STRATEGIC PLANNING AND PERFORMANCE OF DISTRIBUTORS OF ANIMAL GENETIC RESOURCES IN KENYA

BY

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DECLARATION

This project is my original work and has not been presented for the award of a degree in this university or any other institution of higher learning for examination

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

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DEDICATION

I dedicate this work to my wife Peris, and my children Master and Tiffanie.

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ABBREVIATIONS AND ACRONYMS

AI : Artificial Insemination

CSR : Corporate Social Responsibility

SWOT : Strength, Weakness, Opportunity, and Threat

ERP : Electronic Resource Planning

GoK : Government of Kenya

KAGRC : Kenya Animal Genetic Resources Centre

AnGR : Animal Genetic Resources

FAO : Food and Agriculture organisation of the United Nations

ABSTRACT

The distributors of animal genetic resources in Kenya contribute to growth and productivity of livestock industry, through enhancement of access to quality animal genetic resources to the livestock farming communities. Adoption of improved breeding technologies is important for the country meeting its long term goal of food security, hence its ability to feed the rapidly growing human population. The Kenya Animal Genetic Resources Centre (KAGRC) is an organisation with national mandate to provide high quality animal genetic resources, and improvement of artificial insemination. The organisation has appointed 47 distributors for its products, whose mandate is to bring the products closer to the end users. Strategic planning has been proposed as a major driver for success in organisations around the world. And, different criteria for measuring performance are used to ascertain the continued success of firms. The objective of this research was to determine the relationship between strategic planning and performance in distribution of animal genetic resources in Kenya. Secondary data were extracted from records of distributors of animal genetic resources kept at KAGRC using a structured framework. Additionally, a follow up with self-administered semi-structured questionnaire was sent to directors of those firms which did not have complete records to collect primary data. Data which were collected included sale volume, elements of strategic planning and marketing mix. Elements of strategic planning included presence of vision and mission statements, updated business plans, planning horizons and other demographic factors. Data on marketing mix included those on product and price decisions, promotional mix and distribution networks. Data analysis involved calculation of market share for distributors of animal genetic resources, and this were presented using Lorenz curves. Qualitative data were analysed using content analysis. The relationship between firm's sale volume and elements of strategic planning and marketing mix was analysed using multiple regression. Approximately 40% of distributors controlled 70% of total sale volume of animal genetic resources. 14% of the firms had current business plans, while 25% had written vision and mission statements. Organising farmer's field days was the most common promotional mix, but some firms had adopted social and electronic media to market their products. Only geographical location of these firms was statistically associated with the firm's sale volume. These findings are useful for practising managers, policy makers and researchers for understanding relationship between performance and strategic planning in the context of developing countries.

CHAPTER ONE: INTRODUCTION

1.1 Background

"Strategic planning is the continuous process of making decisions with knowledge of their futurity, while organising efforts required to perform these decisions and measuring outcomes of these decisions against expectations and providing feedback" (Drucker, 1999). Although, some authors have argued that strategic planning is not strategic thinking, and that the planning process confuses real vision from the manipulation of numbers (Mintzberg, 1994). This term comprises two words: strategy and planning. The term strategy is management action plan for running the business and conducting operations (Thompson, Strickland, & Gamble, 2007). On the other hand, planning is establishing of organisational goals, strategies for achieving these goals, and developing plans to integrate and coordinate work activities (Robbins & Coulter, 2013). Planning starts with asking the questions on what we have to do now to attain our objectives tomorrow. The second step involves asking what new and different things we have to do, and when (Drucker, 1999). For a plan to produce results there must be commitment of key people to work on specific tasks, while the test of a plan is whether management actually commits resources that will bring results in the future. Therefore, strategic planning involves the determination and evaluation of alternative plans to help an organization achieve its objectives and mission (Rajapakshe, 2002).

This study was underpinned on three theories: contingency theory, resource dependency theory and resource based theory. Contingency theory views environment on the basis of a range of products an organisation trades in, customers and types of services it renders, task environment and the power of dependence relations as

implied by nature of its business domain. The theory views organisations as open systems which consist of three levels of responsibilities: Technical, Managerial and Institutional (Malatesta & Smith, 2014). Under the resource dependency theory, environment is conceived in the form of extent to which power and authority is dispersed, availability or scarcity of resources and the number and patterns of relationships among organisations. This dependencies creates uncertainty; therefore most activities of organisations are tactics for management of the external environment (Chilcote, 1974; Davis & Cobb, 2009; Matunhu, 2011). Finally, resource based theory explains how an organisation would use its bundle of valuable heterogeneous resources to gain competitive advantage, and therefore outperform its competitors (Drummond & Ensor, 2003).

The motivation of this study was based on the fact that animal genetic resource industry is important for the support of livelihoods of most communities living in highlands and semi-arid areas where both intensive dairy and beef production is practised, respectively (Bebe, Udo, Rowlands, & Thorpe, 2003; Ilatsia, Roessler, Kahi, Piepho, & Zárate, 2012). The products from these livestock systems include milk, meat, and hides and skins. In 2009, it was estimated that livestock provides about 45% of the total agricultural gross domestic product in Kenya. In terms of its contribution to agricultural gross domestic product, milk was approximately four times more important than meat production (GoK, 2012). Improvement in animal genetic resources in these production systems is therefore important for achievement of objectives for meeting the food security situation in the country, besides their contribution to the national economic growth.

Kenya was one of the first countries to adopt artificial insemination as a technology for improving quality of animals and their products (Kariuki, 2005). The

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country is therefore a leader in the use of animal genetic resources in the region. The distributors of animal genetic resources in Kenya play a critical role in supporting growth and development in the country's agriculture sector. However, these businesses face increased competition from imported animal genetic resources. This is besides the competition from other firms selling similar products of animal genetic resources. It is imperative that these distributors adopt strategic planning approaches to enable them achieve the objectives of meeting the country's food security situation.

1.1.1 Concept of Strategic Planning

Strategic planning is the periodic activities undertaken by organizations to cope with changes in external environment (Mintzberg, 1994). The term environment describes factors which are external to an organisation. According to resource dependency theory, environment comprises three key factors: The extent to which power and authority is dispersed, scarcity or availability of resources, and the number and patterns of relationships among organisations (Davis & Cobb, 2009; Davis & Powell, 1992). It involves formulation and evaluation of alternative strategies, selecting a strategy, and developing detailed plans for putting strategy into practice (Drucker, 1999; Rajapakshe, 2002).

The following terms are frequently used in strategic management: purpose, vision, mission, goal, objectives, strategies, and policy (Mintzberg, 1994). The purpose of an organization is its primary role in society, a broadly defined aim that it may share with other organizations of its type. The vision statement addresses the question on where the organisation wants to be, while the mission of an organization is that unique reason for its existence that sets it apart from other organisations. It describes why an organization exists, and guides what it should be doing. A goal is a

desired future state the organization attempts to realize. The objective refers to specific targets for which measurable results can be obtained. These are the end points of an organization's mission, or specific kinds of results organization seek to achieve through its existence and operations. Strategy is a unified, comprehensive, and integrated plan that relates the strategic advantages of the firm to challenges from the environment. It is designed to ensure that basic objectives of enterprise are achieved through proper execution by the organization. The policies are guidelines, procedures, rules, programmes and budgets established to support efforts to achieve stated objectives.

Based on results of a previous study which had investigated strategic management within Kenyan firms, it was reported that foreign manufacturing companies were more likely to practise strategic planning as compared to locally owned companies, which only had financial plans (Aosa, 2011). This report argued that the theory on diffusion of strategic planning from foreign owned companies to locally owned ones was supported.

1.1.2 Organisational Performance

Organisational performance is its ability to acquire and utilize scarce resources in pursuit of its operational goals (Mwangala, 2015). Factors that have influence on organisational performance include structural issues relating to company size (number of employees), age (years) and purpose. Variables used for analysis of organisational performance include both internal and external environment factors (Gavrea, Ilieş, & Stegerean, 2011). The external environmental factors include competition, clients and suppliers. The internal environmental factors include strategy, leadership, employees,

quality, performance measurement, innovation and development, information technology and corporate governance.

Information technology is examined based on the extent to which firms implements an integrated Enterprise Resource Planning (ERP) system (Wu & Wang, 2006). Leadership includes managerial practices which have a significant impact on organizational profitability and share price. The aspect of employees can be examined as management decisions which generate feelings of frustration, anger, grievance, and distrust, among employees, which can have detrimental effect on organizational performance. Quality is examined based on how a company meet stakeholder expectations on dimensions which add value to them.

