

**THE ROLE OF JOINT ACTION IN
EXPLOITING OPPORTUNITIES AND
OVERCOMING CHALLENGES AMONG MEAT
RETAILERS IN THE MEAT INDUSTRY
CLUSTER**

THE CASE OF KAJIADO MEAT CLUSTER

KINYANJUI CATHERINE WANJIKU

T50/75203/2014

**A RESEARCH PROJECT SUBMITTED TO THE INSTITUTE FOR DEVELOPMENT
STUDIES IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE
DEGREE OF MASTERS ARTS IN DEVELOPMENT STUDIES OF THE UNIVERSITY
OF NAIROBI.**

15th NOVEMBER 2016

Declaration Form for Students

UNIVERSITY OF NAIROBI

Declaration of Originality Form

This form must be completed and signed for all works submitted to the university for examination.

Nam of student:	<u>KINYANJUI CATHERINE WANJIKU</u>
Registration Number:	<u>T50/75203/2014</u>
College:	<u>HUMANITIES AND SOCIAL SCIENCES</u>
Faculty/School/Institute:	<u>INSTITUTE FOR DEVELOPMENT STUDIES</u>
Department:	<u>INSTITUTE FOR DEVELOPMENT STUDIES</u>
Course Name:	<u>M.A. IN DEVELOPMENT STUDIES</u>
Title of Work:	<u>THE ROLE OF JOINT ACTION IN EXPLOITING OPPORTUNITIES AND OVERCOMING CHALLENGES AMONG MEAT RETAILERS IN THE MEAT INDUSTRY CLUSTER</u>

DECLARATION

1. I understand what plagiarism is and I am aware of the University’s policy in this regard.
2. I declare that this Project is my original work and has not been submitted elsewhere for examination, award of a degree or publication. Where other people’s work, or my own work has been used, this has been acknowledged and referenced in accordance with the University of Nairobi’s requirements.
3. I have not sought or used the services of any professional agencies to produce this work
4. I have not allowed and shall not allow anyone to copy my work with the intention of passing it off as his/her own work.
5. I understand that any false claim in respect of this work shall result in disciplinary action, in accordance with University Plagiarism Policy.

Signature

Date

DECLARATION

I, Kinyanjui Catherine Wanjiku, declare that this research project is my original work and I have not been submitted it to any college, institution or university other than the University of Nairobi for academic credit.

.....
Kinyanjui Catherine Wanjiku

.....
Date

This project paper has been submitted for examination with our approval as the University Supervisors.

.....
Prof. Rosemary Atieno

.....
Date

.....
Dr. Mary Kinyanjui

.....
Date

Institute for Development Studies
University of Nairobi

DEDICATION

I dedicate this work to my daughter, Eve Wanjiru, for motivating my hard work.

ACKNOWLEDGMENTS

I feel deeply gratified and privileged to have had the opportunity to carry out this study as a demonstration of knowledge gained from the Institute for Development Studies. I also extend my appreciation to all those who in one way or the other, directly or indirectly, played a role in the realization of this research project.

My gratitude goes to God, for the strength came from Him. Second, my sincere gratitude goes to my academic supervisors, Prof. Rosemary Atieno and Dr. Mary Kinyanjui for their invaluable mentorship, support and availability for consultation. I am always grateful that you both insisted on the purpose of an academic project was to learn. I have learnt a lot in the process.

I am also thankful to my former employer, Mr. Michael Gachoki for his understanding and support all through the process. To my classmates, your critical comments were exceedingly insightful. Finally, I take this opportunity again to express my heartfelt gratitude to my family and friends. You were a constant source of motivation, encouragement and unending support.

God, bless you all abundantly.

TABLE OF CONTENTS

CHAPTER ONE: INTRODUCTION	1
1.1 Introduction	1
1.2 Background and Context to the study.....	2
1.3 Statement of the problem.....	4
1.3 Research Questions:	4
1.4 Research objectives	5
1.5 Justification for the study	5
CHAPTER TWO: LITERATURE REVIEW	6
2.1 Overview	6
2.2 Theoretical literature review.....	6
2.3 Empirical literature review	10
2.3.1 Joint action as a response to exogenous crisis and global competition	11
2.3.2 The impact of culture on joint action	13
2.3.3 The role of policy in facilitating joint action.....	14
2.3.4 The Purpose of Joint Action among African Clusters.....	15
2.4 Theoretical Framework.....	16
2.4.1 Theory of collective efficiency.....	16
2.4.2 Solidarity entrepreneurship in African Clusters	17
2.5 Summary of literature	18
2.6 The Conceptual Framework	20
CHAPTER THREE: METHODOLOGY	21
3.0 Introduction	21
3.1 Research Design	21
3.2 Study Site.....	22
3.4 Data Needs.....	23
3.3 Unit of Analysis, Population and Sampling Procedure	24
3.5 Data Sources and Collection methods	26
3.6 Data Analysis.....	27
CHAPTER FOUR: FORMATION OF JOINT ACTION IN THE MEAT RETAIL CLUSTER.....	29
4.1 Introduction	29
4.2 Enterprise Characteristics	29
4.2.1 Respondent’s Gender	29
4.2.2 Age of enterprise	31
4.2.3 Enterprise size	32
4.2.4 Motivation to get in the meat retailing business.....	35

4.2.5 The Nature of the cluster.....	36
4.3 The formation/occurrence of joint action.....	37
4.3.1 Bilateral joint action.....	37
4.3.2 The formation of Multilateral Joint Action.....	42
4.4 Factors that influence the formation of joint action.....	47
4.4.1 Policy.....	47
4.4.2 Retailer perceptions towards joint action.....	48
4.4.3 Socio-cultural Factors.....	49
CHAPTER FIVE: OBJECTIVES OF JOINT ACTION.....	52
5.1 Introduction.....	52
5.2 Contextualizing the need for joint Action.....	52
5.2.1 Challenges and the nature of their solutions.....	53
5.2.2 Opportunities in and their method of exploitation.....	55
5.3 Objectives of Joint Action.....	56
5.3.1 Objectives of Bilateral Joint Action.....	56
5.3.2 Objectives of Multilateral Joint Action.....	57
5.4 A comparison between the challenges and objectives of joint action.....	59
5.5 Benefits of joint Action.....	59
CHAPTER SIX: SUMMARY OF FINDINGS, CONCLUSIONS, RECOMMENDATIONS.....	61
6.1 Introduction.....	61
6.2 Summary of Findings.....	61
6.3 Conclusions.....	62
6.4 Recommendations.....	63
6.4.1 Recommendations for policy makers and public institutions.....	63
6.4.2 Recommendations for Research.....	64
References:.....	65
Appendix 1: Survey Questionnaire.....	68
Appendix II: Key Informant Interview Schedules.....	75
Appendix III: Scanned Letter of Introduction.....	76

List of Tables

Table 1: Types of joint action in a cluster.....	7
Table 2: Data needs table	23
Table 3: Sample size for the study	26
Table 4: Contingency table showing membership to a group against gender	30
Table 5: Contingency Table for age against membership in a group/association	32
Table 6: Contingency table for amount of Capital injected against membership in a group.....	33
Table 7: Number of animals sold in a day	34
Table 8: Contingency table for number of animals sold in a day against membership in a group	34
Table 9: Choice of locating business	35
Table 10: Contingency table for bilateral joint Acton with producers against the type of retailer	38
Table 11: Contingency table for bilateral joint Acton with fellow retailers against the type of retailer	38
Table 12: Contingency table for bilateral joint Acton with customers against the type of retailer	39
Table 13: Contingency table for bilateral joint Acton with Meat Inspectors against the type of retailer	39
Table 14: Contingency table for bilateral joint Acton with County Officials against the type of retailer	40
Table 15: Contingency table for bilateral joint Acton with transporters against the type of retailer	40
Table 16: Contingency table for frequency o collaboration against the type of retailer.....	41
Table 17: Decision of whom to incorporate with	42
Table 18: Contingency table of age against membership in association	43
Table 19: Contingency table for membership in a group against type of meat retailer	44
Table 20: Frequency table showing how joint action is formed.....	45
Table 21: Means of communication	46
Table 22: Contingency table for Reasons for not being in a group by type of retailer.....	46
Table 23: Respondents' perception towards joint action.....	48
Table 24: Business challenges in the meat retailing cluster	54
Table 25: Opportunities in the Meat Sector	56
Table 26: Reasons for Bilateral joint action	57
Table 27: Objectives of multilateral joint action	58
Table 28: Benefits of Joint Action	60

List of Charts

Chart 1: Retailer's gender..... 30

Chart 2: Grouped Respondent's age..... 31

Chart 3: Grouped age of retailers by gender..... 31

Chart 4: Amount of Capital injected in the business 33

Chart 5: Do you belong to any association? 42

Chart 7: Do you Incur a Cost in a group..... 45

Chart 6: Average monthly expenditure in a group..... 45

Chart 8:Reason for not cooperating 49

Chart 9: retailer perceptions to culture and joint action..... 50

ACRONYMS

ASDSP	Agriculture Sector Development Strategy Programme
UNIDO	United Nations Industrial Development Organization
MSE	Micro and Small Enterprises
MoLD	Ministry of Livestock Development
KIPPRA	Kenya Institute for Public Policy Research and Analysis
GDP	Gross Domestic Product
ASAL	Arid and Semi-Arid Lands
FAO	Food and Agriculture Organization
FDA	Food and Agriculture Administration
SPS	Sanitary and Phytosanitary Measures
UFPEA	Uganda Fish Processors and Exporters Association
SPSS	Statistical Package for Social Sciences

ABSTRACT

This study sought to understand the persistence of challenges in the meat industry cluster despite the existence of joint action. This was based on the theoretical and empirical understanding that when firms and entrepreneurs in the same industry work together, in what is referred to as joint action, they can easily overcome their challenges and exploit external opportunities that present to the industry. For this study, joint action was defined as actively pursued collaboration among firms in the same industry to either respond to a crisis or take advantage of a new opportunity. The study had three objectives: to explain the ways through which joint action occurs among meat retailers in Kajiado, to assess the objective that joint action is trying to fulfil in the meat cluster in Kajiado and to suggest ways through which joint action can be enhanced in the Kajiado Meat Cluster.

The review of literature focused on the contextual understanding of what a cluster is and what joint action is. To this effect therefore, it was understood that a cluster is a concentration of firms in the same sector or industry located in a close geographical location. The literature review also focussed on the benefits of joint action to a cluster such as protection of common interests, representation when penetrating new markets or to government through collective bargaining powers, exchanging information and ideas among firms, providing joint technical knowledge and marketing among other benefits. Further, the literature review acknowledged that there are factors that may influence the ability of firms to work together such as unequal power relations and the cost of joint action.

The Study focused on the two retailing clusters of Kitengela and Isinya in Kajiado East Sub County. It interviewed two categories of retailers, that is those who owned butcheries and those who bought animals for slaughter then sold the animals. They were referred to as retailing agents. To achieve the stated objectives, both quantitative and qualitative techniques were used. The study interviewed 52 retailers out of a population of 102 retailers as per the records of the meat inspector. Primary data on joint action was supplemented with survey data from the retailers and key informant interviews with the County officials and chairpersons of some of the retailer associations.

The study established that all retailers in the cluster engaged in one form or the other of bilateral (involving only two actors) joint action, the decision of whom to cooperate with, depended on how important the actor was to the survival of the enterprise and the trust build amongst the two actors. Multilateral joint action was however not as popular as bilateral joint action. The measure of engagement in multilateral joint action was membership to any group such as an association or Chama. The primary objective of joint action in most the groupings was to improve access to credit, although some such as the Kitengela retailer's association existed to impose a code of conduct. However, other benefits often emerged because of being joint such as access to government training, improved rapport in the industry, exchange of knowledge and information, welfare gains where the groups acted as social safety net and lobbying for common interest such as improving infrastructure. Factors such as policy, retailer perceptions and cultural factors impacted the formation and success of joint action.

As the study sought to explain the persistence of challenges despite the existence of joint action, it emerged that the critical factors of scope, perception and awareness influenced the ability of joint action to surmount the challenges and exploit the opportunities. The scope of the existing joint action was limited and did not cover all the challenges in the industry, the retailers were not aware of external opportunities they could exploit or the fact that these opportunities could be exploited through joint action. To this effect, the study recommended continuous capacity building on the opportunities for growth and expansion of the industry through joint action.

CHAPTER ONE: INTRODUCTION

1.1 Introduction

The benefits of firms within an industry working together have documented and researched globally (Porter, 1990, 1998, Schmitz, 1989, 1990, 1999, 2000, Pitelis, 2001, McCormick, 1999). When a firm works in isolation, it does not benefit from competitive production such as the ability of small firms to enjoy economies of scale when penetrating new markets, the ability to adopt new technologies and procedure, the ability to guarantee timely delivery and meet quality specifications and growth in small risk able steps (UNIDO, 2013). These benefits accrue when firms actively collaborate with each other to better respond to crisis and take advantage of new opportunities (Schmitz, 1999). This actively pursued collaboration of firms is referred to as joint Action. Further, these benefits of inter firm collaboration or joint action mentioned above, are optimised when firms are in a cluster.

Clusters have been defined in different ways by different authors. Some authors indicate that for a cluster to exist, firms must be in the same industry and have close geographical proximity (Marshall, 1966, Becattini, 1989, Saxenian 1994, Wade, 1995, Pitelis, 2001 and Schmitz, 1999). Another class of authors insist that geographical proximity is not a prerequisite for a cluster to exist (Porter, 1998, 2000). This study adopts (Schmitz, et.al. 1999) definition of a cluster as a geographically proximate group of interconnected companies and associated institutions in a field, linked by common modalities and complementarities. Later (McCormick, 1999) simplified this definition, to a concentration of firms in the same sector or industry located in a close geographical location.

For clusters to contribute to local economic growth, the firms within the cluster must form economic relationships or linkages that are important in enabling the individual firms to improve effectiveness that would otherwise be non-existent if the firms worked alone (Porter, 2000). Despite the theoretical factors listed above, a few factors could limit the ability of firms to collaborate despite being in close proximity. These factors include the transaction costs of joint action, the coordination cost and an adverse business culture (UNIDO, 2013). Further, Oyeyinka and McCormick, (2007) add that joint action is impeded by the power relations among the

actors, and where such unequal power relations exist, they may encourage the learning of unproductive culture.

When the theory of collective efficiency was tested in African clusters, McCormick and Kinyanjui, (2007) observed that bilateral linkages were limited to sharing of equipment, training each other's trainees and sharing of ideas on how to tackle difficult production problems. These linkages, while considered low, helped the firms within these clusters to access and utilise resources that were scarce and not otherwise available. They helped in information sharing and improving access to credit. The social bonds created in the interactions foster trust that translates to a group agency and sustains the cluster over time.

Based on this background, this study sought to understand the context within which the perceived benefits have not been achieved despite the existence of joint action. This is as echoed by McCormick, (2007) who asserts that the focus should shift from merely looking at joint action but to the nature and content of joint action as this may have an impact on its outcome. To this effect therefore, the study sought to ask if the way joint action was organised would lead to the achievement of its objective and if the scope was wide enough to surmount the challenges and exploit the opportunities.

1.2 Background and Context to the study

The Kajiado County is unique of all meat producing regions in Kenya. The uniqueness is facilitated by its proximity to Nairobi, which puts meat production at a convergence. On the one hand, the proximity provides an accessible market for its produce (MOLD, 2010) and this proximity provides ample external market to livestock produce from Kajiado, which is a prerequisite for cluster growth.

On the other hand, the proximity makes the County ideal in facilitating the residential function of the growing city of Nairobi (Kombo, et.al. 2015). To this effect, the County has experienced severe land-use change (Morara, M. K., MacOpiyo L., & Kogi-Makau, W. 2014) with former pastoral grazing land being turned to residential use owing to the housing pressures and uncontrolled urban sprawl. This has created a new land ownership pattern from communal land tenure to Individual Titles. Such a land use change is expected to pose a great challenge to the livestock production system. Further, the meat cluster faces challenges beyond the land use

change that include: lack of information for industry growth, lack of organised livestock markets and market information, lack of credit to farmers, poor infrastructure, poor value addition for animal products and overgrazing and pasture degradation (Development Strategy for Northern Kenya and Other Arid Lands, 2012, KIPPRA, 2012)

The Meat industry cluster in Kajiado was mapped by KIPPRA, (2012). In mapping the cluster, they considered the geographical extent to which production and employment in the livestock cluster was concentrated and considered this as the natural logical extent of the cluster. To this effect therefore, the cluster covered the whole counties of Kajiado and Narok. Second, the key actors in the cluster were identified and then the challenges affecting each actor the cluster listed. They included vulnerability of the cluster to adverse weather conditions, cultural constraints, nomadic nature of the rearing practice that made service provision difficult, high illiteracy levels, lack of credit to farmers, poor infrastructure, poor value addition for animal products and lack of adequate market information. The evolution of the cluster has however been slow. Meat production is still limited to a few privately-owned slaughterhouses and slaughter slabs (County Integrated Development Plan, 2014). The production of meat in the cluster is still predominantly for consumption in both the local and Nairobi Markets. This production however is still under threat with the subdivision of group ranches. However, the growth of the cluster through diversification of production methods and products does exist.

The study recommended some participatory action plans meant to grow the cluster. These action plans required the government to facilitate cluster initiative to solve the identified challenges. Specifically, the government was to support the private sector in establishing a cluster organisation that was business driven and was representative of all actors within the cluster. This became a step towards facilitating joint action within the cluster.

Although the recommendations by the study were not implemented, the findings have informed subsequent policy initiatives that have recommended forming value chain actor groups such as the Agriculture Sector Development Strategy 2010-20120. Additionally, the study identified other cluster member initiated efforts at joint action such as Amboseli livestock association, Keekerok livestock association, Loitoktok and imbirikinya associations.

