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## ASSESSMENT OF RISK MANAGEMENT PRACTICES ON SURVIVAL OF SMALL AND MEDIUM SCALE ENTERPRISES IN ADAMA CITY

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**Abstract:** Small and Medium Enterprises (SMEs) have strongly grown in Ethiopia's economy especially in the manufacturing industry and have contributed greatly to the Gross Domestic Product (GDP) of the country and created a number of employment opportunities. However, many have not had a smooth course as they have faced various difficulties during their existence such as limited finance, low levels of technology, limited market for their products, natural hazards and many others and hence many have ended up failing and collapsing.

The survival rate of Small and Medium Scale Enterprises (SMEs) have been found to be low despite all the effort made by the government to sustain their existence. This seems to be linked to the poor management of various risk factors confronting the operators of the sector in Ethiopia. In view of this, the study is aimed at determining the influence of Enterprise Risk Management (ERM) practices on survival of SMEs in Adama city.

The major objective of the study was to research, assess and identify the influence of risk management on the survival of small-medium-sized enterprise (SME) in Adama. This paper has been conducted on about 200 randomly selected SMEs out of total available SMEs in Adama. SMEs reduce risk exposure by having proper risk management tools in place. Interview was conducted to some SMEs' owners, manager and the government body. The interview generally focuses on the risk management process and enterprise risk management practice in SMEs and examines how these risk management practices in company are used to overcome the risks.

The study was conducted using primary and secondary data. A simple random method was also used. Data which were generated through structured questionnaires were analyzed using both descriptive and inferential statistical tools using SPSS 26 software.

This study was also investigating the degree of impact of Enterprise Risk Management practices in some selected SMEs in Adama City and effect of ERM Dimensions including Internal Environment, Objective Setting, Event Identification, Risk Assessment, Risk response, Control Activities, Information and Communication and Monitoring on the survival of SMEs.

Results indicate that majority of ERM practices significantly influence the survival of SMEs. This study could be useful for policy makers to plan their activities towards risk management of Small and Medium Scale Enterprises in Adama.

Based on the findings, it was recommended that SMEs owners should take ERM practices as a valuable business function that enhances survival.

**Key words:** ERM, Risk Management, Small and Medium sized Enterprises, Survival of SMEs.

### Abbreviations and Acronyms

CA.....	Control Activities
CBN.....	Central Bank of Nigeria
COSO.....	Committee of Sponsoring Organizations'
BDS.....	Business Development Services
EI.....	Event Identification
ERM.....	Enterprise Risk Management
GDP.....	Gross Domestic Product
IDB.....	Industrial Development Board

IE.....	Internal Environment
ILO.....	International Labor Organization
IC.....	Information and Communication
MN.....	Monitoring
MSMEs.....	Micro, Small and Medium sized Enterprises
OECD.....	Organization for Economic Cooperation
OS.....	Objective Setting
SME.....	Small and Medium size Enterprise
RA.....	Risk Assessment
RR.....	Risk Response
RM.....	Risk Management
RMP.....	Risk Management Practices/Practices
VIF.....	Variance Inflation Factor

## I. INTRODUCTION

This chapter gives a brief about the study. It starts off with the background of the study which gives a picture of the operations of SMEs in Adama, and Ethiopia at large, it looks at problem statement, outlines research objectives and research questions, gives detail on the significance and scope of the study.

### 1.1. Background of the Study

For all intents and purposes, the contribution of Small and Medium Enterprises (SMEs) in spurring the development of world economy, has become an established fact. (Feeney & Riding, 1997) as cited in (Hagos et al., 2012) concede that by dint of their inherent potential to create jobs, unleashing the entrepreneurial spirits, laying the foundational structures for industrialization amongst many others, governments are increasingly motivated to channel their development momentum towards the promotion of SMEs at all levels.

Small and medium enterprises SMEs are viewed as one of the mechanisms of economic growth in developing countries. Small and medium enterprises SMEs, in Ethiopia are relatively large in their presence. In developing countries such as Ethiopia, SMEs are seen as an emerging private sector, forming the basis for private-sector led growth. In Ethiopia at the extent of strategy and policy, these roles of SMEs have received recognition. SMEs in Ethiopia comprise of those having paid up capital of 20,000-500,000 Birr (about US\$4,000-100,000) and more than 500,000 Birr, respectively; or having 11-15 employees and more than 50, respectively. Attracting more women into these formal ventures can boost industrial activities and productivity in the region.

As the predominant form of business and employment, small and medium-sized enterprises (SMEs) are key actors for promoting more inclusive and sustainable growth, increasing economic resilience and improving social cohesion. They are critical partners for building a better future (OECD, 2019). The roles of SMEs is reflected in their capability to create employment, alleviate poverty, equitably distribute income and resources, enhance innovation, develop entrepreneurial skills, encourage urbanization and improve the living standard of the people (Aigbodua & Oisamoje, 2016).

Due to a contemporary highly competitive environment, most governments have seen increasing awareness and recognition of the role played by Small and Medium Enterprises (SMEs) and their contribution to the economy (Hlatshwako, 2012). The need for SMEs considers as a means of ensuring self-independent, jobs creation, import substitution, effective and efficient utilization of local raw materials and participation to the economic development (Ong et al., 2012). For instance, in the US, also in other industrialized countries such as Japan, Australia, Germany, French and Canada, Micro, small and medium enterprises (MSMEs), and particularly small and medium enterprises (SMEs), are an important engine of economic growth and technological progress (Thornburg, 1993).

Since the SMEs (Koisova et al., 2017) are a key part of every country's economic system, the important factors determining the quality of the entrepreneurial environment of such companies are a vital area of research.

Risk can be seen as the possibility of economic or financial losses or gains, as a consequence of the uncertainty associated with pursuing a course of action (Chapman & Cooper, 1983). Many industries, including the environment, healthcare, public safety, and corporate management, are developing and implementing risk management practices.

Most business decisions are carried out under conditions of uncertainty. The risk can be thus defined as quantified uncertainty (Belás et al., 2015). Risk management is the process of identifying risk, assessing risk, and taking steps to reduce risk to an acceptable level. The risk management approach determines the processes, techniques, tools, and team roles and responsibilities for a specific project.

### 1.2. Statement of the Problems

The study conducted by (Tinarwo, 2016), is established that some of the challenges hampering the growth of SMEs were stiff competitions, lack of markets, unfair treatment exhibited by local authorities and lack of government support, inadequate information and communication technologies, as well as education, have significantly impacted the majority of our SMEs. According to research, many SMEs ultimately failed because they lacked a defined risk management technique. Being technically knowledgeable about how to launch a company venture is insufficient in the dynamic business world of today (Mahadea., 2008).

In Ethiopia there were several researches done on micro, small and medium sized enterprises. (Worku M., 2020) studied on factors affecting transitional development of small scale to medium scale enterprise in Debrebirhan town, (Abel et al., 2014) studied on challenges of small and micro enterprises, and (Hagos et al., 2012) covered the challenges and prospects of small and medium sized enterprises in Ethiopia but the knowledge of employees, owners and managers on risk management practice and COSO frame works are uncovered so far to let the stakeholders know the effect risk management practices on the survival of SMEs. As a result, the focus of SMEs owner managers, managers and entrepreneurs should be orientated on enhancing their results through risk management, to adequately use the financial support infrastructures provided to them, as well as to enable their businesses to enjoy sustainable growth.

Moreover, all these objectives could be best approached if a proper introduction; execution and monitoring of risk management principles and strategies are well understood and applied by SMEs owner managers, managers and entrepreneurs. Much of the research discussed on programmatic risk management focuses on behavior rather than ideas, perceptions or attitudes. More specifically, the study focuses on the behavior of the entrepreneur who is responsible for risk management of the agency. It is therefore important to examine the influence of risk management practices on survival of SMEs.

In Ethiopia context SMEs are facing different type of risks in their business activities and due to those risks, they are facing some losses. Problems in the SME sector will lead to create uncertainties in the sector and it will badly affect to performances in SMEs. SME sector is running their businesses activities at low level due to those uncertainties and risks. For most SMEs there is little point in addressing one category of risk without addressing risks across the whole of their business. Then it is interesting to find out impact of risk management tools and business survival of SMEs.

Further some researchers' belief that Enterprise Risk Management is best risk management tool for unstructured organizations such as small and medium scale businesses (SMEs) and also, they emphasize that even small businesses are functioning Enterprise Risk Management components properly rather than well-developed organizations. Therefore, it is researchable area to find out whether ERM frame work components are functioning well or not in the small and medium scale businesses (SMEs).

SMEs seek to meet their risk management needs through informal practices and it is possible that they will have place big problems. In Ethiopia context there is high probability to collapse SMEs due to those internal and external uncertainties and ultimately it will affect to economy badly. Therefore, it is obvious that this research study focused on impact on Enterprise Risk Management (ERM) practices in the survival of SMEs. The aforementioned risks were considered in the context of SMEs and gauging the extent to which they impact SMEs and the approach followed by SMEs to tackle these risks.