Implementation of corporate governance principle has also been associated with improved performance (Gavrea et al., 2011). This also include the importance of customer orientation and its impact on organizational performance which are reflected in the degree of customer satisfaction, the existence of procedures for addressing customer complaints, and the extent to which customers' views are taken into consideration when establishing future objectives. Aspects of quality, delivery time and orientation towards price are important dimensions when analysing suppliers.

1.1.3 Strategic Planning and Performance

"Crafting of a strategy represents a managerial commitment to pursue a particular set of actions in growing the business, attracting and pleasing customers, competing successfully, conducting operations, and improving the company's financial and market performance" (Thompson et al., 2007). The effects of strategy are either based on its impact on organisational performance or by analysing relationship between organisational strategy and performance. Structure is related to

the company size (number of employees) and their ages. Measurement of performance is achieved through different ways: financial performance (profits, return on assets, return on investments), product market performance (sales and market share), and shareholder returns (total shareholder returns and economic value added). It can also be examined based on how the firm is performing in terms of profits, markets share and product quality in relation to other firms in a similar industry (Mwangala, 2015).

Several other studies have examined the relationship between performance and firms characteristics. Prescott (1986), examined relationships between organization's strategy and performance. In this study, business strategy significantly influenced performance, while external environment had an important role in mitigation of the effects of strategy on performance. Another study examined the relationship between organization strategy and process of performance measurement (Porter, 1980). Two groups of strategies were compared: cost reduction and differentiation. In Kenya several studies have examined the relationship between strategic planning and performance in different sectors (Chemwei, Leboo, & Koech, 2014; Kanyora & Okello, 2015; Kinyanjui & Juma, 2014).

1.1.4 Global Animal Genetic Resource Industry

The State of the World's Animal Genetic Resources (AnGR) for Food and Agriculture provides a comprehensive global assessment of the roles, values, status and trends on how to manage these resources (FAO, 2007). It highlights status of livestock sector within agriculture, the importance of AnGR to rural development and food security. AnGR provides opportunities for both local and international trade in animals and animal products. Most breeds have adaptive traits and unique characteristics which offer opportunities for marketing of their speciality products and

also for sustainable food production. A study which investigated the trade in the world AnGR reported that most livestock products were produced for niche markets (Mathias, Mundy, & Köhler-Rollefson, 2010). The marketing strategies employed by these firms comprised seeking new markets for existing or entirely new products, branding or labelling of products, and protection of products through geographical branding.

Furthermore, a Global Plan of Action for AnGR is a strategic plan which was developed to support promotion of wise management of AnGR for food and agriculture (Hoffmann & Scherf, 2010). Its adoption has resulted in the promotion of sustainable use, development and conservation of the world's livestock diversity. It provides a framework which can be used to support and increase the overall effectiveness of national, regional and global efforts for the sustainable use, development and conservation of AnGR. The Global Plan consists of three parts: rationale, strategic priorities for action, and implementation and financing of the Global Plan of Action for AnGR.

Trading in AnGR is a key component in agribusiness which supports food security and development of national economies. Agribusiness is defined as engagement in production operations of a farm, manufacture and distribution of equipment and supplies, including processing, storage, and distribution of commodities (GoK, 2012; Paglietti & Sabrie, 2013). Models on collaboration in agribusiness are grouped in four categories: management contracts, joint ventures, farmer-owned business and contract farming. These groupings are based on how a company create and structure its relationships to capture value. Under management contract model, a management company manages agricultural land on behalf of particular owners in return for a lease fee, or shared profits.

1.1.5 Animal Genetic Resource Industry in Kenya

Like other developing countries, Kenya is faced with a need to rapidly increase agricultural productivity and feed the growing human population (Thornton, 2010). Biotechnology is a means through which this objective can be addressed (Harris & Newman, 1994). Its adoption would alleviate production constraints to the small-scale or resource-poor livestock farmers who contribute to food production, and hence food security in the country. Innovations which results in new developments through improved breeding technologies are key factors which would contribute to increasing livestock production potential and further the efficiency and genetic gains in the country.

Progress in science has enabled efficient processing of genetic material which enables a single bull to be used simultaneously in different regions through a technology of artificial insemination (AI) (Karanja, 2003). Yet, success of AI technology depends to a large extend on accurate heat detection and timely insemination. These two key success factors in animal breeding requires a certain level of experience among livestock farmers for heat detection, while timely insemination is dependent on good infrastructure, including transport network, and availability of reliable means of transport (Rege, n.d.).

Kenya has an established AI delivery system including both private and national insemination services. AI technology is commonly used in dairy cattle than in other livestock species. However, there is limited use of improved breeding technologies in beef cattle as a result of difficulty in detecting heat in large beef herds which are kept on ranches, and the less frequent handling of individual beef cattle (Muhuyi, Lokwaleput, & Ole Sinkeet, 1999). Apart from artificial insemination, other breeding technologies including embryo transfer, cloning and in vitro fertilization also

exists but their adoption rate is low in Kenya. Furthermore, in most traditional farming systems, the use of natural insemination methods is still rampant.

1.1.6 Kenya Animal Genetic Resources Centre

An organisation which has the national mandate for improvement on quality of livestock through provision of high quality animal genetic resource and improvement of artificial insemination services is Kenya Animal Genetic Resource Centre (KAGRC) (Karanja, 2003). This centre was established in 1946 to produce and distribute quality animal genetic materials.

The mandate of the centre includes recruitment and rearing of locally bred superior breeding bulls, hygienic production and distribution of superior disease free animal genetic resources (Kariuki, 2005). However, due to budgetary and financial constraints, AI services were privatised by the government in 1990s. The privatisation of AI services provided an opportunity for other firms to invest in import of animal genetic resource from other countries. Following the privatisation of AI services, KAGRC signed contractual agreements with private sector to facilitate distribution of animal genetic resources in the country. Currently, the centre has 47 private distributors of AnGR, and is therefore key stakeholders within this critical sector of agribusiness in the county. These distributors were appointed to ensure that the centres products are taken closure to end users and to make AI affordable particularly in the high and middle potential areas in the country. These distributors are examples of agribusinesses which are operating under contract farming model.

1.2 Research Problem

Strategic plans impact organizations by introducing new growth opportunities, or new threats to existing businesses (Drucker, 1999). The purpose and mission of a business in strategy formulation is to achieve two basic functions: marketing and innovation. Marketing defines what customers want to buy, while innovation results in different goods or services that creates a new potential for satisfaction. The purpose and mission enables a business to set objectives and, to develop strategies for concentration of its resources. Studies have examined the relationship between performance and firms characteristics. Prescott (1986) examined the relationships between organization's strategy and performance. He concluded that business strategy significantly influenced performance, while external environment had an important role in mitigation of the effects of strategy on performance. Potter (1980), examined the nature of relationship between organization strategy and process of performance measurement, and compared two sets of strategies: cost reduction and differentiation.

Animal genetic resource distributors in Kenya have a significant and important role for improvement of performance of livestock industry (Karanja, 2003). Livestock production have been reported to contribute immensely to the Kenyan economic growth, where they are the main sources of milk, beef and hides and skins (Behnke & Muthami, 2011). Many farms in the dairy production systems rely on firm's which are distributing AnGR, to improve on quality of their livestock. These farms are therefore important for growth of the Kenyan economy. Based on the argument that success of organisations rely on strategic planning (Drucker, 1999), it is imperative that agribusinesses which are distributing animal genetic resources in Kenya should adopt the strategic planning approaches to support growth , and also to contribute to the country's food security situation.

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Few studies have examined effects of strategic planning in agribusinesses. For example, it was reported that co-operative societies in the United States of America had adopted different strategic planning approaches: environmental scanning, SWOT analysis, core competencies, and mission and vision statements (Morgan, John, & Linda, 1997). Similarly, larger and more diverse farms in Michigan State were reported to be practising strategic planning, and that these activities were positively associated with level of performance (Lopesa & Ross, 2013).

A number of studies have investigated strategic planning and performance in the manufacturing sector in Kenya. In a study which investigated relationship between diversity of firm's board of management and financial performance for companies which were listed in Nairobi security exchange, statistically significant relationships was reported to exist between the variables which were investigated (Leiting, Aosa, & Machuki, 2012). The characteristics of board members which were examined included educational qualifications, profession of board members; age of directors, and having women on the board. These board diversity factors had statistically significant positive relationship with dividend yield. Nevertheless, no evidence existed for a significant relationship between these variables with other performance indicators including price earnings ratio, return on assets and return on equity.

