EFFECTS OF DYNAMIC CAPABILITIES ON STRATEGY IMPLEMENTATION IN THE DAIRY INDUSTRY IN KENYA

Ahmed Abdikarim Hassan

Ph.D. student, Jomo Kenyatta University of Agriculture and Technology, Kenya

Full Length Research

ABSTRACT

The increasingly volatile environment has entailed recent popularity of the notion of dynamic capabilities. The dairy industry has been undergoing remarkable changes across hundreds of industries, attributable to technological breakthroughs, trade liberalization, industry deregulation, escalating competition, and rising catastrophes. This market trend challenges and alters established rules for business competition and poses a higher requirement for organizational adaptation. For many smallholders, adoption of dairy cattle is a promising way to increase their income. Yet, the entry cost and production risks are high. Farmers in areas highly infected with tick-borne diseases may consider dairying a risky enterprise, even if prevention measures and treatments are available. Further, marketing is an important problem in some areas since the beginning of the 90s when delayed milk payments by the Kenyan Cooperatives Creameries started. The purpose of this study was to explore the effects of dynamic capabilities on strategy implementation in the dairy industry in Kenya.The study adopted an exploratory approach using a descriptive survey design. The target population under study was 1064 management staff in the dairy industry in Kenya including dairy processors. At least 282 respondents was randomly selected. Primary data was collected using questionnaires. The quantitative data in this research was analyzed by descriptive statistics using statistical package for social sciences (SPPS) version 21. Correlation analysis was performed to determine if any variables are correlated. In addition, a multivariate regression model was applied to determine the relative importance of each of the four variables with respect to strategy implementation. Inferential statistics such non parametric test which include analysis of variance (ANOVA) was used to test the significance of the overall model at 95% level of significance. All necessary diagnostic tests were performed. Data was presented in tables, charts and graphs. The results obtained from the correlation model showed a strong positive correlation between knowledge management for future positioning and strategy implementation. The study noted that knowledge management in an organization helped in promoting standard, repeatable processes and procedures, reusing ideas, documents, and expertise, helped to avoiding redundant effort. The regression model also revealed that a unit increase in organisational organizational transformation initiatives would enhance strategy implementation process. Further it was noted that the management of dairy industry in Kenya kept the following aspects of OT up to date :measures quality program, revised compensation and training: customer focused approach and continuous improvement. Results obtained from correlation model between discontinuous innovation discontinuous innovation and strategy implementation showed a weak negative correlation between the two variables. The study also noted that that coordination of managerial processes for future positioning affects strategy implementation in the dairy industry in Kenya to a great extent. The research further noted that coordination helps to improve the efficiency of operations by avoiding overlapping efforts and duplication of work, coordination

helps to promoting the efficiency of operations. In view of improving strategy implementation in the dairy industry in Kenya, the study recommends that the management of dairy industry in Kenya should implement knowledge management systems as this was associated four to be a key driver towards successful strategy implementation. The top management of dairy industry in Kenya should work to ensure that that internal flow of activities

is effective as the quality of coordination was found to be a crucial factor in the survival of an organisation. The management of dairy industry should promote discontinuous innovations in this changing environment while maintaining the survival ability by managing incremental innovations.

Key Words: *dynamic capabilities, strategy implementation, dairy industry, Kenya*

INTRODUCTION

In the global world of competition, sustainable competitive advantage has been found to be of great importance and need in both marketing and strategic management of dairy business. Alternative systems are being focused in the current researches conducted on marketing and management of organizations that tend to prove the worth of dynamic capabilities within organizations (Ali *et al*., 2010). Propositions in regard to the use of dynamic capabilities in organizations with respect to product innovation, environmental dynamism and firm performance are being continuously developed for achievement of organizational goals.

According to Farjoun (2010), technology has catalysed this change and innovation is increasingly becoming the norm to keep pace with the ever changing needs of the customers. This has led to cut throat competition amongst dairy firms; small, medium-sized or large, each striving to gain and maintain market leadership. Cut throat competition is virtually present in all markets and industries and is a major threat to the long term survival and prosperity of dairy firms. In order to keep up with competition, dairy firms must constantly search for a competitive strategy that will ensure strategy implementation in the long term and yield market leadership.

Strategy implementation is thus the single most powerful weapon needed by dairy firms to win and prosper in today's world. As a lethal weapon, strategy implementation enables firms to enjoy an unassailable position in the market through erecting barriers to small local rivals and new entrants. Tatsuno (2013) argues that strategy implementation can help dairy firms to erect entry barriers through economies of scale, proprietary products, synergistic alliances and expected retaliation. Knowledge is considered to be one of the most significant resources. While possession of more relevant knowledge makes it easier for firms to win a competitive war, dairy firms can in addition create sustainable strategy implementation by becoming champions of defining the pattern of successful innovation and executing against it.

According to Zhang (2007), Dairy firms performing in different industries and varied market environments have been found to be facilitated by the dynamic ability of the organizational leaders and managers to make strategic decisions towards achieving innovative products and technology and attaining competitive advantage.Ambiguity, vagueness of constructs,

conflicting views, and lack of empirical data are still predominant and represent challenges to explaining dairy industry' strategy implementation in its entirety. The influence of the companies' environment on the evolution of such dynamic capabilities in contrast to the organizations' internal sources also remains unclear. In addition, most empirical research on dynamic capabilities has been completed in the West, mainly in the US, and thus, could be biased by local myopia. Consequently, practitioners often criticize the limited normative inferences generated by this particular research stream.

Livestock production is booming as it accounts for over 40% of the world's agricultural gross domestic product (FAO, 2009). Bandiera and Rasul (2006) posited that apart from playing a major role in contributing to food and income generation through milk and meat, livestock are a valuable asset to farmers as they are a store of wealth, collateral for credit and are an essential safety net in times of crisis. In general, the adoption of improved agricultural technologies through embracing capabilities strategies is said to be a vital pathway out of poverty for many farmers in developing countries (Mendola, 2007). However, adoption does not happen immediately as a lot of factors need to be considered. In recognition of the importance of dairy farming in most countries, Zambian farmers are often faced with a myriad of challenges. As a buffer and alternative strategy to unpredictable seasonal changes, various dairy technologies have been promoted by the Government of the Republic of Zambia though various non-governmental organisations and developmental agencies as a way of improving productivity among smallholder farmers in order to contribute to their livelihoods. Despite these interventions, challenges in milk animal productivity persist among the smallholder farmers.

According to Minetaki and Takemura (2010), dairy industries have continuously struggled to enhance production efficiency and transparency in production to ensure development of good quality and innovative products thus dynamic capability strategies are inevitable. With more and more focus on the development of innovative products, researchers believe that product innovation can be considered to be a method of renewing organizational activities towards achievement of goals. Such renewals include developments in organizational competencies, encouraging changes in the marketing of products enhancing improvements over the rival companies (Danneels, 2012). Hacklin *et al* (2009) also indicate that in the modern world of competitions and changing technological surroundings, innovation in products is considered as major drivers" that enables a firm to reach to its customers by providing them with greater value than their competitors thus "gaining competitive advantage. However, it is a challenging issue for different dairy firms to adapt to the changes in the business environment. Benner (2009) opined that firms may require making changes in its knowledge and capabilities that focus on the management practices concerning organizational reactions to changes thus leading to product innovation.

According to Baretto (2010), the dynamic capabilities perspective has received increasing attention in the field of strategic management research, focusing on the strategy implementation that is provided by a certain resource constellation over time to fit changing business environments. Teece, Pisano and Shuen (2009) proposed the dynamic capabilities

framework which enables organizations to renew competencies and strategically manage the internal and external organizational skills, routines and resources required to maintain performance in the face of changing business conditions. They defined dynamic capabilities as the firm's ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments.

Studies on companies strategy implementation and competiveness in developing countries have largely focused on the impact of the environmental factors on success and ignored the role of the firm-level factors. As a consequence, there is little information on how competiveness of companies is created by other factors than the environment (Charles, 2009). Furthermore, the authors also identified another gap in the theory of dynamic capabilities: An examination of Wang and Ahmed's (2007) summary of key empirical studies pertinent to dynamic capabilities shows that most of them are created and grounded in developed countries. This is also in line with Zahra, Sapienza and Davidsson (2013) findings that most research have focused on established enterprises and ignored the agribusiness industry in developing countries. A probable conclusion is a lack of studies of dynamic capabilities made on agribusiness companies and developing countries.

If Governments in eastern and southern Africa provide conducive policy environments, there are good opportunities for smallholders and their families to benefit from marketed dairy production. Delgado *et al* (1999) have estimated that between 1993 and 2020, the annual demand for milk and dairy products in developing countries will more than double, from 168 to 391 million tonnes. Driven by population growth, urbanisation and increased purchasing power, the estimated annual growth in the consumption of milk and dairy products is 3.3%. These market opportunities represent exciting challenges for all associated with smallholder agriculture in eastern Africa, and in Kenya particularly, and it's continued intensification through dairy production and marketing. If these market opportunities for milk are to be exploited by Kenyan smallholders in the way that they have during the last 40 years, it will require effective use of dynaic capabilities strategies in their operations and in their strategy implementation. Along with favourable agroecology, these market factors play the major role in determining the type of dairy production systems found in the tropics, and they have been, and will continue to be, important influences on smallholder dairy development in Kenya.

Analyzing the environment in developing countries such as Kenya requires more dynamic models, due to the unstable environment. For this the dynamic capabilities approach can be a good tool. The view has dramatically shifted the traditional way of performing strategic management research. The quite static models can be problematic to use for analyzing strategy implementation over time and therefore the more dynamic frameworks are employed for an increased understanding of how to create sustainable superior enterprise performance (Teece, 2007).