The main purpose of this study is to assess the knowledge of the owners, managers and employees of SMEs about risk management, identify the different types of risks systematic or unavoidable and unsystematic or avoidable risks that the SMEs face, find out the risk management practices they have put in place and provide solutions that can make these businesses better and increase their survival in Adama city.

### 1.3. *Research Questions*

Based on the above raised problem, major research questions to be answered by this research paper are;

1. What risk management practices do SMEs employ and what challenges hinder implementation?
2. How Enterprise Risk Management (ERM) framework practices and impacts on organization's survival in SME sector?

### 1.4. *Objective*

#### 1.4.1 *General Objective*

The general objective of this study is to assess the risk management practices of small and medium enterprises located in Adama city.

#### 1.4.2. *Specific Objectives*

The study intends to achieve the following objectives;

- ✓ To analyze risk management strategies and identify the impacts of ERM system that is implemented by SMEs.
- ✓ To identify Enterprise Risk Management (ERM) practices and their impacts on survival of Small and medium Enterprises (SMEs) in Adama city.

### 1.5. *Significance of the Study*

The study concerns and helps SMEs identify and analyze any threat to the organization. Identifying and mitigating risks help the enterprises to: reduce uncertainty, plan meticulously and execute successfully.

A successful risk management program helps an organization consider the full range of risks it faces. Risk management also examines the relationship between risks and the cascading impact they could have on an organization's strategic goals.

SMEs are playing vital role in economic development of Ethiopia and SMEs are contributed to GDP at higher level. SMEs are providing solutions for economic problems such as unemployment, underutilization of resources, poverty reduction and rural development. Then it is necessary to investigate real picture about SMEs and it assists them to uplift their business position. SMEs are having different types of risks with in their context and those risks are badly affecting to future development of the sector and therefore it is important to identify their risk management practices and what is their perception intend to implementing ERM framework

The study was conducted based on risk management in SMEs in Adama. it was carried out to find out how SMEs are handling the issue of risk management including identifying the knowledge that the owners, managers and employees have about risk management, the risks that they face and how they overcome them and also provide solutions to these challenges.

All in all, it can be concluded that this research can provide valuable information about Enterprise Risk management practices and its impact on SMEs survivals. As Ethiopian economy is going through a critical phase at the movement, the findings of this research will be contributive to the economic development of the country.

### 1.6. *Scope of the Study*

The study was assumed to assess/investigate the security risks, the financial and economic risks that can threat the survival of small and medium sized enterprises. It can also try to analyze the strategies to cope up the business firms with these conditions. This thesis study tried to assess how the Enterprise Risk Management practices effect the survival of Small and Medium sized Enterprises.

### 1.7. *Organization of the Study*

This study is organized under five chapters. Part, one deals with the introduction which in turn contains the background of the study, statement of the problem, objectives, scope, limitations, significance and organization of the study. Part two presents' concepts and definition, review of both the theoretical and empirical literatures, and conceptual framework of the study. Part three is about research approach, research design, sample design, data sources, analytical method of the research, reliability and validity of the study. Part four provides interpretation of findings and discussions of both descriptive and qualitative to analyze

corresponding to the research questions of the study. Finally, part five constitutes summary of the findings, conclusions and recommendation so as to solve observed problems and to accelerate the development of enterprise risk management practices in Adama

## II. LITERATURE REVIEW

### 2.1. Introduction

This chapter reviews literature of various scholars as regards the topic of risk management in SMEs. It also presents the theory that underpins the study, definitions, role of SMEs, their characteristics, challenges they face, types of risks, concept of risk management, risk management process and practices and how to improve SMEs. The chapter also details gaps within the literature as well as the researcher's voice in relation to risk management among small scale enterprises.

### 2.2. Theoretical Review

The study was informed by the COSO-model and according to the model, the financial risk management process involves four steps: identifying potential losses, evaluating potential losses, selecting appropriate risk management techniques for treating loss exposures and implementing and administering the risk management program (Commission, 2014).

(Kaliti, 2017) noted that risk management is a human activity which integrates recognition of risk, risk assessment, developing strategies to manage it and mitigation of financial risk using managerial resources. The model says that form SMEs financial risk management for example; entails an economic value practice by an organization where financial tools together with employees are used by the management to manage exposure to different types of risk in a business (The Financial Reporting Council Report, 2014).

Risk management in SMEs has to deal with operational financial risks, like foreign exchange, liquidity and inflation risks for small and medium enterprises. However, it should be noted that financial risk management requires that there is identification of the sources of risk, measurement and making plans to address such risks (Dionne, 2013). This model guided studies by (Wainaina S. W., 2011) and (Ndamenenu, 2010). This would have been guided by other theories such as the institutional theory by (Cameroon, 2005) and/or the stakeholders' theory by (Freeman 1984).

### 2.3. Over view of Small and Medium Size Enterprises

(International Labor Organization, 2015), ILO at the International Labor Conference (ILC) estimated about 420-510 million SMEs worldwide of which 9% are formal SMEs. (World Bank, 2020) states that SMEs account for majority of businesses worldwide up to about 90%. It further confirms that SMEs create 7 out of 10 jobs especially in developing countries.

Despite the increasing growth of SMEs, many have succumbed to failure, some barely making it to two years of existence. Failures to identify and manage the risks they face accordingly has also been a big factor in their collapse. SMEs are perceived as hugely risky by nature (Zacharakis et al., 1999). They face an overabundance of business risks however the management rarely discuss how to handle them.

It is true that small and medium enterprises (SMEs) are particularly vulnerable to continuously daily internal and external unwanted events that adversely affect their operations and function (Gorzeń-Mitka, 2015). This is true in the context of developing countries where issues such as inflation and low demand for goods and services might happen to sabotage the functions of the SMEs.

### 2.4. Definition of Small and Medium Size Enterprises

(OECD 2021) defines SMEs as non-subsidiary, independent firms which employ fewer than a given number of employees. It further states that this number varies across countries. The most frequent upper limit designating an SME is 250 employees, as in the European Union. However, some countries set the limit at 200 employees, while the United States considers SMEs to include firms with fewer than 500 employees.

(International Labor Organization, 2015) also defines an SME as any enterprise that has fewer than 250 employees. European Commission (EC) defined SMEs basing on the number of employees as; Firms with 0 to 9 employees – micro enterprises; 10 to 99 employees - small enterprises; 100 to 499 employees - medium enterprises.

**Uncertainty:** This refers to situations involving imperfect or unknown information. Early literature including (Knight. F, 1921) described uncertainty as a situation in which probabilities of outcomes are unknown to the decision maker. Uncertainty comes with unknown probabilities and cannot be quantified.

**Risk:** (ISO - International Organization of Standardization, 2009) defines risk as the effect of uncertainty on objectives and risk management as a process of identification, evaluation and prioritization of risks with a view to minimize, control and monitor the probability and or impact of these negative events.

According to (Chapman & Cooper, 1983) risk is a possibility of suffering economic and financial losses or physical materials, damages as a result or an inherent uncertainty associated with the action taken. Risk can be systematic which is also known as market risk that affects the entire economy and un systematic that is specific to the business/firm.

Risks can be caused by external factors that is political, economic, social, technology, environmental, Technology and internal factors that is Human Resources, infrastructure.

### 2.5. Empirical Review on Risk Management

#### 2.5.1. Concept of Risk Management in Small and Medium Size Enterprises

(Hollman & Mohammad-Zadeh, 1984) state risk management is a systematic method of using a firm's physical, financial, and human resources to attain certain objectives concerning most pure loss exposures. They added a pure loss exposure only provides two prospective outcomes loss or no loss. There is no possibility of a gain. In smaller firms, owner is likely to bear the responsibility for management, perhaps in conjunction with a top staff officer who is assigned the duty on a part-time basis. (Hollman & Mohammad-Zadeh, 1984) added the effective functioning of SMEs requires that loss exposures be identified, measured, and treated.

(Engle. P, 2009) explains risk management as a process of thinking systematically about all possible risks, problems before they happen and putting in place procedures to minimize or cope with the impact.

Relatedly, today SMEs operate under complex environment with risks of different types, making SMEs management a difficult task for managers. Such an environment requires that SMEs constantly analyze and reduce risks for business survival (Ellis et al., 2010). Following this literature, it can be argued that risk management for SMEs is taking the attention of manager in different

countries. Thus, business owners and governments ought to acknowledge that its business actions cause risks which required effective management for the SMEs with this argument as a researcher, it is vital to look at SMEs as special business entities that need to have their risks prevented and addressed in a proper and timely manner.

