on time.

Some administrative procedures and internal security protocols must be followed for one to access some parts of these Sub Counties. The researcher was required to follow the necessary procedures and protocols like hiring armed security escort to reach such respondents. The researcher used trained research assistants to distribute the questionnaires where possible and some were nonlocals. Therefore, the safety and security of the research assistants was of paramount important, and the researcher took all the necessary precautions to overcome those challenges.

### **1.10 Assumptions of the Study**

The study assumed that the responses provided by the respondents to the questionnaires was truthful and honest. The researcher also assumed that respondents had enough knowledge on the risk management practices as well as the sustainability of their businesses. Moreover, the study worked on the assumption that the sustainability of SMEs was fundamentally determined by the level of risk management that the business owners take. As such, the study assumed that every SMEs owner practices some type or level of risk management whether individually or as outsourced service.

### **1.11 Operational Definition of Terms**

**Risk identification:** This is used to refer to the process by which the potential threats and challenges that may face a business are identified and clearly stated how they may affect the sustainability of the business.

**Business risks evaluation:** This the process by which the identified business risks are assessed through a process of assigning magnitudes and levels aligned with timing.

**Risk mitigation process:** This is used to mean the process of moderating the effect or potential of a foreseen business risk.

**Sustainability of SMEs:** This is used to mean the potential of existing Small and Medium Enterprises to exist longer. The length of existence is not ascertained, but as long as the business owner would wish.

**Risk Management Practices:** The activities and actions that are conducted to detect, assess and avoid risks that face SMEs.

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.0 Introduction**

The chapter entails review of literature that is linked to the proposed study. The review is divided into sections starting with the empirical literature which discusses existing literature in the thematic areas aligned to study objectives. Thus, the empirical literature is presented in the subsections; risk identification influence on the sustainability of SMEs, the results of evaluating risks of business on the sustainability of SMEs and Improvement in the risk mitigation process and the sustainability of SMEs. The chapter also presents the theoretical framework that guides the study, the conceptual framework guiding the study and gaps of research found in the reviews. The chapter ends with a presentation of the summary of literature.

### **2.1 Empirical Literature**

The study on the proposed title has lots of recent studies covering both global and local scenarios in the risk management practices and sustainability of SMEs. Thus, this section identified various literature that focuses on each of the proposed research objectives as follows.

### **2.1.1 Risk identification on the sustainability of SMEs**

Shad, Lai, Fatt, Klemeš and Bokhari (2019) examined the moderating sustainability effect reporting all practices on the relationship that exist between Enterprise Risk Management (ERM) implementation and performance of business. Performance of business is stepped into the breach through a value-added measurement technique that is, Economic Value Added. Adoption of a worthwhile Enterprise Risk Management has a noteworthy advantage on performance of overall business. However, the studies conducted on implementation of ERM and how reporting of sustainability could influence performance of organizations through ERM are limited. Numerous businesses worldwide do not integrate initiatives of sustainability within their corporate strategy, whereas they ought to be important input for corporate planning and strategic management.

Through combination of the Modern Portfolio Theory and the Stakeholders Theory, Shad et al. (2019) integrated ERM implementation of ERM with sustainability reporting to help in finding out their effect on business performance of business' EVA. The study entailed an analysis of quantitative content of the of the annual reports in order to gather information about companies' ERM practices and sustainability reporting. The secondary data in the study that has a relationship to the EVA measurement that was drawn from the Thomson Reuters DataStream using ordinary least square (OLS) model, provided insights in formulation of strategies as well as serve as an important conduit to enhance the performance of EVA more so the oil and gas companies (Shad et al., 2019). The study revealed that performance of EVA can be achieved through the improvement of ratios of price to earnings as well as through reducing the cost of capital by decreasing the information asymmetry among the insurance companies, the business, the lenders and the companies' shareholders (Shad et al., 2019). As such the interest falls in the comparisons

to ascertain possibility of the Garissa County SMEs adopting such risk management practices for sustainability.

In a different study by Sarkis (2021) to investigate the supply chains sustainability in an environment of post-COVID-19, the researchers used a systematic literature review approach. Using personal research experience, published literature, practitioner interviews and insights from virtual open forums, the study scope narrowed down to the COVID-19 pandemic. The study found that the events of pandemic and responses are not matched to supply chains and modern operations. The study further discovered that practitioners and scholars seek to make sense of how this event led to re-evaluation of fundamental scholarly notions and ontology (Sarkis, 2021). Implications of sustainability actually exist. In as much as long-term effects are still not certain and require research, short-time environmentally sustainability gains still occur (Sarkis, 2021). Sustainability and resilience are interdependent and cooperatively they require investigation.

Other researchers (Croom et al., 2018) posited that in a socially sustainable supply chain (SSSC), Identification of risk has focal point on pressing social issues and may provide benefits of operation besides bringing about positive impacts on society. However, because of the current knowledge gaps, it was hard to identify what practices would have the ability to provide benefits and what management practices can be able to improve the impact of these operational performance practices (Croom et al., 2018).

The relationship of US-based companies with their key suppliers was employed by the study. Multiple regression and confirmatory factor analysis were utilized to assess the proposed model of moderated mediation. The findings of the study by Croom et al. (2018) revealed that sustainability orientation anticipates operational performance through advanced rather than basic SSSC practices. The revelations also made through the results were that the effect of sustainability

orientation on operational performance is remarkably moderated by LTO (Croom et al., 2018). The review shows that while the study focused on risk identification, it failed to point out specific identification mechanisms for the businesses. This creates gaps that the proposed study seeks to fill.

A different study in the United Kingdom by Urbański et al. (2019) examined the moderating role of risk management under risks identification. The study focused on new market construction industry in Pakistan and UK. Using data from as ample of 152 firms using questionnaires, the primary data was collected. Purposive sampling was used to enhance representation of the firms in the sample using RAND formula. Analysis of quantitative data was done by utilizing the least square structural modelling (Urbański et al., 2019). The study found statistically significant project planning and risks identification with success of the projects in the firms. Moreover, the study revealed that risk management through risks identification was statistically significant in the relationship between planning and success. The differences in cultural contexts had insignificant differences in how the firms handled their risk management practices towards success of the businesses. Compared to the proposed study, the earlier research failed to mention the influence towards sustainability. The current study by Urbański et al. (2019) focused on success born of risk management practices that included risk identification process. As such, this is a gap that can be studied under the proposed research.

In South African supply chain in cobalt mining, Brink et al. (2020) reported that the supply of cobalt is majorly intense in both mining and refining countries. The researchers found that the supply of cobalt for refineries, companies and individual mines is not intensified as such, cobalt supply of cobalt is variegated by artisanal mining and thus its network links are associated with

specific supply risks. The risks highly influence the sustainability of the businesses as a supply fault line may lead to closure of the mines.

Another study focusing on developing countries examined management of risk as one of the most significant internal processes, in both large companies and SMEs (Oláh, et al., 2019). With an aim of identification of risk can be critical in all companies, the analysis and comparison of the economic and financial sources of risk in small and medium sized enterprises of the V4 (Visegrad Group: Czech Republic, Hungary, Poland and Slovakia) and Serbia, in the context of the business environment of business in the countries analyzed is the basic objective of the study. Using a questionnaire-based survey, the study consisted of 2110 SMEs from Hungary, Czech Republic, Poland, Slovakia and Serbia. The questionnaire also had questions on the significance of risk management and the importance of risk concept in the firm. In order to evaluate hypotheses that were formulated, the following tools of statistics were used: a Z-value, contingency tables and a general non-hierarchical model of log-linear which contain a continuous covariate and categorical variables (Oláh, et al., 2019). Finally, the deviations among Serbia and V4 countries were identified. Compared to V4 countries, Serbia is more prone to the financial sources of risk from the study (Oláh, et al., 2019). According to the results obtained from the research, inadequate profit is riskier in comparison to the other sources of risk and all countries are prone to this issue. The study showed that risk identification is key in business across many countries including Kenya (Oláh, et al., 2019). Nevertheless, the study did not pinpoint the direct influence on sustainability but instead focused on success. Thus, the proposed study examined these gaps.

### **2.1.2 Effect of evaluating business risks on the sustainability of SMEs**

A study in Turkey by Asgary et al. (2020) investigated how SMEs in a country recognize main risks globally. The aim of this research was to explore how a country pays attention to situations

that influence small and medium sized enterprise evaluation of the impacts, probability and global risks ranking, and to examine if assessment of risk of SMEs and rankings has significant difference from the international positions. Data was obtained using a virtual study of industrial SMEs in Turkey. The findings indicated that geopolitical risks and economic risks globally are of main worry for SMEs while ecological risks are classified in the last row (Asgary et al., 2020). High levels of structural joblessness or underemployment and economic crises in key nations were found to be the highest risks for SMEs among the economic risks.

The following risks were found to be among the biggest transnational risks for the SMEs: negligence of national governance, negligence of regional or global leadership and inter-state conflict with regional consequences (Asgary et al., 2020). The SMEs considered the risk of massive data robbery and significant cyber-attacks have relatively increased than other worldwide technological risks. Negligence of urban planning and severe social instability were among the highly ranked risks from society for the SMEs. Even though global disaster and global environmental risks were positioned at the bottom on the list, they are hazardous and were ranked the topmost among the set of risks (Asgary et al., 2020). Overall, the results indicate that SMEs at a national level, an example of Turkey, recognize global risks that is different from the main global players. Thus, the proposed study questions the context of the Turkey business environment vis-a-vis the Garissa County one.

In another study, Havierníková and Kordoš (2019) explored SMEs execute their activities in an ever-changing environment influenced by different processes that impact their sustainability. With a proposition that the destiny has the companies which have the ability to respond immediately to the issues, they also have the ability to exploit opportunities to satisfactory. One kind of modern entrepreneurship that could help small and medium sized enterprises' sustainability in this case is

none other than cluster cooperation (Havierníková and Kordoš, 2019). This kind of entrepreneurship brings numerous advantages even though it is also influenced by different risks. Assessment of the perception of selected risks of business that have an impact on SMEs' engagement into cluster cooperation was the main aim of their study. Using the questionnaire surveys of 1004 small and medium sized enterprises, the insight was therefore evaluated with much emphasis on the dissimilarities between micro, small and medium sized enterprises (Havierníková and Kordoš, 2019).

From the data that was obtained, the tendencies are exposed through the evaluation and assessment of following categories of risk such as: Relation risks, Market risks, Common resources risks, Competency risks and Operational risks being allocated by a particular risk indicator afterwards. Competition risk proved to be the most significant indicator of risk as confirmed by the final assessment made upon from the respondents' analysis of answers (Havierníková and Kordoš, 2019). The study elaborates the concept of competition that is an intervention variable in the proposed study. Competition and entry of other SMEs or even large corporations are risks that every SMEs needs to consider in its risk evaluation process (Havierníková and Kordoš, 2019). This creates an association to which the proposed study can be conducted to find any differences with the SMEs in Garissa County.

For Žigienė et al. (2019), management of risk in commercial processes is included to be the most significant approaches influencing the SMEs competitiveness. The study points to their potential contribution to SDGs and innovativeness. Ecosystem of commercial processes is necessity to risk management by small and medium sized enterprises. The researchers made opinion that assessment of commercial risk and management utilizing parts of big data, machine learning technologies and artificial intelligence have the ability to be expound and sustained as external

services for a category of SMEs allowing to share benefits and costs (Žigienė et al., 2019), In their article, Žigienė et al. (2019) aimed at providing conceptual framework of assessment of profitmaking risk and resolution of management according to artificial intelligence elements. It was done in the context of policy documents, scientific literature and standards of risk management. Major building blocks of the framework with regard to data sources, commercial risk groups and workflow phases are displayed in the article (Žigienė et al., 2019). The article's findings pointed out that risk management which includes risk evaluation in today's business world must consider competition as a risk for sustainability.

In Serbia and related community, Dvorský et al. (2018) evaluated the sources of market risk of SMEs in light to the environment of the business of the analyzed countries. In order to attain this objective, a survey that was questionnaire-based was carried out and it involved 1,905 SMEs in these countries (Dvorský et al., 2018). Sources of market risk include: unhealthy competition in the business field, losing customers, suppliers that are unreliable and stagnation of the market. Tools of mathematical statistics such as Relative Frequency, pivot tables, Z-Score and goodness of fit were used in order to provide comparison of assessment of selected sources of market risk. In light of the evaluation of entrepreneurs, partial outcome of this research indicate that the most serious market risk source is customers lose (close to 22%) (Dvorský et al., 2018).

When evaluating sources of risk, the country of operation of all the entrepreneurs is a factor that is statistically important. There is statistical vital dissimilarity between entrepreneurs existing in the analyzed countries in the period of assessing the high and very high intensity of the following sources of market risk: "losing customers", "stagnation of the market" besides "unreliability of suppliers" (Dvorský et al., 2018). These include the potential risks that can be evaluated among

SMEs in Garissa County. Environmental factors affect the success of business, and thus affecting risk factors.

In most countries, small and medium sized enterprises play a vital part in projecting economic growth that is sustainable and creation of jobs and projecting economic growth that is sustainable hence, the requirement to find out factors for example entrepreneurial factors which influence small and medium enterprises' sustainable growth (SMESG) (Diabate et al., 2019). Based on this argument, Diabate et al. (2019) surveyed on insights into EAs which influence SMESG in Côte d'Ivoire and an evaluation of the extent to which EO affects the relationship of EA–SMESG. Through utilizing Ivorian SMEs, the results testing hypothesis confirm the relationship between SMESG and every dimension of EA which includes: creativity, risk control, creativity, opportunity detection ability and relationships, excepted ability of learning (Diabate et al., 2019).