Despite the above-mentioned efforts at forming joint action in the County such as policy and private lead initiatives, the challenges that in theory can be solved through joint action persist. The persistence of these challenges calls for a better understanding of how joint action is organised and the objective this joint action aims to fulfil. This understanding can help to shed light on how joint action can be made effective.

1.3 Statement of the problem

Based on the theoretical and empirical contributions, it has been understood that firms in a cluster working together have greater potential for success as opposed to working in isolation (Schmitz, 1999, 2000, McCormick, 1999). Such joint action for example, can be extremely important in helping the firms identify new markets, getting information about suppliers, or deciding whether to offer credit to a new customer, or which technology is new and efficient, or helping to meet quality specification among other benefits.

Despite these potential benefits, the study on the meat industry cluster outlined above has highlighted some challenges in the meat industry cluster such as limited access to information, poor access to business credit, limited technical knowledge on value addition and poor marketing of meat products (MoLD, 2015; KIPPRA, 2012). These challenges, based on theory, have potential to be overcome through joint action. Despite this knowledge and the formulation of the requisite action to promote joint action, these challenges persist. It is necessary to understand the reason for this persistence. This calls for casting the net wider to look at how people organize themselves in the meat industry and the reasons why they collaborate in the retail sector of the study. This is anticipated to shed light on the operational nature of joint action to better understand the persistence.

This research study seeks to fill this knowledge gap. It will attempt to understand how joint action is formed and the objective of joint action; that is how joint action is organized, and what objective it fulfills. In the end, it aims to offer better understanding on how joint action can achieve its' purpose.

1.3 Research Questions:

This research sought to answer one general question and three specific research questions. The general research question is:

“How can joint action among meat retailers be organised to overcome challenges and exploit opportunities in the Kajiado meat cluster?”

The Specific research questions are:

1. How is joint action organised among meat retailers in the Kajiado meat Industry cluster?
2. What are the objectives of joint action among meat retailers in the Kajiado meat industry cluster?
3. How can joint action be improved among meat retailers in the Kajiado meat cluster?

1.4 Research objectives

1. To explain the ways through which joint action occurs among meat retailers in Kajiado
2. To assess the objective that joint action is trying to fulfil in the meat cluster in Kajiado
3. To suggest ways through which joint action can be enhanced in the Kajiado Meat Cluster

1.5 Justification for the study

Livestock production is a significant part of Kenya’s economy and specifically the agricultural sector. Livestock production accounts for approximately 12% of the National Gross Domestic Product (GDP), which is approximately 40% of the agricultural GDP. It further employs about 50% of the national agricultural workforce and about 80% of the Arid and Semi-Arid (ASAL) workforce (Economic Survey, 2015). Given this significance, Industrialising livestock production is a strategic entry point in promoting equity and countering poverty.

This research study will build on the existing knowledge on joint action in African clusters. It will grow substantive theoretical knowledge on collective efficiency in African clusters with a specific focus on the conditions under which joint action can be effective. To this effect, it will grow academic knowledge on how joint action can be a strategic entry point for the meat industry growth.

CHAPTER TWO: LITERATURE REVIEW

2.1 Overview

This chapter presents a critical analysis of the existing relevant theoretical and empirical literature to the study proposed. The goal is to place the study in the existing literature, and in so doing, identify themes in existing literature on the nature of cluster joint action, the reason for the same and most importantly, to identify existing gaps of knowledge that this project paper may attempt to fill.

2.2 Theoretical literature review

Benefits of joint action to a cluster

The strength of a cluster will often depend on the quantity and quality of inter-firm collaboration (Oyelaran-Oyeyinka, 2007). Positive externalities, that is the benefits that occur to firm when they are in close proximity such as pulling of skilled labour and attracting clients are always incidental to a specific firm. Krugman, (1991) identified at least four types of external economies when firms are in a cluster. These include improved market access, creation of an artificial labour market pool, intermediate input effects where specialised suppliers emerge and technological spill overs where new innovations easily transmit and is absorbed. These sentiments have been echoed by several different authors (McCormick, 1999; Marshall, 1890; Nadvi and Schmitz, 1994).

Beyond the externalities to a firm occurring, firms must purposefully work together to maximize the benefits of being in a cluster. This is referred to as joint action. Some of the advantages outlined in the literature include: protection of common interests, representation when penetrating new markets or to government through collective bargaining powers, exchanging information and ideas among firms, providing joint technical knowledge and marketing. Joint action in this way helps firms within a cluster to reduce overhead costs (Oyeyinka and McCormick, 2007). These advantages may be observed in the present study but not in the form

prescribed by the study. To this effect therefore the study identified cluster specific benefits and objectives of joint action.

Types of Joint Action

(Schmitz, 2000) in reviewing the forms of joint action among various industrial clusters asserts that the form of corporation is cluster specific and often emerges based of the firm’s responses to unique challenges and their innovation. Therefore, there is need to have a simplified way of looking at joint action, as the type of joint action influences the form of challenge they can solve. To this effect (McCormick, 2000) suggested that there are four levels of joint actions that can accrue to firms in a cluster are in four main categories and are delimited by two distinct categories; the number of cooperators that is the number of firms joining together and the direction of cooperation based on placement in the production line. The number of cooperators could either be one firm joining to collaborate with another (bilateral joint action) or more than two firms cooperating with each other (multilateral joint action). The direction of corporation could be vertical that is firms on the same level production chain from input supply to the finished product or horizontal among firms in the primary production line and firms providing different services in the production chain such as manufacturers and associations.

Joint action may also be vertical or horizontal. Vertical cooperation happens when firms involved in different stages of the production–distribution chain work together. Horizontal joint action refers to collaboration between/among competitors. (McCormick, 2000; Schmitz, 2000)

Table 1: Types of joint action in a cluster

	Bilateral	Multi-lateral
Horizontal	Two firms at the same level in the production chain e.g. sharing equipment	More than two firms at the same level in the production chain
Vertical	Two firms at different levels of the production chain	More than two firms at different levels of the production chain

Adopted from Schmitz, 2000

This delineation is important confirming the benefits that agglomeration of economies has, to a cluster. In terms of applicability to this study, this categorization is important in indicating the

type of collaborations that may occur. This categorization provides a way of analyzing the form of joint action. It broadens the researcher's view of what constitutes joint action, However, joint action is not homogenous among clusters, how economic relationships occur within a cluster are a function of sociological factors within the community, factors such as culture will inform the type of relationships and ultimately influence joint action. To this end, (Oyeyinka and McCormick, 2007) recommend that categorisation should focus on the reason and content of joint action. This study looked out for other categories of joint action that may occur.

Factors that impact cluster joint action

Clusters are not homogeneous as literature may suppose. They differ based on size, type of product they specialise in, the networks that exist and the institutions that bind and structure them together. Institutions can be considered as avenues through which joint action is facilitated within a cluster. The role of institutions includes: managing uncertainty, providing information, managing conflict and promoting trust among groups within a cluster (Edquist, 1997; North, 1989). How clusters evolve however, depends on these structures that enforce or impede communication and market information (Oyeyinka and McCormick, 2007). To this effect, (Navdi, 1994) asserts that the cluster must build a dense network of formal and informal institutions that support production; this dense network of institutions constitutes joint action in a cluster. Given the role of institutions as outlined above, it was relevant to understand what kind of institutions exist in the meat industry cluster, which role these institutions are playing in enforcing or impeding joint action in the cluster.

Joint action in clusters does not always yield positive results. (Oyelaran-Oyeyinka and McCormick, 2007) affirm that interaction amongst actors may sometimes be negative including such elements as abusive practices such as price-fixing, when joint action is intended for good it tends to have positive performance enhancing impacts on the cluster in general. Further, the ability of joint action within a cluster to foster and facilitate growth is determined by the differences in power relations within this cluster (McCormick, 1999). In instances where the power relations are not equal, the cluster joint action could deskill the members by learning things that do not foster cluster growth (Oyeyinka and McCormick, 2007). This implies that understanding power relations that exist in a cluster is a precondition to analyzing joint action in any cluster. This is especially important when analysis of joint action is meant to inform policy,

the policy recommendations should consider both formal and informal power relations to ensure that it does not result to negative outcomes for the cluster

It emerges that a common culture persists to facilitate firm joint action to occur, (Chaudhry, 2000) asserts that a common cultural and social background that links agents within a cluster creates a common behavioral code, either implied or otherwise that helps in fast pacing the process of collective efficiency. To this end therefore, culture becomes a necessary component in fostering as opposed to impeding the economic performance of a cluster. Joint action depends on social capital of a cluster since it allows different actors to trust one another and cooperate in form of norms and networks (Woolcock and Narayan, 2000). But (Kharkhordin and Gerber 1994, cited in Humphrey and Schmitz, 1998) also showed that socio cultural ties could obstruct competitiveness and tend to create monopoly.

Further, Joint action has costs to a cluster this may be: the opportunity cost of associating where a firm must weigh the time to attend joint action meetings or focus on growing their businesses; second, the costs of running association are a direct cost to the business. (UNIDO, 2013) These costs have become a disincentive to small firms from cooperating and policy aimed at promoting joint action should factor the cost as limiting factor to collaboration of firms within the cluster.

Nature of African clusters

While trying to understand why clusters persist in Africa despite the various challenges they face, (Kinyanjui and McCormick, 2007) insist that the notion of productive capacity must be applied in trying to understand African clusters. This encompasses: infrastructure, skill levels, intermediate inputs, technology, joint action and benchmarking as the necessary features for examination. These features of productive capacity may however require government policy support.

The model of collective efficiency however, when tested in Africa clusters, seems to be insufficient in explaining the ways in which African Clusters grow (or not grow). (McCormick, 1999) while studying the dynamism of some African clusters, observes little or no level of dynamism and is seemingly unable to grow, expand and innovate to further growth of industrialisation. The author asserts that for African clusters, collective efficiency does provide insights but it is insufficient to explain the growth of clusters.

The sentiments above are echoed by (FAO, 2000) while looking at agricultural clusters in Africa noted that they needed much more support for several critical reasons which included the fact that they are usually more dominated by smaller-scale firms, are organized in a more informal manner, have weaker linkages among actors, face more difficulties in achieving a critical mass of firms and tend to be specialized in lower-value niches. Simply put, trying to understand African agricultural clusters based on the tenets of the model of collective efficiency, does not fully highlight the and explain joint action within these clusters. This makes substantive theories that explain the nature of joint action in African clusters very relevant.

What is a cluster?

Based on the foregoing, it becomes imperative to understand what a cluster is; to this effect, clusters have been defined in different ways by different authors: (Marshall, 1966 (1890); Arthur, 1990; Sorenson and Audia, 2000) define it as a geographically proximate group of firms producing basically the same product or service. This definition alludes to proximity and industry as being the key defining feature for a cluster to exist. (Porter, 1990; Porter, 1998) defined it as a group of interrelated industries, located in close geographic proximity but his definition does not necessarily require to be geographical proximate for it to qualify as a cluster. (Schmitz, et.al. 1999) Geographically proximate group of interconnected companies and associated institutions in a field, linked by common modalities and complementarities. (McCormick, 2007) alludes to an expansion on Schmitz's definition to specify sectors to include value chains, that it the chain of production from conception to consumption. This expansion in definition was relevant in the Meat cluster as the pastoral production does not allow for a fixed geographical location.

My study adopted the Schmitz approach "*Geographically proximate group of interconnected companies and associated in institutions in a particular field, linked by common modalities and complementarities*" in other words, Sectoral *and* spatial concentration of firms. (Schmitz, et.al. 1999). This approach is ideal as the cluster shares the same challenges and is bound a common culture.

2.3 Empirical literature review

A few themes emerge when looking at joint action in clusters as analysed below:

2.3.1 Joint action as a response to exogenous crisis and global competition

Various studies have been conducted to assess the ability of clusters to withstand external pressures such as a change in production specifications and standards among other pressures of globalization. The findings on the responses taken by clusters differ but a common theme emerges, that is those clusters that exhibit a greater level of corporation showed greater improvement in performance. (Schmitz, et.al. 1999b).

In interrogating the ability of the Sialkot stainless steel surgical instrument cluster in Pakistan to meet quality standards imposed by the United States' FDA (Food and Drug Administration), (Navi, 1999) looked at how clustered producers responded to the standards of quality assurance, focusing on inter-firm relations and production organization in the cluster.

The firms in the cluster responded by deepening corporation, although in different ways. First, the corporation was both through horizontal and vertical linkages within the cluster. Horizontal corporation was witnessed when firms along the production line collaborated to improve manufacturing practices such as manufacturer supplier collaboration, information exchange among firms through the trade association. Vertical ties were shown by greater collaborations among the manufacturers and the sub-contractors who regularly supervised and inspected the subcontractors to ensure standards were adhered to, buyers became increasingly involved with manufacturers to improve their position by allowing the buyers to negotiate their terms. This approach of delineating the forms of joint action based on the direction of collaboration was useful in analysis of joint action in Kajiado. Additionally, the analysis included which form of collaboration solves which kind of challenges.

In trying to establish how industrial clusters in developing countries responded to the twin forces of liberalization and globalization in the 1990s. (Schmitz, 2000) did a comparative study of four cluster studies from South Asia and Latin America on their responses. His work was based on the proposition that *“closer co-operation is essential to respond successfully to major crises or opportunities.”*

The three clusters specialize in footwear and related industries, one in surgical instruments and their study involved a similar methodology and they addressed a common hypothesis. Furthermore, the three clusters faced similar crises in the early to mid-1990s. The challenges

were a requirement to raise the quality, flexibility and speed without increasing the price of their produce, a phenomenon referred to as “the new competition”

To ascertain whether in response to co-operation increased and whether such increases were related to improvements in performance during the crisis. They conducted random sample surveys which were stratified by size of the firm. They assessed the changes in corporation among firms. To this end, changes in firm performance such as *changes* in output (quantity), annual sales, exports, net profit average product price, speed of delivery, product quality and number of workers while changes in cooperation included *changes* in exchange of information and experiences, co-operation in improving quality, co-operation in speeding up delivery all within the period of the crisis.

The study established that horizontal co-operation was weaker than what was expected. There was a small increase (from a low level) in co-operation concerning labor training, input sourcing or marketing. However, general exchange of information and experiences tended to increase more substantially amongst producers.

(Kiggundu, 2007) looked at the impact of the imposition of Sanitary and phytosanitary (SPS) standard on the Ugandan fish cluster. The study looked at how fish processors in various fishing towns and beaches around Lake Victoria managed to adopt to new rules. The fish industry has four main areas of production to work together, capture, delivery to processing plants, processing, and transport to market. All these three needed to work in collaboration to meet the standards. Joint action in this cluster was driven by the conditionality of the ban that required the government to appoint a competent authority to oversee and manage the inspection process across the fisheries sector. Processors came together to respond to the product upgrade challenge by seeking external knowledge on upgrading their processes to solve the collective challenge of lack of knowledge and skills. Such external pressures are expected to be observed in the Kajiado Meat cluster, the study was keen to evaluate if the retailers come together to address such external factors.

The association of processors (UFPEA) played a role in facilitating process related upgrading. However, joint action seemed to only occur vertically, through the supply chain but not horizontally among competing firms in the production chain. Buyers in Europe formed an

association that passed information between the fish processors and European commission in Brussels, a few supported fishermen and processors to comply with the regulations. Universities combined to offer courses on how to meet the regulations while government provided extension services to train and apply new procedures in fish processing firms. There was effort to enable the fishermen get new fishing technology and equipment.

Challenges to a cluster differ from one cluster to the other. However, the common denominator is that firms in the cluster use joint action as a means of responding to these external situations. This was relevant in informing analysis of the Kajiado meat cluster in looking at their specific external pressures and how firms are using or not using joint action to respond to these external pressures.

2.3.2 The impact of culture on joint action

The study of the Mexican footwear clusters in Guadalajara (Rabellotii, 1999) accessed how joint action occurred and whether it helped firms within the cluster deal with the impacts of trade liberalization. The study was conducted using a mixed method research of both quantitative research followed by in-depth interviews. The study established that technological cooperation was most likely to occur among firms that were linked by family ties. The firms cooperating would exchange technological information and machinery. Additionally, Informal relationships among the firms in the cluster resulted to subcontracting orders when there was excess demand, so that firms jointly sold products.

Similar findings from the Third Italy cluster (Becattini, 1990) can be posed to show the impact of a common culture on the growth of a cluster. The existence of prior network of groups and associations seemed to be an important precondition for the growth of the cluster.

In respect to this research study, culture becomes an important intervening variable to this research project. This is important in reorienting the conceptualization of culture as a hindrance to cluster growth and relooking at it as a bonding factor in facilitating joint action. The culture of the Maasai, is tailored around livestock production. Based on the lens provided by these studies, culture was viewed from the perspective of either facilitating or inhibiting joint action. The study looked at how the culture dictate's the retailer's perception towards working together, it also

reviewed the practices that have been transferred to the business that have significant bearing on the nature of joint action.

2.3.3 The role of policy in facilitating joint action

Empirical literature emphasizes on the role of government policy in facilitation of joint action in a cluster. Although the role of government varies in cluster intervention, such as: establishing enforcing policies, regulations, and standards; creating a special agency or organization to promote, coordinate, and facilitate cluster development; establishing various public institutions to provide technological and technical support, and providing infrastructure such as roads, water, power, ports, warehouses, information technology (IT) facilities (Zeng, 2006). This empirical analysis focused on the roles of creating agencies that promote, coordinate and facilitate cluster development and in its role of promoting alliances and partnerships among local firms as an important aspect in showing how it goes to facilitate joint action.