The dynamic capabilities framework, till now has been ascribed only to highly dynamic environments and high tech sectors. Easterby-Smith, Lyles and Peteraf (2009) states that most studies have focused on obvious "dynamic capabilities industries", such as

semiconductors and biotechnological. Dynamic capabilities have been detected and analyzed only in high – technology industries and presuppose a rapid technological change, but ignored the huge importance and potential of agri-industries. Researchers suggested its use to more moderately dynamic environments (Eisenhardt and Martin, 2011) or even stable ones (Zahra et al., 2006; Zollo and Winter, 2012). There are hardly any studies on the relationship between dynamic capabilities and knowledge intensiveness in low tech sectors.

Growth and ownership changes in dairy farming mean that more people are needed on-farm and in supporting industries. The increased complexity, diversity and volatility of dairy farming means that skill levels across the industry need to improve. According to Teece, Pisano and Shuen (2009), sources of competitive advantage based on capabilities can be found in managerial and organizational processes. These processes determine how things are done in a company. Asset positions, including e.g. intellectual property or complementary assets and the future strategic paths available to a company, shape the firm's processes and thus influence the development of dynamic capabilities. Certain factors that inhibit the emergence of dynamic capabilities can be attributed to existing managerial beliefs.

Even given the extensive formal marketing network in Kenya (KCC; private processors; dairy co-operatives), estimates (Omore *et al*., 1999) show that currently approximately 85-90% of marketed milk is not processed or packaged, but instead is bought by the consumer in raw form. The factors driving the continued importance of the informal market are traditional preferences for fresh raw milk, which is boiled before consumption, and unwillingness to pay the costs of processing and packaging. By avoiding pasteurizing and packaging costs, raw milk markets offer both higher prices to producers and lower prices to consumers. Recent surveys in the Kenyan highlands consistently show some 15% higher farm-gate prices and 25-50% lower retail prices through the raw milk market compared to the formal packed milk market (Staal *et al.,* 2013). As a consequence, the largest single market outlet for smallholder farmers, comprising over half the marketed milk, consists of direct sales of raw milk from producer to consumer, typically through farmer delivery to nearby households. Other important players in the informal market are small milk traders, who handle about a third of marketed milk, and who deliver milk to consumers or other retail outlets. In the more formal market, dairy farmer cooperatives are the largest players, while private dairy processors are thought to capture only some 12%.

Dairy cooperatives play an intermediary role, by supplying both informal traders and dairy processors. Thus the market share of the dairy processors includes that share collected through cooperatives which is then sold to the formal market (Staal *et al*., 2013). These relative market shares have been changing through the 2011s, with an increasing role for the informal market. As explained earlier, in 2011 the Kenyan government liberalized the dairy industry, revoking a parastatal (KCC) monopoly on urban milk sales. The period since then has seen the rapid development of a variety of milk market innovations, mainly in raw milk markets. Dairy co-operatives themselves, once an integral part of the formal milk collection system, are marketing a greater proportion of their milk raw through intermediaries to urban markets.

Owango *et al* (2013) found that between 2011 and 2011, the share of cooperative milk sales going to dairy processors fell by more than half in some cases. The market policy change caused dairy cooperatives to pursue the higher prices in the informal market. As a consequence, the same study showed that real milk prices paid to producers by the co-operatives rose significantly during 2011-2011 (Owango *et al.,* 2013). In the more competitive and uncertain market post-liberalization, both individual producers and dairy farmer cooperatives have better opportunities for higher milk prices, but also face greater risks due to the uncertainties of relying on informal traders.

Dynamic capabilities that focus on configuration of resources in beneficial manner matching up with the changing business requirements involve mechanisms that are significant in product innovation (O'Connor, 2008). To cope up with the changing scenario, dynamic capabilities within organizations enable the organizational management to take up measures that facilitate in innovativeness that is demanded in the market. This also focuses on the advanced use of technology as well as the changing economic environment.

During the last ten years at least, a significant number of firms in traditionally named low tech sector enclose a dynamic approach of knowledge in order to flourish in mature, saturated and vulnerable markets. Entrepreneurs start new knowledge intensive business, transcending traditional limits and develop strategy implementations on knowledge – combination bases, which are encountered as vital for the company survival. An essential prerequisite for knowledge-intensive entrepreneurship is the capability of a company or even of an individual entrepreneur to question existing knowledge and to identify and acquire (new) relevant knowledge from other knowledge bases (Kirschen, 2010). Dairy industry in developing countries fail to compete successfully, mostly due to competitive pressure. The situation in Kenya makes it important for dairy industry to create dynamic capabilities in order to gain strategy implementation. The study aspires to get a deeper knowledge of strategic decisions, performance and sustainable strategy implementation that is created in the existing Kenyan environment.

Kenya's dairy industry, the single largest livestock production sub-sector contributes 14% of the agricultural gross domestic product (GDP) and 3.5% of the total GDP (Muriuki et al, 2003). Kenya's dairy industry also acts as a source of income and employment to over 1.5 million small holder dairy farmers in addition to 500,000 direct jobs in milk transportation, processing and distribution and a further 750,000 in related support services. The industry plays an important role in food security, employment creation, income generation, and enhances the livelihoods of dairy farmers, traders, processors and all participants engaged in the entire milk supply chain. The total dairy herd estimated at 3.4 million heads produces about 3.1 billion litres of milk annually (Kenya National Bureau of Statistics (KNBS) 2010; Ministry of Livestock and Fisheries Development (MoL&FD) 2013). The country is generally self-sufficient in milk and dairy products. However, the demand for milk and dairy products in developing countries is estimated to increase by 25% by 2025 (Delgado et al 1999), mainly due to human population growth, further urbanization, increased disposable income, greater diversity of food products to meet nutritional needs, and increased

opportunities for domestic and external trade. Indeed, dairy imports in developing countries may reach 38.9 billion litres of milk equivalent by 2030 (Food and Agriculture Organization (FAO) and International Dairy Federation (IDF) 2004). Fortunately, the country has the potential to increase milk production from the current 4.2 billion litres in 2009 to over 5.0 billion litres in 2014 (Cherono, 2005). Milk production and market opportunities represent exciting challenges for smallholders in the country and if these potential productions and markets have to be exploited, it will require expansion of specialized dairy cattle population, intensification in terms of inputs, value addition of milk and dairy products, and good market linkages for milk sales and input acquisition.

STATEMENT OF THE PROBLEM

The dairy industry has made extraordinary efforts to increase food safety requiring an ever increasing degree of attention. Substantial support for this progress lies in the dynamic technological development process found in the dairy sector. Ultra- modern dairy technology and research enable companies to guarantee obvious quality as well as survive in the increasingly difficult and global markets. The increasingly volatile environment has entailed recent popularity of the notion of dynamic capabilities. The dairy industry has been undergoing remarkable changes across hundreds of industries (Thomas, 2012), attributable to technological breakthroughs, trade liberalization, industry deregulation, escalating competition, and rising catastrophes (Fox-Wolfgramm, Boal and Hunt, 2013; Tripsas & Gavetti, 2011). This market trend challenges and alters established rules for business competition and poses a higher requirement for organizational adaptation.

For many smallholders, adoption of dairy cattle is a promising way to increase their income. Yet, the entry cost and production risks are high. Farmers in areas highly infected with tick-borne diseases may consider dairying a risky enterprise, even if prevention measures and treatments are available. Further, marketing is an important problem in some areas since the beginning of the 90s when delayed milk payments by the Kenyan Cooperatives Creameries started (the "buyer of last resort" in the milk market until 2011) and after the 2011 liberalization. Advanced by Teece (2007) and colleagues (Eisenhardt and Martin, 2011) the concept of dynamic capabilities has been proposed as the true source of sustainable competitive advantage in globalized and high- velocity markets building on the resource based view.

Dynamic capabilities propose that firms need to sense the market, seize opportunities and manage the resources base dynamically in order to stay capable of continuously implementing new value creating strategies (Teece, 2007). Inherent in this dynamic capability framework is a clear need for bridging market sensing activities to the internal management of resources. However, little attention has been placed on the business processes needed to implement these dynamic capabilities and particularly on the schism between bridging outside-in (market oriented) and inside- out (market creating) approaches.

Regarding the question how and in which way dynamic capabilities contribute to firm strategy implementation and competitive advantage, there is an ongoing debate, whether

dynamic capabilities unfold direct effects (Arend & Bromiley, 2009; Teece et al., 1997), indirect effects that are mediated by the firm's resources and capabilities (Eisenhardt & Martin, 2000; Zahra et al., 2006), or both direct and indirect effects (Helfat & Peteraf, 2009). Further, the question is whether dynamic capabilities only unfold positive strategy implementation effects or whether there are costs associated with dynamic capabilities (Winter, 2003; Zott, 2003) that may also negatively contribute to strategy implementation (Drnevich & Kriauciunas, 2011). Even most recent research exploring the strategy implementation links of dynamic capabilities (Drnevich & Kriauciunas, 2011; Protogerou, Calothirou & Lioukas, 2011) provides inconsistent results, which is partly due to inadequate operationalization of the focal construct, again underscoring the call for a relentless commitment towards adequate operationalization.

With modern customers' needs and desires shifting more often than ever before, being able to adapt to these rapid changes may in fact call for more proactive and market shaping capabilities which envisage completely new propositions and push them on to the market. For firms operating in industries where the ability to adapt to the newest and even future market trajectories is paramount to firm performance, new ways of dealing with strategic marketing activities for innovation are needed to transcend the established market orientation concept.