Every business is vulnerable to risks that can affect the profitability directly or indirectly. Risk can be classified into financial and business risk. (Verbano & Venturini, 2013) insist that all enterprises need to adopt a risk management strategy to identify, assess and treat risks to survive on the market.

Generally, SMEs including those in manufacturing have a tendency of not considering risk management as one of their priorities. Research by the Institute of Chartered Accountants in England and Wales (Alpa et al. 2005) show that expenditures for risk management of smaller businesses are considerably less than larger businesses.

In every business risk management is vital and for the case of SMEs, it can cause significant reduction of such businesses to exposure of losses as operations and functions take place (Kiew & Angeline, 2016). As a researcher, it is personally acknowledged that SMEs are vulnerable to risks and these can lead to business failure and closure if not managed well by the concerned parties. Risk management aims to reduce the potential for risks, mitigating the impact of possible losses, (De Paz1 et al., 2012). Adopting Risk Management can help to reduce uncertainty.

Risk management yields various benefits including helping decision makers to make informed decisions. It takes account of uncertainty and determines how to address it. It promotes efficiency and effectiveness in the enterprise.

(Ntlhane, 1995) says that a structured risk management approach helps enterprises to pursue their goals and objectives effectively and efficiently. Strategic risk management allows SMEs owner managers to objectively assess their actions. (Watt, 2007) Risk management also aids decision making and promotes efficiency.

A structured approach to risk management will assist in providing a goal orientated and consistent risk management process (Beckett, 2005). Risks can be managed internally and externally. Some of the strategies that can be used include diversification, collaboration, insurance. (Mamai & Yinghua, 2017). Risks and their management among SMEs can be internal and external in nature that is; those arising from the SMEs and outside respectively (Georgousopoulou, et al. 2014). Indeed, it is important for the SMEs team to come up a detailed plan to handle all the types and forms of the risks to the SMEs (Poba-Nzaou et al., 2014). It is true that the sources of risks for SMEs. However, it was not articulated that for SMEs it is vital to categorize that the risks and deal with them accordingly in relation to their sources. Thus, for SMEs for this study, it was vital to address the risks therein based on their sources. As presented by the authors, (Georgousopoulou, et al. 2014).and (Poba-Nzaou et al., 2014) the detailed plans need to reflect internal and external sources of risks for SMEs. In the context of the case study for this research, administrators of SMEs have a noble duty of fulfilling all these provisions.

According to (Pontré et al., 2011) in SMEs management, risks are normally considered in terms of negative consequences that happen to the SMEs itself or the people in its implementation. To handle risks, firms need to come up with risk assessment methodology. However, from the literature less was articulated in terms of sources of risks that are associated with SMEs in developing economies. It is therefore, vital to note that in carrying out this study, the risks that are faced by SMEs needed to be identified and assessed.

2.5.2. Conceptual Model of Enterprise Risk Management

The conceptual model proposed for this study as illustrated by figure 1 below describes an interaction between two variables which are ERM practices and survival of SMEs. The eight components of the COSO ERM framework are hereby adopted as indicators for the ERM practices. The variable for measuring business survival varies as indicated by the approaches of previous studies are considered as proxies for SMEs survival.

ERM PRACTICES

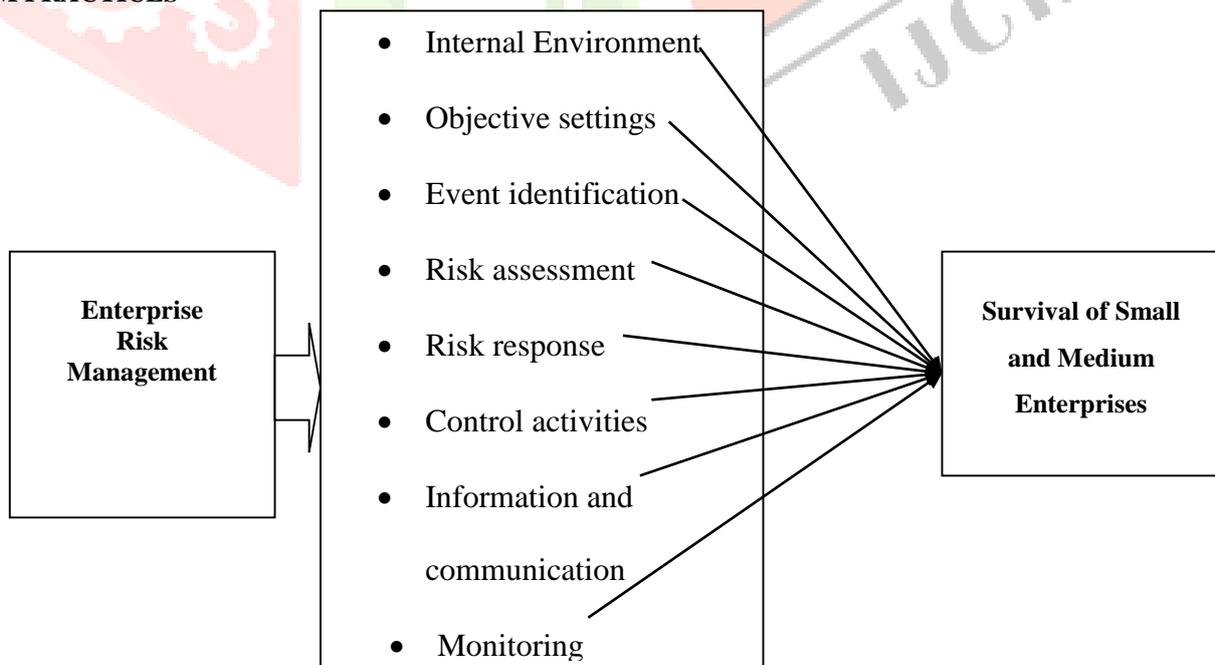


Figure 2-1: Conceptual Model (Source: COSO, 2004)

The context of the risk management process should be established from the understanding of the external and internal environment in which the organization operates.

The organization should put in place criteria for evaluating significance of risk. It should take into consideration the organization’s values, objectives and resources as well as views of stakeholders. While setting the criteria, some factors should be considered such

as nature and type of uncertainties, consistency in the use of measurements, time related factors, level of the risk, organization's capacity.

### III. RESEARCH METHODOLOGY

#### 3.1. Research Design

A design is generally referred to as a strategic blueprint for the collection, measurement and analysis of data whose choice is dependent on the stage to which knowledge about the research topic has advanced. A research design is therefore a plan for a research work which aims at providing guidelines, which the research work is to be conducted.

This study aims at examining the role of SMEs to the economic development of Ethiopia. To investigate and collect data to fulfil the study, proper research methods need to be used in order to ensure a reliable result.

In carrying out this research, both quantitative and qualitative methodologies were used. The qualitative study does not focus on number details but on observations and the content of the interview (Zikmund, 2000). Quantitative methods emphasize objective measurements and the statistical, mathematical, or numerical analysis of data collected through polls, questionnaires, and surveys, or by manipulating pre-existing statistical data using computational techniques. Quantitative research focuses on gathering numerical data and generalizing it across groups of people or to explain a particular phenomenon. (Babbie, 2013).

The reason of choosing qualitative methodology is that the study aims at discovering the role of SMEs to the economic development of Ethiopia; it was examined the contribution of SMEs to Oromia Region, particularly in Adama.

This research study more focuses on finding the exact chi square test and forward multiple linear regression analysis in which it used to examine and assess the effect ERM practices on the survival of SMEs and standard of living due to SMEs.

#### 3.2. Data Collection Method and Instruments

In data collection, the researcher was interviewed participants, managers and concerned bodies to get different perspectives on an SMEs, furthermore another instrument that was used by the researcher in collecting useful information on this is questionnaire. A questionnaire by definition is a list of question or statement to which individuals are asked to respond by answering the questions. It is used when factual information is needed.

The questionnaire should carefully be designed to accommodate three sections.

##### Section A: Demographic and Business information

This is to give a background and a clear understanding of the respondent including their age, education background and their role in the organization and the enterprises under study including type of industry, size of the SME, number of employees, status of registration.

##### Section B: Closed Questions

The closed questions were used to obtain specific responses from the participants. This was aimed at finding the level of knowledge the owners and employees have about risk management and the current status of risk management in their organizations such as finding out if they have risk management policies and strategies in place. This was also dealt on relevant aspects of evaluating and determining effectiveness of ERM framework practices on both the survival of SMEs.

For the close ended questions, a five point Likert scale was used where 1= strongly disagree, 2= disagree, 3 = agree in some cases, 4 = agree, and 5 = strongly agree (Neneh & Van Zyl, 2012).

##### Section C: Open questions

The reason for the open questions is to obtain different perspectives of the respondents as regards risk management. The questions were not only assessing the owners' and employees' knowledge about risk management but also assesses the types of risks that these SMEs are facing and the practices they are putting in place to mitigate them as well providing their views on how to risk management can be done better and increase the organizations' survival.