As for the moderating effect of Entrepreneurial Orientation, the entrepreneurship's innovativeness significantly and positively controls the relationship of EA–SMESG; pro-activeness advantageously controls the relationship between SMESG and close to all EA dimensions; and risk tendency regulates the relationship EA–SMESG for risk-control ability and creativity (Diabate et al., 2019). On the basis of major findings, implications of management are formulated with regard to promoting SMEs sustainable growth (Diabate et al., 2019). For example, considering the impact of EA on SMESG, actors of development have the ability to elevate the efficiency of Ivorian SMEs through actions that aims at strengthening the abilities of managers and entrepreneurs. The emerging questions related to the proposed study is whether the Kenyan (specifically Garissa County) SMEs can increase efficiency through risks evaluation focused on sustainability (Diabate et al., 2019).

### **2.1.3 Improvement in the risk mitigation process and the sustainability of SMEs**

In Asian SME context, Das et al. (2020), conducted a detailed review of literature to evaluate the corporate sustainability (CS) practice status currently, challenges and issues in SMEs. Based on literature, the study provides a suggestion model that has the ability to enhance and strategically control their practices of sustainability in the emerging market of Asia. Following setting the theoretical context on reasons why the corporations have to bear the duty of sustainable development, the authors did a literature review of the highest level to approximate the existing gap area and based on the discoveries found by partial research questions on the reasons for the small and medium sized enterprises, to be specific, those SMEs in emerging market of Asia, are trailing in terms of corporate sustainability practices (Das et al., (2020). Next, utilizing the “literature survey” as the method, the authors conducted an extensive literature review in order to provide the answer for the above research questions and organized the discoveries within those research questions (Das et al., (2020). The authors confined the literature search on corporate sustainability in the case of small and medium sized enterprises only in consideration of the research gap and the critical role of SMEs in progress of any country’s economic growth.

The findings of the study revealed that Corporate Sustainability is a well-practiced area in large organizations. Nevertheless, the literature suggests that in SMEs, the situation is not the same (Das et al., (2020). Socio-environmental practices are mostly abandoned in SMEs, specifically, in emerging markets. Literature that is existing indicates that government policy and facilitation, supporting organization culture and collaborative mode of operation have the ability to positively influence SMEs sustainability performance, thus improving their financial performance (Das et al., (2020). The findings consider the case of Garissa County SMEs which hardly consider social

and environmental practices in both their risk mitigation and sustainability measures. This creates a gap to be investigated by the proposed study.

Jia et al. (2020) examined how risk mitigation in China through creation of a national innovation system (NIS). This was geared towards sustainability of the SMEs and reinforced the firms' central status. The data of the study revealed that the influence of income growth in small and medium sized enterprise on China's aggregate Gross Domestic Product growth is remarkable, even though, the rank of small and medium sized enterprises in the NIS and co-related policies is unnoticed (Jia et al., 2020). In order to find out if there exists a correspondence between the support of China's NIS and sustainability of innovation in SMEs, the researchers came up with a framework policy of innovation of China under the framework of NIS, considering its transformation nature, to find out the texts of small and medium sized enterprises' policies of innovation and reveal the sustainability of SMEs' innovation. (Jia et al., 2020).

Between 1999 and 2017 necessary policy of government's texts were drawn from Chinese yearbooks' small and medium sized enterprises and noticed by the government between 1994 and 2017 (Jia et al., 2020). Other countries' innovation systems were compared by the study on this basis and the findings showed that NIS in China contributes little attention to the sustainability of SMEs' activities of innovation for two reasons: the NIS scope is very narrowly defined and secondly the top-down, government-oriented Research and Development system which is focused on large state-owned firms leaves close to no room for policies of innovation in SMEs (Jia et al., 2020).

While focusing on the investigations into manufacturing SMEs in Queensland, Australia, Desha et al. (2019) explored the co-existence of the theory of (lean and green thinking). The study established six vital barriers and four vital enablers to practice sustainable business, drawn from a

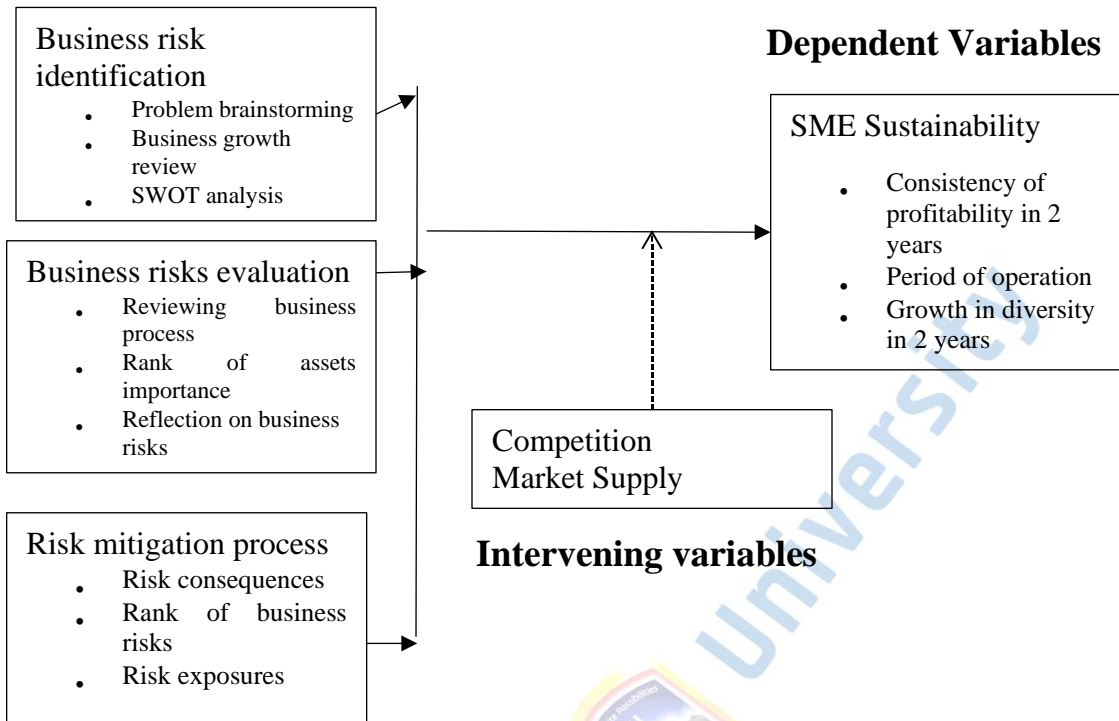
series of extensive interviews with CEOs besides senior managers who are entangled in lean manufacturing besides sustainability (Desha et al., 2019). The researchers provided an institutional theory perspective on these discoveries, concluding the potential for normative, coercive, mimetic and normative drivers to influence small and medium sized enterprise to positively change environmental and socio-economic decision making and validate the transformation to practice of sustainable business (Desha et al., 2019).

A novel by the name 'Model of strategic enablers of sustainable business practice' was presented by the study to steer small and medium sized enterprises to deliberately use their strategies of 'lean and green' to successfully incorporate outcomes of sustainable business (Desha et al., 2019). Small and medium sized enterprises have the ability to vastly make contributions to the circular economy at firm level through the use of researchers' project report of lean and green thinking towards transformation to the practice of sustainable business (Desha et al., 2019). Agencies and professional bodies and agencies have the ability to help small and medium sized enterprises in this transformation through targeted involvement that talk about the barriers and enablers. This approach to risk mitigation may not be feasible for the Kenyan context and Garissa County SMEs in particular (Desha et al., 2019). Thus, the emerging knowledge gap in applicability of the approaches to the proposed study location.

### **2.3 Conceptual Framework**

The study was conducted in consideration of conceptualizing the study variables as follows in figure 1.

### Independent variables



**Figure 1 Conceptual Framework**

Figure shows the conceptualized variables as independent variables including business risks identification, evaluation and mitigation process. Moreover, the figure shows dependent variable as SME sustainability with intervening variables including competition and market supply. The business risks identification was measured using indicators pointing to potential risks for business in the study context which include terrorism activities, natural disaster and IT related security. Business risks evaluation was measured using indicators including risk treatment methods, and potentiality of secondary risks and residual risks. Risk mitigation was measured with indicators including acceptable risk level and system improvement techniques. On the other hand, the sustainability of the SMEs was measured using improvements, performance and success.

## **2.2 Theoretical Framework**

### **2.2.1 Agency Theory**

The Agency Theory proposed by Jensen and Meckling (1976) guided the study's theoretical framework. In accordance with this theory, an agency is made the moment a person who I this case is (the principal) contracts another person who in this case is (the agent) to execute specific services in the place of the principal. Due to conflicting interests during the process of contract, misunderstandings come up between the parties. The delivery of service to the organization's customers may be adversely affected by these conflicts. This theory is more concerned with the intervening procedures that can be followed to solve the existing conflicts between the business and the agent (Kenton, 2018). That can come up due to the relay of information: the principal is either uninformed completely or partially informed of the proceedings and processes that the agent will use in execution of the agreed responsibilities or maybe there are some available barriers to access some important information.

For example, the SMEs leadership could be planning to increase the stock. That may require the sacrificing of some temporary business service delivery for the sake of tomorrow's greater changes and improved services. Nevertheless, some stakeholders that are need current service delivery may be lacking these prospects, resulting in a conflict.

An agency can be explained as an association developed between two entities with one as a supplier and the other as the customer; for Garissa SMEs were the business owners and the other is an agent (risk management service provider) (Hausken & Ncube, 2017). That implies that the agent is not the direct SMEs owner but acts as the intermediary between the owner and their sustainability desires. Agency relations are thus present when a business involves an agent to conduct business on its behalf at certain agreed upon conditions and terms of payment. SMEs

owners regulate the delegated role and approve the risk management service agent to take specific action to ensure the anticipated sustainability is attained. That also implies that the deliberations, contracts and decisions of the agent and the third party are not revealed to principals; but the negative and positive effects that results affect the principal. That concerns the Agency theory as the outcomes affect the principal indirectly. SMEs are required to offer services that satisfy the customers. However, the process of service delivery become complicated such that they must engage other service providers (agents) to help in satisfying customers' needs – who unfortunately occasionally do not care about the customers' satisfaction (Hausken & Ncube, 2017). Therefore, the risk management services providers become agencies between the SME owners and the customers in the context of enhancing business sustainability.

### **2.2.2 Modern Portfolio Theory**

The modern Portfolio Theory is an investment theory that permits investors to gather a collection of assets that optimizes projected profit for a certain risk level. It supposes that the investors are risk-averse. For a certain degree of projected profit, investors will always choose the less risky portfolio. Therefore, based on this theory, an investor has to be recompensed for a greater risk through greater projected profits. The Modern Theory applied the main notion of diversification – holding a collection of assets from diverse classes has less risk than having a collection of related assets.

Diversification is a portfolio distribution strategy with an aim of minimizing idiosyncratic risk by stocking assets that are not perfectly correlated positively. Correlation is the relationship that two variables share, and it is determined using a correlation coefficient that is between  $-1 \leq \rho \leq 1$ . A flawless optimistic correlation between assets in a portfolio raises the standard risk of the portfolio.

Diversification lowers the idiosyncratic risk by stocking a selection of assets, which are not perfectly positively connected. This theory is related to SME's risk mitigation in that it can be applied to determine the assets that SMEs can hold to maximize the expected profit for a certain risk level. To minimize risks, SMEs can diversify their assets, thus increasing sustainability.

## **2.4 Research Gaps**

Shad, Lai, Fatt, Klemeš and Bokhari (2019) showed that performance of EVA can be achieved by improving ratios of price to earnings and reducing the cost of capital through reduction of asymmetry in all businesses. This measure of risk in business is mostly associated with large corporations. This creates gaps for SMEs. For instance, the lenders, the insurance company and the company's shareholders make comparisons that ascertain possibility of Garissa County SMEs adopting such risk management practices for sustainability. According to Sarkis (2021), implications to sustainability exist where the small environmental sustainability gains occur and at the same time long-term effects are still not certain therefore requiring research. Sustainability and resilience work hand in hand and together they require investigation which has not been conducted among SMEs in Garissa County.

The study by Croom, Vidal, Spetic, Marshall and McCarthy (2018) showed that risk identification is necessary for suitability of business, the study failed to point out specific identification mechanisms for the businesses. This creates gaps that the proposed study seeks to fill. For

Urbański, Haque and Oino (2019), success is born of risk management practices include risk identification process. As such, this is a gap that can be studied under the proposed research.

Related to the study is Brink, KleijnSprecher and Tukker (2020) who found that business risks highly influence the sustainability of the mining businesses as a supply fault line may lead to closure of the mines.

According to Asgary, Ozdemir and Özyürek (2020), SMEs in Turkey notes global risks which are very dissimilar than the main global players. Thus, the proposed study questions the context of the Turkey business environment viz-a-viz the Garissa County one. Diabate, Sibiri, Wang and Yu (2019) opine that considering the EA impact on SMESG, actors of development can elevate the expertise of Ivorian SMEs via actions that have a goal of strengthening the abilities of managers and entrepreneurs. The emerging questions related to the proposed study is whether the Kenyan (specifically Garissa County) SMEs can increase efficiency through risks evaluation focused on sustainability. Caldera, Desha and Dawes (2019) discovered that professional bodies and agencies have the ability to support SMEs in transition by targeting interventions that was able to address the barriers and enablers. This approach to risk mitigation may not be feasible for the Kenyan context and Garissa County SMEs in particular. Thus, the emerging knowledge gap in applicability of the approaches to the proposed study location.

## **2.5 Summary of Literature**

The reviewed literature indicates that there exist various studies whose focal point is on risk management practices for SMEs towards sustainability. Across the globe, including the USA, the UK, Australia and Africa the challenges of SMEs suitability are evident. Different studies employed various methods and contexts with varying industry of business to evaluate and assess the association between risk management practices and sustainability of SMEs. For example, Lai, Shad, Fatt, Bokhari and Klemeš (2019) found that numerous business organisations all over the globe do not absorb the initiatives of sustainability in their corporate strategy. Another study combined the Modern Portfolio Theory and the Stakeholders Theory to perform the study on the influence of integrated ERM implementation on performance of business economic value added (Lai, Shad, Fatt, Bokhari and Klemeš 2019).