According to Mburu, Gitu and Wakhungu (2009), even though the The National Dairy Development Project has been acknowledged as a success, a number of constraints have hindered its smooth implementation. These include lack of credit facilities, a poor marketing infrastructure and deteriorating support services such as Al and disease control (Ministry of Livestock and Fisheries Development (MoL&FD), 2011). Low milk prices are also a disincentive. Limited staff complement is another negative factor (Kimigo et al, 2008).

Milk market liberalization led to entry of more players in milk processing and marketing and deregulation of both producer and consumer prices. There is enhanced competition in milk processing and marketing coupled with environmental turbulence. Successful implementation of strategies should lead to survival and continuous growth. Since liberalization of the milk processing industry in 1992, there has been exit of many processing firms. The reasons for exit may include inability to survive as a result of challenges in their strategy implementation (EPZ, 2013). Mutisya (2013) also observed that the dairy industry Kenya had not successfully undertaken the strategy implementation activities of building capable organizations and have not build a strategy implementation supporting culture and leadership.

According to Kiragu et al (2012), most of the milk produced during the wet season was not marketed due to the poor road network and long distance to the markets. Since milk is highly perishable and farmers did not have the means to invest in milk cooling equipments, the high volumes of milk produced during the wet season were therefore associated with high-post harvest losses. Only about 35% total milk production was marketed through the formal sector which is considered by farmers to be more reliable in terms of milk prices and payments for milk delivered than the informal sector (Kenya National Bureau of Statistics (KNBS) 2010). This was mainly due to low milk processing capacity of the formal sector.

In addition, Muia et al (2011) deduced that the high costs of other services such as AI, animal health, electricity supply, extension and training, and credit had a negative impact on dairy development. The high cost and inaccessibility of AI services caused about 60% of the households to use natural breeding methods and hence were unable to sustain genetic improvement. The poor access to extension services, and the limited knowledge and skills on animal husbandry among the household heads due to the high levels of illiteracy (35%) resulted in poor performance of the dairy stock (Lanyasunya et al, 2012).

Further, according to Makenzi (2013), most of the milk from is marketed fresh through the informal sector (65%). Since fresh raw milk is highly perishable, milk losses along the informal value chain were high resulting from spillage and spoilage due to the poor road network, long distance to markets, inadequate refrigeration, and lack of milk collection due to glut in the wet season. Also, due to inadequate regulations, poor hygiene of milk at all levels of production and marketing was a common problem.The purpose of this study wasto explore the effects of dynamic capabilities on strategy implementation in the dairy industry in Kenya.

RESEARCH HYPOTHESES

In order to achieve the objectives designed for this study, the following research hypotheses were stated based on the revelations in the review of literature concerning dynamic capabilities and strategy implementation.This includes both null and alternate hypothesis as adopted in previous studies by Wilden, Gudergan and Lings (2014) in a study of dynamic capabilities and organisational performance Clausen (2013) in a longitudinal analysis of the role of operational and dynamic capabilities in ambidextrous innovation and Kioi (2001) in a study of strategies and the forces influencing them within Kenya's dairy industry.

H_{1a}: There is no significant relationship between knowledge management for future positioning and strategy implementation in the dairy industry in Kenya.

H_{1b}: There is a significant relationship between knowledge management for future positioning and strategy implementation in the dairy industry in Kenya.

H_{2a}: There is no significant relationship between organizational transformation and strategy implementation on strategy implementation in the dairy industry.

H_{2b}: There is a significant relationship between organizational transformation and strategy implementation on strategy implementation in the dairy industry.

THEORETICAL REVIEW

This study was hinge on the dynamic capability theory. Dynamic capabilities theory examines how firms integrate, build, and reconfigure their internal and external firm-specific competencies into new competencies that match their turbulent environment (Teece, Pisano, & Shuen, 2010). The theory assumes that firms with greater dynamic capabilities will outperform firms with smaller dynamic capabilities. The aim of the theory is to understand how firms use dynamic capabilities to create and sustain a strategy implementation over other firms by responding to and creating environmental changes (Teece, 2007).

Capabilities are a collection of high-level, learned, patterned, repetitious behaviors that an organization can perform better relative to its competition. Organizational capabilities are called "zero-level" (or "zero-order") capabilities, as they refer to how an organization earns a living by continuing to sell the same product, on the same scale, to the same customers (Winter, 2003)

The concept of dynamic capabilities arose from a key shortcoming of the resource-based view of the firm. The RBV has been criticized for ignoring factors surrounding resources, instead assuming that they simply "exist". Considerations such as how resources are developed, how they are integrated within the firm and how they are released have been under-explored in the literature (Teece, 2007). Dynamic capabilities attempts to bridge these gaps by adopting a process approach: by acting as a buffer between firm resources and the changing business environment, dynamic resources help a firm adjust its resource mix and thereby maintain the sustainability of the firm's strategy implementation, which otherwise might be quickly eroded. So, while the RBV emphasizes resource choice, or the selecting of appropriate resources, dynamic capabilities emphasize resource development and renewal.

According to Wade and Hulland (2004), IS resources may take on many of the attributes of dynamic capabilities, and thus may be particularly useful to firms operating in rapidly changing environments. Thus, even if IS resources do not directly lead the firm to a position of superior sustained strategy implementation, they may nonetheless be critical to the firm's longer-term competitiveness in unstable environments if they help it to develop, add, integrate, and release other key resources over time.

More specifically, Zollo and Winter (2007) define dynamic capabilities as learned and stable patterns of collective activity through which the organization systemically generates and modifies operating routines in pursuit of improved effectiveness. Teece (2007) later defines it as the ability to sense and then seize new opportunities and to reconfigure these to achieve strategy implementation. Augir and Teece (2007) expand this definition to the inimitable capacity firms have to shape, re-shape, configure and reconfigure the firm's asset base so as to respond to changing technologies and markets.

With dynamic capabilities, sustained strategy implementation comes from the firm's ability to leverage and reconfigure its existing competencies and assets in ways that are valuable to the customer but difficult for other competitors to imitate. Dynamic capabilities help firm's sense opportunities and then seize them by successfully reallocating resources, often by adjusting existing competencies or developing new ones (Teece, 2007).

Unlike earlier strategic frameworks that were largely static, dynamic capabilities explicitly acknowledge that as markets and technologies evolve, firms need to adjust by reallocating assets and learning new skills. It is the ability to adapt and extend existing competencies that differentiates dynamic capabilities from other strategic frameworks. This ability places a premium on senior management's ability to accomplish two critical tasks. First they must be able to accurately sense changes in their competitive environment, including potential shifts

in technology, competition, customers and regulation. Second, they must be able to act on these opportunities and threats; to be able to seize them by reconfiguring both tangible and intangible assets to meet new challenges (Teece, 2007).

These two fundamental capabilities are at the core of a firm's ability to survive and grow over time and represent the essence of dynamic capabilities. Winners in the global market place have been firms that can demonstrate timely responsiveness and rapid flexible product innovation, coupled with the management capability to effectively coordinate and re-deploy internal and external competencies (Arthur & Strickland, 2003). One without the other is insufficient for long term success since the market place is ever changing. If a firm has resources and competencies but lacks these dynamic capabilities, it may make a competitive return in the short run but is unlikely to sustain this in the face for change (Teece, 2007).

Each of these approaches to strategy attempts to solve the puzzle of how a firm can out-compete its rivals by either developing useful firm-specific skills or positioning itself in ways that customers value and are willing to pay for and that rivals cannot easily imitate. While earlier approaches to strategy were largely static (for example, develop a positional advantage and protect it), dynamic capabilities call attention to the need for organizations to change overtime and compete in both emerging and mature businesses (Tushman & O'Reilly, 2011).

A key element of this dynamic capability view is the coordination and integration to innovation, i.e., the scale to which an organization's managerial and technical skills, technological architecture, social and cognitive structure, culture, and values are adapted to and supported. According to Pavlou and El Sawy (2006) dynamic capabilities 'help firms reconfigure existing functional capabilities so they can build products that better match emerging customer needs and take advantage of technological breakthroughs' .

Pavlou and El Sawy (2006) conceptualize a two-level framework based on five processes that constitute dynamic capabilities in the context coordination and integration within an organization: reconfiguring resources, sensing the environment, learning, coordinating activities and integrating interaction patterns. It is necessary to not only distinguish between dynamic capabilities, from (basic) organizational and functional capabilities, but that it is also important to open the 'black box' and disentangle the process of evolution of dynamic capabilities – besides focusing on their effectiveness or impact.

Besides the stock of technological capabilities, the formation of dynamic capabilities, supported by organizational and functional capabilities, involves complex and interdependent self-sustaining mechanisms. These mechanisms are constituted by managers' decisions and actions in the context of established organizational routines, which can and are shaped by (or can also modify) social and cognitive structures, spanning different organizational levels Organizational capabilities support the basic underlying social and cognitive activity required for knowledge-based innovation (Robbins, 2005).

Coordination and integration oforganizational' capabilities are the organizational routines and work practices that, in combination with certain socio-cognitive structural attributes (for example preferred communication and sense-making approach), provide the organizational 'glue' that supports the basic underlying activity required for dynamic capability formation and innovation. Examples of 'organizational' capabilities are: distributed knowledge integration and recombination and conversion capability, sense-making, information processing, communication and organizing routines relational and alliance capability and leadership capability (Zahra *et al*., 2006).

Market positioning is fundamental to marketing strategy, especially for new and innovative products. In new product development, marketers can innovate by adding novel functions, or they can innovate by altering the physical form of the product to increase aesthetic or hedonic appeal. The difficulty is that innovative changes in form are often incongruent with consumer expectations (Farjoun, 2010).