##### Secondary Method of Data Collection

The method of secondary data collection was like: Review of related literature using: textbooks, magazines, journals, newspaper, and internet, in this case; Economy details and audited financial reports of different SMEs, Adama small and medium enterprise bureau, and Regional Bureau of Statistics.

#### 3.3. Sampling Design

In relation to this study, the researcher was used non-Probability sampling technique due to technicalities of the study. Non-probability sampling is a sampling technique where the samples are gathered in a process that does not give all individuals in the population equal chances of being selected. While choosing one of these methods could result in biased data or a limited ability to make general inferences based on the findings, there are also many situations in which choosing this kind of sampling technique is the best choice for the particular research question or the stage of research (Crossman, 2018). For this study the type of non-probability sampling that was used is Purposive Sampling.

#### 3.4. Population and Sample

The study was put into consideration the knowledge about risk management of owners, managers and employees of small and medium enterprises, so as to protect their enterprises from extinction and, the government to design and implement policies and programs that support in the development of this sector.

Different sampling techniques were applied by the researcher during the study in selecting the sample based on different situations; Simple random sampling was the major sampling technique used to collect data from different small and medium size enterprises. Here each sample has an equal opportunity of being chosen. This was to ensure unbiased representation of the total population. (Ghauri & Grønhaug, 2005) however identified one of the disadvantages as it being expensive if the units are geographically scattered; The study focused on small and medium sized enterprises such as manufacturing, services, trading and other enterprises like urban agriculture, construction and mining industries.

In order to determine sample size, finite and large population sample size formula with 95 % confidence level and 0.05 precision levels is employed. The formula used to obtain this sample size is presented below.

$$n = \frac{N}{1 + N \cdot e^2}$$

Where, n = sample size, N = population size, e = sampling error (level of precision)

$$n = \frac{9032}{1 + 9032 * 0.05^2} = 383$$

### 3.3 Data and Sources of Data

For this study both primary and secondary data has been collected. The primary source provides firsthand information in relation to the study. Its sources include questionnaire and interview, which were conducted among the SMEs owners, managers, workers and supporting body and managers located in Adama, Ethiopia.

The theoretical framework of this study was from secondary source of data. To make a thorough decision on the role of SMEs to the economic development of Ethiopia, a further study was made on different published articles and financial reports of Government Agencies such as Regional Micro & Small Enterprise Development Bureau. Functional and terminated SME's data was collected, differentiated and investigated from Adama small and enterprises office to obtain quantitative data to better ascertain the role and survival of SMEs in Adama city.

### 3.4. Method of Data Analysis

To extend the objectives of the research, both qualitative and quantitative methods were used to analyze data. Primary data was analyzed by using descriptive statistical techniques and multiple regression analysis was used to determine the relationship among COSO ERM framework dimensions and business performance variables. The degree of ERM of SMEs was determined by the descriptive, mean value. Significance and regression value of the relationship among variables was established based on the results of descriptive analysis, Forward Step wise multiple regression and Pearson correlation analysis.

The data was analyzed with the aid of Statistical Package for Social Sciences data editor (SPSS) software, version 26. Descriptive analysis was implemented for the data collected to examine the respondent's demography, business/enterprise history or category, Forward Stepwise Multiple Regression Analysis were used to determine the influence of each of the various components of ERM practice to survival of SMEs.

### 3.5. Validity and Reliability of the Instrument

#### Validity of the Instrument

Validity explains how well the collected data covers the actual area of investigation. It shows the extent to which a research instrument "measures what it is intended to measure" (Mohajan, 2017). To ensure validity, the researcher was used content validity index (CVI) where the questionnaire survey measure using ratings by subject matter experts to determine item relevance. Where the subject matter experts made recommendations for improvement, their suggestions were incorporated in the final questionnaire survey where some items, which were considered irrelevant, were eliminated. According to (Amin, 2005), the CVI is calculated by the formulas:

$$CVI = \frac{\text{No of Valid Items}}{\text{Total No of collected Items}} * 100\% = \frac{200}{275} * 100\% = 72.7\%$$

With a CVI of 72.7%, the questionnaire was considered valid because (Amin, 2005) argues that the instrument that generates the average CVI of  $\geq 0.7$  or  $\geq 70\%$  is accepted for use in data collection.

#### Reliability of the Instrument

The reliability of the research instrument refers to consistency of the instrument in generating similar results when applied in different contexts. Reliability is the degree to which a research instrument produces consistent results or the ability of a questionnaire to consistently measure an attribute and how well the items fit together, conceptually. Reliability refers to how consistently a method measures something.

The result the reliability analysis shows in the table as below.

**Table 3-1: Reliability Analysis**

Reliability Statistics	
Cronbach's Alpha	N of Items
.895	8

Source: Primary data (2023)-SPSS Output

Reliability coefficients can be interpreted as: very high reliability (0.9 and above), high reliability (0.7 to 0.9), moderate reliability (0.5 to 0.7), low reliability (0.3 to 0.5) and little if any reliability (less than 0.3). Many social science researchers consider scale reliability below 0.7 as questionnaire and avoid using such scale.

### 3.6. Ethical Consideration

Ethical issues were considered especially in the qualitative research, where direct contact with subject was needed. Much information available on the government, the commercial and non-commercial enterprises are termed as confidential, and employees of various organizations to be contacted are holding the very sensitive information and data of these companies, which are not supposed to be disclosed. The proposed study was guided by ethical considerations, meaning that during the course of the study, the dignity, and privacy of every respondent was upheld.

This section elaborates the proper statistical/econometric/financial models which are being used to forward the study from data towards inferences. The detail of methodology is given as follows.

## IV. RESULTS AND DISCUSSION

## 4.1. Results of Descriptive Statics of Study Variables

## Response rate

From 275 total responses 200 that is 72.7.5% of them has been found as qualified response for analysis as about 27.5% of them were not answered completely and not returned. Majority of participants are male and more than half of respondents are aged between 20-30 years and 31-40 years.

Table 4-1: Gender of Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	134	48.7	67.0	67.0
	Female	66	24.0	33.0	100.0
	Total	200	72.7	100.0	
Missing	System	75	27.3		
Total		275	100.0		

Source: Primary data (2023)-SPSS Output

Furthermore, 41% of the participating SMEs were in the service sector, 39.3% in the manufacturing sector, 11.6% belonged to commerce and trade and 8.1% to other sectors such as construction industry, agriculture and mining.

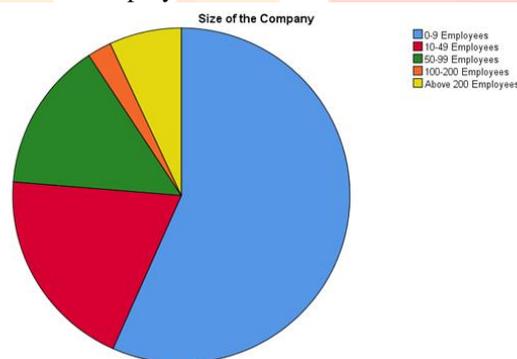
## Characteristics of the SMEs

The study shows that majority of the SMEs (89%) are registered however some (11% are still not yet registered with the respective bodies such as Job Opportunity Creation and Skills Bureau of Adama and Ethiopia MSMEs Bureau of Standards that govern them. Those that are not registered, site registration fees and excess tax are as one of their biggest hindrances to registration as they cannot afford them annually.

Additionally, each of the firms under study has a single branch. They don't yet have enough resources to manage multiple branches because doing so would incur additional expenses that they would not be able to afford both for running cost their business and salary for their employees.

## Size of the enterprises

This is in reference to the workforce. The majority of them, 60.3%, have between 0 and 9 employees, 29.0% of the participating businesses have between 10 and 49 workers, and the remaining enterprises have more than 50 workers. They have a 1.830 mean and a 1.187 standard deviation. This is due to the lack of activities that need to be completed and the lack of sufficient financial resources to pay the wages and salaries of several employees.

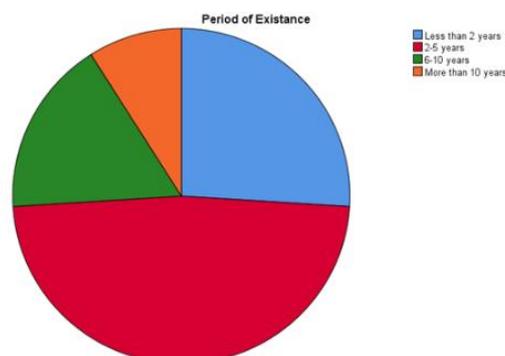


Source: Primary data (2023)-SPSS Output

Figure 4.1: size of SMEs using number of employees

## Period of Operation

A small number of Small and Medium Enterprises have been open for ten years or longer, however the majority of firms have only been around for less than ten years. This indicates that many SMEs have a limited lifespan because of the numerous difficulties they encounter, which force them out of business



Source: Primary data (2023)-SPSS Output

Figure 4.2: Period of existence

## 4.2 ERM dimensions and SMEs Survival Data Analysis and Interpretation

**Linear Regression Analysis**

When running a Multiple Regression, there are several assumptions that we need to check our data meet, in order for our analysis to be reliable and valid. The following assumptions will help us how they can be tested using SPSS.