Experiences in business associations in third Italy cluster, (Schmitz, 1996) The formation of CITER (Centro informazione Tessile Emilia-Romagna) as an association among firms within the cluster that specialized in the collection, analysis and distribution of information relevant to the local business community specifically, it: collating information on international market trends, informing members on technological developments pertaining to their cluster, among other functions. It was first established by public funds but later, its funding was a partnership between the government and member firms. While (Schmitz, 1996) admits that it is difficult establish a causal relationship between such a policy action and the performance of the cluster, it is obvious that these associations have had a clear defining role on the paths clusters take towards their growth and maturity. Based on this analysis, it is evident that public agencies play important role in this process as “facilitators” and “brokers” of joint action.

The Sialkot (Navdi, 1999) cluster in Pakistan has three support institutions, the Metal Industries Development Centre, the Sialkot Dry Port Trust, and the Surgical Instrument Manufacturer’s Association (SIMA). SIMA, was instrumental in ensuring that its members meet FDA conditions during the period of changing production patterns, it was instrumental in ensuring that all firms within the cluster did not use child labor in production, it mobilized the state to adopt more supportive and interventionist approach to the FDA crisis and information sharing among

member on how to deal with the FDA crisis. During the period of the FDA crisis, firms reported an increase in the use of the association services more than before.

The Otigba Computer Village in Nigeria is an example (Boladale, 2006) of government support through the promotion of alliances and partnerships among local firms and with foreign firms through joint ventures and strategic alliances. This cluster was analyzed as a foundation study which looked at enterprise size, capacity, modes of operation, performance and factors construing development. With effect to government policy, it was relevant in promoting alliances and partnerships among local firms and with foreign firms through joint ventures and strategic alliances.

The role of policy in promoting joint action was similarly be explored in this research project. Specifically, it looked at how policy has been used in the promotion of the cluster, if such policy did exist, how effective the said policy was and in conclusion, it addressed areas that policy may promote joint action among firms.

2.3.4 The Purpose of Joint Action among African Clusters.

Using six case studies from Africa clusters, (McCormick, 1999) conducted an analysis to a certain whether the benefits of collective efficiency were possible to achieve for African clusters. These clusters include: The Lake Victoria fish cluster in Kenya, Kenya Eastlands garments cluster, Kamukunji metal works cluster, Ziwani vehicle repair cluster, Suame vehicle and metal works cluster in Ghana and western cape clothing cluster in South Africa.

The overall assessment of these six clusters, indicated that clustering did help the process of growth but even while located in clusters, African cluster enterprises were affected by small size product markets, oversupply of labor, and institutional weakness. With respect to joint action, the assessment established that multilateral horizontal joint action appeared to be related to general cluster development. Additionally, Joint action of small enterprises in African clusters tended to aim at reducing uncertainty rather than enhancing enterprise performance. To this end, the form of joint action African clusters should have been advancing to take advantage of opportunities in technology and market access as opposed to confining themselves to challenges of infrastructure and inputs. As a conclusion to this analysis, the author recommends at looking beyond collective efficiency for cluster growth and a focus on markets and available technology.

Later, (McCormick and Kinyanjui, 2007) undertook a case studies of 21 Kenyan MSE clusters to establish if the benefits of collective efficiency were possible among African MSE clusters. Joint action was observed in; collective security, insulating the MSEs from harassment by local officials, which was often the case with small traders, training artisans, who in turn often opened their own enterprises, lending and borrowing equipment, sharing ideas on how to tackle difficult challenges and saving and credit associations. While these areas of joint action appear smaller in scale as compared to larger and more established clusters such as the Sialkot cluster discussed above, these actions have enabled these MSEs in Kenya to access resources that would have otherwise been out of reach for these traders. These seemingly small areas of association can be used to explain the persistence of these enterprise clusters. Based on this analysis of case studies show clusters use joint action differs from cluster to cluster but the common feature is how firms respond to cluster specific issues. This study looked out for these cluster specific issues in Kajiado.

2.4 Theoretical Framework

2.4.1 Theory of collective efficiency

The concept of collective efficiency was first proposed by Herbert Schmitz in 1989. It describes the benefits and advantages that enterprises may acquire through active collaboration. Collective efficiency is an extension of the marshals' theory of 1920 that outlined the benefits of agglomeration of economies (Pedersen, 1994). Per this theory, when firms were clustered, they experienced a range of localised external economies. These included: attraction of a pool of specialised workers, easy access to suppliers of specialised inputs and services and dissemination of new knowledge required for growth.

As an extension of Marshall's work therefore, it became apparent that cluster growth was also dependent on a deliberate force at work that is the conscious pursuit of joint action. To this end therefore, collective efficiency became a description of "*competitive advantages derived from external economies and joint action*" (Schmitz, 1999:1504). This therefore emphasises the importance of inter-firm linkages and networks for clusters to work.

The benefits from collaboration were further delineated into two: those that accrue to a firm by simply being in close proximity, and because firms do not work at creating these benefits, they became passive benefits. On the other hand, those benefit that firms must actively pursue or the benefits from joint action became the active benefits. *"Responding to opportunities and crises requires shifting gears from the passive aspects of collective efficiency (external economies) to active collective efficiency"* (Schmitz 1997: 8).

The key theoretical theme that seems to override the focus of joint action is that, joint action is not a constant feature in clusters but it is necessary if the firms within the industrial districts will be better placed to deal with challenges and opportunities facing them. (Schmitz, 2000) Here, the combination of active and passive benefits becomes significant to understand the performance of different clusters. (Schmitz, 2010) When re-looking at the impact of corporation in clusters, asserted that the mere corporation that takes the form of spontaneous effects is not sufficient when the cluster is faced by crisis, hence the focus in should otherwise be on consciously pursued joint action among firms becomes necessary

The collective efficiency model lays the foundation for this study. This study tested whether active benefits of joint are helping to improve growth within the meat industry cluster in Kajiado. Which challenges collaboration could be helping solve and which opportunities may be exploited form joint action. If collaboration is not resulting to growth, why this may be so and what can be done about it.

2.4.2 Solidarity entrepreneurship in African Clusters

The ideas that have grown the solidarity entrepreneurship model emphasize that people are creative and able to chart their paths and their own solutions to economic problems and that these solutions differ from place to place (Miller, 2010). It emerged in pursuit of an alternative to western capitalist model of firm organization. Discussions about alternative economies began when (Gibson-Graham, 1996, 2006) gave a feminist critique of political economy that focused upon the limiting effects of representing economies as dominantly capitalist. The key argument being that capitalism was detrimental to the environment, it was exploitative and created unequal societies.

In trying to contextualize these paths to an African reality, (Kinyanjui, 2015) viewed solidarity entrepreneurship in African economies as a place where business is conducted in a manner informed by traditional African norms and values. The growth of firms in this context is a function of individual effort and group agency. Group agency in this case is the embracing of community spirit in business. The people's common values work to: discourage hoarding, unfair trading, overpricing and undercutting through social sanctions. They collaborate to share business risks and transaction costs. This project paper takes group agency as defined in solidarity entrepreneurship as an alternative explanation of how joint action in African clusters occurs and moves the discussion beyond the limits of collective efficiency. It creates room for African norms in business which persists, despite external pressures and they are beneficial to the meat economy.

This theory is similar to collective efficiency as they both allude to joint action or collaboration among firms being a critical function for firm growth. They therefore can be viewed as complimenting with the purpose for collaboration being viewed as a means of firms to better respond to opportunities and challenges while group agency asserts that collaboration is support each other, even when firms are competing.

2.5 Summary of literature

Based on the provisions of solidarity entrepreneurship, the growth of an African enterprise is the function of an individuals' effort and the effort of entrepreneurs working together in a manner referred to as group agency. Group agency therefore becomes an entrepreneurs' way of these firms collaborating. Further, based on the literature, policy has been established as a critical way through which joint action is fostered in a cluster. There are however some external factors that determine the how firms collaborate and these include: a common culture among the people that inform how they relate, the informal and salient power relations in the cluster, the cost to individual firms that joint action may induce and the sanctions that exist within the cluster to induce a code of conduct

When firms collaborate, the types of collaboration can be divided into four, a firm can collaborate with another firm that is either in the same production line or offering a service or many firms within the same production line can collaborate with each other or collaborate with

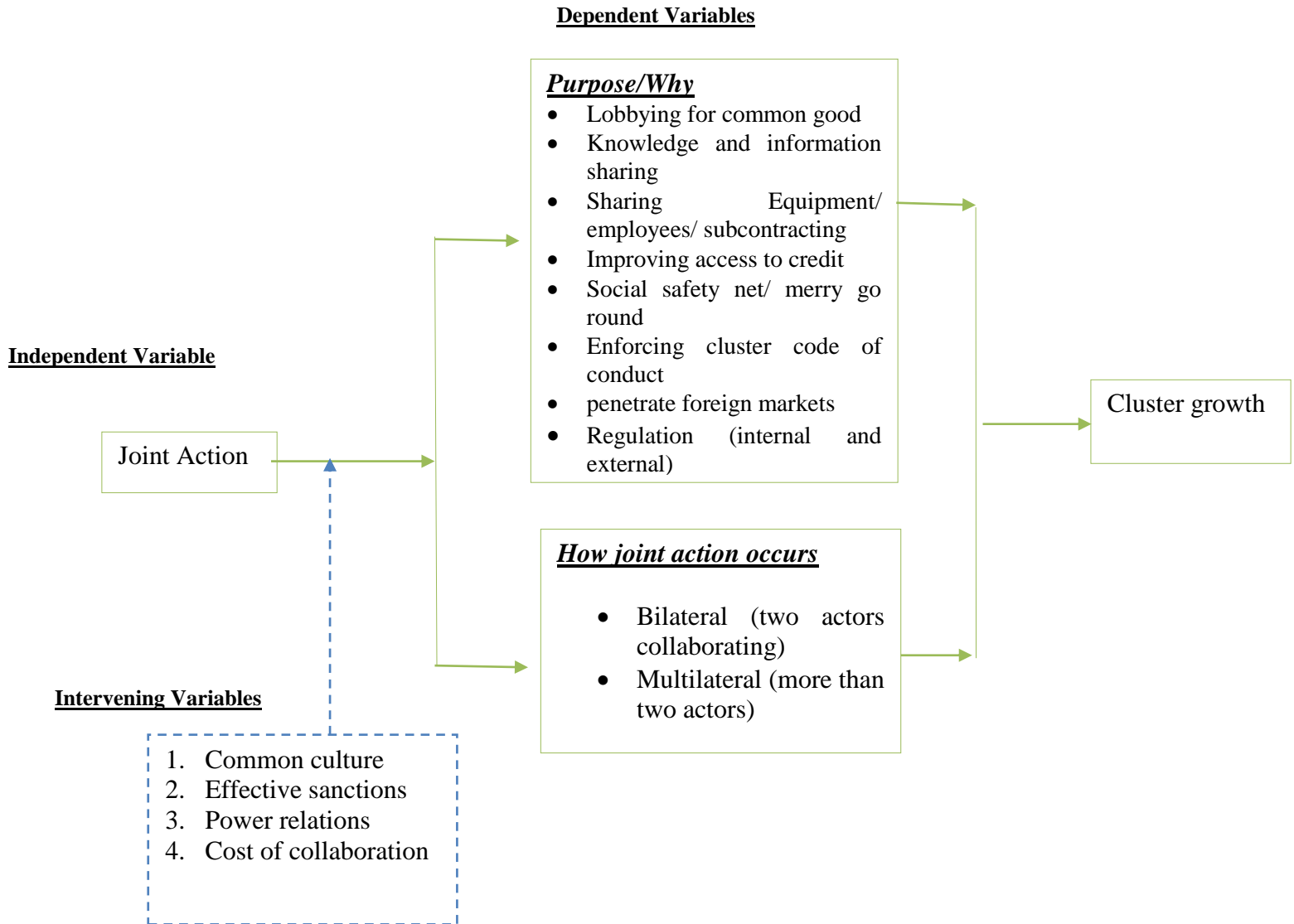
service providers. The type of collaboration impacts the nature of joint action, limits the effectiveness of joint action and dictates which opportunities that can be exploited. All forms of joint action are important to the growth of the cluster.

Based on the empirical literature provided, when joint action is efficient and effective, it results to more innovation, better responses to external factors such as foreign market regulation and foreign market penetration from the increased economies of scale, better access to business financing, cohesion among firms in the cluster and efficient communication and information sharing. These factors result to cluster growth.

Given the aspects of joint action based on literature review and given the time and limited scope of this project, the study only focused on meat retailers. It described the content/how and purpose/why joint action occurs among this category of actors in the meat cluster, look how effective this joint action has been in fulfilling its purpose and at which factors act to improve or impede effective collaboration. In the end, it identified ways through which joint action could be enhanced to achieve its objectives.

The relationship between these variables is better illustrated the conceptual diagram below:

2.6 The Conceptual Framework



Source: Author, 2016

CHAPTER THREE: METHODOLOGY

3.0 Introduction

This chapter presents the research methodology used for this study. It discusses the research design, target population, unit of analysis, sample and sampling techniques, data types and sources, data analysis and data presentation techniques that were used in this study.

3.1 Research Design

The research employed both qualitative and quantitative techniques in a mixed method design. This design was ideal, as it allowed for an examination of real contextual understandings, multi-level perspectives and cultural influences about joint action among the meat retailers in Kajiado County (Bryman, 2008). It relied on the strengths of quantitative and qualitative data gathering techniques to formulate a holistic approach to interpretive framework to understand the nature and purpose of joint action and the ways through which it can be improved.

The study began with a reconnaissance survey to the study site. This visit helped the researcher observe the meat retailers and familiarize with the study area, establish the actual population of the retailers in Kajiado and create a rapport with key informants and other stakeholders in the meat industry.

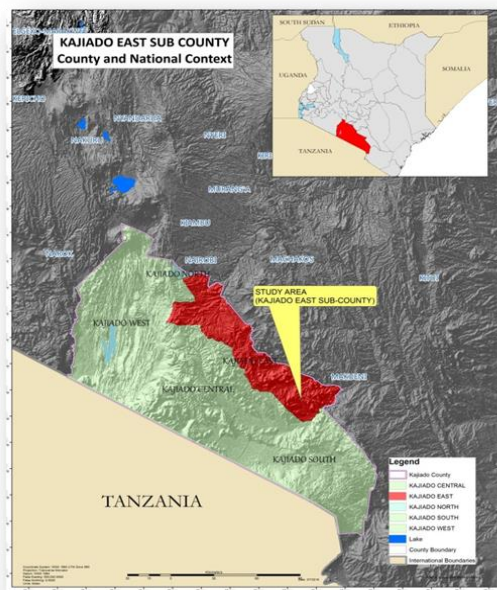
The qualitative data was collected using interview schedules from key informants in the livestock sector. These were; the county and the sub county director for livestock production, the Value Chain and Partnership Officer on the Agricultural Sector Development Support Programme and the chairpersons of the Kitengela and Isinya livestock retailer's associations. Quantitative methods entailed the use of a survey questionnaire. These were administered to the meat retailers in two categories of the retailing agents and butcheries. The survey questionnaire accessed the magnitude and frequency of joint action.

3.2 Study Site

The study was based in Kajiado East Sub County of Kajiado County, this sub county was chosen for many reasons, one given its geographical proximity to Nairobi, it experiences the pressures from urban sprawl, while covering a geographical extent big enough to observe indigenous pastoral meat production while at the same time being considerate of the time and financial limitations of the study. There are two distinct meat retailing clusters in Kajiado East Sub county, that is the Kitengela retailing cluster and the Isinya retailing cluster. These clusters have formed a meat retailer’s association and are attempting to overcome the challenges facing the cluster through joint action. The study therefore focused on these clusters. The study site is as indicated in map 1 below.

Kajiado East Sub County has a total population of 136, 482 people, located on 2,610 sq. km of land with an average density of 52 people per square kilometers against the County average of 32 persons/km² based on the 2009 national population census (KNBS, 2009). The sub County has five administrative wards; Kaputei North, Kitengela, Oloosirkon/Sholinke, Kenyawa-Poka and Imaroro

Map 1: Study Site



Source: Adopted from IEBC Boundaries, 2012, prepared by researcher

3.4 Data Needs

The information, which was required from the study included; the nature of joint action among meat retailers, the objective of joint action, and the ways through which joint action can be made effective. These needs are summarised in the data needs matrix indicated in table 3 below.

Table 2: Data needs table

Research question	Data need	Type of Data	Source of data	Instrument
How is joint action organised among meat retailers in the Kajiado meat Industry cluster?	Type of joint action between two actors in the production chain.	Quantitative	Retailers	Survey questionnaire
	Types of joint action involving many firms within the production line	Quantitative	Retailers Meat Retailer Association County Director for livestock development ASDSP Coordinator	Survey questionnaire K#3 and K#4 K#1 and K#2 K#5
	How firms associate (meetings, bulk SMS, email, face to face communication, informal conversation at the meat market)	Quantitative	Retailers Meat Retailer Association	Survey questionnaire K#3 and K#4
	What firms associate to do	Quantitative	Retailers Meat Retailer Association County Director for livestock development	Survey questionnaire K#3 and K#4 K#1 and K#2
	Which sociological factors impact the way people work together (Culture, sanctions, cost)	Qualitative	Retailers Meat Retailer Association County Director for livestock development	Survey questionnaire K#3 and K#4 K#1 and K#2
What is the objective of joint action among meat retailers in the Kajiado meat industry cluster?	List of challenges the butchers are facing	Quantitative	Retailers Meat Retailer Association County Director for livestock development	Survey questionnaire K#3 and K#4 K#1 and K#2
	List of external opportunities to the cluster	Quantitative	Retailers Meat Retailer Association	Survey questionnaire K#3 and K#4

			County Director of Livestock	K#1 and K#2
	Which of the mentioned challenges and opportunities joint action is addressing	Qualitative	Retailers County Director for livestock development	Survey questionnaire K#1 and K#2
	Retailers Perceptions about the purpose of this association	Quantitative	Retailers	Survey questionnaire
	List of Institutions/associations addressing the challenges	Quantitative	Retailers County Director for livestock development	Survey questionnaire K#1 and K#2
How can joint action be improved among meat retailers in the Kajiado meat cluster	List of joint action initiatives achieving their objectives	Qualitative	Retailers Meat Retailer Association County Director for livestock development ASDSP Coordinator	Survey questionnaire K#3 and K#4 K#1 and K#2 K#5
	Areas of joint action improvement	Qualitative	Retailers Meat Retailer Association County Director of Livestock ASDSP Coordinator	Survey questionnaire K#3 and K#4 K#1 and K#2 K#5
	Recommendations for joint action improvement	Qualitative	Retailers Meat Retailer Association County Director of Livestock ASDSP Coordinator	Survey questionnaire K#3 and K#4 K#1 and K#2 K#5

Source: Author, 2016

3.3 Unit of Analysis, Population and Sampling Procedure

The unit of analysis for this study was the registered meat retailers. Based on the reconnaissance study conducted, the researcher established that there are two categories of meat retailers in in the Sub County. The first are the butcheries who buy meat at the slaughter house and sell within the sub county and the second category is the retailers who buy animals, slaughter the animals at the slaughter house and sell the meat to transporters for resale in Nairobi, this category (for the purpose of this study) were referred to as the retailing agents. These two categories where be included in the study as they both provide useful insights to joint action among meat retailers.