Marketing scholars have long explored how consumers process incongruent products. Consistent with this body of work, we define an incongruent product as a good or service that deviates from a normative expectation. A simple example might be a round (rather than square) digital camera. This stream of research has substantive implications in that new products, especially innovative ones, are often incongruent with consumers' existing mental representations or schemas (Robbins, 2008).

EMPIRICAAL REVIEW

Knowledge Management for Future Positioning

Investing in knowledge is expensive, and since the creation of new knowledge is an inherently unsure process, it is unlikely that value-providing knowledge will be evenly distributed among the members of the organisation. The individuals that develop this knowledge may obtain Ricardian rents (Winter, 2012), i.e. obtain results that give higher profits than other companies in the same business. At the present time, industrial companies are composed of machinery, employees and organized work systems. A higher degree of knowledge will enable a company to manufacture better products or to design more efficient and efficacious production methods. Knowledge can therefore generate Ricardian rents according to the value associated with it.

Cohen and Levinthal (2011) refer to absorptive capability: the ability of a firm to recognize the value of new, external information, assimilate it, and apply it to commercial ends… the ability to evaluate and utilize outside knowledge is largely a function of the level of prior knowledge. Firm's ability to acquire external, new knowledge, assimilate it with existing internal knowledge and ability to create new knowledge is an important factor of dynamic capabilities in several industries (George, 2005). Absorptive capacity is crucial for learning processes such as those which are taking place in development. Commercializing discontinous innovations are a specifically challenging process because of the level of newness to the marketplace. Therefore, the process of absorbing new knowledge and to learn

from other industries, partners and other actors become essential. This is also true for the product development and integration of new technological solutions.

Dynamic capabilities are viewed to be essentially path dependent, as they are shaped by the decisions the firm has made throughout its history, and the stock of assets that it holds (Zollo and Winter, 2002). Path dependency "not only defines what choices are open to the firm today, but…also puts bounds around what its internal repertoire is likely to be in the future. Path dependency could be grounded in knowledge, resources familiar to the firm, or influenced by the social and collective nature of learning (Teece *et al*., 2007).

This suggests that learning plays a significant role in the creation and development of dynamic capabilities. This is illustrated, for instance, by Eisenhardt and Martin (2010) and Zollo and Winter (2002) who explain that learning is at the base of dynamic capabilities, and guides their evolution (for a fuller discussion on the genesis and evolution of dynamic capabilities. Learning is also considered as a dynamic capability itself, rather than an antecedent of it. As such, learning as a dynamic capability has been identified as a process by which repetition and experimentation enable tasks to be performed better and quicker. Zollo and Winter (2002) attempted to meld these two positions by explaining that "dynamic capabilities are shaped by the co-evolution of learning mechanisms".

Helfat and Peteraf (2003) emphasized that to qualify as a dynamic capability, a capability not only needs to change the resource base, but it also needs to be embedded in the firm, and ultimately be repeatable. Those are key issues in the dynamic capability conversation, and we have addressed these criteria in our following theoretical development of the dynamic capability construct.

Dynamic capabilities are argued to comprise of four main processes: reconfiguration, leveraging, learning and integration (Bowman and Ambrosini, 2003). Reconfiguration refers to the transformation and recombination of assets and resources, e.g. the consolidation of manufacturing resources that often occurs as a result of an acquisition. Leveraging refers to the replication of a process or system that is operating in one area of a firm into another area, or extending a resource by deploying it into a new domain, for instance applying an existing brand to a new set of products. As a dynamic capability, learning allows tasks to be performed more effectively and efficiently, often as an outcome of experimentation, and permits reflection on failure and success. Finally, integration refers to the ability of the firm to integrate and coordinate its assets and resources, resulting in the emergence of a new resource base.

When developing a market position a company needs to select the most persuasive meaningful and unique points of difference that will allow it to compete for the largest number of potential customers. Developing a positioning strategy depends largely on how competitors position themselves. Some companies develop a 'me too' strategy and position themselves close to their competitors so prospects can make a direct comparison when they purchase (Robbins, 2008).

Other companies develop marketing strategies which position them well away from their competitors. Offering a benefit which is superior depends on the marketing mix strategy the company adopts. Their pricing strategy must reflect the benefit offered and their promotion strategy must clearly communicate this benefit (Pavlou & El Sawy (2006). The best start for any positioning analysis is gaining a thorough knowledge of a product or service's target market. With a good idea of the wants, needs and interests of a product or service's target market, a good marketing team can help develop a positioning statement to help reach as much of the target market as possible (Arthur & Strickland, 2011).

Reaching the customer is not simply a matter of advertising; it is also a matter of choosing the right channels for distribution. If a majority of your target market lives in an urban area with only public transportation available to them, having your product in rural areas where a private automobile is needed for transport would not equal sales success. Place or position your product or service as close to the target market as possible. Create similar advertisements in store as the ones seen out of store to create an overall identity for your brand (Wade & Hulland, 2004).

It should be noted that there is a large amount of research on the psychology of pricing in marketing. Simply put, the price of an item tells the buyer more about the item than most realize. Many associate a higher price with higher quality and the opposite with a lower price. Additionally, if a product is positioned as a good alternative to high-priced brands, the marketing department must price it in the middle of the market to avoid a comparison to the cheapest end of the spectrum (Poppo, 2009).

As the environment shifts, resource advantages can become disadvantages if no attempts are made to refresh the resource stock. As Leonard-Barton (2011) explains, valuable resources can become core rigidities if they are not modified, combined with different equipment or extended for new use, such as to produce new product lines. These renewing dynamic capabilities are of a different order to incremental dynamic capabilities. They are not merely about continual, incremental changes; they are concerned with modifying the resource stock in such a way that its utility is altered so that rent generation is sustained. So we could differentiate incremental dynamic capabilities from renewing capabilities as follows. Where incremental capabilities are applied the resource stock remains essentially the same, but the resources undergo continuous development or evolution. For example, a successful brand might be continually updated to keep its value over time e.g. the *KitKat* chocolate bar that has been around for seventy years has undergone periodic adjustments and enhancements, but the basic brand remains essentially stable. In contrast, where renewing capabilities are employed new resources are either created, introduced, or resources are combined in new ways. Hence a renewing capability would be the introduction of new product lines, or the extension of a brand into a new product application e.g. a *KitKat* lunch box.

Organizational Transformation

Adaptive capability is defined as a firm's ability to identify and capitalize on emerging market opportunities (Hooley et al., 2011). Therefore, adaptive capabilities are essential in the context of commercialization. Adaptive capability focuses on effective search and balancing exploration and exploitation strategies (Staber and Sydow, 2012). This type of "balancing" act is brought to a strategic level and linked to the resource perspective. The development of adaptive capability is often accompanied by the evolution of organizational forms.

According to Rindova and Kotha (2001) firms undergo comprehensive, continuous changes in products, services, resources, capabilities and modes of organizing. Other empirical studies (Alvarez and Merino, 2011) also reveal that the ability to adapt to environment and align internal resources with external demand is critical to firm evolution and survival in several industries. Adaptive capabilities often refer to the firm's ability to adapt their product-market scope to respond to external opportunities, to scan the market, monitor customers and competitors and allocate resources to marketing activities, and to respond to changing market environment in a speedy manner. According to Gibson and Brikinshaw (2004) adaptive capability refers to the management ability to encourage people to challenge outmoded traditions, practices and sacred cows, which allows the firm to respond quickly to changes in the market and evolve rapidly in response to shifts in its business priorities. In the context of newly established firms this capability refers to positioning itself in the market space.

Organizations seeking to adapt during turbulent times cannot force change through purely technical approaches such as restructuring and reengineering. They need a new kind of leadership capability to reframe dilemmas, reinterpret options, and re form operations and to do so continuously (Lawson and Price, 2011). Organizational transformation is about organizational change which the change goes to the depths of what an individual feels and will affect what people feel about the organization, what they do in the organization and maybe what they hold dear to life. Organizational transformation is more than just changing the way business is done. It is about changing the organizational culture in one or more ways. Transforming the organization refers to any significant change made to an organization such as, restructuring an organization or reengineering an organization and/or there is a significant change in the way business is done (Flint, 2005).

Organizational transformation helps organizations change where they need to change and build the leadership capability to enable successful strategy implementation. It's not unusual for changes in the business to drive the need for organizational change as well. Whether the result of an acquisition, a new technology, or a new strategy, shifts in the business invariably require an organizational response. Sometimes these shifts are so significant that Organization Transformation is needed to drive alignment across the changing landscape of culture, behaviors and business objectives. With clear priorities and direction from the top, organization transformation is a powerful tool for ensuring that other transformational

initiatives deliver the value leaders expect – by engaging the workforce to fulfill and execute the strategic vision (Kelman, 2005).

Many senior managers today are aggressively trying to transform their companies by changing behavior and capabilities throughout the organization. Unfortunately, most leadership groups lack a proven way of thinking about the challenge. Strategy implementation efforts inevitably bring to light the size and shape of organizational barriers. They also help clarify how an organization must evolve to institutionalize or "lock in" the new capabilities that have begun to develop. Here the leadership role is to identify the needed changes systematically and take the required actions to institutionalize them (Ostroff, 2006).

Organizational transformations are inherently complex, multidimensional processes. Leaders are often tempted to define a master plan, declare the planning phase complete, and delegate implementation to others. Successful initiatives are managed quite differently. Leaders recognize that the effort can never be fully planned in advance. The leadership group must learn as they go and allow for the effort to proceed in an evolutionary (and continuously improving) manner. These efforts may start out with broad objectives and a modest process, such as benchmarking or developing a vision. But successful efforts make leaps forward in the clarity of objectives every three to six months, as experience is gained and lessons are learned (Burke, 2008).

