STRATEGIC RISK MANAGEMENT AS A SOURCE OF COMPETITIVENESS OF SMALL SCALE MILK DISTRIBUTORS IN MERU COUNTY, KENYA

BY:

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A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTER OF BUSINESS ADMINISTRATION DEGREE, SCHOOL OF BUSINESS, UNIVERSITY OF NAIROBI

NOVEMBER 2016

DECLARATION

This research project is my original work and has not been presented for examination to any other University.
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ACKNOWLEDGEMENTS

My heartfelt gratitude goes to Almighty God for giving me the opportunity to pursue this degree and giving me the strength to overcome the hurdles that come along. I appreciate the contributions of a number of people and institutions who played a major role in ensuring that this research work is completed.

I say thank you and God Bless you all.

DEDICATION

To my lovely	wife Mary	Weveti	Mwiti	and	children	Adrian	Kirimi	Mwiti	and	Liam	Mutugi
Mwiti.											

Dreams are there to be fulfilled.

TABLE OF CONTENTS

DECLARATION	ii
ACKNOWLEDGEMENTS	iii
DEDICATION	iv
LIST OF TABLES	viii
LIST OF ABBREVIATIONS AND ACRONYMS	ix
ABSTRACT	X
CHAPTER ONE: INTRODUCTION	1
1.1 Background of the study	1
1.1.1 Strategic risk management	2
1.1.2 Competitiveness of Small Scale Businesses	3
1.1.3 Small scale milk distributors in Kenya	4
1.2 Research Problem	4
1.3 Research objective	5
1.4 Value of the study	6
CHAPTER TWO: LITERATURE REVIEW	7
2.1 Introduction	7
2.2 Theoretical foundation of the study	7
2.2.1 Resource Dependency Theory (RDT)	7
2.2.2 Market Intermediation Theories	8
2.2.3 Decision Theory	9
2.3 Strategic Risk Management Practices	11
2.3.1 Risk Identification	12
2.3.2 Risk Analysis	12
2.3.3 Risk Treatment	13
2.3.4 Risk Evaluation and control	14
2.4 Competitiveness of a firm	15
2.5 Empirical Studies	16
2.6 Summary and research gap	17
CHAPTER THREE: RESEARCH METHODOLOGY	18

3.1 Introduction	18
3.2 Research Design	18
3.3 Population of the study	18
3.4 Sampling Technique and Sample Size	18
3.4 Data collection procedure	18
3.5 Data Analysis	19
CHAPTER FOUR: DATA ANALYSIS, FINDINGS AND DISCUSSION	20
4.1 Introduction	20
4.2 Demographics	20
4.2.1 Age	20
4.2.2 Number of Cows	20
4.2.3 Level of Job placement	21
4.2.4 Experience in Dairy Farming	21
4.3 Descriptive Statistics for Strategic Risk Management Factors	22
4.3.1 Descriptive Statistics for Risk Identification	22
4.3.2 Descriptive Statistics for Risk Analysis	23
4.3.3 Descriptive Statistics for Risk Treatment	23
4.3.4 Descriptive Statistics for Risk Evaluation and Control	24
4.3.5 Descriptive Statistics for Competitiveness of the small scale milk firms	25
4.4 Check for Normality of Data	25
4.4.1 Kolmogorov-Smirnov and Shapiro-Wilk Test for the Variables	25
4.4.2 Detrended Q-Q plot for Risk Analysis	26
4.5 Regression Analysis	26
4.5.1 Analysis of Variance	27
4.5.2 Model Summary	27
4.5.3 Co-efficients of the Model	27
4.6 Discussion of findings	28
CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS	30
5.1 Introduction	30
5.2 Summary	30
5.3 Conclusion	30
5.4 Limitations of the Study	31
5.5 Recommendation	31

5.6 Suggestion for further studies	31
REFERENCES	32
Appendix I: Questionnaire	35
Appendix II: Detrended Normal Q-Q Plot for Risk Analysis	38
Appendix III: Histogram for Competitiveness	39

LIST OF TABLES

TABLE 3.1 Sample of Delivering Firms.	19
TABLE 4.1 Age.	21
TABLE 4.2 Number of Cows	22
TABLE 4.3 Level of job placement.	22
TABLE 4.4 Experience in Dairy farming.	23
TABLE 4.5 Descriptive Statistics for Risk Identification.	23
TABLE 4.6 Descriptive Statistics for Risk Analysis.	24
TABLE 4.7 Descriptive Statistics for Risk Treatment.	25
TABLE 4.8 Descriptive Statistics for Evaluation and Control	25
TABLE 4.9 Descriptive Statistics for Competitiveness of small scale firms	26
TABLE 4.10 Shapiro-Wilk Test for Normality for the variables	27
TABLE 4.11 ANOVA	28
TABLE 4.12 Model Summary.	28
TABLE 4.13 Co-efficient of the Model.	29

LIST OF ABBREVIATIONS AND ACRONYMS

AAR-Against All Risks

CBA -Continuous Based Assessment

ERM – Enterprise Risk Management

IT – Information Technology

KRA-Kenya Revenue Authority

RAROC-Risk Adjusted Return to economic Capital

RM – Resource Management

RDT – Resource Dependency Theory

SRM – Strategic Risk Management

SCA – Sustainable Competitive advantage

SDP –Session Description Protocol

SMART-Specific Measurable Attainable Realistic Time-bound

SPSS-Statistical Package for Social Statistics

SSDF-Small Scale Diary Farmers

SWOT-Strength Weaknesses Opportunities Threats

MIT – Market Intermediation Theories

WTO – World Trade Organization

ABSTRACT

The aim of the study was to institute how strategic risk management affects competitiveness of small scale milk distributors in County of Meru, Kenya. Survey research design was adopted.142 milk suppliers to the main milk buyers formed the population of the study. Stratified random sampling was used and a sample of 71 was obtained. Questionnaire was the data collection tool and 50 questionnaires were returned, a response rate was 70.4%. Data was first subjected to normality tests since most statistical tests usually assume normality of data. This study's data analysis didn't assume so. Shapiro-Wilk normality test, Detrended normal Q-Q normality plot and histogram was used. The data was found to be normal. This warranted the usage of parametric tests. Regression analysis was conducted. From ANOVA, the strategic management factors were found to have an effect on competitiveness for the small scale milk distributors. The effect was found to be negative from the co-efficients of the model. The study concluded that indeed there is a negative significant relationship between strategic risk management factors and competitiveness of small scale milk distributors in Meru County. The study recommends stakeholders in the milk industry especially the small scale milk stakeholders to use the findings thereof in this study for policy making. The government, locals in the dairy farming are also recommended to use findings of this study in various areas of decision making.

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CHAPTER ONE: INTRODUCTION

1.1 Background of the study

Risks faced by business presents various threats to their existence. Hence risk should be in the fore front in any firm's strategic management. The recent global economic crisis shed light on the importance of sound risk management practices in small scale businesses. Thus, given that strategic risk management can largely contribute to the success of small scale businesses, conducting this research based on the large small scale businesses which hold a large stake in the industry both in terms of deposits and advances was important. Bessis (2002) defines risk as the chance in a trial and its outcome while risk management being the act of using methods, ways and formulas to manage the risks. From the Risk Management Institute (2007), risk management focuses on pinpointing what may go astray, analyzing the particular risks that need to be dealt with, and finally using strategies that could curb those risks. Firms that have known their risks are better prepared to deal with them in a way that is cost effective.