Furthermore, in their study, Machuki, Aosa and Letting (2012), included quantitative and qualitative measures of firms performance when they investigated the relationship between performance of companies which were listed at the Nairobi security exchange and firm-level institutional attributes. The performance measures included were market shares, total organisation assets, gross profit, revenue growth, product or service quality, earnings per share, returns on investment, new product introduction, and firm's operational efficiency. The firm level attributes included

organisational structure and culture, physical, financial and human resources, systems, management styles, skills and competences, procedures, policies and knowledge. A strong relationship existed between the firm level factors and various performance indicators. Statistically significant firm level factors which were related with firm performance included organisation structure, financial resources, internal controls, knowledge base, management style, human resources, culture, skills and competences, and organisational procedures.

The application of strategic planning is important for ensuring that firms in animal genetic resources sector are going to contribute to meeting the countries long term goal on food security. The available literature only presents examples where strategic planning has been applied in the manufacturing sector in Kenya (Aosa, 2011; Leiting et al., 2012; Machuki et al., 2012). There is a paucity of studies which have investigated the nature of relationship between elements of strategic planning and performance in firms practicing agribusiness, especially in the context of distribution of animal genetic resources to the farming communities in Kenya.

This study examined the relationship between firm's level of performance and strategic planning among distributors of animal genetic resources in Kenya. The research question was "what is the relationship between strategic planning and performance in distribution of animal genetic resources in Kenya?"

1.3 Research Objective

To determine the relationship between strategic planning and performance in the distribution of animal genetic resources

1.4 Value of the Study

The findings from this study would contribute to the development of theory, formulation of management policies and assisting practitioners in the following ways: A positive relationship between the elements of strategic planning and level of performance in firms distributing animal genetic resources would support the action theory of contingency model, which proposes that the level of organisational performance is related to managerial plans and actions, internal and external environments and organisational structure (Armstrong & Baron, 2006). The results would therefore build on the body of knowledge on theories which postulates that firms which engage in strategic planning activities are more successful, as compared to those that do not practice strategic planning.

Firms that adopt the policy for enforcement of strategic planning activities, especially for those firms dealing in distribution of animal genetic resources would understand the usefulness of integrating strategic planning activities in their organisations to support the firm's long term growth. Furthermore, it would contribute to the body of knowledge on adoption of strategic planning activities within agro-based industries within the context of developing countries.

Finally, these results are useful for researchers and scholars who work in the field of strategic management, and who could replicate similar studies under different study context, including crop farming or other industries in livestock production to test the validity of the research findings and theory.

1.5 Summary of the Chapter

This chapter has presented the background of the study, highlighting concept of strategic planning, organisational performance, linking the concept of strategic planning and organisational performance, the global animal genetic resource industry, animal genetic resource industry in Kenya, the Kenya Animal Genetic Resources Centre, the research problem, research objective, and value of the study.

The chapter has also described the important terms used in strategic planning including vision, mission, purpose, goal, objectives, strategies, policies and plans. Both the financial (profits, return on assets and return on investment) and non-financial (market shares, sale volumes and shareholder return) measures of performance are also described.

The studies which have described strategic planning and performance in the Kenyan manufacturing sector has been reviewed, and the gap that exists with regards to investigating the relationship between strategic planning and performance in agribusiness presents a clear gap in knowledge within the animal genetic resource industry in Kenya. The research question on what is the nature of relationship between elements of strategic planning and performance in distribution of animal genetic resources is presented. The next chapter will present a review of literature with regards to theoretical foundation underpinning the study, measures of organisational performance, and empirical studies and research gap on strategic planning and performance of agribusiness enterprises within the developing countries context.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter presents a critical review of literature on theories which underpins the objectives of this study, and empirical studies which have investigated performance of organisations in the Kenyan context. It summarises three important theories: contingency theory, resource dependency theory and resource based theory. Furthermore, the chapter summarises various measures of organisational performance including both financial and non-financial measures. Finally, a research gap in knowledge on the relationships between performance in distribution of animal generic resources and strategic planning is presented.

2.2 Theoretical Foundation

This section describes some of the theories which underpin this study. These include contingency, resource dependency and resource based theories. These theories describe relation between the distributors of animal genetic resources, their customers and suppliers, and the importance attached to bundle of heterogeneous resources a firm acquires through years of operations.

2.2.1 Contingency Theory

Contingency theory views environment on the basis of range of products an organisation trades in, customers and types of services it renders, task environment (key elements which are outside organisation boundaries like customers and clients, suppliers of raw materials, labour, capital, equipment and workplace), and the power of dependence relations as implied by nature of its business domain. Power of dependence relations among firms encompasses competition for the market and

resources, regulatory groups including government agencies, unions, and inter-firm associations.

This theory views organisations as open systems which consist of three levels of responsibilities: Technical, Managerial and Institutional (Malatesta & Smith, 2014). Technical level describes how organisation achieves processing task; managerial level describes how an organisation is controlling and servicing its technical levels and institutional level is concerned with articulation of how organisations interact with the community and its institutions. Whereas the contingency theory suggests that the internal structures of an organisation and its system are a direct function of its environment, the action theory contingency model traces factors that are linking organisational performance to critical environmental pressures. These include organisational structure, managerial plans and actions, and the environment in which these organisations competes (Armstrong & Baron, 2006).

2.2.2 Resource Dependency Theory

The environment consist of all factors external to an individual organisation (Davis & Powell, 1992). Different theories have presented different conception of the firm's environment. For example, under the resource dependency theory, environment is conceived in the form of extent to which power and authority is dispersed, availability or scarcity of resources and the number and patterns of relationships among organisations. When an organisation is dependent on an external actor for its operations more than the actor itself is dependent on the focal organisation, then this organisation will be subject to external control.

This dependency creates uncertainty; therefore most activities of organisations are tactics for management of the external environment (Chilcote, 1974; Davis &

Cobb, 2009; Matunhu, 2011). Firms that have a power base for control of critical resources can therefore make demands to the focal organisations, which can then threaten its long term survival by imposing constraints on its future actions. This theory will help in explaining relationship between the firms which are distributing animal genetic resources to the farming communities with their suppliers, including KAGRC.

2.2.3 Resource Based Theory

Resource based theory argues that the firms critical resources is a source of significant competitive advantage. These resources are ideally developed over the years and they do not necessarily come from the environment. The effective deployment, mutual interactions, leveraging and application of these firms bundle of valuable heterogeneous resources enables a firm to outperform its competitors (Drummond & Ensor, 2003). Therefore performance of these organisations which are distributing animal genetic resources would be influenced by how these firms also utilize their valuable resources which may also include their human resource capabilities (Armstrong, 2012). This study will examine whether gender of directors and number of employees in the artificial insemination business have any influence on performance of the firm.

2.3 Measures of Organisational Performance

Determinants of organisational performance include firm's size, firm's age, performance measurements, leadership, innovation and development, and corporate governance (Abdinassir, 2015; Gavrea et al., 2011). Firms' performance is an appraisal of its prescribed indicators or standards of effectiveness, efficiency and environmental accountability including cycle time, regulatory compliance and waste

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reduction (Armstrong & Baron, 2006). However, available measures for level of performance in organisations are partial.

Different measures of performance have been used. They include financial measures such as return on assets which is the annual profit or net income divided by the average assets over a year. This is a measure of operating efficiency, reflecting long term financial strength of a firm. The other financial measure is return on investment which is the measure of efficiency for a specific investment. It is derived as the difference between gains minus costs of the investment divided by the cost of the investment.

There are other non-financial measures including sale volumes, sales relative to targets, total sales growth and market shares (Mwangala, 2015). A model framework for measuring firms performance in agribusiness was proposed (Jon & Christopher, 1999). The firm's performance was described as a function of unanticipated environmental turbulence, strategic plans, firm characteristics, strategic planning process, implementation and a random error term.

Factors which affects the level of performance in organisations include personal, leadership, team, system and contextual factors (Armstrong & Baron, 2006). The personal factors would include individual skills, competence, motivation and commitment; leadership factors encompass quality of encouragement, guidance and support provided by managers and team leaders; team factors include quality of support from staff; while contextual factors include both the internal and external environmental pressures and changes.

2.4 Empirical Studies and Research Gaps

Several studies have investigated effects of implementing strategic plans on performance of organisations in Kenya. For example, strategic financial allocations, strategic expansion, strategic alliances and strategic collaborations were reported to be associated with improved performance at the University of Nairobi (Kinyanjui & Juma, 2014). While in another study, environmental scanning, stakeholder involvement, resource allocation and strategic communication were reported as the main factors which influenced performance in the Public Service Commission of Kenya (Rintari & Moronge, 2014). On the other hand, a study which investigated factors which impeded implementation of strategic plans in secondary schools in Baringo County of Kenya, reported that lack of communication of vision statements to stakeholders, inadequate human resources, lack of ownership of strategic plans by management and insufficient allocation of funds were factors which impeded implementation of strategic plans in these secondary schools (Chemwei et al., 2014). Moreover, Kanyora & Okello, (2015) examined the influence of strategic management process on the performance of construction firms in Kenya. They concluded that competitive strategies had a strong and positive relationship with performance.