Sarkis (2021) investigated supply chains sustainability within a post-COVID-19 environment while others like Urbański, Haque and Oino (2019) examined the moderating role of risk management under risks identification focusing new market construction industry in Pakistan and UK. In Turkey, Asgary, Ozdemir and Özyürek (2020) investigated how SMEs in any given country recognize major global risks. Havierníková and Kordoš (2019) explored how SMEs execute their activities in an ever-changing environment which is influenced by different processes which too influence their sustainability. Further, Das, Rangarajan and Dutta (2020) conducted a systematic literature review and established the corporate sustainability status (CS) practices, challenges and issues facing SMEs. Finally, researchers including Jia, Tang and Kan (2020) examined how risk mitigation in China through creation of a national innovation system (NIS) which was found to an effective risk management practice.

## **CHAPTER THREE: RESEARCH METHODOLOGY**

### **3.0 Introduction**

Organization of this chapter is from the methodology, design target population, and sampling. It presents the research instruments and subsequently evaluating their reliability and validity, followed by collection of data and its analysis.

### **3.1 Research Methodology**

This study consisted of mixed methods method. Quantitative and qualitative research was utilized because the two approaches induced non-identical aspects of risk management practices besides complementing the weaknesses associated with the other (Creswell, 2013). Regarding qualitative data, an interview guide was employed to supplement data obtained using the questionnaires.

### **3.2 Research Design**

It is a structure which specific research takings in order to facilitate decisive action for decisionmaking (Zikmund et al., 2010). It entails the spelling out of the procedural specifications, the study's context and the methods to be employed to arrive at a conclusion. Research design as defined by Creswell (2009) as a plan designed by a scholar to implement through predicted techniques and limitations to make convincing comments about the study subjects.

The research used descriptive design since it is exploratory. Descriptive design describes, analyzes, and interprets conditions that exists or existed (Kothari, 2005). It is claimed by Mugenda and Mugenda (2003) that design is deemed to be suitable when a researcher plans to collect information in detail using narrations and it is important in determining assumed constructs and variables. Descriptive research design is appropriate as subjects are studied in their natural settings with no external influence and when collecting data about the subject's views and opinions. Therefore, the

design was efficient in gathering information required in the study to explain the perceptions and views of the respondents and the evaluation on how the risk management practices influence sustainability of SMEs in Garissa, Kenya.

### **3.3 Location of the Study**

Garissa County was the location where the study was executed. Garissa County is located at an altitude between 20m and 400m above sea level. The area is characterized by the Tana River Basin and seasonal *Laghas*. The county coverage is about 44,753 KM<sup>2</sup>. The River Tana, which is the major source of water in the County plays a critical role that shapes the County's climate, economic activities and even settlements patterns. Despite the aridity of the area, use of its available waters makes it rich in agricultural activities through irrigation from Laghas and River Tana.

Garissa County falls in a semi-arid region of ecological zone V-VI. The area experiences rainfall of about 275 mm annually with heavy rains within the period of March and May while low rainfall is experienced between October to December. The poor rainfall amount and patterns makes it difficult for agricultural activities especially in the locations far from the two main rivers. However, the area is differentiated even in terms of rainfalls making the southern part consisting of Bura, Hulugho and Masalani receiving more rains compared to the northern part. This makes the larger parts of these areas consisting of the constituencies of Balambala Dadaab, Lagdera and Fafi residents to practice agriculture that relies on rainfall for water.

Consequently, the possible economic activity remains to be livestock rearing hence making the residents more of pastoralists than farmers. Majority of the livestock population are cattle, camel, indigenous sheeps and goats. This is mostly practiced around the two rivers in order to have water sources for the animals. There are seven sub-counties and six constituencies in Garissa County.

The constituencies include Garissa township, Fafi, Ijara, Lagdera, Dadaab and Balambala.

### **3.4 Target Population**

Zikmund et al. (2010) explains that a target population is a group of individual or the items having the desired characteristics. It is the entire collection of items or objects under study by research but limited to the desired characteristics. A research population is thus a group of objects targeted for a scientific inquiry by a researcher. The population of the study was all the listed SMEs in Garissa County. In a business sponsor initiative by Mastercard Foundation and the African Entrepreneur Collective (AEC), traders who had registered for bookkeeping and financial training to help them improve their business skills were approximately 254 in number. This number formed the accessible population in the study. Accessible population is highly recommended for consideration as it enhances accuracy from the feasibility perspective as the non-registered may remain inaccessible during the study.

### **3.5 The Sample Size and Sampling Techniques**

From the 254 SMEs accessible population in Garissa, the study used proportionate sampling to select study participants. Reference to the Krejcie and Morgan sampling tables, an accessible population of 254 gave a sample size of 154 traders. The study sampled SMEs in different industries, and thus employ stratified sampling to sample the respondents. The various strata and the equal distribution of the sample is displayed in Table 1.

**Table 1 Sampling Grid**

Sector	Population	Calculations	Sample	Percentage
Livestock Vendors	17	154/254*n	10	60.6
Cereals sellers	20	154/254*n	12	60.6
Hardwares and Motor vehicle spares parts vendors	27	154/254*n	16	60.6
Miraa Vendors	40	154/254*n	24	60.6
Mini supermarkets and General shops	8	154/254*n	5	60.6
Hotel services providers	15	154/254*n	9	60.6
Fuel Stations companies	9	154/254*n	5	60.6
Electronics and Electricals	34	154/254*n	21	60.6
Phone and Accessories	22	154/254*n	13	60.6
Transport sector e.g., Buses and Bodaboda.	58	154/254*n	35	60.6
Other services providers e.g., Artisans, phone repairs, shoeshiners, Clothing and Footwear	4	154/254*n	2	60.6
Total	254		154	60.6

Source: (Researcher, 2024).

Table 1 shows that each of the 11 identified sectors of the SMEs contributed respective number of traders in the sample. The table shows that the actual sample size was 154 from the used methods. Selecting an individual participant considered stratified random sampling to enhance equal chance of participation among the traders (Zikmund et al., 2010) as well as ensure that each stratum is proportionately represented in the study. In addition, 5 financial services providers were sourced from the County to add up to the sample.

### **3.6 Data Collection Instruments**

This study entailed data that is primary. Collection of data involved the use of questionnaires with SMEs (traders) and interviews with financial services firms' representatives. The questionnaires had test questions in open- and closed-ended form in order to collect the targeted characteristic about the phenomenon under study that is in the population. Zikmund et al., (2010) recommends the use of questionnaires since they are cheaper and allow the researcher collect data from a larger from a bigger population in a short time. The questionnaires are also popular for obscurity of the participants, something that is important in research ethics. Qualitative data was collected using interviews with representatives of financial services organizations within Garissa County. This included commercial banks, SACCOs, Credit facilities and Insurance companies. Focusing on at least one key informant from each of these areas made 5 interviews for the study.

### **3.7 Pilot Test**

Pre-testing a major thing in determining the significance and understandability of the questionnaire items. The testing was performed to edit the order, structure and general wording of the items. Pretesting entailed 10% of the research sample size (Cooper and Schindler, 2013) meaning 15 traders in the bordering Kitui County at the Mwingi township and the participants were selected using convenience sampling. Validity and reliability of the research instruments was determined from the results of pre-testing.

### **3.8 Validity and Reliability of Instruments**

Reliability is referred to as the ability of the instruments to generate consistent results. It makes sure that consistency in a research study exists, Noble (2015). Cronbach alpha coefficient was applied to test the reliability of this study. This occurred during the piloting. In case the coefficient

of Cronbach alpha appears to be less than 0.7, the results were considered unreliable otherwise, the results were found to be valid enough (Robert, 2016).

Validity is referred to as the degree to which the study instrument measured what it is intended to measure (Robert, 2016). As such, the instruments were assessed on how well they are suited to measuring the variables including risk identification, evaluation and mitigation and well as the sustainability. Expert judgement helped assess the validity of the instruments. The experts in the areas of business management were drawn from Mount Kenya University, school of Business and Economics. Their assessment helped in reviewing the instruments accordingly until they can measure the intended measure.

### **3.9 Data Collection Methods and Procedures**

The respondents were given the questionnaires directly. They filled in the forms at their own free time. The researcher collected back the questionnaire after a period of one day. The interviews with the Key informants took place during a formal working hour through appointment booking on agreed dates. The data for the interviews was collected through recording on phone for easier access, reference as well as transcription.

### **3.10 Data Analysis Procedure**

It is the systematic computations of available or collected raw facts while searching for relationships that entail the variables under measurement (Kothari and Garg, 2016). The data that has been collected was cleaned and coded and entered into the computer statistical system before the analysis. This data was therefore ordered and adjusted to make them have an interpretation that is meaningful. The data was then categorized depending on the measurable attributes as either qualitative or quantitative. Qualitative data was organized based on the study objectives and constructs and analyzed thematically using verbatims.

The quantitative data was then assigned various measurement aspects according to their attributes to make sense when entered into the statistical package for social scientists (SPSS 24.0). SPSS is popular software that enables easier analysis of data, and it is user friendly. Kothari (2016) states that analysis of data entails the process of categorizing data, ordering, manipulating and summarizing it with a specific purpose aligned to answering research objectives. The researcher also adds that the sole aim of data analysis creates meaning from the raw collect facts. In this study, descriptive statistics was used to describe the phenomenon under study including means, frequencies, percentages and generation of frequency distribution tables. Moreover, analysis of variance (ANOVA) was used in exploring any variability that might exist between the study variables. This was determined by the ANOVA assumptions including conducting of tests to ensure normality, homogeneity of variance and independence between observations. Lastly, the relationship between the variables was examined through the use of inferential statistics including regression analysis. This was informed by conducting tests of assumptions that fit linear regression on no inter-correlation between the independent variable as well as zero mean of error terms. The regression model followed this form:

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

Where Y= SME sustainability

$B_0$ = Constant

$\beta_1$ ,  $\beta_2$  and  $\beta_3$ = Regression coefficients relating to business risk identification, evaluation and mitigation respectively

$X_1$ = Business risk identification

$X_2$ = Business risk evaluation

$X_3$ = Business risk mitigation

$\epsilon$  = Error term

### **3.11 Ethical considerations in research**

This research project report was subjected to ethics and review Committee of Mount Kenya University for purpose of plagiarism check and to earn a letter for clearance. Mount Kenya University issued a permit proceeding for data collection. Finally, the National Commission for Science, Technology and innovation (NACOSTI) sorted a letter of clearance before proceeding to gather facts. Moreover, the research participants were introduced to the study, and allowed to study a participation consent form before voluntarily participating. The respondents were provided with study details and therefore they provided informed consents by signing the consent forms which were confirmation of their acceptance.

## **CHAPTER FOUR**

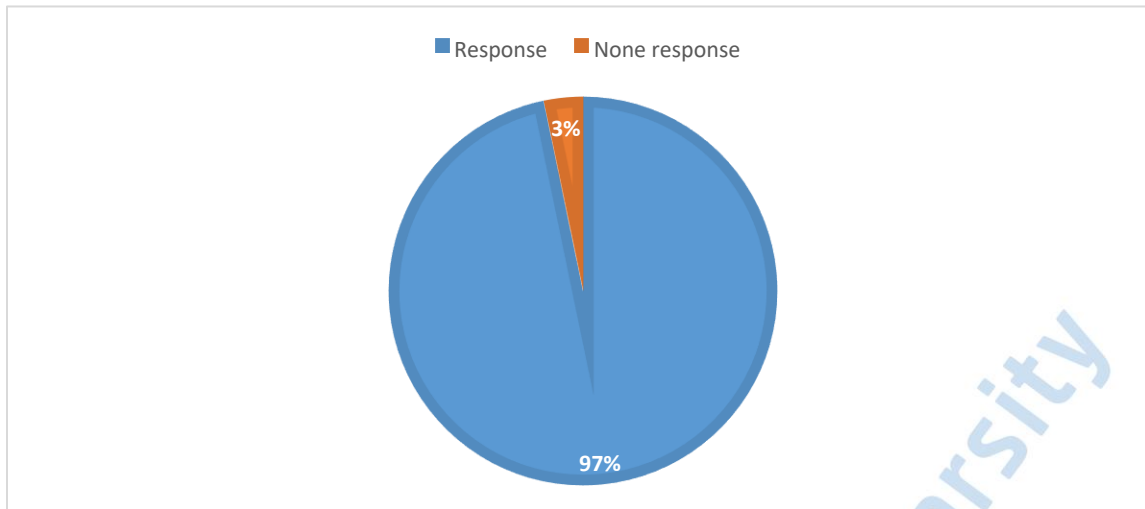
### **DATA ANALYSIS, FINDINGS, AND INTERPRETATION**

#### **4.1 Introduction**

This chapter presents the data analysis from the field data that makes up the study findings. The chapter also entails interpretation of the findings as it relates to existing literature. The chapter is presented in subsections standing with the response rate from the field. The section then presents the demographics of the respondents. The section then presents the findings in the order of the study objectives but starting with the state of business sustainability in Garissa County.

#### **4.2 Response Rate**

The study achieved 6 interviews with 2 staff from commercial banks, 2 from SACCOs, and 2 from other Credit facilities. The study also managed to achieve 97% questionnaire return rate as presented in Figure 2.



**Figure 2 Response rate**

Figure 2 shows that there was 97% questionnaire return rate from the issued 154 pieces. This was achieved through a logical and systematic process of data collection starting at acquisition of research permit as well as authorization from the Ministry of education, Kenya National Chamber of Commerce and Industry, Garissa Chapter and the County Government of Garissa department of Trade and Industry.