The study was guided by various theories that have been developed in literature relating strategic risk management practices to performance. The guiding theories included Resource Dependency Theory (RDT) and marketing intermediation theory. Resource Dependency Theory (RDT) advances the argument that strategy adopted by a firm is a function of the complement of the resources held and affects performance. Marketing intermediation theory; this is defined by how an organization responds to the environmental turbulence and how aggressive it is in implementing its strategy and the decision theory from which the steps of risk management are derived from, since the risk management process itself borrows and depends on laws from the Decision theory.

Small-scale farmers form the bedrock for global agrifood but they are faced with markets challenges in an unprecedented state flux (Banda et al 2000). The middlemen pay cash upfront to the small scale firms which could have taken up to two weeks to obtain payments from the co-operative terms (Kurup, 2003). Market-oriented dairy farming dates back to the early 20th century but indigenous Kenyans were only allowed to engage in commercial dairy farming after the Swynnerton Plan of 1954.

There was a rapid transfer of dairy cattle from the settler farms to the small scale soon after independence in 1963. The government policy mix that followed combined with direct intervention and statutory control of production and market activities, benefited small scale dairy production and marketing. These highly subsidized interventions were however not sustainable and by the 1980s, the quality of livestock services provided by the government had declined, prompting it to adopt reforms such as structural adjustment and economic restructuring (Ngigi, 2002) which have also failed to uplift small-scale farming SSDF.

1.1.1 Strategic risk management

Strategic risk management (SRM) is a series of steps that is performed by the management through identification, assessment and management of risks and uncertainties by endogenous and exogenous scenarios and events. The risks that can thwart the ability of the organization to meet its strategic goals and strategy. SRM entails the multifaceted mixing risk management, strategic planning and strategic execution in seizing opportunities and managing risks. Not only does this offer protection against losses but also enable better performance in achieving goals and greater resilience in the environment which is uncertain. The risks themselves may be strategic or non-strategic but they all contribute towards the overall strategic risk profile of an organisation and, therefore, fall within the remit of the strategic risk management system. Most people are aware of everyday risks. If you choose to drive a car to work, you are aware that the process of driving generates a risk of injury from being involved in a road traffic accident. You may be prepared to accept this risk because you consider it necessary in order to get to work within a reasonable time. You work to make money and develop your career and these, in turn, generate opportunities in your private and work lives. The process of driving to work, therefore, creates risk but it also creates opportunity. Risk and opportunity are effectively two outcomes of the same process. Risk represents an event with a negative outcome while opportunity represents an event with a positive outcome, both of which may or may not occur (Lam, 2003).

The risk opportunity consideration applies to organizations in much the same way as it does to individuals. Organizations in most industries and sectors operate within an environment that is subject to rapid and constant change and where the general level of internal and environmental complexity increases over time (Peris, 2009).

An effective risk management system has to be able to manage strategic risk, operational risk, change risk and unforeseen risk. Many organisations operate traditional silo-based risk management systems: typically health and safety risk management and financial risk management. In many cases they are capable of managing some of the different risk types. In practice, however, the various risk types do not operate in isolation. There are connections or interdependencies between the various risk types and also between the various functional units that make up the organization (Salesio, 2006). These interdependencies themselves generate new and separate interdependency risks: for example, a risk cascade where each individual risk is known and understood but the outcome of the cascade is not.

1.1.2 Competitiveness of Small Scale Businesses

The major and important issues in the competitiveness are the resources and abilities that are a source of advantage over rival firms. These competencies act as a pathway between the company's endogenous resources and the environment they operate in. Although firms may have identical resources, how they utilize these resources to meet the needs of the market will distinguish their successfulness or not. The function of building competencies is important.

Danneels (2002) shows a diabolic nature of competencies, thus customer competencies and technological. Technological competence can be the ability of the firm to make products (physical) and the competence in the view of customers makes the company to serve a given group of customers group. Also while some firms stay on obsolete technology other firms incessantly develop and embrace new technology.

Huang, Dyerson, Wu and Harindranath (2015), asserts that business environments have become volatile due to deregulation, technological change, industry convergence, globalization, aggressive competitive behavior etc. The companies have to possess exceptional, original and diverse resources in order to have a hub of sustainable competitive advantage, and then there exists a bottleneck in industries with mobile and similar resources across the firms. This makes it difficult to compete. Although it's important for companies to possess unique resources, it is also good to develop core competencies that will make the firms stand out.

1.1.3 Small scale milk distributors in Kenya

The Kenya dairy farming sub sector is one of the most vibrant in East Africa and it has the highest milk per capita availability and consumption (Ngigi, 2004). Kenyans including people from Mirangine and Mauche are amongst the highest milk consumers in the developing world, consuming an estimated 145 litres per person per year, more than five times milk consumption in other East African countries (SDP, 2005). The smallholder dairy sub-sector is a crucial one as it accounts for 80% of the total number of cattle in the country and it also contributes 70% of the total milk output (IFAD, 2006).

Majorly in Kenya the dairy farming is done in the highlands. This is due to the height of over 1000m above the sea level. The population density is dense compared to the lowlands and the dairy firms use their produce to supply to other parts of the country. The weather of the highlands is conducive for dairy cow rearing and favorable agro ecology for the same. Small scale dairy farming is very profitable because of the lucrative milk prices. Apart from the withdrawal of government support on artificial insemination, the dairy farming businesses have continued to thrive (Ngigi, 2003).

Both the rural and sub-urban areas in Kenya, most Kenyans buy unprocessed milk from vendors. In the urban areas there is a competition between the processed and unprocessed milk. Although the supermarkets do not sell unprocessed (raw) milk, it is accessible in shops and kiosks.

1.2 Research Problem

Responsibilities of managing strategic risks solely lie with businesses. This is important for survival and to ensuring an effective management process is in place. It is also important to monitor the strategic moves of peer small scale businesses so as not to be disadvantaged by lack of responsiveness to industry changes. Similarly, small scale businesses need strong internal control environments to ensure that they are not unduly exposed to strategic risks. Exposure to strategic risks might result to dwindling business fortunes as the small scale firms might be outsmarted by the others that are well positioned to handle risks.

The milk industry has significantly contributed to the national economy of Kenya, household incomes and food security of the nation. Just like many other sectors, this industry is faced with a number of technical, economic, institutional, and processing and distribution problems (Karanja, 2003). These problems affect the ability of the sector to participate and compete in the domestic and International market. Dairy farmers are now considerably less reliant on Kenyan safety nets. Instead, they find themselves confronted with new dynamics in the milk markets; the recent crisis on the milk market impressively underlines this development.