The target respondent was the trader who retails in meat. The population is the sum of all retailers (butcheries and retailing agents) in the sub county. The population was obtained from the Sub County livestock production offices specifically from the Isinya and Kitengela meat inspection and licensing offices. The total population was 102 retailers. 31 retailers being from the Isinya cluster and 71 retailers being from the Kitengela cluster. Of the 31 Isinya retailers, 5 are retailing agents while 26 are butcheries. Of the Kitengela retailers, 17 are retailing agents while 54 are butcheries. Data for this study was collected in the month of August, 2016.

Sampling key informants

As the study began by interviewing key informants, the key informants were sampled based on their expertise knowledge and experience. This category was purposively sampled and they included: The County director for livestock production (K#1), The Sub County director for livestock production (K#2), the Value Chain and Partnership Officer on the Agricultural Sector Development Support Programme (K#5) and the respective chairs of the Kitengela (K#3) and Isinya (K#4) retailer's association.

Sampling of respondents

The sampling frame used was the list of all registered meat retailers in the two retailing clusters of Isinya and Kitengela. Given the financial and time limitations of the study, the researcher targeted to sample 50% of the population in the following way:

$$\begin{aligned}\text{Sample size} &= 50/100 * \text{population} \\ &= 50/100 * 102 \text{ retailers} \\ &= 51 \text{ respondents.}\end{aligned}$$

The sample size was then stratified proportionately among the two study clusters and among the two categories as indicated in the following formula:

Sample size of butcheries in cluster y = number of butcheries in cluster x / total population * sample size

Example: Butcheries to be sampled in Kitengela = $54/102 * 51 = 27$ respondents

The following table shows the number of a sample stratified by cluster and category of retailers:

Table 3: Sample size for the study

Cluster/sample category	Butcherries to be sampled	Retailing agents to be sampled	Total
Kitengela	27	9	36
Isinya	13	3	16
Total	40	11	52

Source: Author, 2016

Based on the provided sampling frame, a sample of 52 respondents was used as the number of respondents. Stratified as indicated in the table above. The selection of the butcherries to be sampled employed simple random sampling. While the retailing agents were identified through snowballing at the slaughter house. The retailing agent was interviewed at the slaughter houses.

3.5 Data Sources and Collection methods

The study used both primary and secondary data to answer the research question. Primary data was gathered from butcherries, retailers associations and key informants. This was done by use of survey questionnaires for the butcherries as the results of the questionnaires could be quickly and easily quantified. Questionnaires can be analysed more 'scientifically' and objectively than other forms of research. The associations and key informants were interviewed using interview schedules. Observation was used to familiarize the researcher with the issues arising from the study. Primary data collected included data on the type and nature of joint action, the purpose of joint action, stakeholder perceptions about the effectiveness and efficiency of the joint action and their proposals for improvement. The questionnaire had a total of 36 questions. It contained both structured and unstructured questions. The survey instrument contained four sections; the first section detailed the entrepreneur characteristics, the second established the challenges and opportunities for retailers in the cluster, the third outlined the objective and nature of joint action while the fourth sought recommendations for the improvement of joint action.

The primary data collection process began with pre- testing of the survey questionnaire to ascertain clarity and completeness of the questions. The survey instruments were then edited and adjusted based on the finding. For this purpose, two randomly selected butcherries were used to

test the instrument. This also formed as a basis for the researcher to pre-test translations to Swahili (where necessary) to maintain the intended meaning. The actual survey then followed. It began with key informant interviews followed by the survey. The survey questionnaire contained both open and closed ended questions.

Secondary data was used to contextualise the research question and identify knowledge gaps regarding the role of joint action in growing clusters, the types of joint action that exists and the factors that hinder joint action from achieving its objectives. Secondary data was obtained from various sources such as books, project paper thesis, electronic journals (mainly world development, JSTOR, Science direct among others) and the university of Nairobi repository. The researcher used the electronic search engine Google Scholar to search electronic articles on the general area of collective efficiency in clusters and this was followed by a refined search of Joint action in clusters.

3.6 Data Analysis

Data analysis was done using quantitative and qualitative methods. Each of these methods attempted to categorize, aggregate into constituent parts, and manipulate the data to obtain answers to the research questions. To minimize the occurrence of error, all data collected was checked daily to ensure accuracy, clarity and completeness of responses.

Analysis of quantitative data used SPSS (Statistical Package for Social Sciences) version 20 as a tool for summarising and relating variables. It summarized and related variables which were obtained from the administered questionnaires. The Open-ended questions were coded to establish themes and entered the analytical tool to come up with data that was be presented in tables and charts. For analysis, SPSS was used to conduct univariate analysis and generate descriptive statistics on specific variables. This analysis was percentages, frequency distribution tables, diagrams such as bar charts and pie charts. Additionally, bivariate analysis that related two variables at a time to uncover whether two variables are related. This analysis used contingency tables to show the relationship between two variables.

Non-parametric statistical tests were used to establish the strength and direction of association between the independent and dependent variables. Attention was given to the significance of the statistical correlations. Further a test of statistical significance allowed the researcher to establish

how confident they can be that the study based on a sample can be generalised to the whole population.

Qualitative data was analysed using thematic analysis in an excel sheets as a tool. The key repossesses were analysed and coded for themes and categories that could be used to answer the research questions. These themes where to be sorted in a way that established patterns that could be interpreted for deeper insight into the nature of joint action.

CHAPTER FOUR: FORMATION OF JOINT ACTION IN THE MEAT RETAIL CLUSTER

4.1 Introduction

This chapter reports findings of the first objective. It seeks to explain the way through which joint action occurs among retailers in the Kajiado meat cluster. The first part however, provides a background and context of enterprise characteristics. In providing this background, it relates the entrepreneurs and business characteristics to joint action and establish whether the characteristics impact its formation. The second section will outline how joint action is formed in the cluster while the third section will outline that factors that influence the formation of joint action. Wherever appropriate, tables, figures and charts have been used to illustrate the study findings.

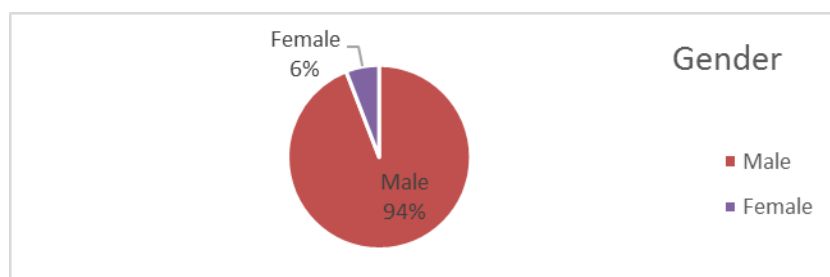
4.2 Enterprise Characteristics

Enterprise characteristics are anticipated to influence the formation and objective of joint action. The characteristics included; the gender, age of the retailers, years of operation, location, type of meat retailer, and the choice to locate in the cluster and the specific sector and the amount of capital used to start the business. The findings are summarised below:

4.2.1 Respondent's Gender

About 94% of the respondents were male while only 6% the respondents were female as shown in chart 1 below. When cross tabulated with their corresponding retail cluster, the finding indicated that the Isinya cluster is predominantly a male dominated cluster while Kitengela had only three women, all of whom owned butcheries. These gender dynamics have a cultural bearing, as livestock is traditionally a male dominated field among the Maasai. When the gender dynamics were interrogated further from the sub county director for livestock production, it emerged that the Isinya cluster has remained relatively traditional with very little external influence unlike the Kitengela cluster that hosts several people from different cultural backgrounds all of whom, bring different practises to the cluster making it diverse. This diversity has seen women entrepreneurs engage in the meat sector.

Chart 1: Retailer's gender



Source: Field Survey, 2016

The study had anticipated that the formation of joint action would be influenced by gender, but this was not the case as per chi-square test (chi-square=0.103, df=1, p=0.748). It established that retailer's predisposition to joint action, measure by the retailer's membership to a group/association was not influenced by gender. This is shown by the contingency table 4 below:

Table 4: Contingency table showing membership to a group by gender

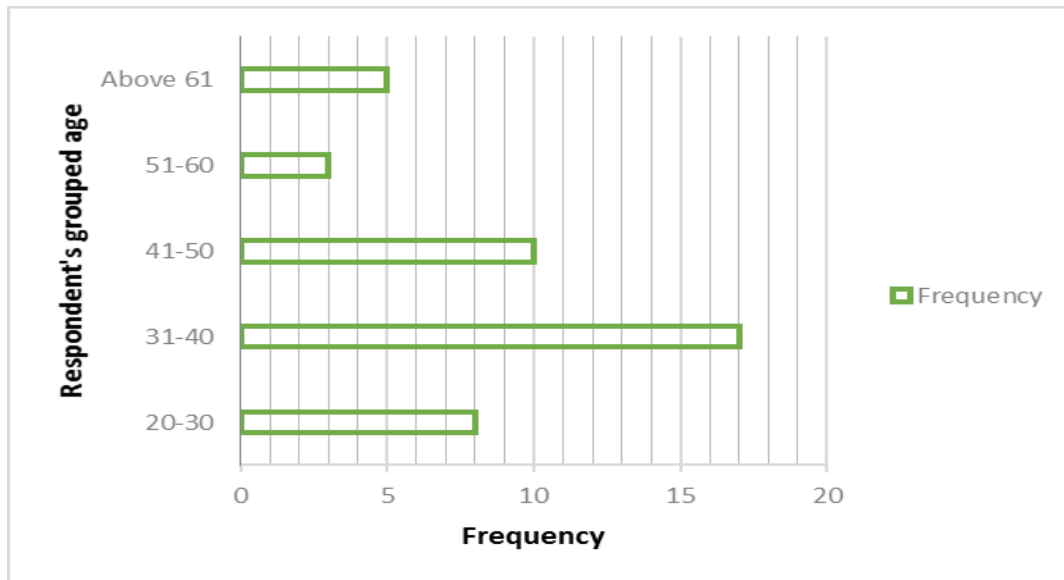
		Do you belong to any group/associations/Chama			
		Yes	No	Total	
Gender	Male	Membership of male respondents in groups	12	36	48
		% of men in groups	25.00%	75.00%	100.00%
	Female	Membership of female respondents in groups	1	2	3
		% of women in groups	33.30%	66.70%	100.00%
Total		Membership in groups	13	38	51
		% of respondents in groups	25.50%	74.50%	100.00%

Source: Field Survey, 2016

4.2.2 Age of enterprise

The retailer's age ranged between 23 and 70 years old. The mean age was 39 years and there were multiple modes of 26 and 35 years. Moreover, many of the respondents were between the age group of 31 years and 40 years with a total of 33% of the respondents. Chart 2 below indicates the respondents grouped age:

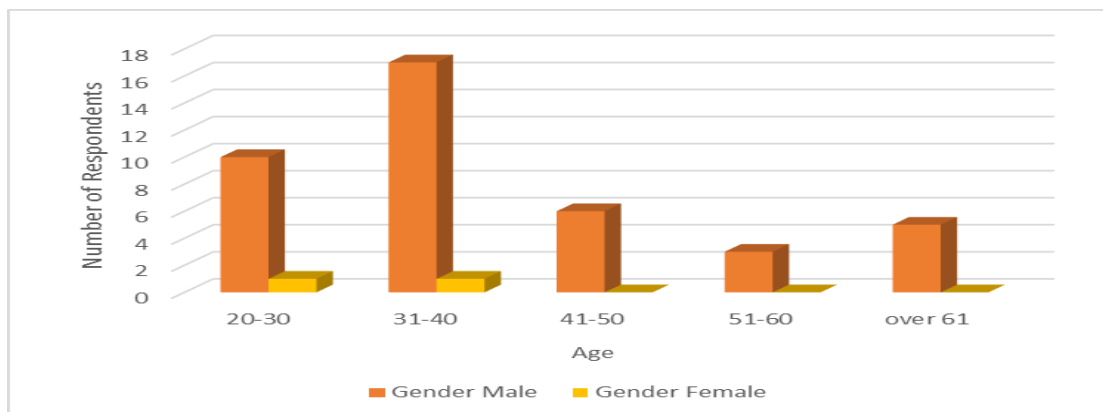
Chart 2: Grouped Respondent's age



Source: Field Survey, 2016

There were no female retailers above the age of 40 years. All the female retailers were in the age bracket between 20 years and 40 years. This is indicated in chart 3 below:

Chart 3: Grouped age of retailers by gender



Source: Field Survey, 2016

When the age of the retailers was cross tabulated against the retailer’s membership in a group and a one-way Anova test was applied to assess whether the age of a retailer influenced the predisposition to join. The researcher had anticipated that the relatively younger retailers based on age would be more prone to joint together. However, this assumption was proved wrong by one-way ANOVA test ($F(1,41) = 2.041, p = 0.269$) that established that there was no significant relationship between member’s age and the predisposition to belong to a group. This is summarised in table 5 below:

Table 5: Contingency Table for age against membership in a group/association

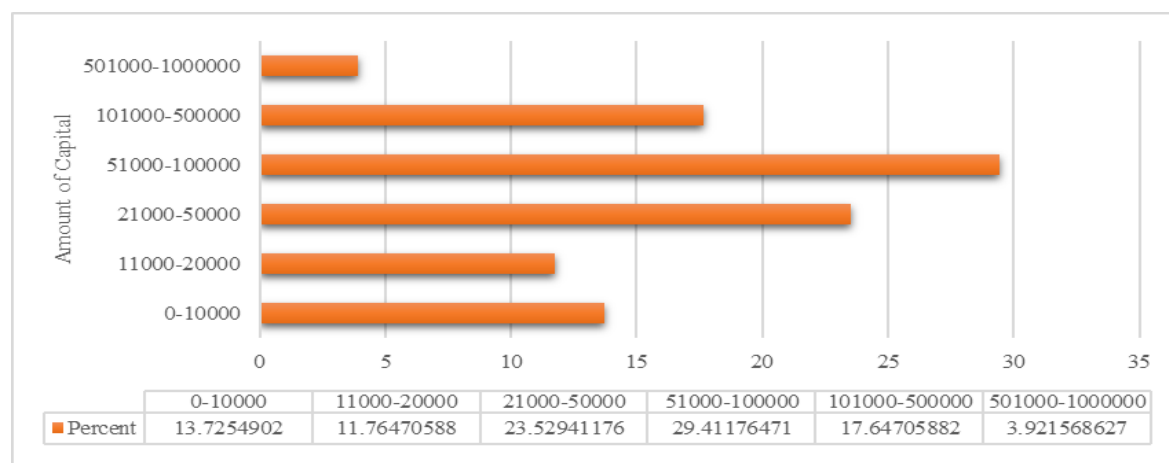
			Do you belong to any group/associations/Chama		Total
			Yes	No	
Age	20-30	Respondents’ group membership	4	7	11
		% of responses	36.4%	63.6%	100.0%
	31-40	Respondents’ group membership	6	12	18
		% of responses	33.3%	66.7%	100.0%
	41-50	Respondents’ group membership	1	5	6
		% of responses	16.7%	83.3%	100.0%
	51-60	Respondents’ group membership	0	3	3
		% of responses	.0%	100.0%	100.0%
	over 61	Respondents’ group membership	1	4	5
		% of responses	20.0%	80.0%	100.0%
	Total	Respondents’ group membership	12	31	43
		% of responses	27.9%	72.1%	100.0%

Source: Field Survey, 2013

4.2.3 Enterprise size

Questions relating to enterprise size were; the amount of capital injected into the business and the number of animals sold per day. The findings indicate that a majority (29% or 15 respondents), injected about between Ksh 51, 000 and Ksh 100,000. 23% of the respondents indicated starting with a capital between Ksh 21,000 and Ksh 50,000. This is shown in chart 4 below:

Chart 4: Amount of Capital injected in the business



Source: Field Survey, 2016

The relationship between the amount of capital injected into the business and the retailer joint action was investigated using spearman’s rank order correlation. There is a weak negative relationship between the amount of capital injected and the engagement in joint action ($r=-0.333$, $n=51$, $p= -0.160$). This implies that the more capital is injected into a business, more likely the retailer is to engage in joint action. This is shown in the table 6 below:

Table 6: Contingency table for amount of Capital injected against membership in a group

			Do you belong to any group/associations/Chama		Total
			Yes	No	
Amount of capital injected to the business	0-10000	Number of respondents in groups	1	6	7
		% of responses	14.3%	85.7%	100.0%
	11000-20000	Number of respondents in groups	0	6	6
		% of responses	.0%	100.0%	100.0%
	21000-50000	Number of respondents in groups	2	10	12
		% of responses	16.7%	83.3%	100.0%
	51000-100000	Number of respondents in groups	4	11	15
		% of responses	26.7%	73.3%	100.0%
	101000-500000	Number of respondents in groups	5	4	9
		% of responses	55.6%	44.4%	100.0%
	501000-1000000	Number of respondents in groups	1	1	2
		% of responses	50.0%	50.0%	100.0%
	Total	Number of respondents in groups	13	38	51
		% of responses	25.5%	74.5%	100.0%

Source: Field Survey, 2016

The second measure of enterprise size was the number of animals sold in a day. They ranged from 1 to 40 animals. The mean number of animals sold was four and the mode was one animal. The measure of an animal was a cow. All respondents who sold less than a cow a day were rounded off to one. The mean number of animals sold in a day was four animals and the mode was one animal with seventeen respondents as shown in the table 7 below.