The preceding section has reviewed a number of studies that have examined strategic planning and performance in different sectors. However, there is paucity of studies that have described measures of performance in agribusiness enterprises within the context of developing countries. The following paragraphs will summarise findings from some selected studies which have examined strategic planning in agribusiness enterprises.

A study that explored the adoption of strategic planning techniques by co-operative societies in the United States, reported that these co-operative societies had widely adopted strategic planning techniques such as environmental analysis, core competences and SWOT (strength, weakness, opportunity and threats) analysis (Morgan et al., 1997). The environmental scanning by these agribusiness firms was reported to be significantly associated with utilization of SWOT analysis, formal mission and objectives statements, competitive advantage and core competences based strategies.

Another study had examined the comparative analysis of strategic planning practices in agribusiness firms in Michigan between 1992 and 2012, and reported that as firms become larger and more diverse, there was an increase in adoption of strategic planning activities (Lopesa & Ross, 2013). Strategic planning activities in these firms were positively associated with performance. Another study examined corporate social responsibility (CSR) and consumer social responsibility in the food supply chain, CSR was reported to promoted product differentiation and effective use of resources in agribusiness (Manning, 2013).

The literature review has provided sufficient background on usefulness of strategic planning processes on success of agribusinesses in the developed countries. However, in the Kenyan context, there is paucity of studies which have investigated relationships between strategic planning and success of agribusiness. This study examined the relationships between strategic planning on performance in firms which are distributing animal genetic resources in Kenya.

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2.5 Summary of the Chapter

The chapter has presented the theories that support the study. These include contingency, resource dependency and resource based theories. The resource dependency theory helps in the explanation of the relationship between the firms which are distributing animal genetic resources to the farming communities in Kenya with their suppliers, including KAGRC, while contingency theory which suggests that the internal structures of an organisation and its system are a direct function of its environment, supports the action theory contingency model which traces factors that are linking organisational performance to critical environmental pressures, managerial plans and actions, and the organisational structures. Resource based theory explains the usefulness of internal capabilities of an organisation in achieving competitive advantage, and hence outcompeting its rivals in the market place. Together, these theories support examination of various environmental factors which have influences on performance of distributors of animal genetic resources in Kenya. The next chapter will present details of research design, population of the study, data collection and analysis approaches which were adopted for this study.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the research design, and approaches which were used for data collection and analysis. The study units included distributors of animal genetic resource products from Kenya Animal Genetic Resources Centre (KAGRC), which is a state corporation. The final part of this chapter presents how the data was analysed using content analysis and descriptive statistical methods.

3.2 Research Design

A cross-sectional research design was adopted for this study (Kothari & Garg, 2014). The study units were the distributors appointed by KAGRC to market its products to the livestock farming community in the country. This design enables the collection of data from distributors of animal genetic resources at a particular point in time, and therefore it provided a snapshot of events. This data would be helpful in making inferences such as examining relationships between performance and other qualitative factors. However, this does not factor the changing trends in the industry due to the static nature of the design.

This research design refers to a particular phenomenon at a particular time, which is common in most academic courses which are necessarily time constrained. It reports the situation as it is, and is suitable due to the scope and structure of the distributors of animal genetic resources industry in Kenya. This research design was used in a similar research which investigated strategic management practices within large manufacturing firms in Kenya, and was found to be appropriate (Aosa, 2011).

3.3 Population of the Study

KAGRC has 47 appointed distributors for animal genetic resources to the livestock farming communities in the Country (Karanja, 2003). All this distributors were recruited for the survey (Appendix III). The contracts of these distributors are often re-evaluated every five year and only those that are successful are retained. These distributors are expected to bring the animal genetic resources closer to the end users who include artificial insemination (AI) technicians and livestock farmers.

These distributors of animal genetic resources often cover a specified geographical area of operations within the country, which often is the sub-County or a much wider area (Kariuki, 2005). At the time of their appointment, these distributors are often required to present their business plans which integrate marketing of animal genetic resources in their areas of operations. These distributors are also a useful distribution network for other animal genetic companies which are importing animal genetic resources.

3.4 Sample Design

A list of all distributors of animal genetic resources was obtained from the KAGRC marketing department. Permission was sought from the managing director of KAGRC to collect data from all distributors of animal genetic resources (Appendix II). This was therefore be a census survey for distributors of animal genetic resources appointed by KAGRC (Kothari & Garg, 2014). These types of surveys are appropriate if sampling frame is smaller in size.

The sampling frame included only the KAGRC distributors because most firms which are involved in the importation of AnGR also uses these distributors to market their products to end users who includes livestock farmers and AI technicians.

These distribution networks can therefore be used to collect additional data on sale volume from these competitors. These distributors are located in different parts of the country, and their recruitment to the survey was therefore useful in obtaining a fair representation of the country's livestock farming community and other end users of animal genetic resources.

3.5 Data Collection

Secondary data were extracted from records of these distributors held at KAGRC using a structured framework (Appendix I). The data collected included elements of strategic planning: presence of business plans, mission statement, planning horizons, goal statement; types of financial plans prepared by the business, who was involved in strategic planning process, what types of information were collected from competitors. Employee information: gender of directors, qualification of directors, profession of managers, number of workers employed in AI business. Elements of marketing mix: promotional activities, form of capital extended to customers, types of training offered to customers on product handling, distribution networks, who were their customers, the sales volume, their suppliers and setting of product market prices.

Additionally, for distributors who did not have complete records kept at the centre, a follow-up was done using a self-administered semi- structured questionnaire to collect data based on the already developed framework. These questionnaires were administered to directors of these firms through a drop and pick later method, through the sales and marketing department at KAGRC.

3.6 Data Analysis

Data on elements of strategic planning and marketing mix and employee information were analysed using descriptive statistics (Kothari & Garg, 2014). For continuous variables, results were expressed as measures of central tendency (mean, median), and measures of dispersion (range, standard deviation). While for the qualitative variable, results were expressed as proportions. Other qualitative variables were analysed through content analysis. This involved identification of thematic areas in which data could be grouped based on specific themes using framework approach (Gale et al., 2009).

Quantities of animal genetic resources sold by each distributor was be used to estimate level of performance of firms by computing firm's market share. This was estimated based on quantity of animal genetic resource sold by each firm, expressed as a percentage of total quantities which were purchased in the year under review. Lorenz curves were plotted using the proportion of distributors of animal genetic resources ranging from smallest to largest number against cumulative proportion of total quantities of animal genetic resources sold by these distributors (Pomeroy & Trinidad, 1995).

Furthermore, data on elements of strategic planning and marketing mix obtained from records of KAGRC distributors were used to analyse for the nature of relationship between strategic planning, marketing mix and employee's information on performance in distributions of animal genetic resources. The elements of strategic planning, marketing mix and employee information were the independent variables, while market share derived from sale volumes of each distributor was the dependent variable (Pomeroy & Trinidad, 1995). A multiple linear regression model, was used to

analyse the relationship using Genstat statistical package (VSN International, 2011). For all inferential analysis the level of significance was 5%.

3.7 Summary of the Chapter

This chapter presented the research design which was adopted for this investigation, the population of the study, data collection protocols including the types of data collected, and detailed description on how the data was analysed. This was a cross-sectional research survey of the distributors of animal genetic resources in Kenya. These distributors were appointed by the KAGRC to market their animal genetic resource products. Data analysis protocol involved content analysis for the qualitative data, while quantitative data were analysed by presenting measures of central tendency and measures of dispersion. Further inferential analysis involved describing nature of relationship between sales volume by distributors and elements of strategic planning, and elements of marketing mix. The next chapter will present key findings and discussion based on the existing theories and published results from other empirical studies.

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

This chapter presents main findings from the study through use of descriptive measures for the various elements of strategic planning, and marketing mix which were practised by distributors of animal genetic resources in Kenya. The results are further discussed based on reported and published findings from other similar studies which investigated performance in agribusiness sector. Inferential analysis was done to describe the nature of relationship between level of performance as measured using market share and elements of strategic planning and marketing mix.