Several studies concerning the milk industry have been done. Christian (2009) on risk management in Milk production on European Countries examined that the systematic risk management makes the farmers prevent potential losses by identifying, quantifying, controlling and monitoring risks. In responding to risks in an apt way, the management of risk strategies are implemented to identify the risks. Nderi (2013) on Strategic risk management practices by AAR Insurance Kenya Ltd reviewed that strategic risk management is a process for identifying, assessing and managing risks and uncertainties, affected by internal and external events or scenarios that could inhibit an organization's ability to achieve its strategy and strategic objectives. The ultimate goal of strategic risk management is creating and protecting shareholder and stakeholder value in the Insurance industry. Martha (2010) on strategic risk management practice by KRA found out that the primary benefit of a risk based approach to strategic execution is that it allows managers to focus on the opportunities outlined in their firms' strategic plans, while at the same minimize the potential impact of any threats. A risk based management control system allows managers to quickly and confidently react to opportunities. To the researchers knowledge scanty studies have been done on strategic risk management and competitive advantage among small scale milk distributors in Meru County. Therefore the study sought to answer the following research question: What is the effect of strategic risk management on competitiveness of small scale milk distributors in Meru County, Kenya?

1.3 Research objective

To determine the effect of strategic risk management on competitiveness of small scale milk distributors in Meru County, Kenya.

1.4 Value of the study

The study is projected to have a great significance to the dairy farming sector in Kenya. To begin with, it is a basic research designed to contribute to better understanding of the strategic risk management in the sector and provide an understanding of the strategical risk constraints and remedial measures to dairy farming.

The academia and research institutions in the area of strategic risk management are projected to gain an insight on the strategic risk management applied by the milk distributors as well as challenges encountered in the process of decision making and project implementation. This may open up the opportunity for further research on other aspects of strategic risk management practices.

The results of this study is projected to inform policy makers and the governments on improvements that may be required in the sector to further enable the milk distributors achieve their mandates as well as streamline activities in the sector.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

Apart from the theoretical foundation, this chapter presents the concept of strategic risk, management practice and summary research gap.

2.2 Theoretical foundation of the study

This study is anchored on Resource Dependency Theory (RDT) and Market Intermediation Theories. This is because theories explain the relationship between an organization and the factors that contribute to its competitive advantage.

2.2.1 Resource Dependency Theory (RDT)

Resource dependence theory (RDT) can be explained as the effect of organizations external resources and its behavior. Any company which manages both its strategic and tactical aspects it needs to put into consideration the procurement of exogenous resources. Raw materials, labor and capital are depended upon by organizations; these organizations however might not be able to supply all the resources. The organization might take resources as both important and with rarity. Important resources are those that a firm cannot do without. For example, a chips outlet may not function without potato supply. However a firm may put into play diverse strategies, for example engaging more with suppliers or merge horizontally or vertically. (Hillman et al. 2009).

Dependence on resources involves more than the distribution, financing and competitions that can be provided for by an external firm. On-executive decisions have a greater impact in the organization than executive decisions which have more weight individually. The success of managers is tied to the demands from the customers. Therefore the customers are considered as the resource upon which firms depend. Incentives from the organizations make customers seen as resources from the management side (Davis & Cobb, 2010).

This theory's repercussions on the nonprofit sector have been to put to study recently. Recently, researchers have said that the reason for commercialization of nonprofit firms is because of RDT. This is because of the ever dwindling government resources and input, in the firms. The firms have had to look for other ways of maintain their livelihood. Scholars have debated that the decrease of quality services in the nonprofit

sector can be deduced from the marketing antiques propagated by the firms in the sector (Drees & Heugens, 2013).

Recently, RDT has been critiqued in various journals of repute. These critiques portray and expound how the theory is important even in the formation of ventures, mergers and acquisitions, in order create synergies and reduce interdependencies. Though RDT is a major theory in organizational studies in characterizing organizational behavior, it may not in its totality explain organizational performance. (Sharif & Yeoh, 2014).

Resource Dependence Theory explained the ways to manage dependence by establishing inter-organizational relationship. Proponents of this theory, asserts that firms which were attacked with exogenous dependency would try to determine inter-organizational arrangements as strategic stimuli to actors in their external environment (e.g. suppliers). One aftermath of resource dependency theory for the organization of inter-firm relationship was that firms facing different dependency condition would structure their relations favorably exchange partners (Buvik, 2001). They were likely to form societies to help them acquire economy of scale in their businesses activities. The small-scale dairy farmers could be assisted to form trading groups in their dairy farming SSDF to mitigate dependency on intermediaries firms that might be influencing negatively their sustainability SSDF.

These theories were used to establish influence of milk intermediaries' purchasing strategies on sustainability of SSDF in order to suggest ways that could help to mitigate factors that might have been hindering these businesses from flourishing.

2.2.2 Market Intermediation Theories

The modern approach of this theory complete vertical integration between the producers and other stores/consumers. Intermediaries usually connect buyers and their corresponding sellers and provides various services thus, discovery of prices, certification of the services, advertising while at the same time controlling over the transactions via assumptions. They were therefore important because they enabled small-scale farmers to access the market in urban and other centers where the produce was required (Armstrong, 2006).

Reduction of transaction costs was enabled by technology (Parker & Van Alstyne, 2008). Baye & Morgan (2001) asserted that the hurdles associated with extorting consumer and producers surplus funds was because of price externalities in concomitance with context of a price. Ellison& Ellison (2009) suggested that price search friction might raise retailers' prices and profits which could extinct small producers.

Vickers & Zhou (2009) mentioned the chance that a broker distorted the search stages are to inflict greatness when its revenue comes majorly from the sellers. Therefore these intermediaries' models viewed intermediaries as market makers coordinating the actions of small milk producers and other small firms. On the other hand, the small producers became market takers. The small producers were therefore eliminated in decisions that affected their SSDF such as price of milk, cost of input supplied depending upon abundance of milk and sale costs faced by the milk producer (Rayo & Segal 2009). The small milk producers were more vulnerable because they could not store their produce until a time of scarcity due to lack of equipment and technology that could bring value addition to their products.

2.2.3 Decision Theory

This theory is covertly a major factor in the process of risk management, since the process depends on the laws that are obtained from general knowledge. Several fields of human knowledge have for so many years researched on the decision theory. From the aforementioned research work, which spans over 30 years, insights have been gotten on diverse issues although many facets of the field of decision making is still unexploited. This section provided an empirical review of studies done on strategic leadership, decision support system and internal management environment and their influence on the implementation of Strategic decisions in organizations (Nooraie, 2008).

Decision making is an important part of the process of making decision in strategic management. The plans set, the resources committed and the course of action taken make strategic decisions important. These decisions made by the top leadership usually affect not only the survival of the organization but also the health of the organization. More so, the creation, evaluation and implementation process of strategic decisions is usually marked by chances of uncertainty, different options of

potential synergies, and consequences in the long term and the need for stakeholder negotiation and involvement. For the decision making process to be effective, the managers must forecast the anticipated outcome of each option in order to determine which option is the best for any given situation. Therefore strategic decision making can be defined as development and actionizing choices that have long term effects on an organization (Nooraie, 2012).