This is the situation most commonly referred to in the dynamic capability literature, notably by Eisenhardt and Martin (2010) or Helfat *et al*. (2007) (it also refers to Winters (2011) first order capabilities). These dynamic capabilities are utilized to sustain a rent stream in changing environments, they refresh and renew the nature of the resource stock, rather than incrementally adapt it. They are needed as resource-based advantages in dynamic environments may well be rapidly eroded. Examples of such dynamic capabilities would, for instance, include brand extension such as those undertaken by Virgin, or process replication as performed by Sony. Virgin has generated new resources by deploying its valuable brand into new domains e.g. airlines, mobile phones, cosmetics, bridal wear, cola, railways. As far as Sony is concerned they have applied their know-how in miniaturization to all their products e.g. radio, hi-fi, computers or personal navigation.

RESEARCH METHODOLOGY

The main focus of this study was quantitative. However some qualitative approach was used in order to gain a better understanding and possibly enable a better and more insightful interpretation of the results from the quantitative study. The study adopted an exploratory approach using a descriptive survey design.Descriptive design uses a preplanned design for analysis (Mugenda and Mugenda, 2003).A descriptive research design as defined by Kothari (2004) is a process of collecting data in order to answer questions concerning the current status of the subject in the study. This research design was considered appropriate because variables involved do not involve any manipulation and will establish the current status of the phenomena (Borg and Gail, 1983).

This study used cross sectional approach. That is, it was undertaken at a particular point in time. This approach has been credited due to the fact that it allows analysis the relations of variables under study using linear regression as long as the sampling units for the study are many. It also allows greater flexibility in terms of money and time as well as avoiding the hardship of hunting for respondents more than once to produce high response rate.This method was suitable for the study because the study involved coming up with questions that are as precise as possible in getting accurate answers as (Mytton, 2010) advices. Advantages of the survey method that favored the study include; availability of existing data, investigating problems in a realistic setting, cost cutting is possible and plenty of data can be collected with ease (Wimmer & Dominick, 2011). These reasons justify why this study became cross sectional.

The target population under study was 1064senior and middle level management staff in the dairy industry in Kenya including the strategic planners and supervisors of the 54dairy processors, management staff at the dairy board and also management staff from the livestock department in the Ministry of Agriculture. According to KDB (2013), there were 54 (Fifty four) licensed milk processing firms in Kenya as at 31st January 2013. Out of these, 34 (Thirty four) were licensed as milk processors and 20 (Twenty) as Mini Dairies.

The sampling frame describes the list of all population units from which the sample will be selected (Cooper & Schindler, 2003). Sample of responding firms was drawn from 1064respondents.Where external validity is important, one need to carry out random sampling from properly defined population. In this view probabilistic sampling whose logic lies in selecting a truly random and representative sample that permits confident generalizations from the sample to a larger population was done (Cooper & Schindler, 2003). A sample of 282was arrived at by calculating the target population of 1064 with a 95% confidence level and an error of 0.05 using the below formula taken from Mugenda and Mugenda (2003). From Normal distribution the population proportion could be estimated to be:

$$n = \frac{Z^2 PQ}{\alpha^2}$$

Where: Z is the Z – value = 1.96
P Population proportion 0.50
$Q = 1\text{-}P$
$\alpha = \text{level of significance} = 5\%$
$$n = \frac{1.96^2 \text{ x } 0.5 \text{ x } 0.5}{0.05^2}$$
$n = 384$

Adjusted sample size
$$nf.' = n/ [1+ (n/N)]$$
$$n.' = 384/ [1+ (384/1064)]$$
Approx = 282

Using probabilistic sampling each population member has a known chance of being included in the sample. Statistically, in order for generalization to take place, a sample of at least 30 must exist (Cooper and Schindler, 2003). Moreover, larger sample minimize errors. Kotler et

al (2001) argues that if well chosen, samples of about 10% of a population can often give good reliability. Other literatures have shown that sample size selection to a great extent is judgmentally decided. At least 282respondentswere randomly selected.

Primary data was collected using questionnaires. On the other hand secondary data was collected from computer internet database browsing, newspapers, published books, journals and magazines as well as other sources such as the sector annual reports. The questionnaire designed by the researcher based on the research questions was pilot tested to refine the questions before it can be administered to the selected sample. A pilot test was conducted to detect weakness in design and instrumentation and to provide proxy data for selection of a probability sample. Mugenda and Mugenda (2003) asserted that, the accuracy of data to be collected largely depended on the data collection instruments in terms of validity and reliability. To establish the validity of the research instrument the researcher sought opinions of experts in the field of study especially the lecturers in the department of business administration. This helped to improve the content validity of the data that was collected. The researcher selected a pilot group of 30 individuals from the target population to test the reliability of the research instruments. In order to test the reliability of the instruments, internal consistency techniques were applied using Cronbach's Alpha. The alpha value ranges between 0 and 1 with reliability increasing with the increase in value. Coefficient of 0.6-0.7 is a commonly accepted rule of thumb that indicates acceptable reliability and 0.8 or higher indicated good reliability (Mugenda, 2008). The pilot data was not included in the actual study.

Cronbach's alpha is a general form of the Kunder-Richardson (K-R) 20 formulas used toaccess internal consistency of an instrument based on split-half reliabilities of data fromall possible halves of the instrument. It reduces time required to compute a reliabilitycoefficient in other methods (Mugenda & Mugenda, 2003).
The Kunder-Richardson (K-R) 20 is based on the following formula;

$$KR20= \frac{(K) (S2 - \Sigma S^2)}{(S2) (K-1)}$$

KR20 *Reliability coefficient of internal consistency*
K *Number of item used to measure the concept*
S2 *Variance of all score*
s2 *Variance of individual items*

Finally, the pilot survey drew responses from the interviewees on the design and contentof the instrument and suggestions for more efficient and practical way of administering it.The pilot testing was re-run until the researcher was satisfied with the data collectioninstruments.

The quantitative data in this research was analyzed by descriptive statistics using statistical package for social sciences (SPSS) version 21. This version was used since it is the most recent version of SPSS and hence it has got advanced features. Completeness of qualitative data collected was checked for and cleaned ready for data analysis. Content analysis was used in processing of this data and results presented in prose form.

A correlation analysis was performed to determine if any variables are correlated. The Pearson correlation coefficient (r) was used to identify the magnitude and the direction of the relationships between variables. For example, the value can range from —1 to +1, with a +1 indicating a perfect positive relationship, 0 indicating no relationship, and —1 indicating a perfect negative or reverse relationship (as one grows larger, the other grows smaller). In addition, a multivariate regression model was applied to determine the relative importance of each of the four variables with respect to strategy implementation. Multiple regressions is a flexible method of data analysis that may be appropriate whenever quantitative variables (the dependent) is to be examined in relationship to any other factors (expressed as independent or predictor variable). Relationships may be non-linear, independent variables may be quantitative or qualitative and one can examine the effects of a single variable or multiple variables with or without the effects of other variables taken into account, (Cohen, West and Aiken, 2003). The regression model was as follows:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \varepsilon$$

Where: Y = Strategy Implementation

β_0 = Constant Term

β_1, β_2 and $\beta_3,$ = Beta coefficients

X_1= knowledge management for future positioning

X_2= organizational transformation

ε = Error term

Inferential statistics such non parametric test which include analysis of variance (ANOVA) was used to test the significance of the overall model at 95% level of significance. According to Mugenda (2008) analysis of variance is used because it makesuse of the F – test in terms of sums of squares residual.The chi square was used to measure association between the independent and dependent variables and test the research hypotheses as computed in previous studies by Clausen (2013) and Wilden, Gudergan and Lings (2012). All necessary diagnostic tests were performed.

RESEARCH FINDINGS AND DISCUSSION

Preliquisite Tests Results

The study performed tests on statistical assumptions i.e. test of regression assumption and statistic used. This included Pilot Test, Sampling Adequacy Tests, Multicollinearity Test, Homoscedasticity Test, Normality test, CUSUM test for parameter stability, Tests of Independence and Heteroskedasticity Test.

Pilot Test Results

In this study the reliability of the instruments was tested using cronbach alpha. Crobanch alpha value is used in the research to verify the reliability of the construct. A total of 17 questionnaires were obtained among employees of the dairy industry. Reliability of all the five constructs representing the dependent (strategy implementation) and the independent variables (knowledge management, discontinuous innovation, organizational transformation and coordination of managerial processes) attracted a cronbach alpha statistics of more than 0.7. A cronbach alpha of more than 0.7 indicates that the data collection instrument is reliable Field (2009).

Table 1: Reliability Analysis

Variable	Cronbach Alpha coefficient score	No. Of Items	Comments
Knowledge managementfor future positioning	0.889	9	Reliable
Organisational transformation	0.730	5	Reliable

A pilot study was carried out to determine reliability of the questionnaires. The pilot study involved the sample respondents. Reliability analysis was subsequently done using Cronbach's Alpha which measured the internal consistency by establishing if certain item within a scale measures the same construct. Gliem and Gliem (2003) established the Alpha value threshold at 0.7, thus forming the study's benchmark. Cronbach alpha was established for every objective which formed a scale. The table shows that discontinuous innovation had the highest reliability ($\alpha= 0.930$), followed by knowledge management ($\alpha=0.889$), coordination of managerial processes ($\alpha=0.732$) and finally the organisational transformation ($\alpha=0.730$). This illustrates that all the variables were reliable as their reliability values exceeded the prescribed threshold of 0.7.