4.2 Strategic Planning Practices by Distributors of Animal Genetic Resources

Complete records were obtained for 74% (35/47) for businesses which were distributing animal genetic resources in Kenya. These firms were located in different regions of the country, and therefore the data provided a fair representation of the firms from different regions of the country. Firms from which complete records were not found were those which did not complete and return the questionnaires due to time constraint, and were therefore excluded from analysis. However, a response rate of over 50% is regarded to be adequate for a situation where sampling frame has less than 300 units (Kothari & Garg, 2014; Rajapakshe, 2002).

Most distributors of animal genetic resources did not have updated business plans for their firms. Only 14% of the firms (5/35) had written business plans (Table 1). Similarly, about 25.7% of the firms had written vision and mission statements for their organisations. Vision and mission statements have been described to provide direction and scope for the firm's activities. They also provide guidance for the firm's

strategic objectives and choice of strategies and plans. These findings therefore agree with earlier results from a study which had investigated adoption of strategic planning by large manufacturing firms in Kenya, and reported that most local manufacturing firms did not practice strategic planning (Aosa, 2011).

The vision statement usually addresses the question on the future direction of the firm, while mission statement is concerned with the present (Drucker, 1999). The characteristics of a good vision statement includes standards of performance, it should be short and easy to memorize, should not include statements related to what the firm does, and be shared by members in an organization (Drucker, 1999; Mintzberg, 1994). The following are some of the vision statements for firms distributing animal genetic resources in Kenya which were investigated: *"Availability, accessibility and affordability of essential livestock services; to be the leader in animal breeding; to be the leading Artificial Insemination distributor in the County; quality selling of genetic and animal feeds; improved genetics for quality livestock; provision of standard artificial insemination (AI) services; to be the leading AI provider in North Rift; Creating prosperity to the farmers; provision of adequate services for all farmers at all times; to be a provider of good quality livestock in eastern Africa and beyond."*

A good mission statement should include the following components: firm's core values, how it relates with its stakeholders including customers, employees, government, community and the general public, and its corporate policies (Pearce, 2007). The scope of a firm's business can be defined in terms of its products, markets and activities. The following are some of the mission statements by firms distributing animal genetic resources in Kenya: *"To be a leading service provider; self-reliant community which facilitate food security and economically empowered community; one stop shop for all livestock requirements; provision of Artificial Insemination*

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services and training of farmers; farmers solution; to become a self-independent and financing group while improving animal production; to influence transformational growth in the livestock industry through provision of high quality, affordable and sustainable livestock inputs and advisory services; to provide quality and affordable services to our clients; upgrading the dairy herd in the county; we want to be a leading agent in North Rift; to promote sustainable livestock development and reconstruction in Kenya through production and supply of quality livestock technological transfer and training ."

Table 1: Description of strategic planning activities by firms distributing animal genetic resources in Kenya

Factors (n=35)	Percentage
Presence of vision statement	25.7
Presence mission statement	31.4
Conducting management training	11.4
Presence of business plans	14.3
Collecting information on competitors	8.6
Do you offer credit facilities	11.4
Do you have distribution network	20.0
Contractual agreement with customers	5.7
Contractual agreement with other suppliers	5.7

Most of these firms distributing animal genetic resources were not involved in environmental scanning to monitor competition. The few firms which indicated that they did environmental scanning were only involved in monitoring of sales volume and marketing strategies of their competitors. The firms which were distributing animal genetic resources had signed contractual agreements with other suppliers of animal genetic resources in the country apart from KAGRC. Some of these suppliers included Twiga chemicals, Highchem ltd, Fleckview Ltd, Pokea farm, Bayer

pharmaceuticals, Bimeda, A.I total and other drug companies, World-Wide Sires, and Cooper Kenya brands (CVR).

Although most of these distributors sold the products to farmers, veterinarians and artificial insemination technicians, they did not have any form of contractual agreement with these customers. A few firms reported that they often trained their customers on handling of animal genetic resources products, sales and marketing skills and farmer extension skills. Similarly, some of the distributors had some signed contractual agreements with dairy cooperative societies to supply them with animal genetic resource products. These forms of agreements are examples of contract farming model in agribusiness (Owango et al., 1998; Paglietti & Sabrie, 2013). These firms rarely offered credit facilities to their customers. This was mostly on animal genetic resource products, but not on equipment's. However, KAGRC often extended credit facility to distributors in form of equipment's which were used for storage of animal genetic resources including liquid nitrogen containers and equipment's used in performing artificial insemination.

Most directors of these businesses were of male gender, but some were managed by both genders. Most directors had attained certificate level qualification in Animal Health Assistant and Bachelor's degree in Veterinary Medicine (Table 2). These firms were mostly preparing financial plans including annual budgets, cash flow statements, income statements and balance sheets. The financial plan often prepared by firms distributing animal genetic resources was cash flow statements.

Table 2: Description of characteristics for level of education of directors, their gender and elements of marketing mix

Variable (n=35)	Description of factors	Percentage
Gender of directors	Both male and female	20.0
	Male	61.0
	Female	19.0
Qualification of directors	Certificates	39.0
	Diploma	9.0
	Degree	48.0
	Higher degree	4.0
Financial plans	Annual budget	11.4
	Cash flow statements	20.0
	Income statements	8.6
	Balance sheet	11.4
	Not specified	48.6
Other suppliers	Twiga Chemicals	14.3
	AI Total Ltd	5.7
	Highchem Ltd	2.9
	Fleckview Ltd	5.7
	Pokea Farm	2.9
	World-Wide Sires	11.3
	Oak Medica Ltd	2.9
	Bimeda Ltd	2.9
	Cooper K. Brands	2.9
Data collected from competitors	Sale volumes	8.6
	Marketing strategies	5.7
	Not specified	85.7
Types of training offered to employees	Customer service	11.4
	AI technique	17.1
	Not specified	71.5
Types of training offered to customers	Extension services	20.0
	AI refresher course	8.6
	Not specified	71.4
How do you set product AI prices	20% mark up	5.6
	KAGRC prices	22.9
	Not specified	71.5
Who are your customers	Livestock farmers	20.0
	AI technicians	22.9
	Veterinarians	2.9
	Not specified	45.8

The types of promotional activities practiced by distributors of animal genetic resources products were varied (Figure 1). However, organising farmer's field day, training workshops, livestock breeders show and sale, and radio broadcasting were the most frequently practised promotional activities. Other firms had become innovative and were using advertisement cards issued to customers during special occasions such as national holidays, advertising in local magazines, organising field visits, and were therefore involved in some form of personal selling initiatives, organising of farmers field schools which are special interest groups of livestock farmers who come together for purposes of advancing their groups interests.
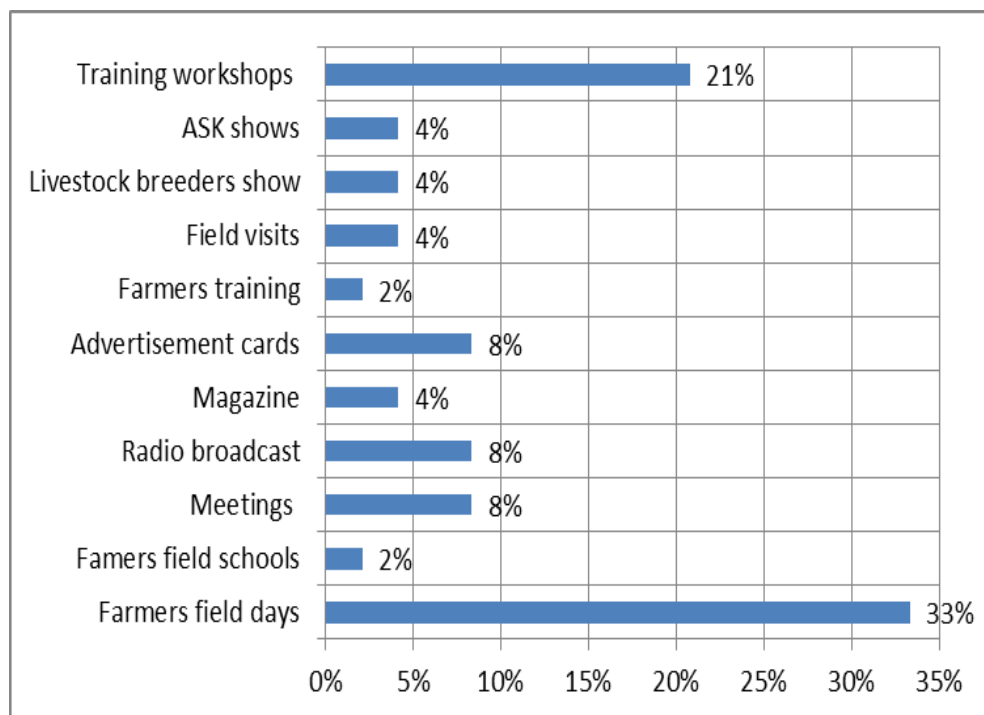

Figure 1: Promotional activities undertaken by distributors of animal genetic resources in Kenya

Firms distributing animal genetic resources had employed different number of employees working in the artificial insemination (AI) business (Table 3). The highest number of employees per business was 8, while the least was 1. Each of these firms organised an average of two marketing activities in a financial year. Additionally, each firm had an average of 1 director per firm, and the ages (period the firm had been operating) of most organisations were 16 years. The sale volumes for animal genetic resources were quite varied, with the least sale volume being 44 units per year, and a maximum number of 31,751 units per year for each distributor. However, the median sale volume was only 9,523 units per year.