After choices are made and implemented, they may be hard to reverse since they require large commitment of resources and major changes in the organization. The making of strategic decisions often reflects the decision makers' position of work, their experience and even the company's environment. Improving strategic decision making needs to be focused on the outcomes and the process thereabout. The organization strategy determines how a decision can be made and is limited on how liberal and accommodating the strategy is. Strategic decision making is inclusive and involves the whole organization (Philips, 2007).

Strategic decision making permits an organization to test the infrastructure, understand its operation and make necessary adjustments. Making a strategic decision, the board will do information analysis; determine what action needs to be taken with the aim of reaching an all-inclusive beneficial goal. Many organizations know their business and the strategies required for success. However many corporations including public corporations struggle to translate strategic decisions into action plans that will enable these decisions to be successfully implemented and sustained. According to research most companies have strategies but far fewer achieve them. Organizations fail to do so not because of bad strategic decision making process but because of bad execution, therefore effective decision making is important in achieving successful decision making Milkamanet al. (2008).

2.3 Strategic Risk Management Practices

Firms are faced with different types of risks across all the organizations and these firms usually entrust corporate treasurers, managers of portfolios, insurance practitioners and hedgers to assist in risk management (Shimpi, 2001). According to Jorion (2001), the success of organizations depends upon the risk management and understanding properly the firm's sensitiveness to different types of risk. Lam (2001) further posits that risk management reduces earning volatility, maximizes value for shareholders and promotes job security and financial security in the organization.

Organizations will therefore be advantaged to establish risk management practices to mitigate various risks facing the organization. According to Kersnar (2009), the formal risk management practices entail; risk identification, risk analysis and risk evaluation and control. The board of management and other senior level managers must sanction a formal and documented RM process to work. Since business operations involve risk management, it is prudent to understand the acceptable risks and how to mitigate against risks that are harmful to the firm and stakeholders at large (King, 2001). The management of risk is core to the implementation of a firms strategy so that there is a link between a firms strategic plan and the understanding of the organizations risk across all entities. Therefore there is need to co-ordinate risk assessment and the development of strategy to assure stakeholders work consistently manages the risks with efficiency and effectiveness. A go ahead from the top management is needed so that risk management team's success is assured in achieving organizational goals.

In order to comprehend the fiscal commitment RM will require, the top management should supervise studies to estimate the cost to implement an RM department. After the costs are comprehended a risk expert is good to come into play and provide technical assistance to management in the development of an implementation plan and to designate an internal team to be responsible for the implementation. To be successful over time, a separate department for RM should be empowered to collect risk reports monthly and assimilate information to be reviewed by the Board. At a minimum for smaller organizations, there should be a chief risk officer assigned to monitor the process (Kersnar, 2009).

2.3.1 Risk Identification

Simmons (2000) posit the definition of the business goals is the foremost important step towards mitigation of risk because if an organization doesn't have a clear cut vision it may be difficult to know which risks that may arise. A business objective (goal) which is unclear is in itself a strategic risk and should be dealt with pronto. The business objectives should be assessed to ascertain whether they are clear by having management sessions and interviews. Further as noted by Kersnar (2009) the risk identification process should try as much as possible to remove obscurity, dissonance, incongruities and other nebulousness as possible. Efforts across entities should be made to coalesce all known or the anticipated risks. Management of organizational risks in silos, lack of effective communication and ignoring the full potential of risks could be wanton to the organization. The risks that are known should be reduced and the ones that are hidden are destructive as they can kill the organization. (Rasmussen & McClean, 2007).

The employees in the organization should be responsible in pinpointing and sharing potential risks. Of importance are those that affect the organizations strategy. The line managers and risk specialist have been found to use mostly experience and process as organizational risk identifying tools. However, cultured tools of risk identification available like scenario analysis and strengths, weaknesses, opportunities and threats (SWOT) analysis are used frequently (Gupta, 2009).

2.3.2 Risk Analysis

After an organization has identified its problems, analysis of risk exposure should be next. This step involves a brainstorming session (Berinato, 2006) and will entail analysis of the institutional SWOT in order to come out with effective exploration for the strategic risks. In an effort for an organization to evaluate the effect of the risks on asset values and economic performance analysis of latent paybacks from diverse risk extenuation efforts and prerequisite for risk transference and funding arrangements will have to be determined (Berinato, 2006). According to Gupta (2009), in order for the brainstorming session to be successful in analyzing the risks, the members need to re-examine important firm information before the session so that they can ask informed questions. Both the features and risks needs to be pin-pointed from a gamut of issues that may include brand, culture, strategy, competence, systems and operations.

Though achieving this difficult, the facets needs to be tackled to conclusion. Adding to this for effective management of the various exposures faced by the organization, appropriate corporate accounting systems need to be put in place to pin-point and measure the relevant exposures and the endogenous control processes (Shimell, 2002).

As Gates (2006), puts it, determination of risk priorities should be the next step, both for the departments and the company at large. This is done by using a risk mapping technique. Before the consideration of mitigation of risks that results from the internal controls or other mitigation methods thus; risk avoidance and acceptance, insurance, are adopted. Every risk needs to be evaluated as a suspect for possible loss or repercussion in the firm. After the mapping of risks is done, the existing environment needs to be considered, also the corporate strategy and the risks that could thwart achievement of objectives and goals that have been stated prior. The controls that need to be put in place in order to mitigate risks and the measures to check the same also needs to be outlined (Jorion, 2001). On analysis of risks, the implementation team for RM should work with departments and link the up with the firms' strategy. Reporting to the risk department for the risk department should be done so as the residual risks can be used to develop performance measures. This may allow the firm in progress monitoring with a bid to achieve the corporate goals and pin-point areas where there is need for improvements and bottlenecks to be ironed out (Lam, 2003).

2.3.3 Risk Treatment

This involves identifying the gamut of options for treating risk, the assessment of the options, preparation of the risk treatment plans and at the same time how to implement them. Shimell (2002) asserts that, the chances for treatment of risks are; attaining/accepting the risk; when controls are in place, the risk that has remained is termed as acceptable to the firm, and therefore the risk can be reserved. However, plans can be in pace with a bid to manage and also fund the outcomes when the risk occurs. Secondly, the likelihood of the risk needs to be reduced through preventive maintenance, supervision, testing, compliance and audit programs, policies and procedures, contract conditions, quality assurance programs and technical controls.

Those other risk treatment options reduce the repercussions of the risk happening through contract conditions, offsite back-up, disaster recovery and business continuity

plans. Other options can be staff training, emergency procedures and public relations. The fourth step is risk transfer, it makes the other party bear or share a fraction of the risk through insurance, joint ventures and partnerships, contracts and insurance. This may entail making a decision not to continue with the activities that may generate the anticipated risk where possible (Berinato, 2006).