As clearly explained by statistician report on regression analysis (Kern, 2007), it is important to make sure that any violations of the assumptions when writing up the results of the multiple regression analysis should be fulfill the following six main assumptions.

**Tests on Multicollinearity**

As clearly stated by (Black & Hair, 1995), the term collinearity implies that two variables are linear combinations of one another. When more than two variables are involved, it is often called Multicollinearity, although the two terms are often used interchangeably.

The primary concern is that as the degree of Multicollinearity increases, the coefficient estimates become unstable and the standard errors for the coefficients can get wildly inflated.

Therefore, multicollinearity test has been done and explored using some SPSS commands and the results have put in APPENDIX-II.

The tolerance is an indication of the percent of variance in the predictor that cannot be accounted for by the other predictors. This means that very small values indicate that a predictor is redundant, which means that values less than 0.10 are worrisome. The VIF, which stands for variance inflation factor, is  $(1/\text{tolerance})$  and as a rule of thumb, a variable whose VIF values is greater than 10 are problematic (Black & Hair, 1995). In the making process of Multicollinearity test, the following two points should be under consideration for the interpretation of the out puts.

- ✓ If the VIF value lies between 1-4, then there is no Multicollinearity.
- ✓ If the VIF  $< 1$  or  $> 4$ , then there is Multicollinearity.

According to the collinearity test conducted by this study all the independent variables have tolerance of greater than 0.25 and VIF less than four (refer to APPENDIX-II). Thus, there is no multicollinearity between these independent variables and multiple linear regression analysis is conducted as in the following.

After the test statistics the methodology is following the next step in order to test the asset pricing models. When testing asset pricing models related to risk premium on asset to their betas, the primary question of interest is whether the beta risk of particular factor is priced. Fama and McBeth (1973) develop a two-pass methodology in which the beta of each asset with respect to a factor is estimated in a first pass time series regression and estimated betas are then used in second pass cross sectional regression to estimate the risk premium of the factor. According to Blum (1968) testing two-parameter models immediately presents an unavoidable errors-in-the-variables problem. It is important to note that portfolios (rather than individual assets) are used for the reason of making the analysis statistically feasible. Fama McBeth regression is used to attenuate the problem of errors-in-variables (EIV) for two parameter models (Campbell, Lo and McKinlay, 1997). If the errors are in the  $\beta$  (beta) of individual security are not perfectly positively correlated, the  $\beta$  of portfolios can be much more precise estimates of the true  $\beta$  (Blum, 1968).

The study follows Fama and McBeth two pass regression to test these asset pricing models. The Durbin Watson is used to check serial correlation and measures the linear association between adjacent residuals from a regression model. If there is no serial correlation, the DW statistic will be around 2. The DW statistic will fall if there is positive serial correlation (in worst case, it will be near zero). If there is a negative correlation, the statistic will lie somewhere between 2 and 4. Usually the limit for non-serial correlation is considered to be DW is from 1.8 to 2.2. A very strong positive serial correlation is considered at DW lower than 1.5 (Richardson and smith, 1993).

According to Richardson and smith (1993) to make the model more effective and efficient the selection criteria for the shares in the period are: Shares with no missing values in the period, Shares with adjusted  $R^2 < 0$  or F significant (p-value)  $> 0.05$  of the first pass regression of the excess returns on the market risk premium are excluded. And Shares are grouped by alphabetic order into group of 30 individual securities (Roll and Ross, 1980).

**4.2.1 ERM Practice Relationship with SMEs Survival Analysis and Interpretation**

H0: There is no significant contribution of the Overall ERM practices on survival of SMEs.

H1: There is a significant contribution of the Overall ERM practices on survival of SMEs.

ERM practices do not significantly influence the survival of SMEs in Adama city.

$$\text{Survival of SMEs} = S = \alpha + \beta \text{ERM Practices} + \mu \quad (1a)$$

Where:

- ✓ Enterprise Risk Management practices (ERM practices) is independent variable and Survival of SMEs is dependent variable
- ✓  $\alpha$  = Intercept on the y axis,  $\beta$  = Coefficient of X. (the mean change in the Y variable for every 1-unit increase in X variable) and  $\mu$  = error term.

**Table 4-2: Model Summary for Hypothesis One**

Model		Coefficients <sup>a</sup>				
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.802	.186		4.316	.000
	ERM	.780	.053	.635	14.689	.000

a. Dependent Variable: S-Survival of SMEs

Source: SPSS's Computation Output, 2023

$$S = 0.802 + 0.780 \text{ERM}$$

The model summary on Table 4-2 shows that there is a positive relationship between ERM practices and survival of SMEs in Adama city. The coefficient of determination designated by  $R^2$  which is equal to 0.403 shows that 40.3% of the survival rate of SMEs in Adama could be explained by the current level of ERM practice of the SMEs owners. This result is statistically significant because the p-value (0.000) of the generated result is less than the level of significance (0.05) used for the study. An evaluation of the unstandardized coefficient of ERM practice in the coefficient table and its associated p-value shows that ERM practice ( $\beta_1$  ERM = 0.780,  $p < 0.05$ ) is statistically significant and can be used to predict the survival of SMEs in Adama city. The simple regression

equation model  $S = 0.802 + 0.780 \text{ERM}$  signifies that a unit change in ERM practice will increase the survival of SMEs in Adama by 78%.

#### 4.2.2 Contribution of ERM practice components to Survival of SMEs using Forward Stepwise Multiple Regression Analysis.

The eight components of ERM practices engaged in this study are Event Identification (EI), Risk Assessment (RA), Risk Response (RR), Control Activities (CA), Information and Communication (IC), Monitoring (MN), Internal Environment (IE) and Objective Setting (OS).

$$S = \alpha_1 + \beta_{21}EI + \beta_{22}RA + \beta_{23}RR + \beta_{24}CA + \beta_{25}IC + \beta_{26}MN + \beta_{27}IE + \beta_{28}OS + \mu_1 \quad (1b)$$

Where: S is Survival of SMEs = (S),  $\alpha_1$  is Intercept on the y axis while  $\beta_{21} \dots \beta_{28}$  are Coefficient of Event Identification (EI), Risk Assessment (RA), Risk Response (RR), Control Activities (CA), Information and Communication (IC), Monitoring (MN), Internal Environment (IE) and Objective Setting (OS) and  $\mu_1$  is error term.

**Table4-1: Model Summary for Contributions of ERM Practices' Components to Survival of SMEs**

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.504 <sup>a</sup>	.254	.251	.85061
2	.601 <sup>b</sup>	.362	.357	.78801
3	.604 <sup>c</sup>	.365	.359	.78727
4	.642 <sup>d</sup>	.412	.404	.75875
5	.649 <sup>e</sup>	.421	.412	.75377
6	.681 <sup>f</sup>	.463	.453	.72693
7	.687 <sup>g</sup>	.472	.461	.72209
8	.692 <sup>h</sup>	.479	.465	.71882

a. Predictors: (Constant), IE

b. Predictors: (Constant), IE, OS

c. Predictors: (Constant), IE, OS, EI

d. Predictors: (Constant), IE, OS, EI, RA

e. Predictors: (Constant), IE, OS, EI, RA, RR

f. Predictors: (Constant), IE, OS, EI, RA, RR, CA

g. Predictors: (Constant), IE, OS, EI, RA, RR, CA, IC

h. Predictors: (Constant), IE, OS, EI, RA, RR, CA, IC, MN

Source: SPSS Computation Output, 2023

Table 4-3 shows the variance in survival of SMEs when each of the selected variables is entered. It shows that 0.254 of the variances in survival of SMEs is explained by internal environment when the other components of ERM practices are kept constant. This indicates that only internal environment account for 25.4% of the success recorded in survival of SMEs in Adama city. With the addition of objective setting to the model, the variance observed in survival of SMEs increased to 0.362. This implies that 36.2% of the success recorded in survival of SMEs in Adama city is accounted for by internal environment and risk assessment. When event identification is added to the model, the variance observed in survival further increased to 0.365. This means that 36.5% of the success recorded in survival of SMEs is jointly accounted for by internal environment, risk assessment and control activities.