#### **4.3 Demographics of the Questionnaire Respondents**

The demographics of the questionnaire respondents were analyzed from the collected data and the results presented as per the specific demographics as follows.

##### **4.3.1 Gender of the Respondents**

Table 2 shows the age (in years) and the educational levels achieved by the respondents.

**Table 2 Age (years) and Educational level of the respondents**

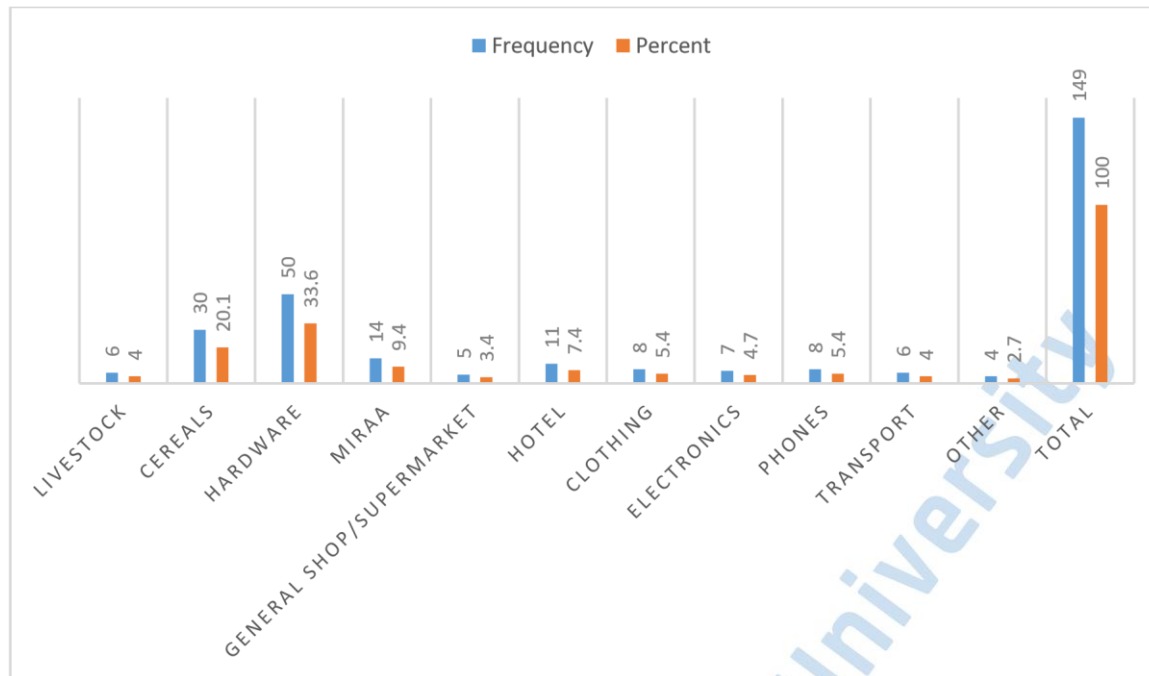
Age (years)	Frequency	Percent
Below 30 years	32	21.5
30-39 years	32	21.5

40-49 years	75	50.3
50 years and above	10	6.7
Total	149	100
Educational level		
No formal education	15	10.1
Certificate/Diploma	43	28.9
Bachelor's degree	63	42.3
Other	28	18.8
Total	149	100

Table 2 shows that 75(50.3%) halves of the respondents were aged 40-49 years with 32(21.5%) being below 30 years and 30-39 years old. The fewest were aged 50 years and above. This implies that the traders in SMEs were variedly distributed across the ages. However, there was a dominance of the ages 30-49 years denoting a slightly above youthful age in the SMEs in Garissa County.

Table 2 also shows that the educational level of the respondents ranged from no formal education to bachelors' degree with some having "other" qualifications. The table shows that the highest portion 62(42.3%) were Bachelors' degree holders. About 43(28.9%) were certificate/diploma holders while 15(10.1%) had no formal education. This implies that the respondents had varied level of educational qualifications thus likely to have differences in understanding of the concept of risk management in business.

In Figure 3, the finding shows that business type of the respondents.



**Figure 3 Business type**

Figure 3 shows that there were various business types involved in the study. The largest portion entailed the respondents 50(33.6%) from the hardware business. This was followed by the respondents in cereals business 30(20.1%). Other were livestock 6(4%), miraa 14(9.4%), general shop/supermarket 5(3.4%), hotel 11(7.4%), clothing 8(5.4%), electronics 7(4.7%), phones and accessories 8(5.4%), transport 6(4%) and the rest into other businesses.

Table 3 shows the period of existence of the businesses of the respondents.

**Table 3 Period in business**

	Frequency	Percent
below 5 years	26	17.4

5-10 years	51	34.2
over 10 years	72	48.3
<b>Total</b>	149	100

Table 3 shows that the largest portion of the respondents 72(48.3%) had businesses for over 10 years. about 34% of the respondents indicated having been in business from between 5-10 years while the fewest 26(17.4%) had been in business for less than 5 years. This shows the differences that exist in the period of the respondents being in business which communicates how experienced they could be in terms of risk management. The longer the existence of the period, the more likely the experienced the SMEs owners would be.

#### 4.4 Business Sustainability in Garissa County

The study entailed data on business sustainability in Garissa County. The collected data was analyzed and presented using Table 4. The item was made up of a collection of statements describing business sustainability. The respondents were required to rate their level of agreement with the statements on a 5-point Likert-scale ranging from 1- Strongly disagree to 5- strongly agree.

**Table 4 Business Sustainability**

	N	Minimum	Maximum	Mean	Std. Deviation
I normally analyze my business risk consequences	149	1.00	5.00	2.6644	1.33361

I have been ranking the effects of risks do monitor my business risks	149	1.00	5.00	2.6510	1.18508
I normally work on ending my business risk exposures	149	1.00	5.00	2.7517	1.16773
I review and consider previous risks to my business	149	1.00	5.00	2.6779	1.20958
I have mechanisms f backing up my business data	149	1.00	5.00	2.7584	1.33382
I monitor my business risks	149	1.00	5.00	2.8523	1.22682

Table 4 shows that various statements regarding sustainability of businesses in Garissa County had different ratings among the respondents. The Small and Medium Sized Enterprises owners indicated that the largest portion of the respondents disagreed that they normally analyze their business risk consequences (Mean =2.66). However, this was varied across the respondents with a standard deviation of 1.33.

This follows the findings from the interviews as qualitative results showing that very few of the Small and Medium Sized Enterprises were keen on analyzing the risks associated with their businesses. Through one of the key informants, the following was stated.

*“Risk analysis is a crucial process for organizations to assess and mitigate potential threats to their operations. Through this process, there is identification of*

*adverse events that could negatively impact businesses and the environment. It helps organizations decide whether to undertake projects or approve financial applications while balancing risks and risk reduction. Apparently, many SMEs here in Garissa hardly buy in this idea” [KI 02].*

The findings corroborated the posting of Croom, Vidal, Spetic, Marshall and McCarthy (2018) that in a socially sustainable supply chain (SSSC), Identification of risk has focal point on pressing social issues and may provide benefits of operation besides bringing about positive impacts on society. However, because of the current knowledge gaps, it was hard to identify what practices would have the ability to provide benefits and what management practices can be able to improve the impact of these operational performance practices.

Table 4 also shows similar rating of the statements in relation to sustainability of SMEs in Garissa County. “I have been ranking the effects of risks do monitor my business risks” had a mean of 2.6510, I normally work on ending my business risk exposures at 2.7517, I normally work on ending my business risk exposures at 2.6779, I review and consider previous risks to my business at 2.7584 and I have mechanisms of backing up my business data at 2.8523. These ratings indicate that majority of the respondents rated the statements at the disagree level.

Related to the quantitative findings, the qualitative results that despite the need for risk exposure assessment, fewer SMEs in Garissa County considered it. One of the key informants posited;

*“Risk exposure for businesses exists as the potential future losses that a company might face due to various events or actions. It is quantified as the probability of an event occurring multiplied by the expected loss if that event takes place. It is important that Small and Medium Sized Enterprises consider business strategy and decision-making as risks emerge associated with the need to comply with laws and regulations. There are other risks emerge from business operations while others are related to the potential loss of reputation. These are some of the aspects missed out by the Small and Medium Sized Enterprises in Garisaa county. We have been keen on educating and even raising awareness about it, but it hardly bears fruits” [KI 04]*

#### 4.5 The risk identification on the sustainability of SMEs in Garissa County

Objective one of the study was themed around the influence of risk identification on sustainability of SMEs. The study used a questionnaire to collect data from the respondents about the influence. The questionnaire was designed in a closed-ended items of statements describing risk identification among SMEs in Garissa County. The statements were measured on a 5-point Likertscale ranging from 1- strongly disagree to 5- strongly agree. The data was analyzed using descriptive statistics including maximum, minimum, mean and standard deviation, and presented using Table 5.

**Table 5 The risk identification on the sustainability of SMEs in Garissa County**

	N	Minimum	Maximum	Mean	Std. Deviation
I conduct some brainstorming for problems that face our business with fellow SMEs	149	1.00	5.00	2.5503	1.18228
I consider reviewing my business growth regularly	149	1.00	5.00	2.7047	1.18836
I have had customer survey for feedback for my business	149	1.00	5.00	2.6107	1.16660
When there is challenge in my business, I conduct root cause analysis	149	1.00	5.00	2.8658	1.32368
I have put in pace project plans for my business	149	1.00	5.00	2.8054	1.16641
I have done at least one SWOT analysis for my business	149	1.00	5.00	2.7517	1.32495

Table 5 shows the respondents rated the statements averagely at disagree level. The statement “I conduct some brainstorming for problems that face our business with fellow Small and Medium

Sized Enterprises ” had a mean of 2.55. This showed a skew around the disagree rating with a standard deviation of 1.18 that implies variation in the responses. This showed that brainstorming about problems that may face the Small and Medium Sized Enterprises was not common among the business owners in Garissa County.

One of the key informants indicated that the SMEs were not actually brainstorming on challenges that may arise within their businesses. One posited.

*“Brainstorming about business risks is a critical step in risk management, allowing teams to identify potential threats that could impact their operations. Gathering team members to think about and discuss potential risks, encouraging open communication and idea sharing is needed for Garissa County Small and Medium Sized Enterprises. These techniques can help businesses uncover risks that might not be immediately apparent, ensuring a more comprehensive approach to risk management” [KII 03].*

The findings show the emphasis posited by earlier studies on risk management for Small and Medium Enterprises. In the United Kingdom, Urbański, Haque and Oino (2019) found statistically significant project planning and risks identification with success of the projects in the firms. Moreover, the study revealed that risk management through risks identification was statistically significant in the relationship between planning and success.

Through the interviews, the quantitative findings showed that there were concerns about the risk and risk identification among the traders. One of the key informant interviewees posed;

*“Small traders face price fluctuations due to supply and demand dynamics. Monitoring market trends and understanding seasonal variations can help mitigate this risk. Competing with larger businesses or other traders can impact profits. Analyze competitors and adapt strategies accordingly. There are also delays in transportation, border crossings, or supply chain disruptions can affect trading activities. Identifying bottlenecks and streamlining logistics is essential. Similarly, we have issues to do with ensuring product quality and consistency is crucial. Poor quality goods can lead to losses and damage reputation” [KII 02]*

Another one added similar sentiment but on financial risk and regulatory risks.

*“Small traders often face cash flow challenges. Regularly monitor cash inflows and outflows to avoid liquidity issues. Extending credit to customers can be risky. Assess creditworthiness and set clear credit terms. Small traders must adhere to local regulations, tax laws, and licensing requirements. Non-compliance can result in penalties. Cross-border traders face customs procedures, tariffs, and documentation requirements. Understanding these regulations is crucial” [KII 01]*

Table 5 further shows that the identified statements in risk identification and their influence on sustainability of SMEs in Garissa County had similar trends in rating. Considering reviewing of business growth regularly had a mean of 2.7047; Having had customer survey for feedback for businesses had a mean of 2.6107. Conducting root cause analysis when there is challenge in the business had a mean of 2.8658; while having put in place project plans for the business was 2.8054. Lastly, having conducted a SWOT analysis was rated at a mean of 2.7517. This indicated that the SMEs had lapses regarding risk identification for their businesses. This was also consistent with interview findings as many of the key informants showed concerns related to risk identification of SMEs in Garissa County. One of the informants said;

*“Here, there are no structured methods that allow individuals to contribute ideas independently before discussing them as a group. The needed organizing of ideas into groups based on their natural relationships, which can help in identifying patterns and categories of risks, is also lacking. In ideal contexts, I would expect the SMEs to examine project or business requirements to identify what could go wrong. This would also enable review of project plans to spot potential risks in the execution phase. This leads to identification of the root causes of potential problems to prevent their occurrence. Finally, cases of assessing Strengths, Weaknesses, Opportunities, and Threats to understand internal and external risks would be brought into the SMEs” [KII 01].*

The findings corroborate existing studies. Through combination of the Modern Portfolio Theory and the Stakeholders Theory, Shad, Lai, Fatt, Klemeš and Bokhari (2019) revealed that performance of EVA can be achieved through the improvement of ratios of price to earnings as

well as through reducing the cost of capital by decreasing the information asymmetry among the insurance companies, the business, the lenders and the companies' shareholders.

Sarkis (2021) also found that the events of pandemic and responses are not matched to supply chains and modern operations. In another one, Brink, KleijnSprecher and Tukker (2020) reported that risks highly influence the sustainability of the businesses as a supply fault line may lead to closure of the mines.