2.3.4 Risk Evaluation and control

Gupta (2009) asserts that, the process of formal strategy bear a resemblance to the management of risk process that includes a control strategy factor whereas corporate management monitors the outcome of against the targeted strategic aim to ensure all the corporate actions stay on track and that any digression is mitigated against. The digression can be a source of ideas for adaptive and innovative responses. When the firm notes diversions away from the normal strategic path, it has to put appropriate mechanisms to re-position the outcome with the firm targets (Shimell, 2002). Therefore, the financial measures and balanced score card are employed as techniques of control. Organization responses that are prevailing should be agreed and assessed by the team that deals with strategy and plans on overcoming risks should be put into play. This will inform the management to make corporate decisions on the usefulness of exposures. The assessment of risks in firms has to balance the planning with adaptive solutions that may arise as plans for the firms are implemented. The potential economic effects are determined after identification of the factors and the vulnerability of the various factors analyzed (Berinato, 2006).

Here, the team charged with implementation should make a review of the company strategy with the various business units, and check how each unit will play their role to achieve the corporate goals. The unit objectives should be determined and be aligned to the organization strategy. The goals should be SMART, Specific, Measurable, Achievable, Results-oriented, and Timely. Measures of performance should compare the actual results against the targets. When the measures of performance affect the behavior of the employees, they will easily be achievable and result in having the correct and required behavior. Unattainable goals that are set can result in unethical behavior or worse still if the goals are misunderstood (Shimell, 2002).

2.4 Competitiveness of a firm

Competitive advantage or competitiveness of a firm can be practices a firm does that are different from its competitors, or superior to its competitors. Kurtz & Clow (2009) highlight four requirements for qualification of sustainable competitive advantage: the model should be valued by customers as to result to additional sales, it must be non-substitutable, the firm must have the resources and capability of delivering competitive advantages to customers and finally it must not be easily copied by customers. The depth in which a company can gain from a competitive advantage depends on the competitive advantage itself, how sustainable it is, and how the resources and capabilities the firms are allocated and utilized.

Porter (2005) suggested that sustainability could be obtained if "advantage resists erosion by competitive behavior". This is occasioned by the existence of hurdles which makes it difficult to imitate. When resources and capabilities are more durable, that is when they don't depreciate physically they can add sustainability. Sources of competitive advantage are varied and multiple. Bharadwaj et al (2003) give the sources that have potential for competitive advantages in service organizations. This can be scale, functional skills, culture and brand equity. Of importance are implementation skills and information technology.

The major debate on competitive advantage delves mostly on defensive strategies rather than the existing resource strengths. Notably, Grant (2001) portrays the competitive advantage sustainability through the facets of reliability, mobility and durability. Durability shows the length of how the competitive advantage can be sustained in the long run. This is also the access of resources in order to build competitive advantage. This can be explained by the urgency of how accessible to the uniqueness of the resources to the organization determines the speed of attaining competitive advantage. (Chaharbaghi &Lynch, 2009). Where competitive advantage moves with speed, sustainable competitive advantage will have to involve creating safe havens from competition through creation of gaps via unique resources that can't be easily accessed by competitors (Chaharbaghi & Lynch, 2009).

2.5 Empirical Studies

Chapelle, Crama, Hübner and Peters (2004) assessed the properties of operational risk organization activities on the profitability of banks, by measure of RAROC adopted to operational risk. The results suggested that substantial savings can be achieved through active management techniques, although the estimated effect of a reduction of the number, frequency or severity of operational losses crucially depends on the calibration of the aggregate loss distributions. The study differed significantly from the present study in that it covered operational risks as opposed to financial risk management.

A study sought to identify risks encountered by commercial banks and the risk management practices adopted by commercial banks to curb against these risks. Further the study wanted to establish the challenges faced by commercial banks in successful implementation of risk management. A census survey was conducted for all the licensed banks operating in Kenya. Majority of the banks were found to use both qualitative and quantitative methods to measure risk. Scenario analysis was found to be the most common used technique to measure risk. Budget constraint, complexity of risk management process and high training costs were identified as the main challenges facing implementation of risk management. Progress has been made in risk management by commercial banks in Kenya as revealed by the study as most of the banks have risk management structures in place.

Njeri (2010) conducted a survey of large commercial banks in Kenya, the researcher delved on the strategic risk management practices. The research was a census survey on 13 large commercial banks in Kenya. The study found out that banks have adopted strategic risk management practices and though there was a slight variance in approach between the banks, the most commonly adopted practice centered on strategic risk assessment, evaluation, monitoring, and control and reporting.

Ojiako (2012) conducted a study that examined themed facets in strategic business risk. The researcher sought to propose the best way businesses can comprehend firm risk in a constant change and uncertain environment. The study gave a foundation for developing a strategic risk management framework.

2.6Summary and research gap

In strategic risk management, structures for competitiveness gain relevance for those involved in this empirical study especially the dairy farmers. Contextually, the specialization increase and growth of dairy operations have been the major strategies in the counties. Focusing on firms' core businesses makes farmers acquire knowledge thereby getting economies of scale, which both led to the lowering of production costs. Other dairy farmers consider extrapolation of dairy production as a means to further help in reduction of production costs, and most farmers do not realize that this is a beneficial strategy. Diversification as a risk sharing strategy is good when dealing with different markets, but it may not be implemented by dairy farmers in this empirical study.

With a bid to hedge risks and realization of economic and social goals farmers strongly focus on co-operatives. This can be attributed to the strict trading limitations and regulations quota. Akin to the single farms which are saddled with strategies for growth, co-operatives do realize the economies of scale and become less dependent on the market and/or developments in policy. Consequently, family workloads are hence reduced. For higher prices, farmers help one another in marketing their milk rather than in producing the same.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

The research methodology for this study is presented in this chapter. Various areas of the methodology were discussed, including but not limited to the study population, sample size and technique amongst others.

3.2 Research Design

A survey design was adopted. A survey design is usually undertaken across a sample of a population when the population is large. The purpose is to describe the population. This design was chosen because the population for small scale milk distributors in Meru County is large.

3.3 Population of the study

142 milk suppliers to the main milk buyers (KCC, Brookside and Meru Central, 2016), formed the study population.

3.4 Sampling Technique and Sample Size

The study used stratified random sampling, to determine the sample from a population of 142, as shown in Table 3.1 below

Table 3.1 Sample of Delivering Firms

Milk Buyers	Total	Firms	Sample Picked	Percentage
	delivering			
Brookside	46		23	50%
KCC	44		22	50%
Meru Dairy Co-	52		26	50%
operative Union				
Total	142		71	

3.4 Data collection procedure

Primary data was used because the researcher seeks to gather current information directly from respondents. Closed ended questionnaires were chosen because they can be well structured, easier and quicker for respondents to answer in addressing the research question. They are also easier to code and statistically analyze.

A five point Likert Scale was used in collecting data. The questionnaire was in two parts. Part A covered the profile of small scale milk distributors and captured their size, age, ownership, markets and their products/services. Part B focused on capturing strategic risk management in use across the dairy industry and competitive advantage of individual distributors within the industry. Part C captured the competitiveness of the firm. The questionnaires were administered to the respondents by drop and pick later once completed accordingly.