Sampling Adequacy Tests

In order to establish the validity of study's variables, tests of sampling adequacy were used. This enabled the study identify whether the items were appropriate for factorial analysis. The Table below shows Kaiser-Meyer-Olkin (KMO) test of sampling adequacy and Bartlett's test of sphericity. The test results show that the scales had values above the threshold of 0.5 as established by Williams, Brown and Onsman (2012). Williams, Brown and Onsman stated that KMO of 0.50 is acceptable degree for sampling adequacy with values above 0.5 being better.

Bartlett's Test of sphericity which analyzes if the samples are from populations with equal variances produced p-values less than .05 ($p < .001$). Since the Bartlett's test significances were less than 0.05 further indicates an acceptable degree of sampling adequacy (sample is factorable). Bartlett's test of sphericity had a consistent significance of $p < .001$ which depicted and confirmed sampling adequacy.

Table 2: Kaiser-Meyer-Olkin (KMO) and Bartlett's Test

Scale	Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	Bartlett's Test of Sphericity Approx. Chi-Square	df	Sig.
Knowledge management for future positioning	.814	928.302	91	.000
Organisational transformation	.779	74.437	22	.000

Multicollinearity Test

Problem may arise when two or more predictor variables are correlated. Heteroscedasticity means that previous error terms are influencing other error terms and this violates the statistical assumption that the error terms have a constant variance. Greene (2003) argues that the prediction is not affected, but interpretation of, and conclusions based on, the size of the regression coefficients, their standard errors, or the associated z-tests, may be misleading because of the potentially confounding effects of multi collinearity. In the presence of multi collinearity, Mason and Perreault (2011) demonstrate that the coefficient estimates may change erratically in response to small changes in the model or the data. However, the decision to finally drop an item also depends on a second step, where the variance inflation factor (VIF) is applied according to Greene (2013) and Baum (2006). The VIF detects multi collinearity by measuring the degree to which the variance has been inflated. A VIF greater than10 is thought to signal harmful multi collinearity as suggested by Baum (2006).

Table 3: Summary of Collinearity Statistics

Model	Collinearity Statistics	
	Tolerance	VIF
Knowledge management for future positioning	0.924	2.728
Organisational transformation	0.786	1.423

The Variance inflation factor (VIF) was checked in all the analysis which is not a cause of concern according to Baum (2006) who indicated that a VIF greater than 10 is a cause of concern. The basic assumption is that the error terms for different observations are uncorrelated (lack of autocorrelation).

HomoscedasticityTest

Homoscedasticity assumes that the dependent variable(s) exhibit an equal level ofvariance across the range of predictor variable(s). Homoscedasticity is one of theassumptions required for multivariate analysis.Although the violation ofhomoscedasticity might reduce the accuracy of the analysis, the effect on ungrouped datais not fatal (Tabachnick &Fidell, 2007). Levene test was employed to assess theequality of variances for the four variables calculated (knowledge management and organisational transformation). Regression analysisassumes

that variances of the populations from which different samples are drawn areequal. Levene's test measures whether or not the variance between the dependent and independent variables is the same. Thus, it is a check of whether the spread of the scores (reflected in the variance) in the variables are approximately similar (Bryk*et al*, 1988). If the Levene's Test is significant (p ≤ .05), the two variances are significantly different. If the test is not significant (p ≥ .05), the two variances are not significantly different; that is, the two variances are approximately equal; that is, the data groups have equal variances (Gastwirth*et al*., 2009). From Table 4, the resulting P-value of Levene's test is less than the conventional0.05 critical value, indicating that the obtained differences in sample variances are likelynot to have occurred based on random sampling from a population with equal variances.Thus, there is significant difference between the variances in the population.

Table 4: Levene Statistic

Variables	Levene Statistic	df1	df2	Sig.
Knowledge management for future positioning	9.843	7	147	.039
Organisational transformation	4.532	7	147	.043

Normality test

Normality of the variables was examined using the skewness and kurtosis. According to Kline (2011) the univariate normality of variables can be assumed if the skewness statistic is within the interval (-3.0, 3.0) and the kurtosis statistic lying in the interval (-10.0, 10.0).

Table 5: Shapiro-Wilk Test

	Statistic	df	Sig.
Knowledge management for future positioning	0.887	230	0.012
Organisational transformation	0.834	230	0

a. Lilliefors Significance Correction

From the finding on the Shapiro-Wilk test on normality, the study found that significance was less than 0.05 which is leads to the rejection of the null hypothesis that that data on the dynamic capabilities strategieswere not normally distributed this is an indication that data on the variables were normally distributed.
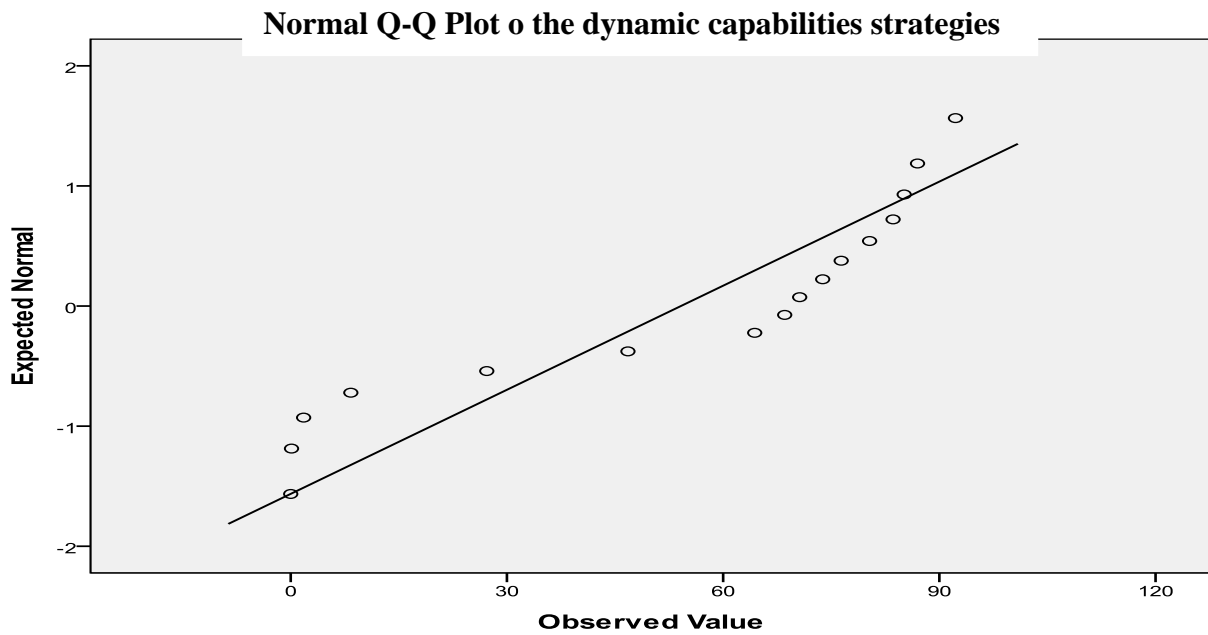
Normal Q-Q Plot o the dynamic capabilities strategies

Figure 1: Quartile-Quartile Plot for Normality

Figure 1 shows the Quartile-Quartile plot that test for normality. Generally, the plots do not deviate from the regression line which shows that the variables are normally distributed (Makkonen, Pajari and Tikanmäki, 2013).

CUSUM test for parameter stability

CUSUM test for parameter stability presented in the Figure below shows that the model is stable over time as it does not deviates from lines but is balanced on the line from one observation to another (that is there is no change in models parameters given Harvey-Collier t(27) of 0.105681 with p-value 0.91660).
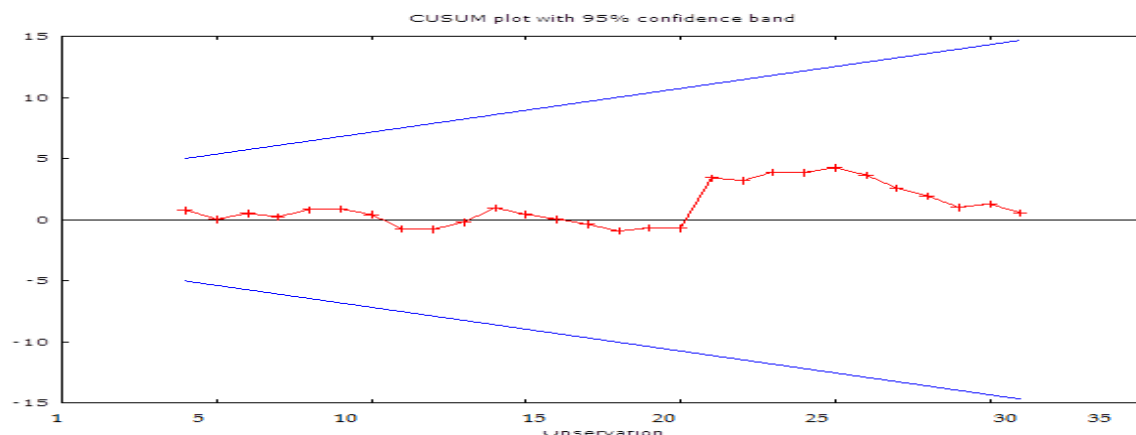

Figure 2: CUSUM test for parameter stability

Tests of Independence

Independence of error terms, which implies that observations are independent, was assessed through the Durbin-Watson test. Durbin Watson (DW) test check that the residuals of the models were not autocorrelated since independence of the residuals is one of the basic hypotheses of regression analysis. Its statistic ranges from zero to four. Scores between 1.5 and 2.5 indicate independent observations (Garson, 2012). The DW statistics were close to the prescribed value of 2.0. Thus, it can be concluded that there was no autocorrelation and the residuals were independent.