The addition of risk assessment to the regression model increased the variance observed in survival of SMEs to 0.412, signifying that 41.2% of the success recorded in survival of SMEs in Adama city is accounted for jointly by internal environment, objective setting, event identification and risk assessment. In the next stage when risk response was included in the model, the variance observed in survival of SMEs was increased to 0.421. This implies that 42.1% of the success recorded in survival of SMEs is jointly accounted for by internal environment, objective setting, event identification, risk assessment and risk response. The addition of control activities to the regression model also increased the variance observed in survival of SMEs to 0.463. This suggests that 46.3% of the success recorded in survival of SMEs is accounted for by a combination of internal environment, objective setting, event identification, risk assessment, risk response and control activities. The addition of information and communication to the regression model also increased the variance observed in survival of SMEs to 0.472. This suggests that 47.2% of the success recorded in survival of SMEs is accounted for by a combination of internal environment, objective setting, event identification, risk assessment, risk response, control activities and information & communication. Finally, the addition of monitoring to the model increased the variance observed in survival of SMEs to 0.479. This signifies that 47.9% of the success recorded in survival of SMEs in Adama city is jointly accounted for by internal environment, objective setting, event identification, risk assessment, risk response, control activities, information & communication and monitoring.

Table 4-2: Contributions of ERM Practice Components to Survival of SMEs

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.855	.161		11.500	.000
	IE	.457	.044	.504	10.414	.000
2	(Constant)	1.160	.177		6.555	.000
	IE	.274	.048	.301	5.724	.000
	OS	.382	.052	.386	7.327	.000
3	(Constant)	1.112	.181		6.150	.000
	IE	.267	.048	.294	5.563	.000
	OS	.319	.072	.322	4.420	.000
	EI	.086	.068	.088	1.265	.207
4	(Constant)	.964	.177		5.452	.000
	IE	.218	.047	.240	4.597	.000
	OS	.244	.071	.247	3.434	.001
	EI	-.069	.072	-.072	-.962	.337
	RA	.327	.065	.335	5.027	.000
5	(Constant)	1.113	.187		5.938	.000
	IE	.251	.049	.276	5.094	.000
	OS	.242	.071	.245	3.430	.001
	EI	-.073	.072	-.076	-1.025	.306
	RA	.343	.065	.351	5.274	.000
	RR	-.096	.042	-.107	-2.278	.023
6	(Constant)	1.053	.181		5.808	.000
	IE	.234	.048	.257	4.910	.000
	OS	.185	.069	.187	2.679	.008
	EI	-.166	.072	-.172	-2.325	.021
	RA	.190	.070	.195	2.725	.007
	RR	-.122	.041	-.136	-2.978	.003
	CA	.357	.072	.365	4.969	.000
7	(Constant)	1.078	.180		5.978	.000
	IE	.219	.048	.241	4.592	.000
	OS	.148	.071	.149	2.100	.037
	EI	-.182	.071	-.188	-2.555	.011
	RA	.163	.070	.167	2.317	.021
	RR	-.134	.041	-.150	-3.279	.001
	CA	.315	.074	.322	4.263	.000
	IC	.141	.062	.158	2.287	.023
8	(Constant)	.980	.186		5.254	.000
	IE	.198	.049	.218	4.076	.000
	OS	.106	.073	.107	1.442	.150
	EI	-.163	.072	-.168	-2.266	.024
	RA	.135	.071	.138	1.893	.059
	RR	-.116	.042	-.129	-2.759	.006
	CA	.278	.076	.284	3.661	.000
	IC	.113	.063	.127	1.793	.074
	MN	.152	.078	.142	1.962	.051

## a. Dependent Variable: S

Source: SPSS Computation Output, 2023

Table 4-2 shows the Forward Stepwise Multiple Regression analysis of the components of ERM practices on the Survival of SMEs in Adama city. Specifically, it includes the individual Regression components at each stage of the modeling. These are described as follows:

## a. Internal Environment

$$S = 1.855 + 0.457IE$$

An evaluation of the unstandardized coefficient of internal environment in the coefficient table and its associated p-value show that internal environment ( $\beta_{IE} = 0.457$ ,  $p < 0.05$ ) is statistically significant and can be used to predict the survival of SMEs. The simple regression equation model  $S = 1.855 + 0.457IE$  signifies that a unit change in internal environment by SMEs in Adama will enhance their survival rate by 45.7%.

## b. Internal Environment and Objective Setting

$$S = 1.160 + 0.274IE + 0.382OS$$

An evaluation of the unstandardized coefficient of internal environment and objective setting in the coefficient table and their associated p-values show that internal environment ( $\beta_{IE} = 0.274$ ,  $p < 0.05$ ), and objective setting ( $\beta_{OS} = 0.382$ ,  $p < 0.05$ ) are statistically significant and can be used to predict the survival of SMEs in Adama city. With the inclusion of internal environment and objective setting, the regression equation model  $S = 1.160 + 0.274IE + 0.382OS$  implies that a unit change in internal environment by SMEs

in Adama city will enhance their survival rate by 27.4% and a unit change in objective setting by SMEs in Adama will increase their survival rate by 38.2%.

### c. Internal Environment, Objective Setting and Event Identification

$$S = 1.112 + 0.267IE + 0.319OS + 0.086EI$$

An evaluation of the unstandardized coefficient of internal environment, objective setting and event identification in the coefficient table and their associated p-values show that internal environment ( $\beta_{IE}= 0.267, p < 0.05$ ) and objective setting ( $\beta_{RA}=0.319, p < 0.05$ ), are statistically significant whereas event identification ( $\beta_{EI}= 0.086, p > 0.05$ ) is not statistically significant and can be used to predict the survival of SMEs in Adama city. With the inclusion of internal environment, objective setting and event identification the regression equation model  $S = 1.112 + 0.267IE + 0.319OS + 0.086EI$  implies that a unit change in internal environment by SMEs in Adama will enhance their survival rate by 26.7%; a unit change in risk assessment by SMEs in Adama will increase their survival rate by 31.9%; while for every unit change in event identification, survival of SMEs in Adama will increase by 8.6% but insignificant.

### d. Internal Environment, Objective Setting, Event Identification and Risk Assessment

$$S = 0.964 + 0.218IE + 0.244OS - 0.069EI + 0.327RA$$

An evaluation of the unstandardized coefficient of internal environment, objective setting, event identification and risk assessment in the coefficient table and their associated p-value show that internal environment ( $\beta_{IE}= 0.218, p < 0.05$ ), objective setting ( $\beta_{OS}=0.244, p < 0.05$ ), and risk assessment ( $\beta_{RA}=0.327, p < 0.05$ ) are statistically significant but event identification is not statistically significant with ( $\beta_{EI}=-0.069, p > 0.05$ ) and can be used to predict the survival of SMEs in Adama. With the inclusion of internal environment, objective setting, event identification and risk assessment, the regression equation  $S = 0.964 + 0.218IE + 0.244OS - 0.069EI + 0.327RA$  implies that a unit change in internal environment by SMEs in Adama city will enhance their survival rate by 21.8%; a unit change in objective setting by SMEs in Adama city will increase their survival rate by 24.4%; with a unit change in event identification, survival of SMEs in Adama city will decrease by 6.9%; while for every unit change in risk assessment, survival of SMEs in Adama city will increase by 32.7%.

### e. Internal Environment, Objective Setting, Event Identification, Risk Assessment and Risk Response

$$S = 1.113 + 0.251IE + 0.242OS - 0.073EI + 0.343RA - 0.096RR$$

An evaluation of the unstandardized coefficient of internal environment, objective setting, event identification, risk assessment and risk response in the coefficient table and their associated p-value show that internal environment ( $\beta_{IE}=0.251, p < 0.05$ ), objective setting ( $\beta_{OS}=0.242, p < 0.05$ ), risk assessment ( $\beta_{RA}=0.343, p < 0.05$ ) and risk response ( $\beta_{RR}= -0.096, p < 0.05$ ) are statistically significant but event identification is not statistically significant with ( $\beta_{EI}=-0.073, p > 0.05$ ), and can be used to predict the survival of SMEs in Adama. With the inclusion of internal environment, objective setting, event identification, risk assessment and risk response, the regression equation  $S = 1.113 + 0.251IE + 0.242OS - 0.073EI + 0.343RA - 0.096RR$  implies that a unit change in internal environment by SMEs in Adama city will enhance their survival rate by 25.1%; a unit change in objective setting by SMEs in Adama city will increase their survival rate by 24.2%; with a unit change in event identification, survival of SMEs in Adama city will decrease by 7.3%; for every unit change in risk assessment, survival of SMEs in Adama city will increase by 34.3%; while for every unit change in risk response, survival of SMEs in Adama city will decrease by 9.6%.