#### **4.6 Effect of evaluating business risks on the sustainability of Small and Medium Sized Enterprises in Garissa County**

The study examined the effect of evaluating business risks on the sustainability of Small and Medium Sized Enterprises in Garissa County. The respondents were first asked "Which of the following risk do you think is of concern to you most? Using frequencies and percentages, the results were presented in Table 6.

**Table 6 Business risks of SMEs in Garissa County**

	Frequency	Percent
safety risk	27	18.1
commercial risk	44	29.5
financial risk	54	36.2
environmental risk	24	16.1
Total	149	100

Table 6 shows that the most concern to the Small and Medium Sized Enterprises in Garissa County was financial risk leading with a frequency of 54(36.2%) of the respondents. Another concern of more of the respondents was commercial risk at 44(29.5%). The safety and environmental risks were rated concerns with fewer of the respondents at 27(18.1%) and 24(16.1%) respectively. This implied that the Small and Medium Sized Enterprises in Garissa County knew and were aware of the business risks that they may face as businesses. This would be expected to inform the Small and Medium Sized Enterprises to undertake risk assessments for their business as a way of cushioning them against uncertainty.

Similar findings were made through the key informants who anonymously agreed that risks for SMEs in Garissa County were a concern that would attract attention. One of the informants noted;

*“SMEs face a variety of business risks. More general, global risks such as economic downturns, geopolitical tensions, and technological disruptions can also affect Small and Medium-Sized Enterprises. This includes the cases of example of the COVID-19 between 2019 and 2020 that ended a number of businesses in Garissa County” [KII 02].*

The findings elaborate the need for risk assessment for Small and Medium Sized Enterprises unless the businesses remain at risk of closure. This is the concern that the current study focused on as a sustainability aspect of Small and Medium Sized Enterprises in Garissa County. In related literature, a study on Turkish Manufacturing SMEs highlighted concerns over global economic risks and geopolitical risks, with environmental risks being ranked lower in priority (Asgary, Ozdemir and Özyürek, 2020). Another study pointed out that the adoption of Artificial Intelligence (AI) can help SMEs reduce business risks, especially during challenging times like the COVID19 pandemic.

In related studies, Havierníková and Kordoš (2019) elaborate the concept of competition that is an intervention variable in the proposed study. Competition and entry of other Small and Medium Sized Enterprises or even large corporations are risks that every Small and Medium Sized Enterprises needs to consider in its risk evaluation process. For Dvorský, József, Zuzana and Sándor (2018), partial outcome of risk assessment on sustainability indicates that the most serious market risk source is customers lose (close to 22%). When evaluating sources of risk, the country of operation of all the entrepreneurs is a factor that is statistically important.

In relation to the theory, an agency can broadly be described as a relationship developed between two parties with one as service supplier while the other is the client. The operations of the Small and Medium Sized Enterprises in Garissa County call for integration of experts in their businesses. This forms the agencies for handling and delivering the risk assessment required to create a sustainability of the SMEs in the county (Hausken & Ncube, 2017).

The objective was also analyzed using a list of statements; the respondents were asked to rate their level of agreement. The collected data was analyzed using descriptive statistics and presented using Table 7.

**Table 7 Effect of evaluating business risks on the sustainability of SMEs in Garissa County**

	N	Minimum	Maximum	Mean	Std. Deviation
I conduct some brainstorming for problems that face our business with fellow SMEs	149	1.00	5.00	2.6644	1.21706

I consider reviewing my business growth regularly	149	1.00	5.00	2.6107	1.20085
I have had customer survey for feedback for my business	149	1.00	5.00	2.7047	1.35319
When there is challenge in my business, I conduct root cause analysis	149	1.00	5.00	2.7785	1.23489
I have put in pace project plans for my business	149	1.00	5.00	2.7852	1.66670

Table 7 shows that all the five statements were rated at a mean of between 2.6 and 2.7. However, the rating had standard deviations of greater than 1 meaning that the responses of the Small and Medium Sized Enterprises owners had some variations. The table shows that conducting some brainstorming for problems that face business with fellow Small and Medium Sized Enterprises was at a mean of 2.6644. Considering review business growth regularly was rated at a mean of 2.6107 while conducting customer survey for feedback for businesses was rated at a mean of 2.7047.

The table also shows that the rating of when there is challenge in the business, the entrepreneur conducts root cause analysis was rated at 2.7785. Finally, the rating of having put in place project plans for the business was at a mean of 2.7852. The findings imply that the evaluation of the business risks among the Small and Medium Sized Enterprises in Garissa County was slightly considered. The challenges emanating from the SMEs were cited as the attributes to little attention to evaluation of risks of businesses. One of the key informants noted;

*“The SMEs in Garissa County face unique financial challenges due to the harsh environmental conditions and limited resources. SMEs often struggle to secure funding from traditional financial institutions, which may be hesitant to invest in businesses operating in such high-risk arid regions. Similarly, the sparse*

*population and remote locations can limit market access and customer base for SMEs around here. For these reasons, little attention is given to evaluation of risks for the SMEs* “[KII 05].

The findings imply that the respondents knew and were familiar with the evaluation of business risks but still didn't embrace the activity. As such, the concerns about sustainability of the Small and Medium Sized Enterprises in Garissa County remained in jeopardy. The situation could be the leading cause of the closing up of businesses within one year of their opening. These are seen in the views of Žigienė, Rybakovas and Alzbutas (2019) who opine that management of risk in commercial processes is included to be the most significant approaches influencing the SMEs competitiveness. Similar findings are seen in Serbia and related community where Dvorský, József, Zuzana and Sándor (2018) reported that the evaluation of entrepreneurs that the most serious market risk source is customers lose (close to 22%). When evaluating sources of risk, the country of operation of all the entrepreneurs is a factor that is statistically important. The same applies to the current research site in Garissa County where evaluation of business risk are needed to build the sustainability of the SMEs.

#### **4.7 How improvement in the risk mitigation process enhances the sustainability of SMEs**

In the third objective of the study, the researcher explored how improvement in the risk mitigation process enhances the sustainability of SMEs. This was also undertaken using a questionnaire item with statements. The respondents were required to rate their level of agreement with the statements on a Likert-scale ranging from 1- strongly disagree to 5-strongly agree. The collected data was analyzed using minimum, maximum, mean and standard deviation. The results were presented using Table 8.

**Table 8 How improvement in the risk mitigation process enhances the sustainability of SMEs**

N Minimum Maximum Mean Std.

Deviation

I normally analyze my business risk consequences	149	1.00	5.00	2.6577	1.18989
I have been ranking the effects of risks to monitor my business risks	149	1.00	5.00	2.4430	1.17048
I normally work on ending my business risk exposures	149	1.00	5.00	2.6443	1.14534
I review and consider previous risks to my business	149	1.00	5.00	2.5503	1.19930
I have mechanisms of backing up my business data	149	1.00	5.00	2.7584	1.34893

Table 8 shows that the rating of the five statements related to how improvement in risk mitigation process enhances the sustainability of SMEs in Garissa County. The respondents indicated that majority disagreed that they normally analyze business risk consequences with a mean of 2.6577. Similarly, the majority disagreed that they had been ranking the effects of risks to monitor their business risks at a mean of 2.443. However, in both cases, the variations in the responses existed with standard deviations of 1.18 and 1.17 respectively.

In the third statements, majority of the respondents also disagreed that they worked on ending the business risk exposures at a mean of 2.644. The respondent also disagreed that they reviewed and considered previous risks to their businesses at a mean of 2.55. Lastly, the SMEs owners disagreed that they had mechanism of backing up their business data at mean of 2.7. However, the responses had variations with minimum at 1, maximum at 5 and relatively large standard deviations for all cases.

The findings were consistent with the interview findings where the key informants stated how the SMEs were not so keen on improving the risk mitigations towards ensuring sustainability of their businesses.

One of the informants stated;

*“Risk mitigation is crucial for SMEs operating in arid areas. These regions often face unique challenges related to water scarcity, extreme temperatures, and resource limitations. For instance, the SMEs in Garissa County consider risk mitigation through exploring diversification by offering complementary products or expanding into related markets. This reduces dependence on a single revenue source. Through this, you find that one SME is buying and selling a range of products and services” [KII 05].*

The findings depict the consideration of risk mitigation for SMEs and which shows inconsistency with the quantitative findings. The quantitative findings showed the wider gap in risk mitigation among the SMEs. This could be attributed to the differences in design of the research tools as the questionnaires were closed-ended while the interview guide contained open-ended questions.

Comparatively, another respondent showed that indeed the SMEs in Garissa County were keen on mitigating against business risks. He noted;

*“We have seen most SMEs involved in agriculture choose crops and livestock breeds that thrive in arid conditions. Such farmers also invest in soil conservation practices to prevent erosion and maintain soil fertility. For supply chain resilience, the SMEs have diversified suppliers and build strong relationships with them as way of cushioning from any emergencies related to risks in this area. The suppliers also monitor supply chain disruptions and have contingency plans in place” [KII 01].* The findings indicate and show that the SMEs in Garissa County were informed and practiced risk assessment for their businesses as a way of ensuring sustainability. In terms of financial risk management, the SMEs were found to maintain adequate cash reserves to withstand unexpected shocks. The interviews also revealed that some SMEs considered insurance options for climate-related risks (e.g., crop insurance, business interruption insurance). The findings corroborate existing literature that focus on sustaining SMEs. By this approach, the Agency Theory

that was proposed by Jensen and Meckling (1976) comes into limelight as the insurance process is surrendering the loss to the insurance company in case of an incident.

In related literature, the findings were different from the China case where the SMEs mitigated against risks by creation of a national innovation system (NIS) (Jia, Tang and Kan, 2020). Desha, Caldera and Dawes (2019) explored the external mechanism used for cushioning SMEs against risks in pursuit of sustainability. This is different from the Garissa County SMEs. Moreover, collaborating with local communities to understand their needs and challenges was another reported approach for risk mitigation among the SMEs. Risk mitigation is an ongoing process and thus regularly, the SMEs assessed risks, adapted strategies, and stayed informed about climate and market changes. By implementing these measures, SMEs can enhance their resilience and thrive even in arid conditions.

#### 4.8 Regression analysis

Using the collected data for both the independent variables (risk identification, evaluation of business risk and risk mitigation) were regressed against the dependent variable (sustainability of the SMEs). This was done to establish the number of variations in sustainability that would be attributed to the independent variables. As such, the resulting statistics including the ANOVA table and the coefficients would be used to ascertain the level of significance that the IV had on DV and be used to model the relationship respectively. The model summary of the regression was presented using Table 9.

**Table 9 Regression Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.721 <sup>a</sup>	.519	.509	.33569

a. Predictors: (Constant), aver risk mitigation, aver. Risks evaluation, Aver. Risk identification

From Table 9, shows an R = 721, R Square - .519 and adjusted R= .509. This implies that about 50.9% of variations in sustainability of the SMEs in Garissa County were attributed to practices of risk management. This was in constructs around three aspects including risk identification, risk evaluation and risk mitigation.

The regression ANOVA was presented using Table 10.

**Table 10 Regression ANOVA**

Model	Sum of Squares	df	Mean Square	F	Sig.	
1						
	Regression	17.657	3 145	5.886	52.228	.000 <sup>b</sup>
	Residual	16.340		.113		
	Total	33.997	148			

*a. Dependent Variable: averDV*

*b. Predictors: (Constant), aver3, aver2, Aver1*

Table 10 shows an F-statistic = 52.228 and significance level of .000. This implies that the relationship between practices of risk management and sustainability of SMEs in Garissa County existed. The relationship is significant at significance level of 0.05.

Using the regression coefficient presented in Table 11, the relationship was modelled as shown below.

**Table 11 Regression Coefficients**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error			
	(Constant)	.812	.250	3.246	.001
	Aver risk identification	.745	.062	.709	.000
1	Aver risk evaluation	-.077	.053	-.084	.147
	Aver Risk mitigation	.037	.067	.033	.581

*a. Dependent Variable: aver Sustainability of SMEs*

Table 11 shows standardized beta of Aver risk identification, Aver risk evaluation and Aver Risk mitigation as .709, -.084 and .033 respectively. With a constant B = .812 and standard error of the constant at .25, the model relating practices of risk management to sustainability of SMEs in Garissa County would be as follows.

$$\text{Sustainability of SMEs} = .812 + .709 \text{ risk identification} - .084 \text{ risk evaluation} + .554 \text{ risk mitigation} .250$$

This implies that risk identification practices positively related to sustainability of the SMEs at a rate of .709 while risk mitigation was at .554. The model also shows that risk evaluation was

negatively related to sustainability of SMEs in Garissa County at a rate of .084. Removing the practices of risk management of the SMEs, the sustainability would be equivalent to .812.



## **CHAPTER FIVE**

### **SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Introduction**

This chapter entails the summary of the study findings, conclusion and recommendations. The section is largely guided by the research questions. The questions guide in evaluating the success

of the study through providing answers drawn for the questions from the field data collection, analysis and interpretation. The section is presented and drawn in a systematic manner starting with the summary of the findings aligned to study objectives; then presents the conclusions drawn from the findings. The chapter ends with the recommendations drawn from the findings which include for practice and policy as well as for future research.

## **5.2 Summary of Findings**

**5.2.1 What is the risk of identification on the sustainability of SMEs in Garissa County?** The study showed a skew around the disagree rating with a standard deviation of the statements related to risk identification among the SMEs in Garissa County that implies variation in the responses. This showed that brainstorming about problems that may face the SMEs was not common among the business owners in Garissa County. that the SMEs were not actually brainstorming on challenges that may arise within their businesses. The findings show the emphasis posited by earlier studies on risk management for SMEs. Quantitative findings showed that there were concerns about the risk and risk identification among the traders. Small traders face price fluctuations due to supply and demand dynamics. Monitoring market trends and understanding seasonal variations can help mitigate this risk.