Table 6: Durbin Watson Test

Variables	Durbin Watson
Knowledge management for future positioning	1.987
Organisational transformation	2.084

Heteroskedasticity Test

Heteroskedasticity test was used to examine the assumptions of homoskedasticity in the residuals. According to this assumption, residuals in the regression model must have constant variances. If they are not constant, the situation can be defined as heteroskedastic.

Table 7: Heteroskedasticity Test

F-statistic	4.619239	Prob. F(4,103)	0.0018
Obs*R-squared	0.82708	Prob. Chi-Square(4)	0.0025
Scaled explained SS	17.34903	Prob. Chi-Square(4)	0.0017
Prob(F-statistic)	0.000000		

To confirm for heteroskedasticity assumption in the error term of the regression model, this study applied heteroskedasticity test by Breuch-Pagan-Godfrey test. If the P-value of the observed* R-squared is greater than 5 percent, then null hypothesis which state that residuals was not heteroskedastic would not be rejected. If P-value is less than 5 percent, the null hypothesis would rejected, it would be concluded that there is significant evidence of heteroscedasticity, so that it is not be plausible to assume that the variance of the errors is constant in this case.

Test Hypothesis One

Knowledge management and strategy implementation in the dairy industry

The focus of hypothesis one was to determine the relationship between knowledge management strategy implementation in the dairy industry. To test the first hypothesis, the index of strategy implementation in the dairy industry in Kenya as index of dependent variable was regressed upon knowledge management as a composite of independent variable.

Table 8: Knowledge management and Strategy implementation in the dairy industry

(a)**Model summery**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.828[a]	.686	.685	1.60705

a. predictors: (constant) knowledge management
b. Dependent: Variable : Strategy implementation in the dairy industry

(b) ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	1294.335	1	1294.335	501.176	.000[b]
Residual	591.414	229	2.583		
Total	1885.749	230			

a. Dependent Variable : Strategy implementation in the dairy industry

(c) Coefficient

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
1	B	Std. Error	Beta		
Constant	-9.490	1.325		-7.163	.000
knowledge management	.752	.034	.828	22.387	.000

b. Dependent: variable : Strategy implementation in the dairy industry

The regression equation obtained from this output was:

Strategy implementation in the dairy industry = -9.490 + 0.752 knowledge management + e………………………………..equation (1)

From the findings as shown on table above, the adjusted R square for the regression of Strategy implementation in the dairy industry on knowledge management is 0.685 which mean that knowledge management explains 68.5% of variation in Strategy implementation in the dairy industry

From the ANOVA results the F-ration F-ratio (1, 230) = 1294.335 for this relationship is significant at $p < 0.001$, which indicates that the model significantly predicts the outcome of the relationship between knowledge management and Strategy implementation in the dairy industry.

The beta un-standardized coefficient for knowledge management is 0.752 is also significant at $p < 0.000$, which means that when knowledge management changes by one unit in the measurement scale, strategy implementation in the dairy industry changes by 0.624 units.

The constant term value is -9.490, implying that when knowledge management is zero; Strategy implementation in the dairy industry would have a default value of -9.490. Therefore the null hypothesis one, which stated that there is no relationship between knowledge management and strategy implementation in the dairy industry, is not accepted. The

implication is that there exists a significant positive relationship between knowledge management and strategy implementation in the dairy industry

The findings conforms with the reserch by Arthur & Strickland, (2011) that a good knowledge management strategy is vital to the success of any knowledge management initiative, and should be one of the early steps in the KM program therefore implementing knowledge management should be done in the context of an agreed strategy, Ambrosini, (2003) affirms that strategy ensures that the knowledge management implementation proceeds in a way that is aligned with the current business approaches, is targeted on the right problems, and is coordinated with other existing change initiatives.

Test Hypothesis Two

Organizational transformation process and strategy implementation in the dairy industry, The aim of hypothesis two was to establish the relationship between organizational transformation process and strategy implementation in the dairy industry, to test the second hypothesis, the index of Strategy implementation in the dairy industry as index of dependent variable was regressed upon organizational transformation processes a composite of independent variable.

Table 9: Organizational transformation process and Strategy implementation

(a)Model summery

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.872[a]	.760	.713	.10122

a. predictors: (constant) Organizational transformation processes
b. Dependent: Variable : Strategy implementation in the dairy industry

(b) ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.28	1	2.28	9.956	.004[b]
	Residual	52.441	229	0.229		
	Total	54.721	230			

a. Dependent Variable : Strategy implementation in the dairy industry

(c) Coefficient

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
1		B	Std. Error	Beta		
	(Constant)	-1.821	455		-0.004	-1.821
	Organizational transformation	0.523	0.218	0.489	2.399	0.523

b. Dependent: variable : Strategy implementation in the dairy industry

The regression equation obtained from this output was:

Strategy implementation in the dairy industry = -1.821+ 0. 523 organizational transformation process+ e………………………………..equation (2)

From the findings as shown on table above, the value of adjusted R square for the regression of strategy implementation in the dairy industry on organizational transformation process is 0.713 which mean that organizational transformation process explains 71.3% of variation in Strategy implementation in the dairy industry.

From the ANOVA results the F-ration F-ratio $(1, 230) = 9.956$ for this relationship is significant at $p < 0.004$, which indicates that the model significantly predicts the outcome of the relationship between organizational transformation process and strategy implementation in the dairy industry.

The beta un-standardized coefficient for organizational transformation processes is 0.523 is also significant at $p < 0.004$, which means that when organizational transformation process changes by one unit in the measurement scale, Strategy implementation in the dairy industry changes by 0.523 units.

The coefficient for the constant term is -1.821, implying that when organizational transformation process is zero, Strategy implementation in the dairy industry would have a default value of -1.821. Therefore the null hypothesis one, which stated that there is no relationship between organizational transformation process and strategy implementation in the dairy industry, is not accepted. The implication is that there exists a significant positive relationship between organizational transformation process and strategy implementation in the dairy industry the findings are in line with the research by Alvarez and Merino, (2011) that the ability to adapt to environment and align internal resources with external demand is critical to firm evolution and survival in several industries.

The findings are in support with the research by Staber and Sydow, (2012) who asserts that during organisational organizational transformation process, the top management team should delegate to employees as well as motivating and enabling them to act, encouraging innovation, trial and experimentation and by developing a culture which encourages informed risk-taking and facilitates learning from mistakes. According Hooley *et al.,* (2011) the combination of exploration and path creation can lead to the "disruptive innovation" that can help the organisation secure sustainable competitive advantage.

Summary of the Correlation Results

Table 10: Correlation Results

		Strategy implementation	Knowledge Management	organizational transformation	Discontinuous innovation	Coordination of managerial processes
Strategy implementation	Pearson Correlation	1	.828	810	.026	.772
	Sig. (2-tailed)		.000	.016	.001	.000
	N		231	231	231	231
Knowledge Management	Pearson Correlation	.828	1	.042	.132	.786
	Sig. (2-tailed)	.000		.530	.045	.000
	N	231	231	231	231	231
organizational transformation	Pearson Correlation	810	.042	1	.912	.151
	Sig. (2-tailed)	.016	.530		.000	.022
	N	231	231	231	231	231

On the correlation of the study variable, the researcher conducted a Pearson moment correlation. From the finding in the table above, the study found that there was strong correlation coefficient between strategy implementation and knowledge management as shown by correlation factor of 0.828, this strong relationship was found to be statistically significant as the significant value was 0.000 which is less than 0.005, the study found strong positive correlation between strategy implementation and organizational transformation as shown by correlation coefficient of 0.810, this too was also found to be significant at 0.016 level of confidence , The findings are in line with the research by Ambrosini, (2003) who foud a strong positive corelation between Knowledge management (KM) and stategy implemetation adding that Knowledge management (KM) can provide opportunities for achieving substantial savings, significant improvements in human performance, and other competitive advantage. The findings also concur with the reserach findings by Robbins (2005) who foud a strong positive corelation between organizational transformation and stategy implemetation adding that organisational organizational transformation helped to deliver significant impact to organizations undergoing or anticipating profound change or facing strategic discontinuities or risk.

Summary of the Regression Results

In this study, a multiple regression analysis was conducted to test the influence among predictor variables. The research used statistical package for social sciences (SPSS V 21.0) to code, enter and compute the measurements of the multiple regressions. The model summary are presented in the table below.

Table 11: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.864[a]	.746	.741	1.45642

a. Predictors: (Constant), Knowledge Management, Organizational Transformation,

Adjusted R squared is coefficient of determination which tells us the variation in the dependent variable due to changes in the independent variable. From the findings in the above table the value of adjusted R squared was 0.746 an indication that there was variation of 74.1percent on strategy implementation in dairy industry due to changes in knowledge management and organizational transformation at 95 percent confidence interval. This shows that 74.1 percent changes in strategy implementation in dairy industry in Kenya could be accounted to knowledge management and organizational transformation. R is the correlation coefficient which shows the relationship between the study variables. From the findings shown in the table above it is notable that there extists strong positive relationship between the study variables as shown by 0.864.

The study further tested the significance of the model by use of ANOVA technique. The findings are tabulated in table below.