3.5 Data Analysis

The data was tested for normality and symmetry using Shapiro-Wilk test, Histogram and Detrended normal Q-Q plot tests. The data was then be analyzed SPSS in order to obtain various statistics. Linear regression model was used; it sought to establish the effect of strategic management factors on competitiveness of the small scale milk firms at a significance level of 5%. The Strategic management factors to be analyzed are; Risk Identification, Risk Analysis, Risk Treatment, Risk Evaluation and control

The regression model was:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \, \acute{\epsilon}$$

Where:

Y= Competitiveness of Small Scale Milk Firms

 X_1 - X_3 = Independent Variables

 $X_1 = Risk Identification$

X₂₌ Risk Analysis

 $X_3 = Risk Treatment$

 X_4 = Risk Evaluation and Control

 β_1 - β_4 =regression coefficients

 $\dot{\epsilon}$ = Error term

CHAPTER FOUR: DATA ANALYSIS, FINDINGS AND DISCUSSION

4.1 Introduction

Data analysis, discussions and findings were presented in this chapter.

4.2 Demographics

The response rate was 70.4% as the 50 questionnaires were collected from the possible 71. This was considered fit for the study. The demographics of the respondents were calculated and the frequencies and percentage determined and is as here-below

4.2.1 Age

The respondents were asked to specify their age and the results were tabulated as shown in Table 4.1 below

Table 4.1 Age

	Frequency		Percent
18-35		9	18.0
36-53		33	66.0
54 and above		8	16.0
Total		50	100.0

Source: Primary Data (2016)

Most of the respondents were found to be between the age, 36-53 a frequency of 33 which is 66% of the total respondents. This was expected as most adults engage in farming activities in the area of study. Those between 18-35 were 9 representing 18% while those aged 54 and above were 8 which represent 16%.

4.2.2 Number of Cows

The respondents were requested to indicate number of cows in the firms and the same was also analyzed and tabulated in Table 4.2 below

Table 4.2 Number of cows

	Frequency	Percent
Five	6	12.0
Ten	8	16.0
Fifteen	22	44.0
Twenty	12	24.0
Twenty Five	2	4.0
Total	50	100.0

Source: Primary Data (2016)

Most firms had fifteen cows each, 22 respondents attested so which is 44% of the total. Only two respondents kept twenty five cows each which is 4% of the total while 6 respondents kept five cows each this is 12%.

4.2.3 Level of Job placement

The respondents were requested to indicate the level of job placement. This was analyzed and tabulated in Table 4.3 below

Table 4.3 Level of job placement

	Frequency	Percent
Manager	25	50.0
Supervisor	12	24.0
Junior Staff	10	20.0
Sub-ordinate	3	6.0
Total	50	100.0

Source: Primary Data (2016)

Majority of the respondents were managers who were 25 which represents 50% of the total respondents. Basically, a total of 37 were in the management which is 74%. They were deemed knowledgeable to respond to the study questionnaire.

4.2.4 Experience in Dairy Farming

The respondents were requested to indicate their experience in dairy farming which was also analyzed and the same was tabulated in Table 4.4 below.

Table 4.4 Experience in Dairy Farming

	Frequency	Percent
6 months	1	2.0
1 year	3	6.0
2 years	27	54.0
3 years	13	26.0
Over 4 years	6	12.0
Total	50	100.0

Source: Primary Data (2016)

Most respondents had 2 years' experience, that is 27 out of the total 50 representing 54%. Only one respondent had been dairy farming for 6 months. The respondents had the know how to fill the questionnaire.

4.3 Descriptive Statistics for Strategic Risk Management Factors

The descriptive statistics (Mean and Standard Deviation) for the study variables were calculated and tabulated as below.

4.3.1 Descriptive Statistics for Risk Identification

The various facets for risk identification in the firms were analyzed and the following were the findings

Table 4.5 Descriptive Statistics for Risk Identification

	Mean	Std. Deviation
Employees involved in identifying and sharing potential risks	2.30	.974
Collect all known or anticipated risks	2.20	.782
Risks are identified from widest range of issues	2.12	.982
Risk identification process removes ambiguity	2.04	.832
Past experience is used to identifying risks	1.96	.947

Source: Primary Data (2016)

Employees involved in identifying and sharing potential risks had the highest mean of 2.30, implying that it was the most preferred factor in risk identification, and it deviate from the mean that much as shown by its standard deviation of 0.974. The least preferred factor in risk identification was past experience is used to identifying risks which had a mean of 1.96 and standard deviation of 0.947.

4.3.2 Descriptive Statistics for Risk Analysis

The various facets for risk identification in the firms were analyzed and the following were the findings. As shown in Table 4.6, risk management implementation team works with reporting departments had the highest mean of 2.62. Thereby the most preferred factor. It also had the highest standard deviation from the mean of 1.159. The least preferred factor for risk analysis according to this study is risk mapping technique to determine risk priorities which had a mean of 2.04, though it didn't have the lowest standard deviation. Implying that it deviated from the mean more.

Table 4.6 Descriptive Statistics for Risk Analysis

*	Mean	Std. Deviation	
risk management implementation team	2.62	1.159	
works with reporting departments			
potential benefits from risk mitigation	2.30	.839	
efforts			
accounting systems to identify and	2.18	1.101	
measure relevant exposures			
swot is used to get effective analysis	2.06	.867	
risk mapping technique to determine risk	2.04	1.009	
priorities			

Source: Primary Data (2016)

4.3.3 Descriptive Statistics for Risk Treatment

The various sub factors of risk treatment in the firms were analyzed and the following were the findings

Table 4.7 Descriptive Statistics for Risk Treatment

	Mean	Std. Deviation
Reduction of the consequences of risk occurrence	2.56	1.110
Proper mechanisms are placed to avoid risks	2.32	.819
Likelihood of risk occurrence is reduced via various methods	2.26	1.046
Range of options for treating risk are identified	2.26	.922
Firms transfer risk by involving other parties	2.20	.904

Source: Primary Data (2016)

Reduction of the consequences of risk occurrence had the highest mean of 2.56 and implying that it was the most preferred of the factors. Its standard deviation is also the largest showing that its deviation from the mean is high. The least preferred of the factors was firms transfer risk by involving other parties with a mean of 2.20 .The least standard deviation was with proper mechanisms are placed to avoid risks with a value of 0.819.This means it was the least factor that deviated from the mean.

4.3.4 Descriptive Statistics for Risk Evaluation and Control

The various sub-factors of risk treatment in the firms were analyzed and the following were the findings

Table 4.8 Descriptive Statistics for Risk Evaluation and Control

	Mean	Std. Deviation
Risk assessment planning with adaptive	2.74	.965
solutions		
SMART risk control targets	2.44	.993
Realignment of diversions with objectives	2.42	1.071
Firm decides on whether risk exposures are	2.28	1.051
acceptable		
Performance outcomes are monitored	2.20	.808
intended strategic goal		

Source: Primary Data (2016)

Risk assessment planning with adaptive solutions had the highest mean with a value of 2.74 and the second last value of standard deviation. It was the highest preferred of the factors and also its deviation from the mean is minimal. The least factor was performance outcomes are monitored intended strategic goal with a mean of 2.20 which also had the least value of standard deviation of 0.808. Its the least preferred factor but very closer to the mean.

4.3.5 Descriptive Statistics for Competitiveness of the small scale milk firms

Firm performance components were analyzed and the findings tabulated in table 4.9 below.