The study also showed that small traders often face cash flow challenges. Regularly monitor cash inflows and outflows to avoid liquidity issues. This indicated that the SMEs had lapses regarding risk identification for their businesses. This was also consistent with interview findings as many of the key informants showed concerns related to risk identification of SMEs in Garissa County. There were no structured methods that allow individuals to contribute ideas independently before discussing them as a group.

### **5.2.2 What are the effects of evaluating business risks on the sustainability of SMEs in Garissa County?**

The study found that the most concern to the SMEs in Garissa County was financial risk leading with a frequency of 54(36.2%) of the respondents. Another concern of more of the respondents was commercial risk at 44(29.5%). The findings showed that the SMEs in Garissa County knew and were aware of the business risks that they may face as businesses. This would be expected to inform the SMEs to undertake risk assessments for their business as a way of cushioning them against uncertainty. The study showed that risks for SMEs in Garissa County were a concern that would attract attention. This was elaborated by SMEs facing a variety of business risks. More general, global risks such as economic downturns, geopolitical tensions, and technological disruptions can also affect SMEs.

The findings elaborate the need for risk assessment for SMEs unless the businesses remain at risk of closure. The study showed that statements related to the effect of risk evaluation were rated at disagree. However, the rating had standard deviations of greater than 1 meaning that the responses of the SMEs owners had some variations. The results showed that conducting some brainstorming for problems that face business with fellow SMEs. The study showed that the rating of when there is challenge in the business, the entrepreneur conducts root cause analysis was also low. This implied that the evaluation of the business risks among the SMEs in Garissa County was slightly considered.

The study found that SMEs in Garissa County face unique financial challenges due to the harsh environmental conditions and limited resources. The findings implied that the respondents knew and were familiar with the evaluation of business risks but still didn't embrace the activity. As

such, the concerns about sustainability of the SMEs in Garissa County remained in jeopardy. The situation could be the leading cause of the closing of some SMEs before they reach their first year.

### **5.2.3 What is the role of mitigation process in the sustainability of SMEs in Garissa County?**

The study found that the rating of the five statements related to how improvement in risk mitigation process enhances the sustainability of SMEs in Garissa County were rated low. The findings showed that the majority disagreed that they had been ranking the effects of risks to monitor their business risks. Similarly, the majority disagreed that they worked on ending the business risk exposures. The findings showed that the SMEs owners disagreed that they had mechanism of backing up their business.

The study findings were consistent with the interview findings as one of the informants stated that risk mitigation is crucial for Small and Medium Enterprises operating in Garissa County. The findings depict the consideration of risk mitigation for SMEs and which shows inconsistency with the quantitative findings. The quantitative findings showed the wider gap in risk mitigation among the SMEs. The SMEs in Garissa County were also keen on mitigating business risks. There was involvement in agriculture where the entrepreneur chose crops and livestock breeds that thrive in arid conditions.

The findings indicated and showed that the SMEs in Garissa County were informed and practiced risk assessment for their businesses as a way of ensuring sustainability. In terms of financial risk management, the SMEs were found to maintain adequate cash reserves to withstand unexpected shocks. The study revealed that some SMEs considered insurance options for climate-related risks (e.g., crop insurance, business interruption insurance).

### **5.3 Conclusion**

The study found that risk identification influenced sustainability of SMEs in Garissa County in different ways including brainstorming about problems that may face the SMEs. The study showed that SMEs identified areas like price fluctuations due to supply and demand dynamics. The monitoring of market trends and understanding seasonal variations were key in risk identification. The study also found that risk evaluation affected sustainability of SMEs despite the respondents not practicing the evaluations. Risk evaluation included conducting some brainstorming for problems that face business with fellow SMEs. The findings showed that mitigation of risk played different roles in sustainability of SMEs in Garissa County. Mitigation helped in ranking the effects of risks hence monitoring business risks. Mitigation was also important for the mechanism of backing up their business. Mitigation also helped in maintaining adequate cash reserves to withstand unexpected shocks. This informed some SMEs to consider insurance options for climate-related risks.

The study concluded that about 50.9% of variations in sustainability of the SMEs in Garissa County were attributed to practices of risk management. The relationship between practices of risk management and sustainability of SMEs in Garissa County existed with risk identification practices and risk mitigation positively related to sustainability of the SMEs while risk evaluation was negatively related to sustainability.

### **5.4 Recommendations**

Based on the study findings, the following recommendations are made.

#### ***Recommendations for Practice***

The SMEs owners to focus more on the need to consider resource input towards risk management. This is drawn from the case were fewer SMEs practice risk management.

The County Government of Garissa to consider involving SMEs in entrepreneurial training that would raise awareness about risk management. This was found to significantly influence the sustainability of the SMEs.

The financial institutions in Garissa County should support the SMEs to identify risks and raise awareness on how to mitigate them. This is attributed to the findings about the role of various mechanisms used to mitigate risk for some SMEs. This can be leveraged and applied to all the SMEs in Garissa County.

### ***Recommendations for Policy***

The study recommends that the policy makers narrow down to involve technology-based mechanisms in raising awareness about risk management practices. While there is use of various mechanisms for risk mitigation, policies can guide all the SMEs on how to sustain businesses. Development of a policy that guides on practices of risk evaluation would be beneficial to the SMEs in Garissa County as study showed that risk management has significant influence on business sustainability.

### ***Recommendations for future research***

The study recommends future study that is guided by the context of the findings that showed low practices of risk management among the SMEs. Thus, the following topics can form bases for future research.

- i.) Influence of technical know-how on management on the sustainability of SMEs in Garissa County
- ii.) Influence of the use of technology in risk management on the sustainability of SMEs in Garissa County.

## REFERENCES

- Abera, A. (2012). Factors Affecting the Performance of Micro and Small Enterprises in Arada and Lideta Factors Affecting the Performance of Micro and Small Enterprises in Arada and Lideta Sub-Cities, Addis Ababa. *Journal of Accounting and Finance*, 2(4), 15–27.
- Adeyemi, S. B. & Fagbemi, T. O. (2010). Audit Quality, Corporate Governance and Firm Characteristics in Nigeria. *International Journal of Business and Management*, 5(5), 169179.
- Ahmad, N. N., Ahmad, S. and Abdullah, W. (2018). Sustaining SMEs through Resources Availability and Cash Management Practices: An Application of the Partial Least Squares (PLS). *Global Business and Management Research: An International Journal* Vol. 10, No. 3 (2018, Special Issue).
- AIRMIC, ALARM & IRM. (2010). *A Structured Approach to Enterprise Risk Management (ERM) and the Requirements of ISO 31000*.  
[https://www.theirm.org/media/886062/ISO3100\\_doc.pdf](https://www.theirm.org/media/886062/ISO3100_doc.pdf).
- Alquier, A. B. & Tignol, M. L. (2006). Risk Management in Small and Medium-Sized Enterprises. *Production Planning and Control*, 17(3), 273-282.
- Amurle, S. (2013). The Role of Strategic Planning on the Performance of Small and Medium Enterprises Information Communication and Technology (ICT) Sector in Nairobi, Kenya. *Journal of Business and Management*, 2,3, 45–51.
- Anyanzwa (2019). Kenyan SMEs stifled by lack of financing. *The EastAfrican*.  
[https://www.theeastafrican.co.ke/tea/business/kenyan-smes-stifled-by-lack-of-financing1416562#:~:text=10%2C000\)%20in%20financing.-, .](https://www.theeastafrican.co.ke/tea/business/kenyan-smes-stifled-by-lack-of-financing1416562#:~:text=10%2C000)%20in%20financing.-,)
- Asgary, A., Ozdemir, A.I. & Özyürek, H. (2020). Small and Medium Enterprises and Global Risks: Evidence from Manufacturing SMEs in Turkey. *Int J Disaster Risk Sci* 11, 59–73 (2020).  
<https://doi.org/10.1007/s13753-020-00247-0>
- Aven, T. (2012). The Risk Concept – Historical and Recent Development Trends. *Reliability Engineering & System Safety*, 99, 33-44.

- Brink, S., Kleijn, R., Sprecher, B. and Tukker, A. (2020). Identifying supply risks by mapping the cobalt supply chain. *Resources, Conservation and Recycling*, Volume 156, 2020. <https://doi.org/10.1016/j.resconrec.2020.104743>.
- Broadleaf Capital International. (2012). *A Simple Guide to Risk and Its Management*. Pymble, New South Wales, Australia. [http://broadleaf.com.au/old/pdfs/trng\\_tuts/Tut\\_Simple\\_Guide\\_to\\_Risk\\_v11.pdf](http://broadleaf.com.au/old/pdfs/trng_tuts/Tut_Simple_Guide_to_Risk_v11.pdf).
- Brustbauer, J. (2016). Enterprise Risk Management in SMEs: Towards a structural model. *International Small Business Journal*, 34(1), 70-85.
- Buehler, K., Freeman, A. & Hulme, R. (2008). The Risk Revolution. *McKinsey Working papers on Risk*, 1, 1-40.
- Business Daily (2015). *Naivas Sells Garissa Outlet Over Insecurity*. <https://www.businessdailyafrica.com/bd/corporate/companies/naivas-sells-garissa-outlet-over-insecurity-2090914>
- Caldera, H., Desha, C. and Dawes, L. (2019). Evaluating the enablers and barriers for successful implementation of sustainable business practice in 'lean' SMEs. *Journal of Cleaner Production*, Volume 218, 2019, Pages 575-590. <https://doi.org/10.1016/j.jclepro.2019.01.239>.
- CPA Australia. (2009). *Risk Management Guide for Small to Medium Businesses*. [https://www.cpaaustralia.com.au/~/\\_/media/corporate/allfiles/document/professionalresources/business/risk-management-guide-for-small-to-medium-businesses.pdf](https://www.cpaaustralia.com.au/~/_/media/corporate/allfiles/document/professionalresources/business/risk-management-guide-for-small-to-medium-businesses.pdf).
- Croom, S., Vidal, N., Spetic, W., Marshall, D. and McCarthy, L. (2018). Impact of social sustainability orientation and supply chain practices on operational performance. *International Journal of Operations & Production Management*, Vol. 38 No. 12, pp. 2344-2366. <https://doi.org/10.1108/IJOPM-03-2017-0180>
- Crovini, C. (2019). *Risk Management in Small and Medium Enterprises* (1st Edition ed.). London: Routledge.
- Das, M., Rangarajan, K. and Dutta, G. (2020). Corporate sustainability in SMEs: an Asian perspective. *Journal of Asia Business Studies*, Vol. 14 No. 1, pp. 109-138. <https://doi.org/10.1108/JABS-10-2017-0176>
- Diabate, A., Sibiri, H., Wang, L., & Yu, L. (2019). Assessing SMEs' Sustainable Growth through Entrepreneurs' Ability and Entrepreneurial Orientation: An Insight into SMEs in Côte d'Ivoire. *Sustainability*, 11(24), 7149. <https://doi.org/10.3390/su11247149>
- Djapic, M., Lukic, L. & Popovic, P. (2013). Technical Product Risk Assessment Integration into the Enterprise Risk. *Technical Gazette* 20(4), 721-730.
- Dvorský, J., József, P., Zuzana, V., Sándor, K. (2018). Assessing the importance of market risk and its sources in SMEs of the Visegrad group and Serbia. *Advances in Decision Sciences*

- [online]. 2018, vol. 22 [cit. 2022-06-11]. ISSN 2090-3359. Dostupné z: <https://search.proquest.com/docview/2246693155>.
- European Commission. (2018). *2017 SBA Fact Sheet-Romania*. <https://ec.europa.eu/docsroom/documents/29489/attachments/24/translations/en/renditions/pdf>.
- European Commission. (2018, November). *Annual Report on European SMEs 2017/2018: SMEs growing beyond borders*. <https://ec.europa.eu/docsroom/documents/32601/attachments/1/translations/en/renditions/native>.
- Falkner, E. M. & Hiebl, M. R. (2015). Risk Management in SMEs: a Systematic Review of Available Evidence. *The Journal of Risk Finance*, 16(2), 122-144.
- Frigo, M. L. & Anderson, R. J. (2011). Strategic Risk Management: A foundation for improving enterprise risk management and governance. *Journal of Corporate Accounting & Finance*, 22(3), 81-88.
- Gallagher, M & Rozner, S. (2008). “*Integrated Financial Management Information Systems: A Practical Guide*,” funded by USAID under Contract GEG-I-06-04- 00001-00 Task Order No. 06.
- Gichohi, P. M., Onyancha, O. B., & Dulle, F. W. (2017). Capacity building modules for public libraries to support small-scale business enterprises in Meru County, Kenya. *South African Journal of Libraries & Information Science*, 83(1), 49-58.
- Gikenye, W. (2014). The status and development of informal sector and ICT access in Kenya. *Inkanyiso*, 6, 1, 77-88.
- Global Association of Risk Professionals. (2007). *Foundations of Risk Management*. Jersey City, New Jersey, USA. [http://www.gocharter.com.tw/download/20110810FRM\\_Risk\\_mgn\\_Basis%20\\_new-sample.pdf](http://www.gocharter.com.tw/download/20110810FRM_Risk_mgn_Basis%20_new-sample.pdf).
- Grace-Martin, K. (2008, October). *Can Likert Scale Data Ever Be Continuous? Article Alley*. <https://www.theanalysisfactor.com/can-likert-scale-data-ever-be-continuous/>.
- Havierníková, K. and Kordoš, M. (2019). Selected risks perceived by smes related to sustainable entrepreneurship in case of engagement into cluster cooperation. *Entrepreneurship And Sustainability Issues*. 2019 Volume 6 Number 4 (June), [http://doi.org/10.9770/jesi.2019.6.4\(9\)](http://doi.org/10.9770/jesi.2019.6.4(9))
- Henschel, T. (2008). *Risk Management Practices of SMEs: Evaluating and Implementing Effective Risk Management Systems*. Berlin: Erich Schmidt Verlag.
- Hillson, D. (2002). Extending the Risk Process to Manage Opportunities. *International Journal of Project Management*, 20(3), 235-240.
- Janney, J. J. & Dess, G. G. (2006). The Risk Concept for Entrepreneurs Reconsidered: New Challenges to the Conventional Wisdom. *Journal of Business Venturing*, 21(3), 385-400.