The animal genetic resource products which were supplied to distributors from different companies were highly differentiated through branding (Figure 2). Each supplier had adopted different branding strategies through naming. KAGRC and Bimeda Companies had products which were least differentiated. KAGRC products were classified into the following categories progeny tested bulls, ordinary semen, and beef breeds: while for Bimeda, the products were only categorised into two groups: sexxed Holstein and Holstein. The other importing companies had adopted different brand names even within the same breed of bulls. For example, Cooper Kenya brands (CVR) products were categorised in four: economy bulls, elight bulls, sexed Holstein and commercial sires. Similarly, Twiga chemicals products were categorised in 9 groups: beef breeds, sexxed jersey, sexxed Ayrshire, conventional Ayrshire, elight sires, sexed Holstein, progressive commercial sires, and commercial sires. World-wide Sires products were also highly differentiated into nine categories: Holstein, sexed Holstein, conventional Ayrshire, conventional jersey, sexxed jersey, beef breeds, Brown Swiss, and conventional Guernsey. The different product diversifications had different price tags. For the KAGRC products, prices were not

very different between the different categories. However, for companies, prices were quite different even within the same product line.
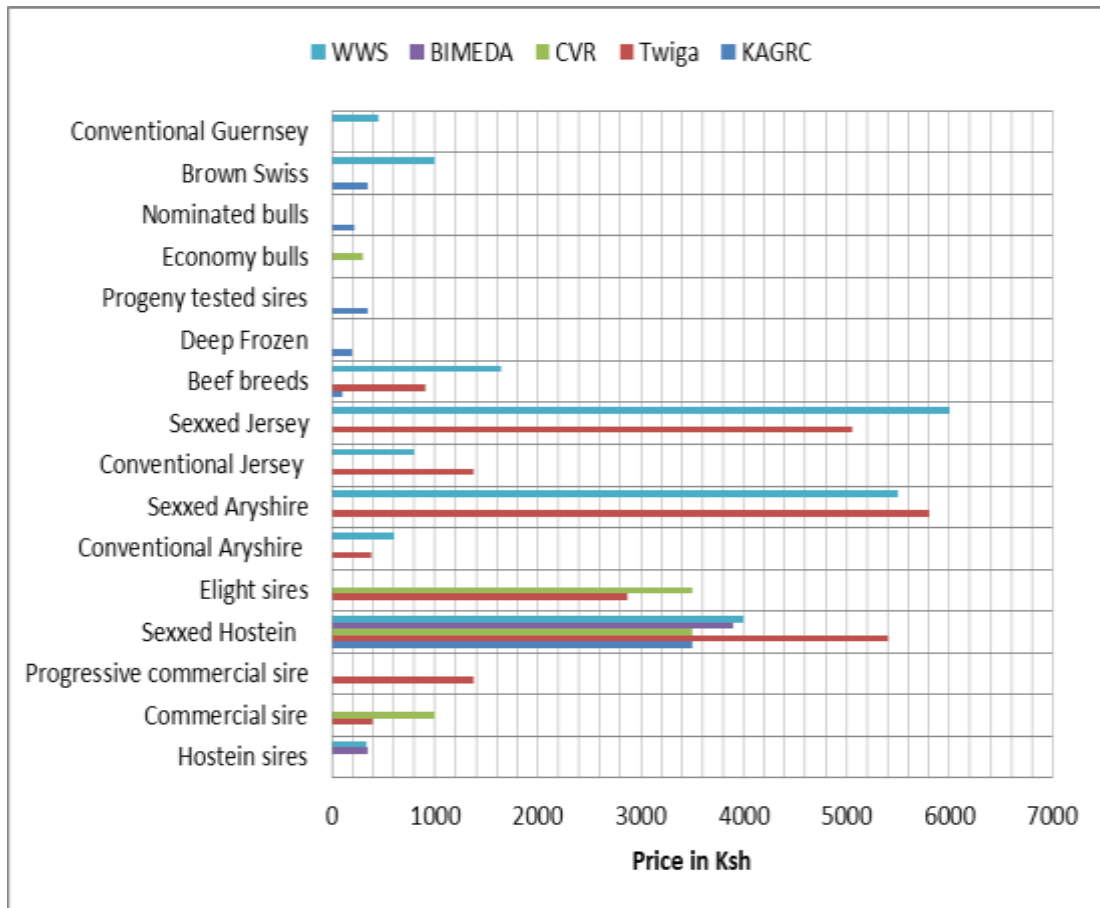

Figure 2: Animal genetic resource product mix with corresponding prices by companies

Table 3: Description on number of employees, marketing activities, age of firms and annual sale volume

Factors (n=21)	Mean	Median	Minimum	Maximum
Employees in AI business	3.1	2	1	8
Marketing activities per year	2.5	2	1	5
Directors per firm	1.7	1	1	5
Years of operation	15.2	16	6	25
Annual sale volume by firms	11,248	9,523	44	31,751

4.3 Factors Affecting Performance and Market Shares

In this survey, level of firm's performance was measured using sale volume and percentage market share for each firm distributing animal genetic resources. Of all these distributors, approximately 80% of all distributors controlled a market share of 60% (Figure 3). And, the remainder of 20% distributors controlled a market share of 40%. However, from this analysis, approximately 60% of distributors controlled a market share which was only slightly over 20%, with about 80% market share being under the control of only a few firms.

A number of factor variables were investigated for their influence on firm's sale volume of animal genetic resources. These included presence of vision statement, level of education, engagement in promotional activities, gender of managers or directors of the firms, and geographical location of the firms which was represented by their regional zones of operations. Factors which had positive influence on firm's market share included gender of directors, engaging in promotional activities and level of education. However, these relationships were not statistically significant (Table 4). Of all factors variables which were investigated only geographical location of the firm had a significant influence on firm's sales volume. These geographical locations were defined as Northern Kenya, Nyanza, Rift Valley, and Central regions.
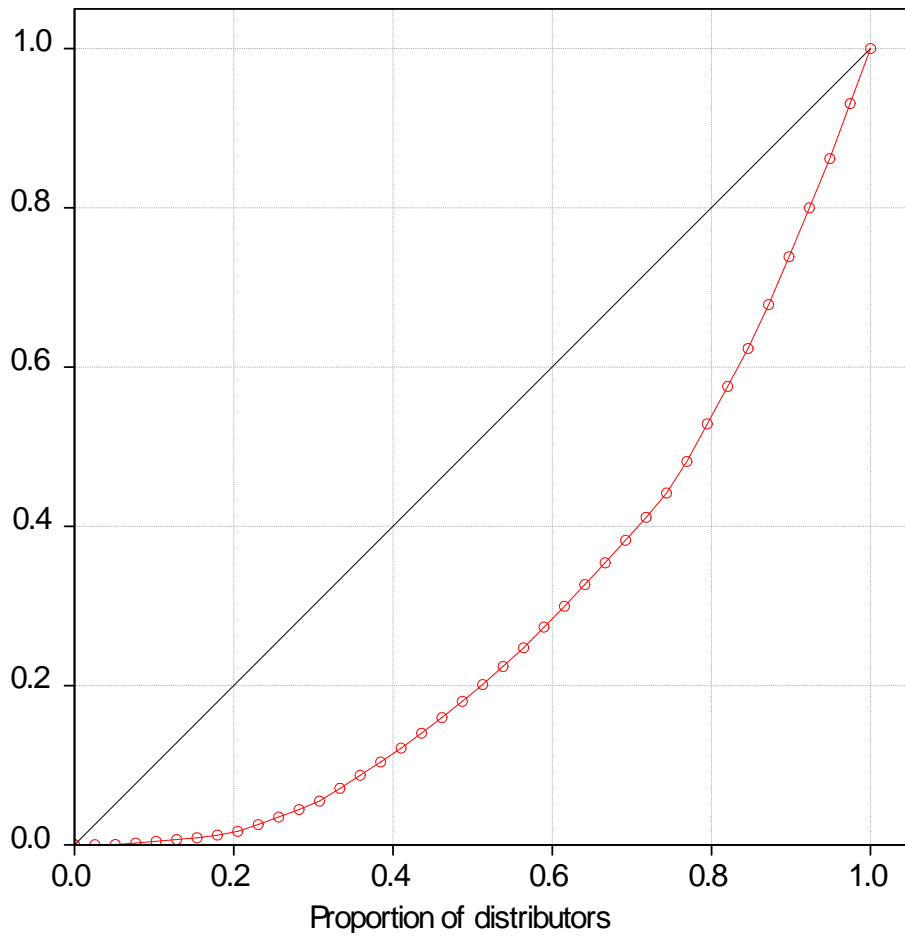
Figure 3: Lorenz curve showing market shares for distributors of animal genetic resources in Kenya