Table 7: Number of animals sold in a day

Number of animals sold in a day	Frequency	Percent
1	17	33.3
2	9	17.6
3	6	11.8
4	3	5.9
5	5	9.8
6	4	7.8
7	1	2.0
10	5	9.8
40	1	2.0
Total	51	100

Source: Field Survey, 2016

A one-way Anova test was used to assess the relationship between the number of animals sold in a day and group membership. There was no statistically significant difference between groups as determined by one-way ANOVA ($F(1,49) = 0.137, p = 0.713$). This is summarised in table 8 below:

Table 8: Anova table for number of animals sold in a day against membership in a group

ANOVA					
Number of animals sold in a day					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4.752	1	4.752	.137	.713
Within Groups	1695.287	49	34.598		
Total	1700.039	50			

Source: Field Survey, 2016

4.2.4 Motivation to get in the meat retailing business

The choice of being in the Kajiado cluster points to the broader reasons why any enterprise would wish to be in a cluster. The biggest reason offered by the respondents as to being in the cluster is the availability of raw materials (18% or 27 respondents) and proximity to the slaughterhouse (15% or 23 responses). These were corresponded by the access to the local and Nairobi market. These findings are as indicated in the table 9 below:

Table 9: Choice of locating business

Choice of locating a business	Responses		Percent of Cases
	N	Percent	
Availability of raw materials/animals	27	17.6%	52.9%
Proximity to the slaughter house	23	15.0%	45.1%
Access to Nairobi Market	18	11.8%	35.3%
Access to customers/high population	19	12.4%	37.3%
Favourable business climate	6	3.9%	11.8%
It is my home area	2	1.3%	3.9%
access to infrastructure	2	1.3%	3.9%
Profitability of the business	3	2.0%	5.9%
Lack of other economic activities/alternatives	3	2.0%	5.9%
Pre-existing business knowledge	2	1.3%	3.9%
Passion for the job	1	.7%	2.0%
No response	47	30.7%	92.2%
Total	153	100.0%	300.0%

Source: Field Survey, 2016

4.2.5 The Nature of the cluster

The question asked the respondents to describe the nature of their businesses in terms of where they source their animals from, to whom they sold their meat and any other information that pertained to their trade. A simple definition of a cluster says as (Porter, 1999: 1245) “*a group of companies sharing local resources, using similar technologies, and forming linkages and alliances.*” Per the director for livestock production, the whole County of Kajiado constitutes a cluster if the livestock sector employs 70% of the County and 65% of the geographical extent is dedicated to livestock production. Within the cluster, there are smaller clusters that emerge based on the production. One of the sub clusters is the retail cluster organised around slaughterhouses across the County. The cluster forms through linkages between the producers, meat transporters, retailing agents and butchers. The meat is then transported either to butcheries in the environs or to the Nairobi Market. This is supported by the findings where most the respondents (32 respondents) indicated that they sold their meat to the residents in the area. This indication underscores the notion that the retailing cluster serves the Nairobi and other external markets. Only 6 respondents indicated the Nairobi Market as a major source of market for their meat. This therefore presents an opportunity yet to be untapped.

Other emerging concepts from this question were that trust is a major factor when it came to the choice of whom to work with. 3 respondents indicated that they only buy meat from retailing agents whom they trust and have a good working relationship with. This was even better displayed by Kitengela butcheries who preferred to travel to the Isinya slaughterhouse because they trusted the meat and felt it was better quality meat which was sourced from the local community.

Of notable concern was the lack of government being mentioned by any of the respondents while describing the nature of their business with the retail cluster. When the director for livestock production was asked to comment about the obvious lack of government presence in the operations of the retail business, they director collaborated this observation with the following comment:

“The government has made effort in collaborating with the private sector at the production stage with several farmers based groups with whom we work together but the post production linkage

has been clearly missing and the retail sector is predominantly private sector lead... our intervention is mostly in quality control through the meat inspectorate department.”

4.3 The formation/occurrence of joint action in the cluster

Theory and literature (McCormick, 2000; Schmitz, 1998) established that there are two types of joint action that exist. These are bilateral joint action and multilateral joint action. The study began by acknowledging however that the occurrence of these two types of joint action is not homogeneous among clusters and its occurrence is a function of sociological factors in the community. In the Kajiado retail cluster though, the two broad categories of joint action were observed. Bilateral joint action was more popular than multilateral joint action with 100% of the respondents indicating they had one form of joint action as opposed to only 26% who reported being involved in multilateral joint action. Of those who belonged in a group, 31% were retailing agents while 69% were butcheries. These findings and their corresponding factors are discussed in the sections below:

4.3.1 Bilateral joint action

Based on the findings of the study, all the respondents engaged in one on one collaboration/corporation or joint action in the cluster. The most popular bilateral joint action is that with the customers, followed by the kind with the meat transporter. The customers work together with retailers to create a rapport that have seen favourable terms such giving credit. The order of whom a retailer joins together with is reflective of the significance of the actor to the survival of the retail businesses. The table below best indicates the significance of the bilateral relationships based on the category of retailer.

To a retailing agent, the most important relationship is that of a meat transporter and a meat inspector all indicated by 100% of the retailing agents. The transporter dictates the final price of meat while the inspector provides the certificate of transport that certifies that the meat meets quality standards and the requisite rates have been paid. Further, per director of livestock production, the meat inspectors have become important dispute settlers among the retailing agents around the slaughter house.

To the butcheries on the other hand; customers with 90% of the responses, fellow retailers with 82.5% of the respondents and meat transporter with 87.5% of the responses are the most

important category of firms to the survival of their enterprises. Retailers are not permitted to transport meat to the butcheries and must therefore rely on the transporters to deliver the meat to the butcheries. The amount charged by the transporter impacts on the cost of production and is therefore a very important relationship to the retailer.

Per chi-square test (chi-square=1.625, df=1, p=0.202) the type of retailer did not influence the bilateral relationship between the retailer and producers as indicated in the table 10 below:

Table 10: Contingency table for bilateral joint Acton with producers against the type of retailer

			Do you work with Producers		Total
			Yes	No	
Type of meat retailer	Retailing agent	Number of respondents who work with producers	10	1	11
		% of responses	90.9%	9.1%	100.0%
	Butchery	Number of respondents who work with producers	29	11	40
		% of responses	72.5%	27.5%	100.0%
Total		Number of respondents who work with producers	39	12	51
		% of responses	76.5%	23.5%	100.0%

Source: Field Survey, 2016

The chi-square test (chi-square= 0.461, df=1, p= 0.497) established that the type of retailer does not have a significant impact on the bilateral relationship between retailers. This is shown in table 11 below:

Table 11: Contingency table for bilateral joint Acton with fellow retailers against the type of retailer

			Do you work with Fellow Retailers		Total
			Yes	No	
Type of meat retailer	Retailing agent	Number of R.A working with Retailers	10	1	11
		% of responses	90.9%	9.1%	100.0%
	Butchery	Number of butcheries working with Retailers	33	7	40
		% of responses	82.5%	17.5%	100.0%
Total		Number of retailers working with fellow retailers	43	8	51
		% of responses	84.3%	15.7%	100.0%

Source: Field Survey, 2016

The chi-square test (chi-square= 0.194, df=1, p= 0.275) established that the type of retailer does not have a significant impact on the bilateral relationship between retailers and customers. This is shown in table 12 below:

Table 12: Contingency table for bilateral joint Action with customers against the type of retailer

		Do you work with Customers		Total	
		Yes	No		
Type of meat retailer	Retailing agent	Number of agents working with Customers	11	0	11
		% of responses	100.0%	.0%	100.0%
	Butchery	Number of butcheries working with Customers	36	4	40
		% of responses	90.0%	10.0%	100.0%
Total		Number of retailers working with Customers	47	4	51
		% of responses	92.2%	7.8%	100.0%

Source: Field Survey,2016

The chi-square test (chi-square= 3.005, df=1, p= 0.0.083) established that the type of retailer does not have a significant impact on the bilateral relationship between retailers and inspectors. This is shown in table 13 below:

Table 13: Contingency table for bilateral joint Action with Meat Inspectors against the type of retailer

		Do you work with Meat Inspectors		Total	
		Yes	No		
Type of meat retailer	Retailing agent	Number of agents working with meat inspectors	11	0	11
		% of responses	100.0%	.0%	100.0%
	Butchery	Number of butcheries working with Meat Inspectors	31	9	40
		% of responses	77.5%	22.5%	100.0%
Total		Number of retailers working with meat inspectors	42	9	51
		% of responses	82.4%	17.6%	100.0%

Source: Field Survey,2016

As the Director for livestock production had indicated that the retail cluster was predominantly private sector driven, the study did not expect there to be a significant relationship between the

type of retailer and the relationship between county officials. This was however proved incorrect by the chi-square test (chi-square= 5.764, df=1, p= 0.016) which established that the type of retailer does have a significant impact on the bilateral relationship between retailers and county official. This is shown in table 14 below:

Table 14: Contingency table for bilateral joint Acton with County Officials against the type of retailer

			Do you work with County Officials		Total
			Yes	No	
Type of meat retailer	Retailing agent	Number of agents working with County Officials	8	3	11
		% of responses	72.7%	27.3%	100.0%
	Butchery	Number of butcheries working with County Officials	13	27	40
		% of responses	32.5%	67.5%	100.0%
Total		Number of butcheries working with County Officials	21	30	51
		% of responses	41.2%	58.8%	100.0%

Source: Field Survey,2016

The chi-square test (chi-square= 1.524, df=1, p= 0.0.217) established that the type of retailer does not have a significant impact on the bilateral relationship between retailers and transporter. This is shown in table 15 below:

Table 15: Contingency table for bilateral joint Acton with transporters against the type of retailer

			Do you work with Meat transporters		Total
			Yes	No	
Type of meat retailer	Retailing agent	Number of agents working with Meat Transporters	11	0	11
		% of responses	100.0%	.0%	100.0%
	Butchery	Number of butcheries working with Meat Transporters	35	5	40
		% of responses	87.5%	12.5%	100.0%
Total		Number of retailers working with Meat Transporters	46	5	51
		% of responses	90.2%	9.8%	100.0%

Source: Field Survey, 2016

The study further sought to understand how often these bilateral relationships occur. 41.2% of respondents indicated that bilateral engagement occurred on a weekly basis, 35.3% indicated collaboration daily while 17.6% said that collaboration is on a needs basis. This frequency goes to show that the relevance of bilateral joint action goes beyond overcoming challenges and

exploiting opportunities as indicated in literature. It implies that it is essential for the survival of these businesses and by extension has dictated the nature of the retail business. This is summarised in table 16 below:

Table 16: Contingency table for frequency of collaboration against the type of retailer

		Frequency of corporation					Total	
		Daily	Weekly	Monthly	On a needs Basis	N/R		
Type of meat retailer	Retailing agent	Frequency agent's corporation	7	4	0	0	0	11
		% of responses	63.6%	36.4%	.0%	.0%	.0%	100.0%
	Butchery	Frequency butcheries corporation	11	17	1	9	2	40
		% of responses	27.5%	42.5%	2.5%	22.5%	5.0%	100.0%
Total		Frequency of corporation	18	21	1	9	2	51
		% of responses	35.3%	41.2%	2.0%	17.6%	3.9%	100.0%

Source: Field Survey, 2016

To understand what connects and joins firms in this type of collaboration, the study sought to understand the entrepreneur decision making model on whom to collaborate with. The finding indicated a pre-existing rapport was the primary joining factor with 33.3% of the respondents (36.4% among retailing agents and 32.5% among butcheries). This was followed by the fact that retailers came from the same locality with 16.7% of the respondents (18.2% of the retailing agents and 16.2% of the butcheries). Other factors were: the existence of a common goal/challenge, personal recommendation and trust. A key idea that emerged from the study and that has been recurring is the importance of trust in moderating and propelling and or discouraging joint action. These findings mirror previous studies by Becattini, (1990) who indicated that the existence of prior network of groups and associations was an important precondition for the growth of clusters. These findings are indicated in the table 17 below:

Table 17: Decision of whom to corporate with

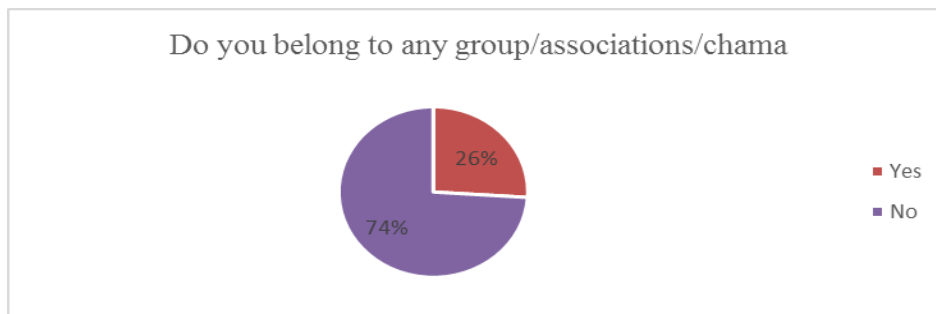
			Decision of whom to corporate with						Total
			We had a common goal/ challenge	We come from the same locality	Good business rapport	Person Was recommended to me	I can trust the person	N/R	
Type of meat retailer	Retailing agent	Responses	7	4	8	1	0	2	22
		%	31.8%	18.2%	36.4%	4.5%	.0%	9.1%	100%
	Butchery	Responses	26	13	26	1	1	13	80
		%	32.5%	16.2%	32.5%	1.2%	1.2%	16.2%	100%
Total		Responses	33	17	34	2	1	15	102

Source: Field Survey, 2016

4.3.2 The formation of Multilateral Joint Action

To understand how multilateral joint action is formed in the meat retailing cluster, the study asked the respondents if they belonged to any group, association or Chama in the meat industry. 13 or 26% of the members belonged to any group or association while the rest did not belong to any group. This is shown in chart 5 below:

Chart 5: Do you belong to any association?



Source: Field Survey, 2016

When cross tabulated against the age of entrepreneur as indicated in table 18 below, it emerged that multilateral joint action is popular among the relatively younger entrepreneurs as opposed to the older entrepreneurs, this would imply that joint action is a relatively new concept among the

retailers. This is supported by a comment by a 70-year-old retailer who indicated preference for retirement than join a Chama.

Table 18: Contingency table of age against membership in association

			Do you belong to any		Total
			Yes	No	
Age	20-30	Number of respondent's in a group	4	7	11
		% of responses	36.4%	63.6%	100.0%
	31-40	Number of respondent's in a group	6	12	18
		% of responses	33.3%	66.7%	100.0%
	41-50	Number of respondent's in a group	1	5	6
		% of responses	16.7%	83.3%	100.0%
	51-60	Number of respondent's in a group	0	3	3
		% of responses	.0%	100.0%	100.0%
over 61	Number of respondent's in a group	1	4	5	
	% of responses	20.0%	80.0%	100.0%	
Total	Number of respondent's in a group	12	31	43	
	% of responses	27.9%	72.1%	100.0%	

Source: Field Survey, 2016

When this was further cross tabulated against the type of retailing agent, it emerged that multilateral joint action was more popular among retailing agents as opposed to butcheries as indicated in table 14 below. As retailing agents operate from slaughter houses, it is easier for them to belong to associations and groups as opposed to butcheries who are distributed in the cluster.

The groups included: Kibali ya bwana group (4% respondents), slaughter house association (2% of respondents), Isinya slaughter house association (2% of respondents), Opportunity Kenya, Century chama, no name, Chama ya wanaume, Meat retailer's association, Maendeleo chap chap, Slow in Chama and Nabosho all with 1% of respondents being members. Some of the Chama are not predominantly meat industry groups but involve traders in other industries these groups are merry-go round associations formed for the sole purpose of improving access to credit though member contributions.

When a test of statistical significance to establish whether there is a significant relationship between the type of retailers and the formation of a group, the test displayed that $\chi (1) =$

1.079, $p = .583$. This tells us that there is a significant statistical significant association between the type of retailer and the formation of a group. This is summarised in table 19 below:

Table 19: Contingency table for membership in a group against type of meat retailer

			Do you belong to any group/associations/Chama		Total
			Yes	No	
Type of meat retailer	Retailing agent	Number of respondent's in a group	4	7	11
		% of responses	36.4%	63.6%	100.0%
	Butchery	Number of respondent's in a group	9	31	40
		% of responses	22.5%	77.5%	100.0%
Total	Number of respondent's in a group		13	38	51
	% of responses		25.5%	74.5%	100.0%

Source: Field Survey, 2013

When asked how these groups were formed, it emerged that groups began from member suggestion to address a need the retailers perceived necessary as indicated by 8 of the 13 members who were in groups or 8% of all respondents, for example, the chairman of the Kitengela Retailers association indicated that the association was started in the year 2005 as initiative by the retailers in the slaughter house to maintain discipline and sought disputes among the traders at the slaughter house. Per the chairman *“the Maasai would always result to the rungu and njora to resolve disputes in the slaughter house.”* Another example is the Isinya retailer's association which was formed among members to after observing how successful merry go rounds had been among the women in the Town.