### f. Internal Environment, Objective Setting, Event Identification, Risk Assessment, Risk Response and Control Activities

$$S = 1.053 + 0.234IE + 0.185OS - 0.166EI + 0.190RA - 0.122RR + 0.357CA$$

An evaluation of the unstandardized coefficient of internal environment, risk assessment, control activities, monitoring, event identification and risk response in the coefficient table and their associated p-value show that internal environment ( $\beta_{IE}=0.234, p < 0.05$ ), objective setting ( $\beta_{OS}=0.185, p < 0.05$ ), event identification ( $\beta_{EI}=-0.166, p < 0.05$ ), risk assessment ( $\beta_{RA}=0.357, p < 0.05$ ), risk response ( $\beta_{RR}= -0.122, p < 0.05$ ), and control activities ( $\beta_{CA}= 0.357, p < 0.05$ ) are statistically significant and can be used to predict the survival of SMEs in Adama. With the inclusion of internal environment, risk assessment, control activities, monitoring, event identification and risk response, the regression equation  $S = 1.053 + 0.234IE + 0.185OS - 0.166EI + 0.190RA - 0.122RR + 0.357CA$  implies that a unit change in internal environment by SMEs in Adama city will enhance their survival rate by 23.4%; a unit change in objective setting by SMEs in Adama city will increase their survival rate by 18.5%; with a unit change in event identification, survival of SMEs in Adama city will decrease by 16.6%; for every unit change in risk assessment, survival of SMEs in Adama city will increase by 19%; for every unit change in risk response, survival of SMEs in Adama city will decrease by 12.2%; while for every unit change in control activities, survival of SMEs in Adama city will increase by 35.7%.

### g. Internal Environment, Objective Setting, Event Identification, Risk Assessment, Risk Response, Control Activities, and Information & Communication

$$S = 1.078 + 0.219IE + 0.148OS - 0.182EI + 0.163RA - 0.134RR + 0.315CA + 0.141IC$$

An evaluation of the unstandardized coefficient of internal environment, objective setting, event identification, risk assessment, risk response, control activities and information & communication in the coefficient table and their associated p-values show internal environment ( $\beta_{IE}= 0.130, p < 0.05$ ), objective setting ( $\beta_{OS}= 0.148, p < 0.05$ ), event identification ( $\beta_{EI}=-0.182, p < 0.05$ ), risk assessment ( $\beta_{RA}=0.163, p < 0.05$ ), risk response ( $\beta_{RR}= -0.134, p < 0.05$ ), control activities ( $\beta_{CA}= 0.315, p < 0.05$ ) and information & communication ( $\beta_{IC}=0.141, p < 0.05$ ) are statistically significant and can be used to predict the survival of SMEs in Adama. With the inclusion of internal environment, objective setting, event identification, risk assessment, risk response, control activities and information & communication, the regression equation  $S = 1.078 + 0.219IE + 0.148OS - 0.182EI + 0.163RA - 0.134RR + 0.315CA + 0.141IC$  implies that a unit change in internal environment by SMEs in Adama city will enhance their survival rate by 21.9%; a unit change in objective setting by SMEs in Adama city will increase their survival rate by 14.8%; with a unit change in event identification, survival of SMEs in Adama city will decrease by 18.2%; for every unit change in risk assessment, survival of SMEs in Adama city will increase by 16.3%; for every unit change in risk response, survival of SMEs in Adama city will decrease by 13.4%; but for every unit change in control activities, survival of SMEs in Adama city will increase by 31.5%; while for every unit change in information & communication, survival of SMEs in Adama city will increase by 14.1%.

## h. Internal Environment, Objective Setting, Event Identification, Risk Assessment, Risk Response, Control Activities, Information & Communication and Monitoring

$$S = 0.98 + 0.198IE + 0.106OS - 0.163EI + 0.135RA - 0.116RR + 0.278CA + 0.113IC + 0.152MN$$

An evaluation of the unstandardized coefficient of internal environment, objective setting, event identification, risk assessment, risk response, control activities and information & communication in the coefficient table and their associated p-values show internal environment ( $\beta_{IE} = 0.198$ ,  $p < 0.05$ ), event identification ( $\beta_{EI} = -0.163$ ,  $p < 0.05$ ), risk response ( $\beta_{RR} = -0.116$ ,  $p < 0.05$ ), control activities ( $\beta_{CA} = 0.278$ ,  $p < 0.05$ ) and monitoring ( $\beta_{MN} = 0.152$ ,  $p < 0.05$ ) are statistically significant but objective setting ( $\beta_{OS} = 0.106$ ,  $p > 0.05$ ), risk assessment ( $\beta_{RA} = 0.135$ ,  $p > 0.05$ ) and information & communication ( $\beta_{IC} = 0.113$ ,  $p > 0.05$ ) are not statistically significant and can be used to predict the survival of SMEs in Adama. With the inclusion of internal environment, objective setting, event identification, risk assessment, risk response, control activities, monitoring and information & communication, the regression equation  $S = 0.98 + 0.198IE + 0.106OS - 0.163EI + 0.135RA - 0.116RR + 0.278CA + 0.113IC + 0.152MN$  implies that a unit change in internal environment by SMEs in Adama city will enhance their survival rate by 19.8%; a unit change in objective setting by SMEs in Adama city will increase their survival rate by 1068%; with a unit change in event identification, survival of SMEs in Adama city will decrease by 16.3%; for every unit change in risk assessment, survival of SMEs in Adama city will increase by 13.5%; for every unit change in risk response, survival of SMEs in Adama city will decrease by 11.6%; but for every unit change in control activities, survival of SMEs in Adama city will increase by 27.8%; while for every unit change in information & communication, survival of SMEs in Adama city will increase by 11.3% and for every unit change in monitoring, survival of SMEs in Adama city will increase by 15.2%.

### 4.3. Discussion of the research findings

The results of the regression analysis confirmed that the overall ERM implementation will positively and significantly influence the survival of SMEs in Adama city. The results specifically show that ERM practice contribute about 78% to the survival of SMEs in Adama city. This seems to be because SMEs in Adama city actively implement ERM practices as compared by the findings of earlier studies in Nigeria (Iopev & Kwanum, 2012; Fisayo & Nwankwo, 2020; Ade et al., 2020).

The results further revealed that out of the eight components of ERM, internal environment exerts the highest influence on the survival of SMEs in Adama city. Objective Setting function is considered next to internal environment. This is followed by Risk Assessment and then Control Activities. The analysis also found Event Identification to positively contribute to but have insignificant influence on survival of SMEs. Sharing of Information and communication among organizational members appears to have significant influence on survival of SMEs in Adama city. Lastly, monitoring is positively and almost significantly contributing to the survival of SMEs in Adama city. The contribution of risk response to survival is negative. This indicates that SMEs in Adama city lack the skills needed to select and apply the appropriate treatment techniques for the risks identified. It was found that though SMEs do apply risk treatment techniques, they mostly select the wrong treatment devices.

This finding validates the results of a number of related researches in the past. One of such is the findings of (Ade et al., 2020) which found that the practice of ERM is positively and significantly related with the survival of SMEs in Nigeria. The results equally support the findings of another study in Nigerian context by (Adeyele & Osemene, 2018) which reported a direct and positive relationship between effective risk management and probability of SMEs to survive. Furthermore, the outcome of the present study seems not to contend with the findings of (IOSR, 2016) which found the existence of a significant and positive relationship between ERM practices and organizational profitability, customer satisfaction and ability to take relevant decisions. The findings also conform to the outcome of similar researches carried out in other economies. Among such is a Malaysian based study by (Kiew & Angeline, 2016) which established that ERM practices will effectively enhance the sustainability of SMEs.

Some results of the statistical analysis approve the findings of some previous empirical researches. Specifically, it is inconsistent with the findings of (Pagach & Warr, 2011) in their USA based study which revealed a limited and insignificant contribution of ERM practices to the performance of publicly listed companies having Chief Risk Officer. Similarly, the findings support the outcome of a Canadian research by (Quon et al., 2012) which established that no significant relationship exists between ERM implementation and firm performance. A recent study in the Cameroonian perspective by (Mamai & Yinghua, 2017) to examine the relationship between ERM practices and financial performance also show an opposing result to the current study. The result is equally in conflict with the findings by (Chikomba et al., 2013) which state that most Zimbabwean SMEs are still unable to fulfill their financial obligations despite putting risk management practice in place.

The COSO model is a framework for enterprise risk management that helps organizations improve their internal control, governance, and performance by identifying and managing risks that could affect their objectives. The coefficients of risk management practices in multiple linear regression analysis of COSO model indicate the effect or association of these eight factors on survival of SMEs. Event identification is the process of identifying internal and external events that could affect the achievement of objectives. Risk response is the process of selecting and implementing actions to address risks. If the coefficients of event identification and risk response are negative, it means that as these factors increase, survival of SMEs decreases. However, the significance of these coefficients should also be tested to determine if they are different from zero.