Table 4: Factors which influences market share of distributors of animal genetic resources

Parameter	Estimate	s.e.	t(21)	P (Value)
Constant	3.732	0.403	9.26	<.001
Vision statement : Yes	-0.403	0.382	-1.06	0.303
Vision statement : No	0			
Level of education: Degree	0.421	0.304	1.38	0.181
Level of education: Diploma	0.380	0.581	0.65	0.520
Level of education: AHAs	0.148	0.480	0.31	0.760
Level of education: certificate	0.499	0.371	1.35	0.193
Level of education: degree & diploma	0			
Promotional activities No	0.001	0.216	0.01	0.995
Promotional activities yes	0			
Gender of directors: Male	-0.011	0.226	-0.05	0.963
Gender of directors: Mixed	0.309	0.349	0.89	0.386
Gender of directors Female	0			
Region North	-2.399	0.519	-4.62	<.001
Region Nyanza	-1.011	0.380	-2.66	0.015
Region Rift	-0.232	0.212	-1.09	0.286
Region South	-0.978	0.309	-3.16	0.005
Region Central	0			

4.4 Discussion of Findings

This section describe how the study findings relate to existing theory, as well as making comparisions with results from empirical studies which were done in the area of strategic planning and performance in agribusiness enterprises. These broad areas are highlighted to show areas of convergence and divergence with existing empirical studies and theories.

4.4.1 Comparison with Theory

According to the action theory contingency model, organisational structure, managerial plans and actions and the influence from the environment has effect in the level of performance of firms (Armstrong & Baron, 2006). However, the elements of strategic planning which were investigated had no significant influence on the firm's market share, except for the geographical location of the firm. Furthermore, the level of dependency between firms which were distributing animal genetic resources through contractual agreements signed between suppliers of animal genetic resources and distributors supports the theory of resource dependency. But, the linkages were informal between the distributors and their customers who comprised livestock farmers, artificial Insemination (AI) technicians, and veterinary surgeons. These relationships between various actors in distribution of animal genetic resources, and the link between level of performance and various marketing mix elements including geographical locations and the elements of strategic planning support the contingency theory and resource dependency theory (Davis & Cobb, 2009; Davis & Powell, 1992). Furthermore, the level of education of directors, and their gender supports resource based theory.

4.4.2 Comparisions with other Empirical Studies

Only a few firms had vision and mission statements, while most of the vision statements comprised elements of the mission statements. Therefore, it may appear that most of these firms do not consult specialists when designing their vision and mission statements. These vision statements from distributors of animal genetic resources were short and easy to memorize, however, most of them lacked standard of performance, had incorporated some elements of mission statement, and were not

futuristic. Furthermore, only few firms had written business plans for their firms. While, only two firms were performing environmental scanning for activities of their competitors by monitoring their sale volume and marketing strategies.

Although written business plans were few from these firms, majority of these firms had financial plans, and the most commonly prepared financial plan was cash flow statement. This finding agree with results of a study which investigated strategic planning activities in large manufacturing firms in Kenya (Aosa, 2011). Similarly, most businesses had directors with qualification on animal health assistant and doctor of Veterinary Medicine. And, most directors were of male gender, but firms owned by female directors and family businesses jointly owned by both gender were present.

Other measures of organisational performance including financial (profit, return on assets, return on investment) and non- financial (sale volumes, sales relative to targets, total sales growth and market shares) measures were not examined (Mwangala, 2015). Future studies which would examine such level of performance could also apply the framework for measuring performance in agribusiness which has been proposed: which comprises unanticipated environmental turbulence, strategic plans, firm characteristics, strategic planning process, implementation and a random error term (Jon & Christopher, 1999).

No studies had reported strategic planning activities in the Kenya agribusiness context; however, studies had reported that in the United States of America, when agricultural firms became larger in size, they often adopted a number of strategic planning activities including environmental scanning, formal mission and vision statement (Lopesa & Ross, 2013; Morgan et al., 1997). Another study which explored adoption of strategic planning by co-operative societies in the United States, had reported that co-operative societies had widely adopted strategic planning techniques

such as environmental analysis, core competences and SWOT (strength, weakness, opportunity and threats) analysis (Morgan et al., 1997). The environmental scanning by these agribusiness firms was reported to be significantly associated with utilization of SWOT analysis, formal mission and objectives statements, competitive advantage and core competences based strategies.

Previously, it was shown that involvement of gender and level of education in management boards for organisations was important for firm's level of performance (Leiting et al., 2012; Machuki et al., 2012). However, this relationship was not statistically significant in the present study, but the associated coefficients showed that these factors were positively linked to level performance in firms. Promotional activities for animal genetic resources by distributors included organising farmer's field days, training workshops, and livestock breeders show and sale. Other distributors had some form of innovations, and had adopted use of social media and electronic media to market their businesses and products. Other elements of marketing mix which were investigated included product decisions. These mostly involved branding through naming, and also product differentiation. These highly differentiated products included sexxed semen, conventional bulls, commercial bulls, progeny tested bulls, and economy bulls. Most of these highly differentiated products were supplied to these distributors by other companies which were importing animal genetic resources into the country. The differentiated and branded products also had different price tags, with most sexxed semen fetching high prices. However, most products from KAGRC were competitively priced.

The analysis of the distributors market share reveal that a larger proportion of distributors only handles a much lower volume of sale per year. This reveals that the

sector is controlled by a few large firms which controlled a larger market share. However, the analysis did not show significant relationship between the elements of strategic planning including vision and mission statements and the level of performance. But geographical locations of these firms were associated with increase in market share held by firms.

4.5 Summary of the Chapter

This chapter has presented the main findings of the study, described their implication to contingency theory and resource dependency theory, and comparisons of the findings to results from empirical studies done in the field of strategic planning and performance in agribusiness.

Only a few firms had vision and mission statements for their distribution businesses, and the main promotional mix for the animal genetic resource products was organisation of farmer's field days by these distributors. Furthermore, a few distributors were using social media, and electronic media platforms to market their animal genetic resource products. The product mix mainly relied on branding through naming by the different types of companies dealing in animal genetic resource distribution industry. Approximately 70% of the total market share was controlled by only about 40% of the distributors. Elements of strategic planning including presence of vision and mission statements had no significant relationship with the firm market share; however, the geographical location of these firms significantly influenced the firm's market share. In the next chapter, summary of key findings, conclusions and recommendations will be presented with a focus on their implication on policy development, and their impact on practitioners and researchers.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Introduction

This chapter will present a summary of some key findings, conclusions and recommendation drawn from the study. It will also highlight various limitations and suggest areas for future studies.

5.2 Summary of Findings

Only a few firms had vision and mission statements for their distribution businesses, and the main promotional mix used by these distributors of animal genetic resource products was organisation of farmer's field days. Other distributors were using both social and electronic media platforms to market animal genetic resources products. Although just a few distributors had written business plans for their firms, they often prepared financial plans including cash flow statements, annual budgets and balance sheets. The differentiation of animal genetic resource product mix mainly relied on branding through naming by different companies which were importing and selling these products to the distributors, who had been appointed by KAGRC to market their animal genetic resources. Approximately 70% of the total market share of animal genetic resources was controlled by only about 40% of these distributors.

A number of elements of strategic planning and marketing mix had positive influence on the level of performance for these distributors. These included gender of directors, engagement in promotional activities, and level of education. However, having vision statements was not positively associated with enhanced market share for distributors. But, geographical location of these firms had statistically significant influence on the market share and sale volume.