Other factors that have influenced the formation of associations in the cluster include: initiative of the members (3% of all responses) and one respondent indicated that the formation of the group was through recommendation by the County government. This recommendation by the government has been through the agriculture sector development strategy programme that has been working through value chain groups of actors at each level of the value chain by organising trainings to overcome the challenges/constraints which are unique retailers. The constraints at each level of the value chain are identified through stakeholder led exercise. These findings are presented in the frequency table 20 below:

Table 20: Frequency table showing how joint action is formed

		Responses	
		N	Percent
How was the group was formed?	Member Agreement	8	7.9%
	Initiative of a single member	3	3.0%
	Recommended by government	1	1.0%
	N/A	89	88.1%
Total		101	100.0%

Source: Field Survey, 2016

Per the literature, the cost of association was identified by UNIDO (1996) as an important factor that influences the ability to join. When asked whether they incur costs to be in the groups, about 77% incur a cost while 23% do not incur any cost. The costs vary as shown in chart 6 below. When compared to the reasons given for not being in a group, however only one respondent indicated that the cost as being a stumbling block. Chart 6 and 7 below summarise these findings:

Chart 7: Do you Incur a Cost in a group

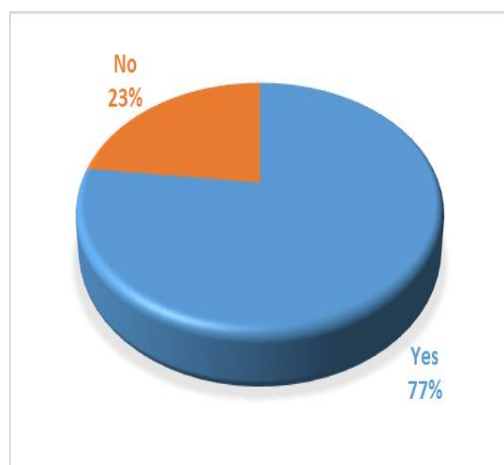
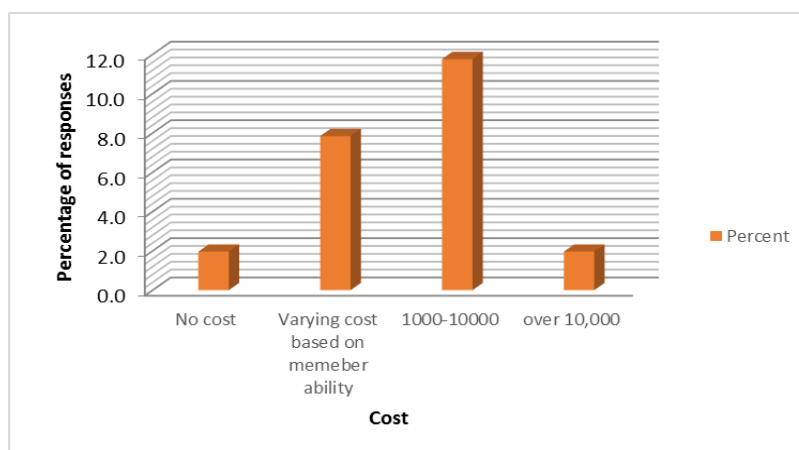


Chart 6: Average monthly expenditure in a group



Source: Field Survey, 2016

The groups communication was mostly through face to face meetings as indicated in the table 21 below:

Table 21: Means of communication

How does group one communicate	Responses	Percent
Through face to face meetings	15	14.7
Through bulk SMS	2	2.0
Informal conversations at the slaughter house	5	4.9
N/A	79	77.5
Total	102	100

Source: Field Survey, 2016

Given that bilateral joint action did not appear to be popular, the survey sought to understand why this was the case. The most popular reason provided was that no association or group existed with 4.5% of responses. The reasons for not being in a group was cross tabulated against the type of retailers to establish if the perception differed based on the type of retailer. The retailing agents primarily felt that groups took too much of their time with 9.1% and subsequently took too long to achieve their objectives with 4.5%. Both reasons point towards a perception challenge.

Among the butchereries however, the primary reason given was the lack of a group they could join with 27.5%. If there are groups that retailers could join, this primary response leans towards a lack of awareness about the existence of groupings. These findings are presented in the table 22 below:

Table 22: Contingency table for Reasons for not being in a group by type of retailer

Type of meat retailer		Reason for not being in a group							N/A	Total
		The time taken in the group is a lot	No group exists	The group is slow in achieving its objective	Not interested in being in one	Group is poorly managed	Culture does not encourage	I am new in the industry		
Retailing agent	N	2	1	1	1	1	0	0	16	22
	%	9.10%	4.50%	4.50%	4.50%	4.50%	0.00%	0.00%	72.70%	100.00%
Butchery	N	6	22	3	5	2	1	1	40	80
	%	7.50%	27.50%	3.80%	6.20%	2.50%	1.20%	1.20%	50.00%	100.00%
Total	N	8	23	4	6	3	1	1	56	102

Source: Field Survey, 2016

4.4 Factors that influence the formation of joint action

4.4.1 Policy

Based on theoretical and empirical literature (Zeng, 2006; Schmitz, 1996; Boladela, 2006), policy is used to facilitate joint action in a cluster through the creation of agencies that promotes, coordinates and facilitates cluster growth. This study sought to understand the way through which policy is impacting the formation of joint action. It was established that the agriculture sector development strategy programme is a programme initiated to implement the agriculture sector development strategy 2010-2020 has been significant in facilitating joint action among retailers in the cluster.

According to the Coordination Unit, the ASDSP programme was established to among other function promote linkages among the value chain actors by organizing them into viable business value chain groups. This sole purpose has seen them identify groups of value chain actors who do similar activities at each level of the value chain. These include: Agro input suppliers, Agro producers, Agro transporters, Agro Wholesalers and retailers and agro processors.

According to the Director for Livestock Production, these groups receive trainings to overcome the challenges/constraints which are unique to each level of the value chain which are identified through stakeholder led driven exercise. The joining of actors allows for specialized trainings. Second, these groups are meant to help actors to actualize group business plans where they can pull resources together and venture into group business which would not be possible when operating as individuals. To this effect, there are two groups the ASDSP works with the Kitengela retailer's association and the Isinya retailer's association. According to the director however, the beef value chain actors are still individualistic in their operations and to organize them into groups is still a challenge. Further, the diminishing land sizes due to subdivision and collapse of group ranching system have put this indigenous production system at a threat and has impacted all groups of actors across the beef value chain. The pastoralist lack grazing land, which implies that supply of animal to the retail cluster is inhibited.

Based on the above, it is evident that policy is playing a critical role in promoting joint action in the cluster, in contrast to theory and empirical literature however, the groups are not created by policy but rather identified from existing groups. Additionally, the groups are neither

coordinating nor facilitating cluster activities but are forming a basis for government intervention in an industry that is predominantly private sector driven. This diverts from previously identified policy direction in empirical studies. Whether this organisation succeed is yet to be evaluated as the value chain groups are not yet fully developed.

4.4.2 Retailer perceptions towards joint action

Retailer’s perception towards joint action emerged to be a critical intervening variable to the formation of joint action. The survey asked the retailers if they felt that the challenges they identified and the opportunities therein could be solved through joint action by the retailers in the cluster. 68.6% of the retailer felt that the challenges could be solved through joint action and 31.4% felt that they could not. When this was cross tabulated against the type of retailer, it emerged that the retailing agents perceived joint action better than butcheries. When further cross tabulated by the location, it emerged that retailers in Kitengela had better perception to joint action as opposed to those in Isinya. These findings were further reinforced by the chairman of the Isinya retailer’s association who reflected that *“the ability to convince individual retailers of the potential benefits of being in the group and giving an incentive to attend group meetings has been a challenge.”* Table 23 below presents these findings:

Table 23: Respondents’ perception towards joint action

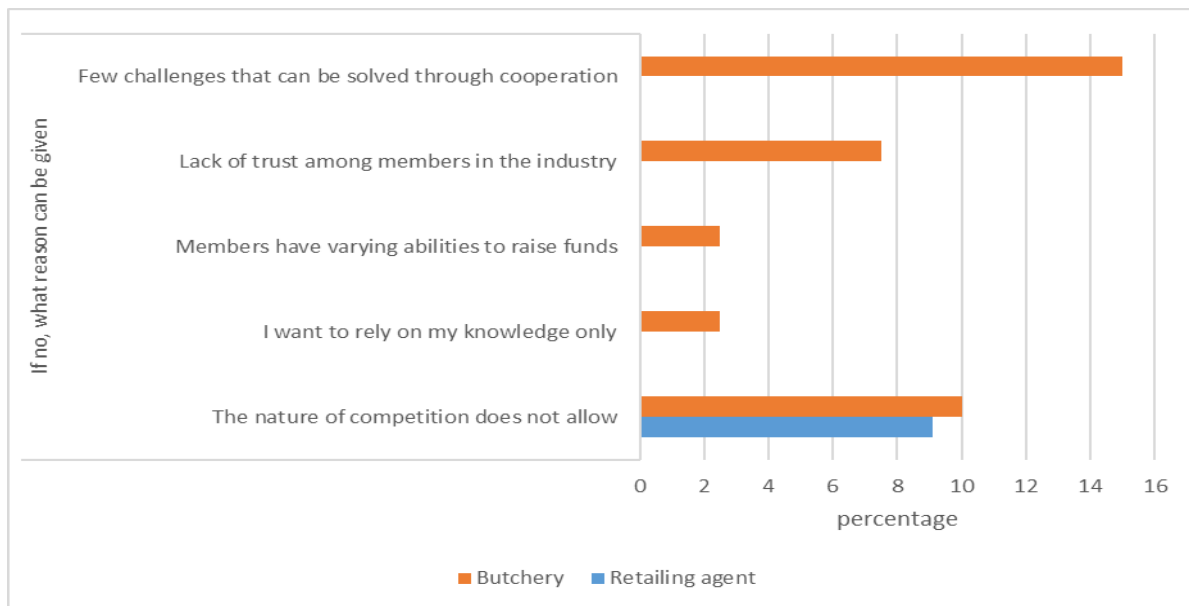
Type of meat retailer	Responses	Can challenges be solved through corporation		
		yes	No	Total
Retailing agent	Number of responses	10	1	11
	% of responses	90.90%	9.10%	100.00%
Butchery	Number of responses	25	15	40
	% of responses	62.50%	37.50%	100.00%
Total	Number of responses	35	16	51
	% of responses	68.60%	31.40%	100.00%

Source: Field Survey, 2016

The Phi coefficient analysed the relationship between the retailer’s perception and type of retailer. The findings a weak positive relationship ($r=0.252$ $n=51$ $p=0.072$) between the perception and the type of retailer. This means that that perception towards joint action differs between the two types of retailers. This could be attributed to age as most retailing agents tended to be older.

Those retailing agents who felt that the challenges could not be solved through joint action offered the reason that the nature of competition could not allow with 9% of the responses while 91% were not applicable. The butcheries gave the following reasons: 15% of the respondents felt that their challenges were not big enough to warrant joint action, 10% of the respondents felt that they were in competition and therefore could not work together with their competitors, 8% felt that the meat retailing business lacked trust, others felt that they wanted to rely on their own abilities. These reasons are as summarized in the chart 8 below:

Chart 8: Reason for not cooperating



Source: Field Survey, 2016

The reasons given above mirror theoretical reasons provided by UNIDO (2013), on why fostering joint action in a cluster may be difficult despite its perceived benefits. They listed the transaction cost, the coordinating costs, the time cost and the lack of trust and sufficient social capital to bind people together. Such explanations can be observed in the Kajiado retail cluster.

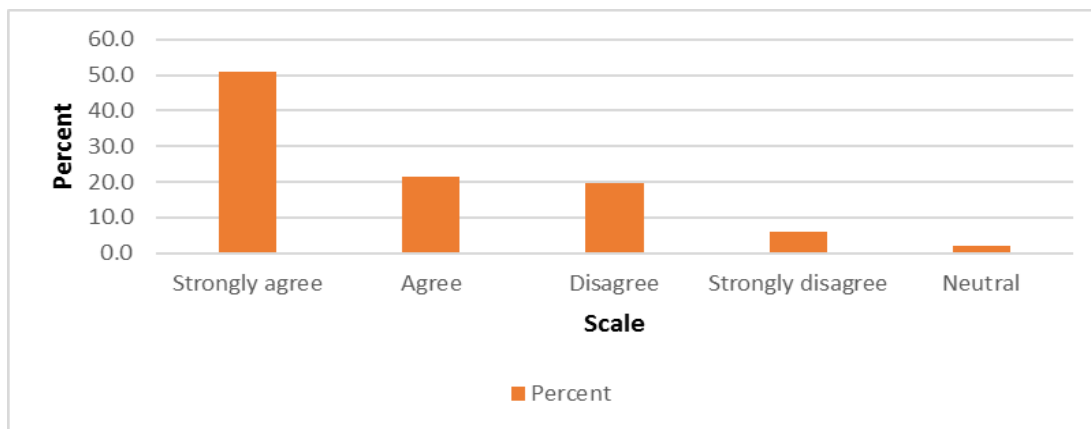
4.4.3 Socio-cultural Factors

The Maasai Culture and community norms cannot be separated from the Meat Industry trade and practice. Based on the findings of this study, it is difficult to draw the line between the trade and the community norms. It has facilitated and sustained the trade. This is also representative of the way the people join together.

A popular saying quoted by several retailers was very instrumental in helping the researcher understand the nature of joint action in the cluster. *“Taneyeu nipok tangas ntopuaa keon, pitumoki aitopuaa likai tungani.”* Translated, the saying implies that *“a man who succeeds is the one who relies on himself.”* The spirit of such a saying is helpful in explaining why multilateral joint action is not very popular among retailers. This is especially so among the older retailers.

Such a saying can be deceptive in making a blanket assumption about joint action. Further scrutiny of the findings above indicate that the nature of the trade is heavily reliant on interdependence among the retailers as shown in the chart below. Additionally, this interdependency is moderated and dictated by trust. The findings established that the decision of whom to buy meat from and whom to give credit is dictated by trust. Such sociological concepts as trust have shaped bilateral joint action and have been very important in sustaining the industry.

Chart 9: Retailer perceptions to culture and joint action; does a common culture improve corporation?



Source: Field Survey, 2016

The Kitengela Slaughter house association is another example of how culture and community spirit in doing business and takes us back to the provisions of solidarity entrepreneurship in African enterprises. The use of the traditional council of elders to sort disputes and impose a code of conduct in the cluster shows creativity in charting a path to sustaining the cluster. The Maasai culture has even imposed sanctions to those members outside the community who may defy the elders.

The above findings on how the culture is dictating the formation of joint action reinforce Chaudhry, (2000) assertion that a when a cluster shares a common culture and social background, it creates links that are instrumental in imposing a common behavioural code, that helps in propelling the process of collective efficiency. In this retail cluster, the cultural attributes such as the council of elders has been adopted to impose a code of conduct in the retail business. Those who do not adhere to this code has sanctions imposed on them.

CHAPTER FIVE: OBJECTIVES OF JOINT ACTION

5.1 Introduction

This chapter reports findings of the second objective. The first section contextualises the need for joint action by outlining the cluster specific challenges and opportunities. The second section outlines the objectives of joint action. The third section is a comparison between the objectives of joint action and the identified challenges to access the relevance of its present scope in exploiting the opportunities and surmounting the challenges. The last section the lists the benefits that have occurred to members of the cluster because of joint action. In the end, the chapter will outline the additional areas that the objective of joint action could address. Wherever appropriate, tables, figures and charts have been used to illustrate the study findings.

5.2 Contextualizing the need for joint Action

Theoretical and empirical literature established that working together, which is effectively referred to as joint action, provided firms with a greater opportunity for success through the overcoming of challenges and exploitation of opportunities (Schmitz, 1999). Further, the purpose or objective of the mentioned joint action is not homogenous across clusters but is rather context specific. This therefore means that the objective, for which joint action is established, depends on contextual issues to the cluster.

Based on the foregoing, the study sought to understand the contextual challenges of the retail cluster and the contextual opportunities. The respondents were asked to identify the challenges they face in the meat retail cluster and to each challenge, the corresponding solution they sought. The researcher then interpreted whether the solution was sought alone or in joint action. The survey then asked if the respondents were in joint action and the objective of such of joint action. And the data was cross tabulated. The output explained whether the challenges or opportunities lead to joint action, whether the existence or lack of joint action explained the persistence of the challenges, whether there were variations between the existing challenges and the objectives of joint action. As a conclusion, therefore, it helped identify areas that the objective of joint action may address.

5.2.1 Challenges and the nature of their solutions

The respondents were asked to state the challenges they faced in their business and to each challenge, the corresponding solution. To each solution, the study sought to understand whether it was sought alone or jointly. The summarized output for this section is shown in table 24 below. To better understand this context, the same question was asked to the key informants.

According to the director for livestock production, the biggest challenge is that actors are individualistic in their operations. Per the retailers on the other hand, the biggest challenge they faced was the lack of sufficient business credit with approximately 10.6% of responses. To this challenge, the retailers indicated three preferred solutions but only two were sought jointly. About 4.9% of the respondents choose to take bank loans, 2.9% of the respondents indicated saving income for reinvestment while 2% respondents said they would often return home to sell animals to raise the required capital. These three solutions show an individualist approach for to a business challenge that could otherwise be solved through joint action. Of those who responded to forming joint action to improve access to credit, 2% indicated negotiating for credit from the selling agents and 2% indicated they formed a Chama/group to help raise capital. Although the retailers result to both individual and joint methods of solving the challenge, individual solutions seem to be more popular based by the number of responses.