- Jayathilake, P. M. (2012). Risk Management Practices in Small and Medium Enterprises: Evidence from Sri Lanka. *International Journal of Multidisciplinary Research*, 2(7), 226-234.
- Jia, C., Tang, X., & Kan, Z. (2020). Does the Nation Innovation System in China Support the Sustainability of Small and Medium Enterprises Innovation? *Sustainability*, 12(6), 2562. <https://doi.org/10.3390/su12062562>
- Karadag, H. (2016). The Role of SME's and Entrepreneurship on Economic Growth in Emerging Economies within the Post-Crisis Era: An Analysis from Turkey. *Journal of Small Business and Entrepreneurship Development*, 4(1), 22-31.
- Kaushik, P. (6 Jan 2020). Why Is Risk Management So Important in Business? Management & Operations, starting business blog. <https://www.startingbusiness.com/blog/riskmanagement-importance>
- Kelliher, P. O., Wilmot, D., Vij, J. & Klumpes, P. J. (2011). *A Common Risk Classification System for the Actuarial Profession. A Discussion Paper*. London: The Institute and Faculty of Actuaries. <https://www.actuaries.org.uk/documents/common-risk-classification-systemactuarialprofession>.
- Keskin, H., Senturk, C., Sungur, O. & Kiris, H. M. (2010). *The Importance of SMEs in Developing Economies. 2nd International Symposium on Sustainable Development*, (ISSD 2010), June 8-9 (pp. 183-192). Sarajevo: International Burch University.
- Louw, A. & Com, B. (2007). *The Development of an Enterprise-Wide Risk Management Framework in an Organisation* - Mini-dissertation.
- Mabonga, M. (2020). Financial Bootstrapping Strategy and Sustainability of Small and Medium Enterprises in Kanduyi Sub - County, Kenya. *American International Journal of Business Management (AIJBM)* ISSN- 2379-106X, Volume 3, Issue 8 (August 2020), PP 95-107
- Mugenda, O. M & Mugenda, A.G. (2003). *Research method: Qualitative and Quantitative approaches*. Nairobi African centre for technology studies
- Muhammad, M. Z., Char, A. K., Yaso, M. R. & Hassan, Z. (2010). Small and Medium Enterprises Competing in the Global Business Environment: A Case of Malaysia. *International Business Research*, 3(1), 66-75.
- Myers, R. (2021). *Classical and Modern Regression with Applications* (2nd ed.). Boston: Duxbury Press.
- Njoroge, N.N. (2017). Effect of Strategic Management Practices Use on Tax Positioning among Small and Medium Enterprises in Nairobi County. *Journal of Management and Business Administration*, 2(1). Retrieved from <http://writersbureau.net/journals/jmba/effect-ofstrategicmanagement-practices-use-on-tax-positioning-among-small-and-mediumenterprises-in-nairobicounty.pdf>
- Nugroho, M. A., Susilo, A. Z., Fajar, M. A., & Rahmawati, D. (2017). Exploratory Study of SMEs Technology Adoption Readiness Factors. *Procedia Computer Science*, 124, 329-336.

- Nyaga, K. (2015). The impact of Mobile Money Services on the performance of Small and Medium Enterprises in an urban town in Kenya. *International Journal of Business and Management Invention*, 3, 2, 23–24.
- Oláh, J., Kovács, S., Virglerova, Z., Lakner, Z., Kovacova, M., & Popp, J. (2019). Analysis and Comparison of Economic and Financial Risk Sources in SMEs of the Visegrad Group and Serbia. *Sustainability*, 11(7), 1853. <https://doi.org/10.3390/su11071853>
- Otieno, M., (2013). *Strategic Issue Management Practices By Small and Medium Enterprises in Mombasa County, Kenya*. MBA Project: University of Nairobi
- Sarkis, J. (2021). Supply chain sustainability: learning from the COVID-19 pandemic. *International Journal of Operations & Production Management*, Vol. 41 No. 1, pp. 63-73. <https://doi.org/10.1108/IJOPM-08-2020-0568>
- Shad, M., Lai, F., Fatt, C., Klemeš, J. and Bokhari, A. (2019). Integrating sustainability reporting into enterprise risk management and its relationship with business performance: A conceptual framework. *Journal of Cleaner Production*, Volume 208, Pages 415-425. <https://doi.org/10.1016/j.jclepro.2018.10.120>.
- Sustainability Knowledge Group. (March 1, 2019). The importance of SMEs role in achieving sustainable development. <https://sustainabilityknowledgegroup.com/the-importance-of-smes-role-in-sustainability/>
- Urbański, M., Haque, A. & Oino, I. (2019). The moderating role of risk management in project planning and project success: Evidence from construction businesses of Pakistan and the UK. *Engineering Management in Production and Services*, 11(1) 23-35. <https://doi.org/10.2478/emj-2019-0002>
- Wakianga, P (2022). *SMEs critical in attaining manufacturing dream*. <https://kam.co.ke/smescritical-in-attaining-manufacturingdream/#:~:text=A%20survey%20by%20the%20Kenya,sustainability%20in%20this%20critical%20sector.>
- Wamuyu, P. K. (2015). The Impact of Information and Communication Technology Adoption and Diffusion on Technology Entrepreneurship in Developing Countries: The Case of Kenya. *Information Technology for Development*, 21(2), 253-280.
- Yao Wang. (September 01, 2016). What are the biggest obstacles to growth of SMEs in developing countries? - An empirical evidence from an enterprise survey. *Borsa Istanbul Review*, 16, 3, 167-176.
- Žigienė, G., Rybakovas, E., & Alzbutas, R. (2019). Artificial Intelligence Based Commercial Risk Management Framework for SMEs. *Sustainability*, 11(16), 4501. <https://doi.org/10.3390/su11164501>

## APPENDICES

### APPENDIX I: INTRODUCTION LETTER TO THE RESPONDENTS

Dear Sir/Madam,

**RE: REQUEST FOR PARTICIPATION IN A STUDY BY FILLING A QUESTIONNAIRE**

I am a postgraduate student at the Mount Kenya University pursuing a master's degree in business administration. One of the requirements of the degree programme is to conduct a study. Therefore, I am carrying out a study on "**Role of Risk Management Practices on the Sustainability of Small and Medium Sized Enterprises (SMEs) in Garissa County, Kenya**". I please request your assistance in filling in the attached questionnaire.

The information provided will strictly be used for academic aim and will be kept confidential. Additionally, note that the research results can be availed to you upon request.

In case of any concerns or further information, you can contact me on mobile number: +254720995596

Thank you and I am looking forward for your assistance in filling out the questionnaire.

Yours faithfully,

Musa Sanyare Aden

## **APPENDIX II: RESEARCH PARTICIPATION INFORMED CONSENT FORM**

**MT. KENYA UNIVERSITY**

**P.O BOX 342-01000**

**THIKA**

### **SUBJECT: INFORMED CONSENT**

**Dear Respondent,**

My names are Musa Sanyare Aden, an MBA student from Mount Kenya University. I am carrying out a study titled: **“Role of Risk Management Practices on the Sustainability of Small and Medium-Sized Enterprises (SMEs) in Garissa County, Kenya.”** The findings of the my research could be used among SMEs community, the study findings may help in reducing the uncertainty that exists. Uncertainty is not good for any business and from its rationale, “is difficult to quantify”.

The small and medium sized enterprises owners may also gain from this study as it will disclose the vital besides critical requirements for business planning that is successful. Other scholars can also benefit from the study’s results in future as a source of secondary data when performing their studies on the role of risk management and SME sustainability related fields.

#### **Purpose of the study *General***

*Purpose:*

The general objective of this study was to investigate Role of Risk Management Practices in

Ensuring the Sustainability of Small and Medium-Sized Enterprises (SMEs) in Garissa County, Kenya

## **Specific Purpose**

**The specific objectives of the study were.**

- i. To determine the influence of risk identification on the sustainability of SMEs in Garissa County
- ii. To examine the effect of evaluating business risks on the sustainability of SMEs in Garissa County
- iii. To establish how improvement in the risk mitigation process enhances the sustainability of SMEs in Garissa County.

## **Benefit to participants:**

If you participate in this study, you will help in acquisition and creation of more knowledge on risk management practices and sustainability of SMEs. Hence business owners, communities, governments and individuals will benefit from the study. The research will generate knowledge in the area of study and influence decision makers.

## **Rewards**

The participation in the research may not earn you any rewards.

## **Risks to participants**

There are no risks associated with participation in this study. Would you feel emotional about some questions, kindly alert the researcher and ask to drop out without any further explanations.

## **Voluntariness of participation:**

Participation is entirely voluntary, with no coercion and no financial benefit.

## **Confidentiality**

Your name and any contact details will not be attached or reflected anywhere in the research tools for tracing or whichever purpose.

The information shared was strictly used for academic purposes only and the results and publicity shall not contain any part of revelation of your identity.

**Contact information**

Would have any emerging questions and queries on the ethics of participation in this study, kindly conduct the chairman, MKU ethical review committee through the address;

P.O. Box 342, 01000, Thika - Kenya

**Participants' Statement**

The above information regarding my participation in the explained study has been sufficiently given to me. To the best of my understanding, I have exhausted my inquiries about participation in the study. I understand that my participation is voluntary and that I may drop from the participation without necessarily giving explanations.

Name of participant.....Sign.....Date.....

**Researcher Statement**

I confirm that I have explained the process of the study and the participant's role and ethical considerations concerning their participation.

Name of Researcher: Musa Sanyare Aden.....

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

**APPENDIX III: QUESTIONNAIRE FOR SMEs**

**SECTION A: GENERAL INFORMATION ON RESPONDENT**

Complete items by putting a tick in the appropriate box.

**Gender**

Male ( )

Female ( )

**Age Bracket**

Below 30years ( )

31-39 years ( )

40-50 years ( )

51-60 years ( )

**Highest Level of Education**

Certificate ( )

Diploma ( )

Bachelor ( )

Other ( )

**Which business area are you? (tick appropriately)**

Sector	Tick		Tick
Livestock Vendors		Clothing and Footwear	
Cereals sellers		Electronics and Electricals	
Hardwares and Motor vehicle spares parts vendors		Phone and Accessories	
Miraa Vendors		Transport sector e.g. Bodaboda, Tuktuk	
Mini supermarkets and General shops		Other services providers e.g. phone repairs, shoeshiners	
Hotel services providers			

**Length of Service in the business**

Below 5 years ( )

5-10 years ( )

Over 10 years ( )

**SECTION B:**

Please indicate to what extent to which you agree or disagree to the statement related to the following variables in your organization.

**Business risk identification**

On a scale of 5- 1, indicate the level of agreement with the following statements

1 – Strongly Disagree, 2- Disagree, 3- Neutral, 4- Agree and 5- Strongly Agree

Statement	5	4	3	2	1
I conduct some brainstorming for problems that face our business with fellow SMEs					
I consider reviewing my business growth regularly					
I have had customer survey for feedback for my business					
When there is challenge in my business, I conduct root cause analysis					
I have put in place project plans for my business					
I have done at least one SWOT analysis for my business					

### Business risk Evaluation

Which of the following risk do you think is of concern to you. Tick all that applies

- Safety risk
- Commercial risk
- Financial risk
- Environmental risk

On a scale of 5-1, how do you rate the following statements concerning the culture diversity?

5- Strongly Agree    4- Agree    3- Neutral    2- Disagree    1 – Strongly Disagree

Statement	5	4	3	2	1
I have identified and documented my business process					
I have identified key assets that run my business					
I have ranked to importance of assets running my business					

I normally brainstorm what may affect my business assets					
I have identified and know the counter measures of things that may affect my business assets					

**Risk Mitigation process**

On a scale of 5-1, rate the following statements according to your opinion.

5- Strongly Agree    4- Agree    3- Neutral    2- Disagree    1 – Strongly Disagree

Statement	5	4	3	2	1
I normally analyze my business risk consequences					
I have been ranking the effects of risks do monitor my business risks					
I normally work on ending my business risk exposures					
I review and consider previous risks to my business					
I have mechanisms f backing up my business data					
I monitor my business risks					

**SME sustainability**

On a scale of 5-1, rank the level of your agreement with the following statements

5- Strongly Agree    4- Agree    3- Neutral    2- Disagree    1 – Strongly Disagree

Statement	5	4	3	2	1
I have been in business continuously since I opened					
I have passed or likely to reach 10 years in business					
I am not so worried about my supplies to my business					
I understand that my business has a stable resource base					
My business has a stable staffing					
I have been working cost reduction for my business					
I have been on an upward profitability for the last 2 years					
I have not diversified my business venture based on what customers need					

Thank you for your cooperation.

## **APPENDIX IV: INTERVIEW GUIDE FOR FINANCIAL SERVICES FIRMS'**

### **REPRESENTATIVES**

- 1) Do you think that SMEs in Garissa County conduct some brainstorming for problems that face their business with fellow SMEs?
- 2) Explain how SMEs in Garissa County review their business growth.
- 3) What is your view and role on ensuring assessment of Financial risk to SMEs in Garissa County?
- 4) Do you help your clients to conduct business risk consequences?
- 5) What are some of the effects of risks that you advise your clients to monitor in their business risks?
- 6) Explain how SMEs in Garissa County ensure business sustainability within their capacity to conduct risk management.