From the above analysis the researcher concludes that if the coefficients are negative and insignificant, it means that the components of the framework do not have a meaningful impact on survival of SMEs. However, this may depend on other factors included in the regression model, such as industry, size, location, and market conditions of SMEs.

## V. CONCLUSION AND RECOMMENDATION

### 5.1. CONCLUSION

The only way by which SMEs can fulfill their purpose for both their proprietors and the economy at large is when they are able to survive through the various stages of the organizational life circle and by extension succeed their founder. This study views that with the practice of Enterprise Risk Management (ERM); SMEs will be able to address the risks hindering their survival and hence be positioned to achieve set objectives. ERM is an essential organizational function by which risks are addressed holistically within the enterprise so as to minimize negative impacts and to identify and exploits possible opportunities in order to give maximum value to all stakeholders. ERM has proven to be an important strategy for achieving organizational success.

According to the findings, it clearly concludes that SMEs in Adama are not fully practicing ERM practices properly in their business context.

In view of the findings, the researchers hereby identify the following managerial and policy implications:

- ✓ There is need for SMEs in Adama city and entrepreneurs generally to recognize and consider ERM as an important business function that will not only help them to achieve effective risk management but will equally enhance their survival.
- ✓ The government through SMEs and other relevant agencies and stakeholders should embark on different kinds of sensitization campaigns with the aim of educating SMEs on the benefits of ERM and mode of practicing it.
- ✓ As it is in the financial sector, a mandatory ERM guideline is recommended for the SMEs sector. This will compel SMEs across all sectors to take their risk management function seriously.

Both quantitative and qualitative analysis of this study showed that there is practice of ERM in the context of SMEs in Adama. ERM dimensions are not all practicing at acceptable level due to different types of causes.

Generally, most of the SMEs in Adama were lacking awareness of ERM practices, benefits of practicing ERM, potentials and opportunities. However, SMEs are practicing some kinds of risk management practices with available resources at lower level and even though those practices not integrated and acceptable level.

Despite the significant difficulties they confront, which have caused many of them to give up on their businesses, the rate at which SMEs are growing keeps rising. They play a significant role in the economy of the nation because they generate a sizable portion of the GDP, as well as a large number of employment opportunities, which has helped to lower the country's unemployment rate. However, there is an increasing trend toward these SMEs failing, as some have either temporarily stopped operations or permanently ceased all operations. Poor risk management is one of several reasons for the rising number of SME failures. Many SMEs are unaware of the risks they face and don't take preventative steps, which results in their being severely impacted by them.

Even with existing guidelines such as the ISO 31000 standard, it seems that most of SMEs simply do not consider any of them in their risk management process. Most SMEs lack appropriate organizational structures, they do not have a particular person employed to handle risk management matters and most of the work is being carried out by the owners and managers and furthermore, employees are not involved in the risk management decisions. Few businesses have risk management incorporated in their plans. Majority do not have risk management strategies in place hence cannot measure the impact of the risks they face in their businesses. The study revealed that many of the employees are not aware of how their organizations are handling risk management.

With the prominent contribution towards the country's economic development there is need to establish a systematic risk management process for SMEs so as to increase their chances of survival. With the unavoidable risks for example hazard risks such as the covid-19 pandemic that has affected the economy worldwide, SMEs need to be rehabilitated through government incentives to help them back to their feet. In addition, the SMEs also need to adapt to the changes in the economy especially utilizing the internet well as now most of the business activities are moving online therefore SMEs should brace themselves for the new normal to stay relevant in the market.

## 5.2. RECOMMENDATIONS

The research also has sought to provide better ways of managing the risks that SMEs face. There were some recommendations from the respondents and these include setting achievable targets that the organizations can work with using their available resources, training staff through capacity building courses that can equip them with the necessary skills in risk management, having constant assessment and evaluation on the mitigation practices and making the required amendments, hiring a risk management expert to create clear pathways of risk management in the organization, improving communication within the organization for example informing all employees of all the risks they face and how they can control them.

Through the study, weaknesses in the risk management practices were identified and recommendations were drawn. These include.

- ✓ Putting together a risk management plan. SMEs ought to put into practice a risk-management plan that is appropriate for their industry. As part of their risk management approach, businesses should also establish a risk register that details the risks they encounter, their scope, and how to manage them. This encourages efficient resource use and helps management plan better. By planning helps SMEs critically to avoid and reduce risk to be faced..
- ✓ Constant assessment and evaluation of the risk management process and practices. This is to check for any deviations that may occur and prevent their effects from spreading and affecting the business activities. This also involves setting key parameters that can be used in the evaluation process.
- ✓ Financial programs and tax waivers. The government should arrange financial programs that can benefit these SMEs to help them back on their feet. For a particular period, SMEs can be exempted from some taxes to enable them to have attractive cash flows finance for SMEs including leasing, franchising, capital markets.
- ✓ Diversification is another remedy in managing risks in SMEs. Many SMEs depend on one branch and a few products therefore when they are hit by the un predicted risks, they lose a lot. Therefore, they should take up more activities, avail a variety of products and services to the market so that if one is hit the other can cover the losses.
- ✓ From the study, some of the participants recommended that management should take action and play their role. They should set achievable objectives that are within their capacity to avoid putting a strain on their resources. They should also engage fully in the all operations supervision.
- ✓ Providing training to the employees to have awareness about risk and risk management practices so as helps them to minimize possible risk whenever occurred.
- ✓ Monitoring the risk by making a deduction for risk period from insurance. In addition to the risk management that always works, it is possible to improve the risk in some way by implementing another alternative risk monitoring by identify potential risks in a proper and careful way and contribute to the relevant body when there are gaps.
- ✓ SMEs should regularly practice the enterprise risk management practices to minimize possible risks

In order to improve the degree of ERM, SMEs in Oromia particularly in Adama need develop their skills and capabilities, as well as internal and external networks. This study points out importance of SMEs to improve ERM practices in order to improve their survival. Further according to ERM framework SMEs have to improve practices in dimensions such as internal Environment, objective setting, Event Identification, Risk assessment, Risk Response, Control activities, information and communication and Monitoring.

5.3. Areas of future research

This study is focused on risk management in small and medium enterprises however there's still room for further research on related topics including;

- Improving the capacity of SMEs for further economic growth and development.
- The same topic can also be explored again to attain more information.

APPENDIX

APPENDIX I: Correlation Analysis Test

		Correlations							
		IE	OS	EI	RA	RR	CA	IC	MN
IE	Pearson Correlation	1	.525**	.459**	.501**	.390**	.500**	.535**	.548**
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000	.000
OS	Pearson Correlation	.525**	1	.764**	.676**	.233**	.693**	.701**	.717**
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000	.000
EI	Pearson Correlation	.459**	.764**	1	.725**	.213**	.734**	.681**	.621**
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000	.000
RA	Pearson Correlation	.501**	.676**	.725**	1	.281**	.773**	.701**	.701**
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000	.000
RR	Pearson Correlation	.390**	.233**	.213**	.281**	1	.312**	.342**	.170**
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000	.002
CA	Pearson Correlation	.500**	.693**	.734**	.773**	.312**	1	.731**	.722**
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000	.000
IC	Pearson Correlation	.535**	.701**	.681**	.701**	.342**	.731**	1	.706**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000		.000
MN	Pearson Correlation	.548**	.717**	.621**	.701**	.170**	.722**	.706**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.002	.000	.000	

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

APPENDIX II: Collinearity Test

		Coefficients <sup>a</sup>	
Model		Tolerance	Collinearity Statistics VIF
1	Internal Environment	1.000	1.000
2	Internal Environment	.725	1.380
	Objective Setting	.725	1.380
3	Internal Environment	.717	1.396
	Objective Setting	.378	2.647
	Event Identification	.411	2.430
4	Internal Environment	.685	1.459
	Objective Setting	.361	2.768
	Event Identification	.336	2.974
	Risk Assessment	.420	2.382
5	Internal Environment	.625	1.599
	Objective Setting	.361	2.769
	Event Identification	.336	2.975
	Risk Assessment	.415	2.409
	Risk Response	.837	1.195
6	Internal Environment	.622	1.608
	Objective Setting	.351	2.848
	Event Identification	.313	3.194
	Risk Assessment	.335	2.987
	Risk Response	.823	1.215
	Control Activities	.316	3.161
7	Internal Environment	.611	1.637
	Objective Setting	.333	3.006
	Event Identification	.310	3.225
	Risk Assessment	.325	3.075
	Risk Response	.808	1.238
	Control Activities	.296	3.376
8	Information and Communication	.353	2.834
	Internal Environment	.582	1.719

Objective Setting	.304	3.289
Event Identification	.304	3.290
Risk Assessment	.312	3.200
Risk Response	.766	1.306
Control Activities	.278	3.598
Information and Communication	.335	2.987
Monitoring	.321	3.119

a. Dependent Variable: S

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