The second most popular challenge was the drought (4.9% respondents), which in turn caused a lack of constant supply of raw material to the cluster (8.6% of respondents) and in turn resulted to a fluctuation in the prices of meat (1.2% of respondents). To this challenge, three solutions were sought alone while three were sought jointly, that is both individual and joint solutions were sought. The joint solutions included: negotiating with sellers for good prices during times of drought and sharing transport costs to reduce the cost of meat and forming groups to buy animals in bulk and reducing overhead costs. Such innovative solutions to challenges unique to this cluster goes to explain the persistence of the small enterprises despite several challenges.

The nature of solutions sought however indicates that there is room for embracing joint action to surmount these cluster specific challenges. Challenges such as the lack of a public slaughter house, lack of trust, accessing technology and lack of storage facilities are some areas that could be the objective of joint action that the retailers have not explored. These findings are further explained in table 24 below:

Table 24: Business challenges in the meat retailing cluster

Business challenge with the corresponding solution						Individual/ joint solution
Business challenge	N	%	Nature of Solution	N	%	
Lack of sufficient business credit	27	10.6	Selling animals to get capital	3	1.5	Individual
			Asking for loans from banks and other lending institutions	10	4.9	Individual
			Agree on favourable credit terms with the retailing agents	4	2.0	Joint
			Saving of income for reinvestment	6	2.9	Individual
			Formed a Chama for credit	4	2.0	Joint
Fluctuation of livestock prices /	26	10.2	Negotiate with sellers and agree on a favourable price	14	6.9	Joint
Lack of constant supply of livestock/raw materials	22	8.6	Sharing transport costs among traders to reduce the cost of raw materials	2	1.0	Joint
Drought	10		Forming groups to buy animals in bulk during drought	4	2.0	Joint
			They reduce the quantity and increase the prices during drought	9	4.4	Individual
			Buying from places outside Kajiado during drought	8	3.9	Individual
			3.9	Moving to another slaughter house with better quality meat	2	1.0
Lack of information about business opportunities	9	3.5	Learning by observing other butcheries	2	1.0	Individual
High cost of slaughtering at the private slaughter house	9	3.5	Lobbying for a government slaughter house	1	0.5	Joint
Poor infrastructure	7	2.7	Avoid using vehicles during the rainy season	2	1.0	Individual
			Working with other business to repair the roads	1	0.5	Joint

			leading to their businesses			
Harassment by County Officials	4	1.6	Formed ad-hoc committee	4	2.0	Joint
Lack of organised market for products	3	1.2	Discussing challenges with other butchers	1	0.5	Joint
Lack of knowledge and technology for value addition	2	0.8	No solution	10	4.9	N/A
Lack of trust	2	0.8	No solution			N/A
Lack of capital to access business technology	1	0.4	No solution			N/A
Language barrier (Swahili)	1	0.4	No solution			N/A
Lack of Storage facilities	1	0.4	No solution			N/A
N/R	131	51.4	N/R	117	57.4	
Total	255	100		204	100.0	

Source: Field Survey, 2016

5.2.2 Opportunities in and their method of exploitation

When asked, what opportunities existed in the meat retailing cluster the retailers would like to exploit, 63.6% of retailing agents and 58.3% of the butcheries appeared content with the business and could not think of an opportunity they would want to exploit for their business as indicated in the table 25 below. When this was posed to the Director for Livestock production as to why most the retailers did not seek external opportunities to grow their businesses elicited the following response:

“The retailers in the cluster lack knowledge and information about the external opportunities they can tap into, this is however being addressed through capacity building in various programs.”

Nevertheless, Butcheries perceived opportunities better than retailing agents. The only significant opportunity they felt they would have liked to address was the addition of value to meat at 15.15% of the respondents. The study had expected that the retailing agents would be at

the forefront in exploiting opportunities as they operate at the helm of information flow, the slaughter house. They are the highest losers when it comes to selling meat in its unprocessed nature.

The Butcheries on the other hand, would have liked to add value to meat with 11.6% of the responses, exploit further Kenyan Markets at 10.8% and improve business technology at 9.17%. To achieve this, they felt they would have to work together to improve the credit access with 1.6%, This however was an indication of intent as opposed to actions the retailers were taking. The findings are as indicated in the table 25 below:

Table 25: Opportunities in the Meat Sector

		Opportunities in the meat cluster								Total
			Adding value to meat	Exporting meat	Expanding to further kenyan Markets	Overcoming statutory regulations	Improving business technology	Increasing credit for expansion	N/R	
Type of meat retailer	Retailing agents	N	5	0	2	0	2	3	21	33
		%	15.15	0.00	6.06	0.00	6.06	9.09	63.64	100
	Butchery	N	14	8	13	2	11	2	70	120
		%	11.67	6.67	10.83	1.67	9.17	1.67	58.33	100
Total		N	19	8	15	2	13	5	91	153

Source: Field Survey, 2016

5.3 Objectives of Joint Action

5.3.1 Objectives of Bilateral Joint Action

The respondents were asked the objective of bilateral joint action and the findings cross tabulated by the type of retailer. The results indicated that the primary reason why retailing agents engage in bilateral joint action is to resolve disputes and improve relations among the retailing agents with 16.5% of the responses. This was then followed by exchanging information about the business and the challenges they are facing at 15.3% of the responses. There was however no significant variation in objective with the butcheries. The key motivation for bilateral joint action would therefore appear to be the creation of a rapport in the cluster. This becomes the benchmark for other challenges such as exchanging information. A significant innovative objective is the need to share transportation cost among the butcheries.

These objectives are predominantly instrumental in facilitating growth in the retail cluster as it allows the retailers to share ideas and knowledge, which is a fundamental component of growth;

it has allowed butcheries to get credit from retailing agents and facilitate growth in a manner that would have otherwise been impossible. These findings are indicated in the table 26 below:

Table 26: Reasons for Bilateral joint action

Objective of Bilateral JA	Responses	Percent
To exchange knowledge and information	39	15.3
solve common challenges in the meat sector	39	15.3
To improve business relations	42	16.5
To resolve disputes among members	33	12.9
Improve access to credit	28	11.0
Welfare purposes (weddings, funerals, school fees, hospital bills)	10	3.9
To expand the business and tap new markets	9	3.5
To share transport expenses	7	2.7
To access government funds	1	0.4
To negotiate transport charges	1	0.4
N/R	46	18.039216
Total	255	100

Source: Field Survey, 2016

5.3.2 Objectives of Multilateral Joint Action

Those members who belonged to a group were asked the objective of the group/association. This was also cross tabulated against the type of retailers. The findings show that the primary reason why butcheries get in groups or chammas is to improve access to business credit with 4.5% of responses, then the objectives often advance to such things such as sharing information at 3.5% and social welfare functions at 2.5%.

None of the interviewed retailers joined a group to exploit external opportunities. Or to enforce a code of conduct. However, groups such as the Kitengela retailer’s association exist for this sole

purpose. The association was started in the year 2005 as initiative by the retailers in the slaughter house to maintain discipline and sought disputes among the traders at the slaughter house. According to the chairman “*the Maasai would always result to the rungu and njora to resolve disputes in the slaughter house.*” The association has a council of elders that resembles the traditional council of elders among the Maasai community. This council of elders hears and sorts disputes and dictates how trade in the slaughter house. Those who do not abide by the council of elder’s decisions are locked out of business in the slaughter house. The chairman however asserts that “*it is unheard of any member to go contrary to what the council of elders has instructed.*” These findings are summarised in table 27 below:

Table 27: Objectives of multilateral joint action

		Objective of Multilateral J.A										Total
			Exchange knowlegde and information	Solve common challenges in the industry	Improve credit access	Welfare purpose/ social safety net	To expand your business to exploit opportunity	To lobby for common interest	To enforce a code of conduct	Receive training from banks	N/A	
Type of meat retailer	Retailing agent	N	3	4	3	3	0	1	0	0	41	55
		%	5.45	7.27	5.45	5.45	0.00	1.82	0.00	0.00	74.55	100.00
	Butchery	N	7	5	9	5	1	1	1	1	170	200
		%	3.5	2.5	4.5	2.5	0.5	0.5	0.5	0.5	85	100
Total		N	10	9	12	8	1	2	1	1	211	255

Source: Field Survey, 2016

It is important to note that association/group objectives evolve. The primary reason for beginning a group often changes as cluster dynamics change. For example, the Isinya Retailers association was formed in 2014 as a merry go around among 13 retailers at the slaughterhouse. They formed the group after observing how successful merry go rounds had been among the women in the Town. In the year 2016, however, the government through the livestock extension office in Isinya approached then to partner through the ASDSP. The requested them to formally register their association, they also requested them to register their association and bank all their contributions. Further to the formal registration, they have received training on how to manage a small business, write a member constitution and how to manage profits and losses especially due to the fluctuating nature of their business. This means that, even when the association formed for the primary objective of raising funds, the association has evolved and opened an avenue for training and capacity building.

5.4 A comparison between the challenges and objectives of joint action

To understand whether the challenges in the retail cluster resulted to the formation of joint action, a cross tabulation between the challenges and the retailer belonging to a group was done. It emerged that the biggest challenge of lack of business credit did not result to the formation of joint action as much as the challenge of drought and its resultant impacts. The retailers, faced by a natural disaster would much easily join together as opposed to daily business challenge such as limited credit.

The study went further sought understand if the potential for joint action has been fully exploited. This looked at the objectives listed above against the outlined challenges. It emerged that the potential for joint action was not being fully exploited and joint has room to contribute to growth in the cluster. There are opportunities that are not being exploited through joint action. Some challenges such as; access to credit, lack of a government slaughter house, improving business technology and access to business information, lack of cold storage facilities, legislating against the land use change, exploiting opportunities such as the formation of Sacco to build modern slaughter facilities and lack of trust are all areas the scope of joint action can be improved to cover. This implies that there is a chance for optimisation of joint action. However, improving the capacity of the retailers to achieve this function will be necessary.

5.5 Benefits of joint Action

The retailing agents who engaged in one form or the other of joint action reported to having improved access to business credit/funds at 6%, easy access to new customers at 7%, easy access to information at 6%, better working relationships with the government at 4% among other benefits. These benefits are in line with those identified by previous studies. (Oyelaran-oyeyinka, 2007; McCormick, 1999; Kinyanjui and McCormick, 2007). The table 28 below displays these findings in cross tabulation with the type of retailer.

Table 28: Benefits of Joint Action

			Benefits of J.A									Total	
			Easy to get information on the business	Ease in accessing information from government	Easy access to credit	Easy access to new customers/business	Access to new business trends/techniques	Improved trust among traders	Imposing a code of conduct	Receiving business training	N/A		
Type of meat retailer		N	3	2	3	4	3	0	0	0		39	55
	Retailing agent	%	6%	4%	6%	7%	6%	0%	0%	0%		71%	100%
	Butchery	N	6	6	9	4	1	4	4	1		165	200
		%	3%	3%	5%	2%	1%	2%	2%	1%		83%	100%
Total		Count	9	8	12	8	4	4	4	1		204	255

Source: Field survey 2016

CHAPTER SIX: SUMMARY OF FINDINGS, CONCLUSIONS, RECOMMENDATIONS

6.1 Introduction

The previous chapter presented the study findings based on the three research questions. In presenting these findings, the chapter attempted to relate the findings with the existing literature, practice and theory. This chapter will review the main findings, and discusses the implications therein draw conclusions and present the requisite recommendations for policy and further research.

6.2 Summary of Findings

The study sought to understand the persistence of challenges in the meat cluster despite the existence of joint action in the cluster. To understand this persistence, the study investigated how joint action is formed and its objectives against a background of the cluster specific challenges and opportunities.

The findings established that the Meat Industry cluster faced several challenges such as limited access to credit, drought which resulted to a fluctuation in supply and prices of meat, lack of information about the business, high cost of slaughtering at the private slaughter houses. The nature of solutions sought varied based on the respondents but they presented a competitive mix of solutions that included both individual and joint solutions. The retailers were however hard pressed to outline opportunities that existed but resulted to only identify hypothetical opportunities they would have wanted to exploit. This went to inform that the exploitation of external opportunities was not an everyday business occurrence in the sector. Further, the director implied that a lack of knowledge about such opportunities may be a contributing factor.

The study established that the retailers in the meat industry cluster had a predisposition to bilateral joint action as compared to multilateral joint action. Factors such as trusts, a culture that glorified independence in growth as opposed to joint action, level of knowledge could be offered as a reason for the phenomenon. However, where multilateral joint action was present, it predominantly aimed at improving access to credit, sharing of knowledge and solving challenges identified earlier. The members indicated having Easy access to credit, information on the

business and on government interventions, improved trust among traders and Imposing a code of conduct. These findings mirror literature (McCormick, 2007; Oyeyinka and McCormick, 2007; McCormick and Kinyanjui, 2007) that implies joint action in African clusters is aimed at reducing uncertainty as opposed to enhancing enterprise performance.

It further identified a few intervening variables to the formation of joint action such as policy, retailer perceptions and socio-cultural predisposition to joint action. Policy has been a key motivating factor in catalyzing joint action within the cluster. It has emerged that sociocultural factors are important intervening variables in the relationship between joint action and cluster growth. Such crucial factors as trust are easily enhanced where members share norms and traditions. Further, cultural traditions such as using the council of elders to maintain a code of conduct and enforce sanctions within the cluster.

6.3 Conclusions

Having established this kind of a contextual understanding of the nature and objective of joint action, the persistence of challenges can therefore be explained using two key aspects, the first being the optimization of scope of joint action. The current scope broadly covers: business information, access to credit, enforcement of a cluster code of conduct, welfare and sharing business expenses. When compared to the challenges that exist, the scope has room for expansion. The second factor that emerged and could explain the persistence of the challenges was the low membership in multilateral joint action and this could be attributed to the twin factor of poor perception and access to information.

Lastly, opportunities that exist continue unexploited, and the findings did not indicate exertion to their exploitation on either the retailers part or the government's part. However, this situation is not only a function of limited multilateral joint action but also a factor of poor access to knowledge and information as indicated by the study.

However, the nature of joint action in the Meat cluster can be argued to sustain the cluster in its present form. The seemingly small nature of joint action in this cluster can explain its existence over time despite the numerous challenges. Factors such as trust, have continued to dictate whom the retailers work or do not work with. A culture of business operations dictated by trust ensures that meat can be sold on credit, allowing a trader to survive in an industry he would have

otherwise been beyond their reach. Multilateral joint action such as that displayed by the slaughter house association is informed by traditional cultural practises and a sign of solidarity entrepreneurship that provides room for creativity in charting paths to economic solutions informed by traditional norms and values.

6.4 Recommendations

The findings of this study have imperative implications for the improvement of joint action in growing the meat Industry cluster. Potential areas for further research in the field of joint action are also suggested.

6.4.1 Recommendations for policy makers and public institutions

Based on the study, some general and specific policy implications could be drawn, the first recommendation regards the level of awareness about the existence of cluster actor groups/ value chain groups, the general lack of awareness about the benefits to a firm that collaborates and lack of knowledge about the multiple areas joint action can be used. For example, a retailer who says that they do not know how government can be compelled to construct a public slaughter house has not anticipated that joint action could be an avenue to lobby the government for such interests. It is possible for the County Governments and the Agricultural Sector Development Support Programme coordination unit to facilitate continuous capacity building initiatives to tackle to three identified areas for knowledge creation.

Second, the lack of knowledge about external opportunities seems to have been a key issue that hindered the cluster from growing. There seemed to be no apparent effort on both the part of the government and the private sector to seek external opportunities such as exporting meat among other such opportunities. There is need to establish a lifelong training for retailers to upgrade their knowledge of possible avenues for expansion of the meat market including: potential markets, potential product niche, exporting preconditions and how to exploit these external opportunities jointly.

The survival of the retail cluster depends on the survival of the other members of the cluster such as producers. Presently, the land use change in Kajiado is threatening the traditional pastoral

production of meat. Policy direction to conserve ranch production of meat is necessary. The policy on Sub-division of Agricultural Land especially group ranches should be enforced to make sure that ranches suitable for beef ranching are not finished through sub-division and subsequent sale of the land.

6.4.2 Recommendations for Research

The findings herein provide useful insights into the nature and objective of joint action in the meat cluster in Kajiado. There are knowledge gaps that future research may seek to address. First, the study acknowledges that the decision to collaborate or not is context specific and dependant on several socio-cultural factors. Further studies to investigate the inclination to join can be explored. These can be used to inform policy action. Additionally, this study focussed on one category of actors, the retailers. However, the nature of the industry includes a wider category of actors and future studies can look at all categories of actors to provide a broader perspective capable of generating inferential generalizations.