**APPENDIX VII: SAMPLING TABLES BY KREJCI AND MORGAN**

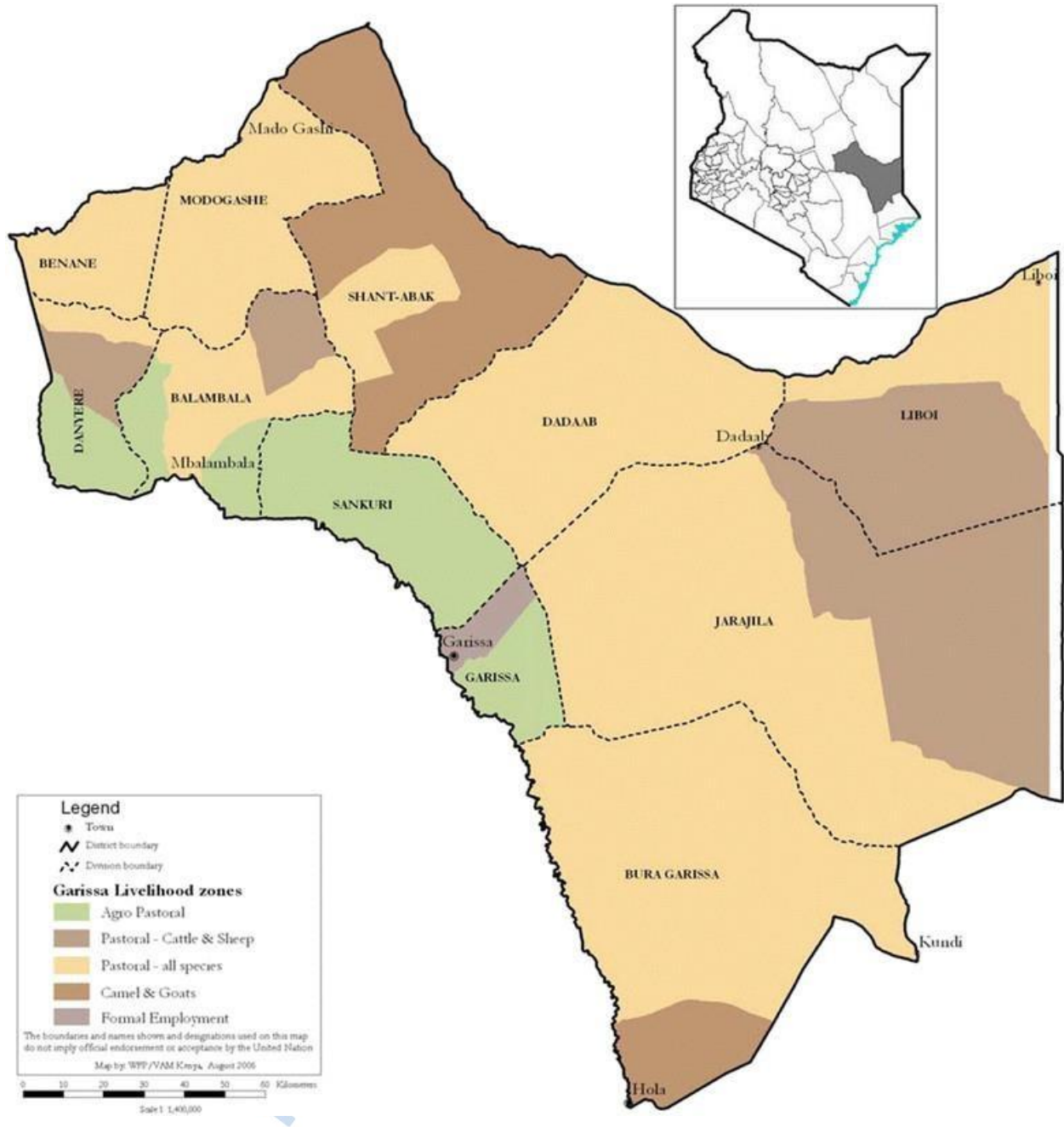
<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	346
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	354
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	191	1200	291	6000	361
45	40	170	118	400	196	1300	297	7000	364
50	44	180	123	420	201	1400	302	8000	367
55	48	190	127	440	205	1500	306	9000	368
60	52	200	132	460	210	1600	310	20000	370
65	56	210	136	480	214	1700	313	15000	375
70	59	220	140	500	217	1800	317	20000	377
75	63	230	144	550	226	1900	320	30000	379
80	66	240	148	600	234	2000	322	40000	380
85	70	250	152	650	242	2200	327	50000	381
90	73	260	155	700	248	2400	331	75000	382
95	76	270	159	750	254	2600	335	100000	384

SOURCE: From R. V. Krejcie and D. W. Morgan, "Determining Sample Size for Research Activities," *Education and Psychological Measurement*, 30, p. 608, copyright © 1970 Sage Publications, Inc., Reprinted by permission of Sage Publications, Inc.

Mount K






**APPENDIX VIII: MAP OF STUDY LOCALE**

# GARISSA COUNTY




## APPENDIX IX: NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND

# INNOVATION (NACOSTI)

 REPUBLIC OF KENYA	 NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION
Ref No: 554717	Date of Issue: 02/February/2024
<b>RESEARCH LICENSE</b>	
	
<p>This is to Certify that Mr. Musa Sanyare Aden of Mount Kenya University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Garissa on the topic: <b>INFLUENCE OF RISK MANAGEMENT PRACTICES ON SUSTAINABILITY OF SMALL AND MEDIUM SIZED ENTERPRISES (SMEs) IN GARISSA COUNTY, KENYA</b> for the period ending : 02/February/2025.</p>	
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University

## APPENDIX X: ERC



# Mount Kenya University

REF: MKU/ISERC/3311 Date: 03 November 2023  
TO: MUSA SANYARE  
REG: MBA/37007/2015

Dear Sir/Madam,

**RE: INFLUENCE OF RISK MANAGEMENT PRACTICES ON SUSTAINABILITY OF SMALL AND MEDIUM SIZED ENTERPRISES (SMEs) IN GARISSA COUNTY, KENYA**


This is to inform you that **Mount Kenya University** has reviewed and approved your above research proposal. Your application approval number is **2355**. The approval period is **02/11/2023 - 01/11/2024**.

This approval is subject to compliance with the following requirements:

- i. Only approved documents including informed consents, study instruments, MTA will be used
- ii. All changes including amendments, deviations and violations are submitted for review and approval by **Mount Kenya University**
- iii. Death and life-threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to **Mount Kenya University** within 72 hours of notification
- iv. Any changes, anticipated or otherwise that may increase the risks or affect the safety or welfare of study participants and others or affect the integrity of the research must be reported to **Mount Kenya University** within 72 hours
- v. Clearance for export of biological specimens must be obtained from relevant institutions
- vi. Submission of a request for renewal of approval at least 60 days prior to expiry of the approval period. Attach a comprehensive progress report to support the renewal
- vii. Submission of an executive summary report within 90 days upon completion of the study to **Mount Kenya University**

Prior to commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology and Innovation (NACOSTI) <https://research-portal.nacosti.go.ke> and also obtain other clearances needed.

➔ **The Chairman**  
**Mount Kenya University**  
Ethics Review Committee  
P. O. Box 342 - 0100, Thika

Yours sincerely,  
  
**Dr. Alfred Owino, PhD**  
**Chairman, Mount Kenya University ISERC**

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Main Campus, General Kago Road, P.O. Box 342-01000 Thika.  
Call: +254 709 153 000 / +254 709 153 200  
Email: info@mku.ac.ke Web: www.mku.ac.ke  
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**APPENDIX XI: AUTHORIZATION LETTER FROM KENYA NATIONAL CHAMBER OF  
COMMERCE & INDUSTRY, GARISSA CHAPTER (KNCCI)**



**KENYA NATIONAL CHAMBER OF  
COMMERCE & INDUSTRY**  
Jihan Center, Ground Floor, Off Harambee Road  
Garissa | Kenya.  
Mobile: + 254 723 991 116 / + 254 723 861 761,  
Email: [gariisa@kenyachamber.or.ke](mailto:gariisa@kenyachamber.or.ke)  
[www.kenyachamber.or.ke](http://www.kenyachamber.or.ke)  
Twitter: @GarissaChamber

REF: KNCCI/GSA/VOL/5/18

Date: 22<sup>nd</sup> May 2024.

To Whom It May Concern

**RE: Confirmation of Data Collection by MUSA SANYARE ADEN ID/NO:22629858**

This is to confirm that Musa Sanyare Aden a student at Mount Kenya University collected data for academic research on Small and Medium Sized Enterprises (SMEs) in Garissa County on the topic: **INFLUENCE OF RISK MANAGEMENT PRACTICES ON SUSTAINABILITY OF SMALL AND MEDIUM SIZED ENTERPRISES IN GARISSA COUNTY** for the period of February and March 2024.

Sincerely,




Abdiwahid Ahmed Mohamed

CEO

KNCCI-Garissa Chapter

## APPENDIX XII: MOUNT KENYA UNIVERSITY INTRODUCTION LETTER

  
**Mount Kenya University**

**DIRECTORATE OF GRADUATE STUDIES**

**MBA/37007/2015**

14<sup>th</sup> November, 2023

National Commission for Science Technology & Innovation (NACOSTI)  
Off Waiyaki Way, Upper Kabete,  
P.O Box 30623- 00100  
NAIROBI, KENYA

Dear Sir/Madam,

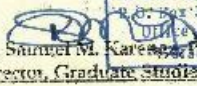
**RE: MUSA SANYARE – REGISTRATION NO. MBA/37007/2015**

The purpose of this letter is to introduce the above named student who is pursuing Master of Business Administration in the department of Accounting and Finance in the school of Business and Economics

The title of the research is “Influence of Risk Management Practices on Sustainability of Small and Medium Sized Enterprises (SMEs) in Garissa County, Kenya.” It has been cleared by the University’s Ethics Review Committee (Certificate attached) and now has to proceed to the field to collect data between November, 2023 and January, 2024.

Any assistance accorded to the student will be highly appreciated.

Thank you.

  
Dr. Samuel M. Karega, **Director, Graduate Studies**

**Mount Kenya University**  
P.O. Box 342-01000 THIKA  
Office of the Director,  
Director, Graduate Studies

Enc.

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Main Campus, General Kago Road, P.O. Box 342-01000 Thika.  
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# SANYARE'S TURNITIN REPORT

**musa sanyare**

## Research

-  RESEARCH PROJECT
-  BCOM
-  Mount Kenya University

### Document Details

Submission ID

trn:oid::1:3068975562

Submission Date

Nov 6, 2024, 9:29 AM GMT+3

Download Date

Nov 6, 2024, 9:44 AM GMT+3

File Name

Musa\_Sanyare\_Aden\_-Final\_Project\_Report\_1.docx

File Size

5.2 MB

94 Pages

20,158 Words

114,336 Characters



Page 1 of 104 - Cover Page

Submission ID trn:oid::1:3068975562

MOUNT KENYA UNIVERSITY

## 14% Overall Similarity

The combined total of all matches, including overlapping sources, for each database.

### Filtered from the Report

- ▶ Bibliography
- ▶ Quoted Text
- ▶ Cited Text

### Exclusions

- ▶ 1 Excluded Source

### Match Groups

- 229** Not Cited or Quoted **14%**  
Matches with neither in-text citation nor quotation marks
- 0** Missing Quotations **0%**  
Matches that are still very similar to source material
- 0** Missing Citation **0%**  
Matches that have quotation marks, but no in-text citation
- 0** Cited and Quoted **0%**  
Matches with in-text citation present, but no quotation marks

### Top Sources

- 13% Internet sources
- 5% Publications
- 5% Submitted works (Student Papers)

### Integrity Flags

#### 1 Integrity Flag for Review

- Hidden Text**  
5 suspect characters on 1 page  
Text is altered to blend into the white background of the document.

Our system's algorithms look deeply at a document for any inconsistencies that would set it apart from a normal submission. If we notice something strange, we flag it for you to review.

A flag is not necessarily an indicator of a problem. However, we'd recommend you focus your attention there for further review.

Mount K.

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## Clearance to Submit Final Project

1 message

**MKU Post Graduate** <post.graduate@mku.ac.ke>

Wed, Nov 6, 2024 at 3:45 PM

To: Musa Sanyare Aden <sanyare10@gmail.com>

Cc: Isaac Mokono <AMokono@mku.ac.ke>, Rose Masibili <rmasibili@mku.ac.ke>, Henry Yatich <HYatich@mku.ac.ke>, School of Business Postgraduate <sbepostgraduate@mku.ac.ke>

Dear Musa,

You have been cleared to submit your final project by **7th November 2024**. In this regard, you are expected to submit the following;

- i. A Softcopy of the thesis/project in both MS word and PDF using the attached template
- ii. A duly filled **Template** for submission of abstracts and publication(s). If the publications don't apply to you, just write N/A
- iii. A separate approval and declaration page signed by the student and supervisor(s) in PDF

### Notes

- i. It is an academic **MALPRACTICE** to submit work without the approval of your supervisor(s)
- ii. All PhD students **MUST** publish or show proof of acceptance of at least **TWO** research publications from their thesis work in **INDEXED** University recommended journals. A list of the recommended journals can be accessed using the link; <https://cgsr.mku.ac.ke/list-of-peer-reviewed-index-journals/>

The documents above should be emailed to [post.graduate@mku.ac.ke](mailto:post.graduate@mku.ac.ke) and copied to the Editorial Officer: [hmwambeo@mku.ac.ke](mailto:hmwambeo@mku.ac.ke) with subject; **FINAL THESIS/PROJECT FOR (STUDENT'S NAME, REGISTRATION NUMBER)**.

Kind regards,

*Directorate of Graduate Studies  
Mount Kenya University  
P. O Box 342 - 01000  
THIKA.  
Offices: Alumni Plaza 6th Floor*

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