Most businesses distributing animal genetic resources were owned by directors of male gender, but female directors were also present. Furthermore, the level of education for most directors was those with Bachelor's degree in Veterinary Medicine, although next most common level of qualification was certificate in animal health assistants. While, diploma level qualification were few.

5.3 Conclusions

This study has revealed that firms which are distributing animal genetic resources in Kenya have not wholly adopted strategic planning practices to guide their operations. However, a few firms had embraced formulation of vision and mission statements, while only a few firms had updated business plans. The planning horizons for those firms which had written strategic plans ranged between 1 to 5 years.

The main promotional mix applied by these firms was organisation of farmer's field days, but other firms had resorted to using social media and electronic media platforms to market their products. About 70% of the market share for distribution of animal genetic resources was controlled by approximately 40% of the distributors, which suggest that animal genetic resource distribution industry in Kenya has a market structure which is tending towards monopoly.

The findings from this study is therefore useful for practising managers, policy makers and researchers in understanding the relationship between elements of strategic planning and performance of agribusiness in the context of developing countries.

5.4 Recommendations

It is recommended that factors which influence competition in the animal genetic resources industry in Kenya should be explored further through industry analysis. This would reveal important indicators and information which describe the growth of the industry, intensity of rivalry, nature of substitute's products, bargaining power of suppliers and buyers, and threats of new entrants into the industry of distribution of animal genetic resources. The framework for evaluating performance level in agribusinesses should also encompass financial measures and non-financial measures, since in this study only market share and sale volume was considered.

A balance scorecard approach can be applied to examine qualitative factors which are associated with performance of agribusinesses in the distribution of animal genetic resources industry. Furthermore, distributors of animal genetic resources in Kenya, should be taken through training on strategic planning process, which includes writing of mission and visions statements, strategic objectives and goals.

5.5 Limitations of the Study

In this study, market share was used as a measure of performance, however, other measures of performance including both financial and non-financial measures of performance should be investigated with regards to how various factors of strategic planning and marketing mix would influence performance of firms in agribusiness.

The study also employed a cross- sectional research design which only gives a snapshot of the firms operations, while not capturing trends over the years. These firms operations maybe be affected by other factors which have some temporal effects, and therefore future studies should consider examining how the market shares of these firms which are distributing animal genetic resources changes over the years.

5.6 Summary of the Chapter

This chapter has provided summary overview of the findings, conclusions, recommendations and limitations from the study. The vision and mission statements from these distributors of animal genetic resources did not clearly fit the classical elements needed for vision and mission statements. Most vision statements also included elements of mission statements. This calls for an urgent need by these firms to obtain support in crafting proper vision and mission statements.

Although most of these firms did not have updated business plans, they frequently prepared financial plans including cash flow statements, balance sheet, income statements, and annual budgets. Organising of farmer's field days and adoption of social media and electronic media platforms were key in marketing the animal genetic resource products in the country.

The chapter highlights a number of limitations, including the failure to include other measures of organisational performance apart from market share and sale volume, adoption of cross –sectional research design which only gives a snapshot of events at a point in time, and the inclusion of distributors who mostly distributed or handled KAGRC products .

A number of recommendations for future studies are also provided including the need to do an industry analysis of the animal genetic resources sector in Kenya, using of a balanced scorecard to examine qualitative factors which affects firm's performance, and inclusion of other measures of performance including financial (return on investments and return on assets) and non-financial measures in examining relationship between strategic planning and marketing mix with level of performance.

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APPENDICES

I: Semi-Structured Questionnaire for Data Collection

Name of the distributor:…………………………………………………………..

Elements of Strategic Planning

1. Do you have a mission statement for your business?......................................

2. If your answer is yes for question 1, list the mission statement…………….

    …………………………………………………………………………………

3. Do you have a strategic plan for your AI business? …………………………

4. If your answer is yes for question 3, what is the planning horizon (years)……

5. Which of the following financial plans do you prepare for your business?

    A. Annual Budget
    B. Cash Flow Statement
    C. Income Statements
    D. Balance Sheet

6. Do you conduct management training for your employees? ………………

7. If your answer is yes for question 6, what types of training do you conduct? …

    ………………………………………………………………………………….

8. Do you have a goal statement for your business?...

9. If your answer is yes for question 8, write down your goal statement…………

    …………………………………………………………………………………..

10. Who prepares the strategic plans?...

11. Is information on planning process shared with other employees firm?..............

12. .Do you collect information on performance of your competitors?....................

13. If you answer yes for question 12, then what type of information do you

    collect from your competitors?..

…………………………………………………………………………………………..

Elements of Marketing Mix

1. Who are your customers?..

2. Which promotional of marketing activities do you do for your products?

   ....

3. How many promotional activities did you conduct last year?............................

4. What form of capital do you extend to your customers?...................................

   …………………………………………………………………………………………..

   What form of training do you offer to your customers?....................................

   …………………………………………………………………………………………

4. Do you have an established distribution network for your products?.................

5. Do you have any contractual relationship with your customers?........................

   …………………………………………………………………………………………

   How do you set market prices for your AI products? ....

6. Who are your suppliers?..

7. Do you have any contractual relationship with these suppliers?........................

8. How many units of animal genetic products did you purchase last year from

   other genetics companies other than KAGRC ………………………………

9. What were the price ranges for these products………………………………

Employee Information

1. What is the gender of directors of the firm?...

2. What are the qualifications of directors?...

3. What are the profession of managers?...

4. How many employees work in the AI business? ....

II: Letter of Introduction

<div align="right">11/7/2016</div>

The Managing Director

Kenya Animal Genetic Resources Centre (KAGRC)

P. O. BOX 23070-00604, Lower Kabete,

Nairobi, Kenya

Dear sir/madam,

<u>REF: REQUEST FOR DATA ON AGENTS/DISTRIBUTORS</u>

I'm pursuing a Master of Business Administration from the University of Nairobi School of business, and I'm interested in investigating the relationship between strategic planning in agribusiness and performance of these enterprises. I propose to enlist your agents in this study. Initially I require the below listed data which could be in their records at KAGRC:

1. Whether they have business or strategic plans
2. Their vision and mission statements
3. Number of marketing activities they organised in 2015 and 2016
4. Number of employees working in the A.I business
5. Number of doses sold to each agent in 2015 and 2016
6. Level of education of the owners

These data will help me organise a follow up study with agents/distributors to further investigate their operations.

Yours faithfully

Joshua Onono

+254-705 934013

III: List of Animal Genetic Resource Distributors in Kenya

SN	Name Of Agent	Physical Location
1	Country Veterinary Services	Nyeri
2	ADC Kitale	Kitale
3	Karatina Veterinary Centre	Karatina
4	Menengai Agrovet Enterprises	Nakuru
5	Ukulima Agrovet Services	Kerugoya
6	Tumbu Vet Clinic	Maua
7	County Focus Agrovet Supplies	Nyahururu
8	Thika Farmers Centre	Thika
9	Enochem Agrovet Services	Kisii
10	Thorntree AI Services	Eldoret
11	Meru Animal Health Workers Sacco	Meru
12	Diocese Of Embu	Embu
13	Elika Agrovet Supplies	Muranga
14	Dr. Mathenge Veterinary Clinic	Naivasha
15	Medvet Centre	Kapsabet
16	Nanyuki Veterinary Services	Nanyuki
17	Makamithi Enterprises	Machakos
19	City Agrovet	Kisumu
20	Smuka Veterinary Centre	Kiambu
21	Kandara Veterinary Centre	Kandara
22	Goodwill Stores Ltd	Nairobi
23	Kathenju Agencies Ltd	Ngong Area
24	Kilimo Agrovet	Limuru
25	Rerimoi AI Breeders	Kericho
26	Nyanja Agrovet	Chuka
27	Mjanaheri	Malindi
28	Jupiter Veterinary Services	Kiria-Ini
29	Othaya Agrovet and Genetic Suppliers	Othaya
30	Wakulima Dairy Ltd	Mukuruini
31	Amboni Agrovet	Mweiga Town
32	Runyenjes Veterinary Services	Runyenjes
33	Farm-Line Agencies	Embu Town
34	Ewaso-Ngiro Development Project	Narok Town
35	Rabby AI Services	Molo
36	North Rift AI Project	Kitale
38	Jathe Enterprises	Kikuyu
39	Farm Line Agencies (Kiritiri)	Kiritiri Mbeere South
40	Good Hope Farmers Centre	Kangari
41	Chebole Farmers Store	Bomet County
42	Meru Central Dairy Coop. Union	Meru Town
45	Agrolive Enterprises Ltd	Uasin Gishu
46	Mesha Agrovet	Njoro

Source: www.kagrc.co.ke