Table 4.9 Descriptive Statistics for Competitiveness of the small scale milk firms

	Mean	Std. Deviation	
Use of modern equipments	3.42	1.032	
Capacity to handle large orders from	3.38	1.244	
suppliers			
Employment of technology	3.10	1.266	
Level of financing in relation to firm needs	3.00	1.107	
Qualified staff and personnel	2.88	1.365	
Volume of milk delivery in relation to other	2.78	1.404	
firms			

Source: Primary Data (2016)

Most firms used modern equipments and this was a yard stick for competitiveness. The highest mean was 3.42. Volume of milk delivery in relation to other firms had the lowest mean of 2.78 which showed it was least a competitive strategy in relation to the rest of the factors.

4.4 Check for Normality of Data

The data was subjected to various tests normality tests to check whether it was normal so as to enable subsequent analyses. Before the check for normality the sub-variables were aggregated to get the main variables for onward analysis.

4.4.1 Kolmogorov-Smirnov and Shapiro-Wilk Test for the Variables

Table 4.10 below shows the Shapiro-Wilk and Kolmogorov-Smirnov tests which were conducted using the variables of the study. Since the variables are 50< 2000 the Shapiro Wilk test was used and the data was found to be normally distributed because

the p-values for all the dependent variables were less than 0.05 at 5% level of significance.

Table 4.10 Kolmogorov-Smirnov and Shapiro-Wilk Test for the Variables

	Kolmogorov-Smirnov		Shapiro-Wilk			
	Statistic	df	Sig.	Statistic	df	Sig.
Risk Identification	.215	50	.000	.877	50	.000
Risk Analysis	.170	50	.001	.927	50	.004
Risk Treatment	.216	50	.000	.887	50	.000
Risk Evaluationand	.189	50	.000	.923	50	.003
Control						
Competitiveness	.150	50	.007	.951	50	.037

Source: Primary Data (2016)

This prompted the researcher to observe normality of the variables using the Detrended Q-Q and Histogram (obtained from regression residuals) from the same variables.

4.4.2 Detrended Q-Q plot for Risk Analysis

Observing the detrended normal Q-Q plot for risk analysis(chosen arbitrarily) from the same analysis, shown in Appendix II below discloses that all the variables lie between the range of +1 to -1 which is a confirmation of the normality of data. Since data was found to be normal, subsequent parametric tests (correlation and regression was done). With the histogram for competitiveness in Appendix III below, there is a revelation of symmetry in all the study variables. The normal curve is a confirmation of normality.

4.5 Regression Analysis

The dependent variable (competitiveness) was regressed against the independent variables (risk identification, risk analysis, risk treatment, risk evaluation and control) and the results are analyzed as below;

4.5.1 Analysis of Variance Table 4.11 ANOVA

Mod	lel	Sum of	df	Mean	F	Sig.
		Squares Square				
1	Regressi	17.431	4	4.358	7.854	$.000^{b}$
	on					
	Residual	24.967	45	.555		
	Total	42.398	49			

Source: Primary Data (2016)

At 5% level of significance, the p value 0.000<0.05 therefore the relationship between the dependent variables and independent variables was found to be significant. Implying the strategic risk factors were a source of competitiveness for small scale milk firms.

4.5.2 Model Summary

To determine what percentage of the dependent variables was predicted by the independent variable. A look at the model summary was necessary

Table 4.12 Model Summary

Model	R	R Square	Adjusted R	Std. Error of the		
			Square	Estimate		
1	.641 ^a	.411	.359	.74487		

Source: Primary Data (2016)

Looking at the adjusted R-square at 5% level of significance, shows that 35.9% of the competitiveness was predicted by the strategic risk factors. This implies 64.1% of the model is predicted by exogenous factors.

4.5.3 Co-efficients of the Model

The regression model to be fitted was: $Y=\beta_0+\beta_1X_1+\beta_2X_2+\beta_3X_3+\beta_4X_4+\epsilon$. The coefficients of the model are as shown in Table 4.13

Table 4.13 Co-efficients of the Model

Model	Unstandardized Coefficients		Standardized Coefficients	Т	Sig.
	В	Std.	Beta		
		Error			
(Constant)	5.623	.530		10.605	.000
Risk Identification	466	.234	272	-1.989	.053
Risk Analysis	232	.288	176	807	.424
Risk Treatment	392	.223	305	-1.762	.085
Risk Evaluation and	046	.194	034	235	.815
Control					

Source: Primary Data (2016)

 $Y=5.623-0.466X_1-0.232X_2-0.392X_3-0.466X_4$

This implies when there is no strategic risk factors, the competitiveness stands at 5.623. When risk identification increases by one unit, competitiveness decreases by 0.466 units, when risk analysis increases by one unit competitiveness decreases by 0.232. Also when risk treatment increases by one unit competitiveness decreases by 0.392, when risk evaluation and control increases by one unit competitiveness decreases by 0.046.

4.6 Discussion of findings

The response rate was 70.4% as the 50 questionnaires were collected from the possible 71. This was considered fit for the study. Descriptive statistics for strategic risk factors were done and for risk identification the two sub factors that were found to have the most preference were employees involved in identifying and sharing potential risks and collect all known or anticipated risks. Under risk analysis the two sub factors that were most used in the firms were, risk management implementation team works with reporting departments and potential benefits from risk mitigation efforts. For risk treatment, the reduction of the consequences of risk was the most important sub factor and under risk evaluation and control, risk assessment planning with adaptive solutions. These sub factors collectively contributed to the competitiveness of small scale firms. Similarly Nderi (2013) found out that strategic risk management is a process for identifying, assessing and managing risks and

uncertainties, affected by internal and external events or scenarios that could inhibit an organization's ability to achieve its strategy and strategic objectives. Martha (2010) on strategic risk management practice by KRA found out that the primary benefit of a risk based approach to strategic execution is that it allows managers to focus on the opportunities outlined in their firms' strategic plans, while at the same minimize the potential impact of any threats.

Regression analysis was conducted, the value of R-square (0.359) implied that 35.9% of the total variance of competitiveness was explained by the model. That meant 64.1% of the total variance of firm performance values that could not be explained by the model. The regression equation was fitted, the competitiveness of the small scale firms was found to vary negatively with the strategic risk factors. This is out of the norm, implying the 64.1% of the variation might have caused this discrepancy. Christian (2009) on risk management in Milk production on European Countries examined that systematic risk management allows farmers to identify, quantify, control and monitor risks and potential losses. Risk management strategies are implemented to identify risks in an organization and to respond to those risks in an appropriate way. The researcher also used regression analysis.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter captures the summary of the findings, conclusion and also recommendations for further study. It is entirely derived from the findings and results of this study in chapter four.

5.2 Summary

The study was done as an informed decision due to the existence of scanty empirical studies on the strategic risk management factors as a source of competitiveness of small scale milk distributors in Meru County, Kenya. This warranted the go ahead to undertake the study.