References:

- Allard, J., Carl, D. and Julie, M. eds. (2008). *Solidarity Economy: Building Alternatives for People and Planet*. Chicago: Change Maker Publishing.
- Becattini, G. (1992), "The Marshallian industrial districts as a socio-economic notion," in F. Pyke, G. Becattini et al. (Eds.), *Industrial Districts Industrial Districts and Inter-Firm Cooperation in Italy Geneva*: International Institute for Labour Studies, ILO, pp. 37-51.
- Bryman, A. (ed.) 2012. "*Social Research Methods*". Oxford: Oxford University Press.
- Gibson-Graham, J. (2006). "*A Post Capitalist Politics*." London: University of Minnesota Press
- Humphrey, J. and Schmitz, H. (1996) "The triple C approach to local industrial policy," *World Development* 24,pp. 1859–1877
- Humphrey, J. and Schmitz, H. (2002) "How Insertion in Global Value Chains Affects Upgrading in Industrial Clusters", *Regional Studies* 36(9): 1017–27.
- Kennedy, L. (1999) "Cooperating for Survival: Tannery Pollution and Joint Action in the Palar Valley (India)", *World Development* 27(9): 1673– 91.
- Kenya, Republic of (2010). "*Status Report on Development Issues in Northern Kenya and Other Arid Lands*." Nairobi; Government Printer.
- Kenya, Republic of (2011) "*Preparation of Vision 2030 Medium-Term Investment Plan (MTIP) For Northern Kenya and Other Arid Lands*." Nairobi; Government Printer.
- Kenya, Republic of, (2012). "*Vision 2030 Development Strategy for Northern Kenya and other Arid Lands*." Nairobi; Government Printer.
- Kenya, Republic of. (2009). "*Report on Economic Profiling of Northern Kenya and Other Arid Lands*." Nairobi; Government Printer.
- Kenya, Republic of, (2011). "*Economic Survey 2011*". Nairobi: Government Printers
- Kenya, Republic of. (2009). "Kenya Population and Housing Census". Nairobi: Government Printers
- Kingsley, G. and Malecki, E. J. (2004), "Networking for Competitiveness" *Small Business Economics*, 23 (1):71-84.
- Kinyanjui, M.N. (1998) "*Vehicle repair Clusters in Nairobi: Alternative strategies for slowly industrialising countries*." Report prepared for research project on Collective efficiency and small enterprises in Kenya, University of Nairobi, Institute for Development studies, Nairobi
- Kinyanjui, N. 2007. "The Kamukunji Metalwork Cluster in Kenya." In Zeng, D. ed., *Knowledge, Technology, and Cluster-based Growth in Africa*. Washington, DC: The World Bank
- KIPPRA, (2012). "Enhancing productivity and competitiveness of the Kenyan Economy Through a cluster Development Strategy." Nairobi: Government Printers.
- Kombo, D. K. and Delno, Tromp, L. A. 2006. *Proposal and Thesis Writing: An Introduction*. Nairobi: Paulines Publications Africa.

- Kombo, N. and Ekisa, G. (2015) "The Impact of Land Use Change on livelihood of the Maasai Community in Kajiado County, Kenya". *Ethiopian Journal of Environmental Studies & Management* 8(4): 433 – 441
- Krugman, P. (1991) "*Geography and Trade*", Cambridge, Mass.: MIT Press
- Locke, R. (1995) "*Remaking the Italian Economy*": Cornell University Press
- McCormick, D. (1998), "*Enterprise Cluster in African: On the Way to Industrialization?*" Discussion Paper 366, Institute for Development Studies, University of Nairobi.
- McCormick, D. (1999), "African Enterprise Cluster: Theory and Realty". *World Development* 27(9): 1531-1551.
- McCormick, D., Gebre-Egeziabher, T. and Kuzilwa, J. eds. (2009). "*Industrializing Africa in the Era of Globalization: Challenges to Clothing and Footwear.*" Nairobi: University of Nairobi Press.
- Mitullah, W. (1999), "*Lake Victoria's Nile perch industry: Institutions, Politics and Joint Action*". University of Sussex: Institute of Development Studies, working Paper No. 87.
- Morara, M. K., MacOpiyo L., & Kogi-Makau, W. (2014). Land use, land cover change in urban pastoral interface. A case of Kajiado County, Kenya. *Journal of Geography and Regional Planning*, 7(9), 192-202
- Nadvi, K. (1999a) "Collective efficiency and collective failure: the response of the Sialkot surgical instrument cluster to global quality pressures," *World Development* 27, pp. 1605–1626.
- Nadvi, K. (1999b) "The cutting edge: collective efficiency and international competitiveness in Pakistan," *Oxford Development Studies* 27, pp. 81–107.
- Nadvi, Khalid (1994) "Industrial District Experiences in Developing Countries", in UNCTAD, eds., *Technological Dynamism in Industrial Districts: An Alternative Approach to Industrialisation in Developing Countries?* New York and Geneva: United Nations.
- Okech, B. Atieno, R. and Mitullah, W. (2007). "Linkages and Business Competition in Kenya's Metal Products Sub-sector." In D. McCormick., P. Alila and M. Omosa, ed., *Business in Kenya: Institutions and Interactions*. Nairobi: University of Nairobi Press.
- Oyelaran-Oyeyinka, B. and McCormick, D. eds. (2007). *Industrial Clusters and Innovation Systems in Africa: Institutions, Market and Policy*. New York: United Nations University Press.
- Oyeyinka, B. (2004). "Networking, Technical Change and Industrialization: The Case of Small and Medium Firms in Nigeria." *ATPS Special Paper Series No. 20*. Nairobi, Kenya
- Porter, M.E. (1998), "Clusters and the new Economies of Competition". *Harvard Business Review* Reprint number 98609
- Pyke, F., (1992) "*Industrial Development Through Small-Firm Cooperation*", Geneva: International Institute for Labour Studies, ILO
- Rabellotti, R. (1997) "*External Economies and Cooperation in Industrial Districts: A Comparison of Italy and Mexico*" London: Macmillan.

- Raspe, O. and Oort, F. v. (2008), "Firm Growth and Localized Knowledge Externalities". *The Journal of Regional Analysis and Policy* 38(2): 100-116.
- Rocha, H. O. (2004), "Entrepreneurship and Development: The Role of Clusters" *Small Business Economics*, 23 (5): 363-400
- Romjin, H.A. Canie M.C (2010) "Dynamic Clusters in Developing Countries: Collective Efficiency and Beyond" *Oxford Development Studies*, 31:3, 275-292,
- Schmitz, H. (1995) "Collective Efficiency: Growth Path for Small-Scale Industry", *Journal of Development Studies* 31(4): 529–66.
- Schmitz, H. (1998) '*Flexible specialization: a new paradigm of small-scale industrialization*', IDS Discussion Paper No 261, Brighton: University of Sussex, Institute of Development Studies.
- Schmitz, H. (1999). "Global competition and local co-operation: success and failure in the Sinos Valley, Brazil", *World Development* 27, pp. 1627–1650.
- Schmitz, H. and Navdi, K. (1999), "Clustering and Industrialization: Introduction". *World Development* 27(9): 1503-1514.
- Schmitz, Hubert and Khalid Nadvi (1999). "Clustering and Industrialisation: Introduction", *World Development*, 27(9): 1503–14.
- Schmitz, Hubert, ed. (2004). "*Local Enterprises in the Global Economy: Issues of Governance and Upgrading*," Cheltenham, UK: Edward Elgar.
- Tallman, S. Jenkins, M. Henry, N. and Pinch S. (2004) "Knowledge, Clusters, and Competitive Advantage". *The Academy of Management Review* 29(2): 258-271.
- UNIDO, (1996) "*Industrial Development Global Report*" Oxford University Press, Oxford
- Wayua, M. and Kagunyu, F. (2008) "Empowering Pastoralists Through Local Options for Livelihood Diversification: Hides and Skins Value Addition and Marketing in Northern Kenya." Paper Presented at the Animal Production Society of Kenya (APSK) 2008 Annual Symposium, KARI-Katumani.
- Weijland, H. (1994), "Trade networks for flexible small rural industry in flexible specialization: The dynamics of small scale industry in the south". In Pedersen, P.O. Sversson A. and Dijik, M.P. eds., *Intermediate technologies*, London

Appendix 1: Survey Questionnaire

My name is Kinyanjui Catherine, a post graduate student at the Institute for Development Studies of the University of Nairobi. I am carrying out research on the role of joint action in exploiting opportunities and overcoming challenges in the meat industry cluster. I would appreciate if you spare about thirty minutes to answer some questions. Your identity and the information you provide will remain confidential and the information gathered will provide an important background and context for an M.A. Project Paper.

1. Name (Optional).....

2. Contact details (In case of follow up questions)

3. Gender

i. Male []

ii. Female []

4. Age of respondent (years)

.....

5. Date of interview

6. Location (Please tick)

i. Isinya Retailing Cluster []

ii. Kitengela Retailing Cluster []

7. Type of business or meat retailer (please tick)

a) Retailing Agent []

b) Butchery []

8. Which year did you begin your business?

.....

9. What motivated the choice to locate your business here?

- i. Availability of animals
- ii. Availability of a slaughter house
- iii. Access to the Nairobi market
- iv. Access to local clients
- v. A favourable business climate
- vi. It is my home area
- vii. Access to roads
- viii. Other

.....

10. How much capital did you inject into the business?

i. 0-10,000

ii. 11,000-20,000

- iii. 21,000-50,000
- iv. 51,000-100,000
- v. 101,000-500,000
- vi. 501,000-1,000,000
- vii. Over 1,000,000

11. How many animals do you sell in a day?

.....

12. How would you rate the availability of livestock as a raw material for your business?

- i. Very available
- ii. Moderately available
- iii. Not easily available
- iv. Availability is seasonal

13. Please describe the nature of your business. (Whom you trade with, where the customers are from)

.....

14. Which of the following challenges do you face in this business as meat retailers?

Challenge	If they cooperate to solve or not. X-Alone, Y-Through corporation	Nature of solution
Lack of sufficient business credit		
Harassment by County officials		
Lack of constant supply of livestock/raw materials		
Lack of information about business opportunities		
Lack of an organized market for products		
Fluctuation in prices of livestock		
Poor infrastructure		
Lack of knowledge and technology for value addition		

Other (Specify)

.....

15. Do you think these challenges can be solved through cooperation with other members of the meat industry?

- i. Yes []
- ii. No []

16. If No, give reason

.....

.....

.....

17. Which opportunity would you like to exploit in order to grow the business?

Opportunity	Method of exploitation	By Corporation-Y /alone- X
Adding value to meat		
Exporting of meat		
Reaching further Kenyan Markets		
Overcoming statutory regulations		
Improving business technology		

Other (Specify)

.....

.....

18. Do you think these opportunities can be exploited through partnership with other members of the industry?

- i. Yes []
- ii. No []

19. Which of the following members of the meat industry do you work with/corporate with on a one on one basis to improve the business (please tick where appropriate)?

- i. Producers/pastoralists/livestock farmers []
- ii. Fellow retailers/butcheries []
- iii. Customers []
- iv. Meat Inspector []
- v. County officials (specify) []
- vi. Meat transporter []
- vii. NGOs []

20. For what reason, do you corporate??

- i. To exchange knowledge and information about the business []
- ii. Solve common challenges in the meat sector []
- iii. To Improve business relations []
- iv. To resolve disputes among members of the industry []
- v. Improve access to credit []
- vi. Welfare purposes (weddings, funerals, school fees, hospital bills) []

- vii. To expand your businesses and tap new markets []
- viii. To share security expenses []
- ix. To share transport expenses []
- x. Other (specify)

.....

21. How often does this corporation occur?

- i. Daily
- ii. Weekly
- iii. Monthly
- iv. On a needs basis

22. Which of the following factors accurately describes your decision of whom to cooperate with?

- i. We both had a common goal/challenge (specify) []
- ii. We came from the same locality []
- iii. We had a good business rapport []
- iv. They person was recommended to me []
- v. We go to the same church []
- vi. Other (specify)

.....

23. How would you rate cooperation on a one on one basis with members of the meat industry is to the success of your business?

- i. Very important []
- ii. Moderately Important []
- iii. Not Too important []

24. Do you belong to any association/group/chama among members of the meat industry?

- i. Yes []
- ii. No []

25. If Yes, which group/association/chama do you belong to (Name)

- i.
- ii.
- iii.

26. What does the group do?

a) What does group one do?

- i. To exchange knowledge and information about the business []
- ii. Solve common challenges in the industry []

- iii. Improve access to credit []
- iv. Welfare purposes/ social safety net []
- v. To expand your businesses to exploit external opportunities []
- vi. To lobby for the groups common interest? []
- vii. To enforce a business code of conduct or performance? []
- viii. Other (specify) []

.....

b) What does group two do?

- i. To exchange knowledge and information about the business []
- ii. Solve common challenges in the industry []
- iii. Improve access to credit []
- iv. Welfare purposes/ social safety net []
- v. To expand your businesses to exploit external opportunities []
- vi. To lobby for the groups common interest? []
- vii. To enforce a business code of conduct or performance? []
- viii. Other (specify) []

.....

27. How does the group meet and communicate? (Tick where appropriate)

Group one	Group Two
a) Through face to face meetings [] b) Through bulk SMS [] c) Informal conversation at the slaughter house [] d) Other (specify)	a) Through face to face meetings [] b) Through bulk SMS [] c) Informal conversation at the slaughter house [] d) Other (specify)

28. When was the group formed?

- i. Group one
- ii. Group Two

29. How was it formed? (Indicate for each group)

- i. Group One
- ii. Group Two.....

30. Do you incur costs to be in this group? (Indicate per group)

Group One	Group Two
a) Yes (how much average monthly expense)	a) Yes (how much average monthly expense)
b) No []	b) No []

31. Which benefits do you draw from this group/Chama?

a) Benefits from group one

- i. Easy to get information about the industry []
- ii. Easy to get information from the government pertaining the sector []
- iii. Easy access to credit/money to support the business? []
- iv. Easy access to new customers via recommendation []
- v. Easy to attract customers to the industry []
- vi. Access to new business trends/techniques []
- vii. Reduced overhead costs to the business []
- viii. Improved trust among traders []
- ix. Imposing a code of conduct among meat retailers []
- x. Other (specify) []

b) Benefits from group two?

- i. Easy to get information about the industry []
- ii. Easy to get information from the government pertaining the sector []
- iii. Easy access to credit/money to support the business? []
- iv. Easy access to new customers via recommendation []
- v. Easy to attract customers to the industry []
- vi. Access to new business trends/techniques []
- vii. Reduced overhead costs to the business []
- viii. Improved trust among traders []
- ix. Imposing a code of conduct among meat retailers []
- x. Other (specify) []

.....

32. Are there any negative business ideas and practices that you have experienced as a result of being in this group? Please describe them?

.....

.....

33. How would you rate the effectiveness of the group/association in achieving its objective/the goal for which it was formed?

- i. Very effective []
- ii. Moderately effective []
- iii. Not effective at all []

34. If not effective in number 29 above? What reason would you give?

- i. Poor governance/management of the group []
- ii. Non committed members []
- iii. Lack of funds to carry out its mandate []

iv. Other (specify)

35. If you do not belong to any such association or grouping, what reason would you give for not being in an association?

- i. The time taken in such groupings is a lot []
- ii. No such grouping exists []
- iii. The group is always slow in achieving its objective []
- iv. I do not need grouping []
- v. The group is poorly managed []
- vi. The group costs are prohibitive []
- vii. Culture does not encourage []
- viii. Other

36. To what extent do you agree with the following statements?

Statement	Strongly agree	Agree	Disagree	Strongly disagree
Common Culture improves the chances of better collaboration				
The existence of a group/association among retailers has created a code of conduct that is good for business				
The cost of being in a group out ways the benefits of being in the group				
The existence of the association/groups has enabled better working with the government				

37. What recommendations can you make to improve corporation among members of the meat industry in kajiado?

.....

.....

.....

.....

.....

The end, Thank You

Appendix II: Key Informant Interview Schedules

My name is Kinyanjui Catherine, a post graduate student at the Institute for Development Studies of the University of Nairobi. I am conducting a research on the role of joint action in exploiting opportunities and overcoming challenges in the meat industry cluster. I would appreciate if you spare about thirty minutes to answer some questions. Your identity and the information you provide will remain confidential and the information gathered will provide an important background and context for an M.A. Project Paper.

Key informant 1: Ministry of livestock Production, Kajiado County

1. KIPPRA in 2012 mapped the Kajiado meat cluster and recommended the formation of a cluster association are you aware if such an association was created?
2. Which other initiatives that are government initiated to study and create a meat cluster in Kajiado? How has such initiatives progresses? (Kindly provide any such material, hard copy or otherwise)
3. Have the civil society facilitated any joint action in Kajiado? Especially in Kajiado East.
4. Are meat retailers collaborating with each other and what do they collaborate to do?
5. Which aspects of the people's culture works to improve or inhibit joint action?
6. How can joint action be improved within the cluster?

Key Informant 2: Livestock Based Member Associations

1. What is the role of the Association in general?
2. What is the current membership and what specific services does the Association provide to members?
3. Which of these activities are aimed at overcoming the challenges in the Meat Cluster
4. Which external opportunities is the association presently helping its members overcome?
5. How effective is this association in meeting its objective?
6. Which are the areas you feel could be improved to increase the efficiency of joint action?
7. What policy recommendations can you make to improve joint action?

Appendix III: Scanned Letter of Introduction



UNIVERSITY OF NAIROBI
INSTITUTE FOR DEVELOPMENT STUDIES

Website: www.uonbi.ac.ke
Telephone : 254- 020 - 2314306/318262 Ext. 28177
Fax: 254-020-2245566

P. O. Box 30197 00100 G.P.O
Nairobi, Kenya
Email: director-ids@uonbi.ac.ke

10th August 2016

Our Ref: T50/75203/2014

TO WHOM IT MAY CONCERN

KINYANJUI CATHERINE WANJIKU- T50/75203/2014

This is to confirm that Ms. Kinyanjui Catherine Wanjiku is a bona fide student of the University of Nairobi, Institute of Development Studies (IDS). She is currently pursuing studies leading to the award of the degree of Master of Arts in Development Studies.

Ms. Wanjiku is conducting her MA research project titled **"The Role of Joint Action in Exploiting Opportunities and Overcoming Challenges among Meat Retailers in the Meat Industry Cluster"**.

Any assistance offered to her will be highly appreciated.

Yours sincerely,


Prof. Winnie V. Mitullah
Director, IDS

Copy to: Student File

/wmn



Attention C.O Agriculture kindly assist this student in doing her research.
Dr. C.S. 11/08/16