The study adopted a survey design that was descriptive in nature. For each type of change the descriptive statistics (mean and standard deviation) was analyzed. Descriptive statistics for firm performance was also analyzed. Normality test was carried out and data was found to be normal both from the histogram and the detrended Q-Q plot. To determine linearity of the variables regression analysis was carried out and it was found that there was a positive relation between firm performance and the independent variables.

Regression analysis was conducted, the value of R-square (0.359) implied that 35.9% of the total variance of competitiveness was explained by the model. That meant 64.1% of the total variance of firm performance values that could not be explained by the model. The regression equation was fitted, the competitiveness of the small scale firms was found to vary negatively with the strategic risk factors. This is out of the norm, implying the 64.1% of the variation might have caused this discrepancy.

5.3 Conclusion

The study can conclude that indeed there is a significant relationship attest to the fact that indeed there is a negative and significant relationship between strategic risk management factors and competitiveness small scale milk distributors in Meru County. This was shown at 5% confidence level.

The study also found out that the strategic risk management factors are a source of competitiveness but this relation is negative.

5.4 Limitations of the Study

The study was limited to the small scale milk firms in Meru County, Kenya. Further limitation arose from delving to study only the registered small scale milk firms.

Also the respondents were unwilling to divulge information since they feared they will be reprimanded. The researcher assured them that the study was for academic purposes only. This in some way limited the study.

5.5 Recommendation

The study recommends stakeholders in the milk industry especially the small scale milk stakeholders to use the findings thereof in this study for policy making. The government, locals in the dairy farming are also recommended to use findings of this study in various areas of decision making.

5.6 Suggestion for further studies

The current study focused on dairy firms in Meru Kenya. This excludes other industries, and future studies should consider other sectors such as tea and coffee industries, pig rearing etc

Since the strategic change factors affected only 35.9% of the competitiveness, it would be good to conduct a study to determine what the other 64.1% of the effects are. The researcher also suggests studies to be done across other counties in Kenya. Especially those that venture in dairy farming and compare the findings.

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Appendix I: Questionnaire Part one: Demographics

1. Your Age brackets: 18 - 35 [] 36 -53 [] 54& above []	
2. Location of your dairy farming project	
- <u></u>	
3. How many cows do you have? 5 [] 10 [] 15 [] 20 [] 25 []	
4. How long have you been on dairy farming project?	
6months [] 1 Year [] 2 Years [] 3Years [] over 4 year []	S
5. Does the dairy farming project able to sustain itself? Yes [] No []	
6. Indicate your level of job placement	
Manager []	
Supervisor []	
Junior staff []	
Sub-ordinate []	

Part B: Strategic Risk Management Factors

7. Kindly indicate how the following risk factors affect the organization.

Do you believe the following risk factors statement affect the competitiveness in the firm

1= strongly agree 2= agree 3 = Neutral 4= Disagree 5=strongly disagree

Statement					
Risk Identification	1	2	3	4	5
The risk identification process removes ambiguity, discord,					
disagreements & other vagueness as possible					
Deliberate efforts are made across the firms to collect all known					
or anticipated risks					
All employees are responsible for identifying & sharing					
potential organizational risks through easier to use &					
understadable tools					
Line managers & risk specialists use past experience analysis &					
process analysis as tools of identifying risks facing the firms					
Both risks & characteristics are identified from the widest					
possible range of issues, including strategy, operations, culture,					
systems, competence &br&					
Risk Analysis					
The firm strengths, weaknesses, opportunities & threats are					
brainstormed in order to come out with effective analysis for the					
strategic risks					
There is deliberate determination of potential benefits from					
different risk mitigation efforts & need for risk transfer &					
financing arrangements					
The firm puts in place corporate accounting systems to identify					
& measure the relevant exposures as well as internal control					
processes are adopted to check whether exposures are kept					
within bounds & whether processes remain in line					
Risk mapping technique is done to determine risk priorities, both					
for the firm& for the departments in the firm.					
Risk Management implementation team works with each					
reporting department-level to link the firm's strategy to that					
area's objectives & residual risks to develop performance					
measures to be reported to the risk department.					
Risk Treatment		1	ı	1	
Range of options for treating risk are identified, assessing those					
options, preparing risk treatment plans & implementing them		1			
The likelihood of the risk occurring is reduced by preventative					
maintenance, audit & compliance programs, supervision,					
contract conditions, policies & procedures, testing, investment &					
portfolio management, training of staff, technical controls &					
quality assurance programs		1			
The consequences of the risk occurring is reduced through					
contingency planning, contract conditions, disaster recovery					

&business continuity plans, offsite back-up, public relations,			
emergency procedures & staff training.			
The firm transfers risk by involving another party bearing or			
sharing some part of the risk by the use of contracts, insurance,			
outsourcing, joint ventures or partnerships			
Proper mechanisms are in place to avoid risks.			
Risk Evaluation & Control			
Performance outcomes are monitored against intended strategic			
goal to ensure that firm activities remain on track & correspond			
to the set course.			
Once the firm notices some diversions from the norm,			
appropriate mechanism are put in place to realign the results			
with what the firm intends to achieve			
Firm decision on whether risk exposures are acceptable in view			
of prevailing organisation responses are assessed & agreed by			
the strategy team			
Risk assessments in the firm balances planning with adaptive			
solutions that arise as the firm's activities are carried out.			
SMART risk control targets are set & inculcated in the employee			
daily activities			

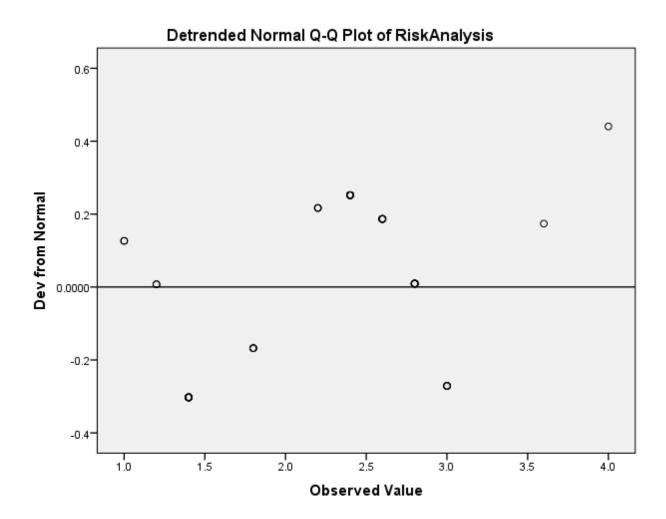
PART C: Competitiveness of the Small Scale Milk Firms

8. Kindly indicate on the usage of the following towards the competitiveness of your firms.1 = Never use, 2= Almost never 3 =Occasionally/Sometimes 4 = Almost every time 5 = frequently use

Statement		2	3	4	5
Volume of milk delivery in relation to other firms					
Employment of technology					
Use of modern equipment's					
Qualified staff & personnel					
Capacity to h≤ large orders from suppliers					
Level of financing in relation to firm needs					

Thank you for your time & Co-operation

Appendix II: Detrended Normal Q-Q Plot for Risk Analysis



Appendix III: Histogram for Competitiveness

Histogram

Dependent Variable: Competitiveness