Table 12: Summary of One-Way ANOVA results

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1406.367	4	351.592	165.755	.000[b]
	Residual	479.382	226	2.121		
	Total	1885.749	230			

a. Dependent Variable: Strategy implementation

b. Predictors: (Constant), Knowledge Management, Organizational Transformation,

Critical value = 2.46

From the ANOVA statistics, the study established the regression model had a significance level of 0.000 which is an indication that the data was ideal for making a conclusion on the population parameters as the value of significance (p-value) was less than 5%. The calculated value was greater than the critical value (165.755> 2.46) an indication that knowledge management and organizational transformation affects strategy implementation in dairy industry in Kenya. The significance value was less than 0.05 indicating that the model was significant.

In addition, the study used the coefficient table to determine the study model. The findings are presented in the table below.

Table 13: Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	-4.273	1.866		-2.290	.023
Knowledge management	.530	.050	.585	10.624	.000
Organizational transformation	.337	.146	.193	2.311	.022

From the data in the above table the established regression equation was

$$Y = -4.273 + 0.530 X_1 + 0.337 X_2$$

From the above regression equation it was revealed that holding knowledge management and organizational transformation to a constant zero, strategy implementation in dairy industry in Kenya would be at - 4.273, a unit increase in knowledge management would lead to an increase in strategy implementation in dairy industry in Kenya by a factor of 0.530, a unit increase in organizational transformation would lead to increase in s strategy implementation in dairy industry by factors of 0.337. All the variables were significant as their significant value was less than ($p<0.05$). the findings are in support of the ugument by that Arthur and Strickland (2011) that a good Knowledge Management strategy is vital to the success of any knowledge management initiative, and should be one of the early steps in the KM program. The findings are also inline with the reserch findings by Hooley et al., (2011) organisational organizational transformation helped to deliver significant impact to organizations undergoing or anticipating profound change or facing strategic discontinuities or risk adding that understanding the process of organisational organizational transformation and establishing the critical success factors for achieving change is of practical value for managers of any large organisations faced with the need to adapt to radical changes in the environment.

OPTIMAL FRAMEWORK

From the findings of the study, all the variables (knowledge management for future positioning and organizational transformation)used in analysis were found to have a significant contribution towards strategy implementation in the dairy industry in Kenya.The first hypothese of this study was tested by conducting inferential analysis where it was discovered that the *p*-value of knowledge management for future positioningwas 0.000 meaning that we reject the null hypothesis that knowledge management for future positioningdoes not influence strategy implementation in the dairy industry in Kenya. The second hypothesis stated that, organizational transformationdoesn't significantly influence strategy implementation in the dairy industry in Kenya was also rejected since the $p - $ value was 0.004.

Therefore, from the inferential analysis used in this study to test the initial hypotheses statements of the study constructs and their relationships, the optimal hypothetical model is as illustrated in figure 5.3.
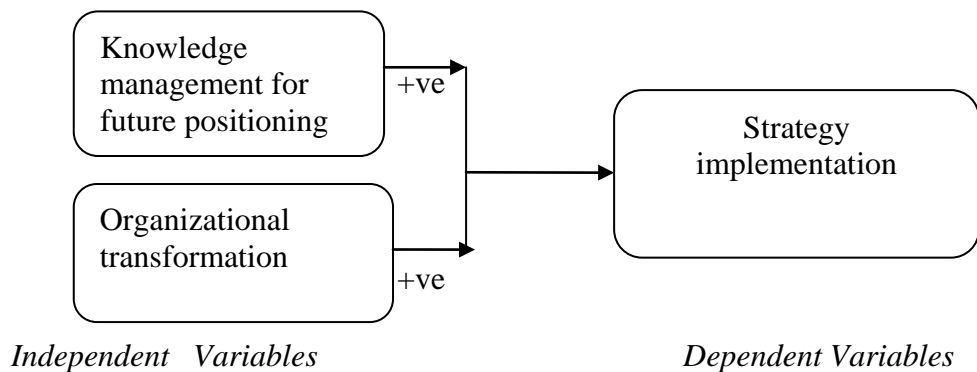

Independent   Variables   Dependent Variables

Figure 2: Revised optimal model

CONCLUSIONS

Investigation on the relationship between knowledge management for future positioning and strategy implementation reveled a strong positive correlation (Person correlation value = 828 significant value =0.000). The study prediction results from the regression model also revealed that a unit increase in knowledge management practices would enhance strategy implementation process by a factor of 530, the findings concurs with the research by Helfat and Peteraf (2003) that knowledge in an organization helped in promoting standard, achieve repeatable processes and procedures, reuse ideas, documents, and expertise, and also enabled the organization to leverage its size. the study noted that knowledge management ensured that information is easily shared between staff members, and that knowledge isn't lost if someone goes on vacation, gets sick, or leaves the company. knowledge management accelerated the rate of learning; cutting down the risks of not knowing and repeating mistakes; and retaining knowledge assets when people move, leave, or retire. The organisation strongly embraced the concept of knowledge management, believing having good knowledge management will not only allow the organisation to have all the info but also to use and utilise it to the best that way possible, and that having a good grasp on knowledge management will keep the organisational proceses always running at a high and efficient level. The research therefore concludes that knowledge management for future positioning had a positive influence on strategy implementation in the dairy industry in Kenya.

Results obtained from the assessment on the relationship between organizational transformation and strategy implementation showed a strong positive correlation between the two variables (Person correlation value 0.810 = significant value =0.016) prediction results from the regression model also revealed that a unit increase in organisational organizational transformation initiatives would enhance strategy implementation process by a factor of 0.337, the study also noted that organisational organizational transformation helped to deliver significant impact to organizations undergoing or anticipating profound change or facing strategic discontinuities or risk adding that understanding the process of organisational

organizational transformation and establishing the critical success factors for achieving change is of practical value for managers of any large organisations faced with the need to adapt to radical changes in the environment. the study concludens that with with trategic change management plan, the organization had a vision for what the process of change will look like, and what milestones were need to be reached to achieve the end goal. This allowed those in charge of the transition to assess the success of the project during each critical stage, and also provided an opportunity to motivate individuals and teams to help achieve the desired goals with recognition for those who succeed. With an effective change management plan the organization was better prepared to align its existing resources with the new tools and strategies being implemented. An effective change management plan considered what individuals and teams needed in order to continue doing their jobs and maintain day-to-day operations without noticeable negative effects. Developing a change management plan allowedthe organization to address these concerns and keep the lines of communication open with all the individuals and teams involved in the transition. it also reduced the possibility of an unsuccessful attempt to change, and reduce the amount of time it takes to implement the change and boosted employee morale in chage over process, Therefore the study concludes that organizational transformation had a positive influence on strategy implementation in the dairy industry.

RECOMMENDATIONS

In view of improving strategy implementation in the dairy industry in Kenya, the study recommends that the management of dairy industry in Kenya should implement knowledge management systems as this was associated to be a key driver towards successful strategy implementation.

The research recommends that the top management of dairy industry in Kenya should work to ensure that that internal flow of activities is effective as the quality of coordination was found to be a crucial factor in the survival of an organisation.

For successful strategy implementation, all the managers madated with coordination role should use a Multi-assessment of knowledge, skill, skills, managerial skills involved in contact with other managers and employees.

The study recommends for more business forums in order for the players in the dairy sector to understand their changing trends within their business operational environment and detect fundamental shifts in their industry. The management of the dairy board need to put up feedback measures to assess customer satisfaction systematically and frequently. On seizing capability, there is need to frequently acquire knowledge about their competitive and market trends from external sources so as to be able to identify and acquire external knowledge (such as; market, customer trends) very quickly.

The management of dairy industry should has to design and implement different approaches, including strategic actions, industry context, organizational context, technological context, and people context.

There is need to beep upcoordination of manegerial activities as this was foud to improve the efficiency of operations by avoiding overlapping efforts and duplication of work, improve the morale and job satisfaction of employees, ensure unity of action in the face of disruptive forces and that coordination fosters loyalty and commitment among employees

There is need to ensure that organizational transformation process is done procedurerally observing all the critical aspects that are vital for its success.

The study also adovocated for timely disbursement of abundant resources to strategy-essential activities, creating strategy-encouraging policies, employing best policies and programs for constant improvement.linking reward structure to accomplishment of results, making use of strategic leadership and developing an organization having potential of carrying out strategy successfully.

In order to determine the benchmark performance to be set at strategy implementation in the dairy industry in Kenya, it is essential to discover the special requirements for performing the main task. The performance indicator that best identify and express the special requirements might then be determined to be used for evaluation. The organization can use both quantitative and qualitative criteria for comprehensive assessment of performance.

It is essential to plan for a corrective action, If the performance is consistently less than the desired performance, the strategists must carry a detailed analysis of the factors responsible for such performance. If the strategists discover that the organizational potential does not match with the performance requirements, then the standards must be lowered. Another rare and drastic corrective action is reformulating the strategy which requires going back to the process of strategic management, reframing of plans according to new resource allocation trend and consequent means going to the beginning point of strategic management process.

REFERENCES

Ali, P. K., Whinston, A.B. and F, Yin. (2010). An Empirical Investigation Of Net-Enabled Business Value. MIS Q., vol. 28, pp. 585–620

Alvarez, W. and Merino, H. (2011). Building dynamic capabilities: Innovation driven by individual-, firm-, and network-level effects. *Organization Science*, 18(6), 898-921.

Ambrosini, V., Bowman, C. & Collier, N. (2009). Dynamic capabilities: An exploration of how firms renew their resource base, *British Journal of Management*, vol. 20, no. S1, pp. S9-S24.

Amit, R., Shoemaker, P. (2011). Strategic assets and organizational rent. *Strategic Management Journal* 14:33-46.

Andre, P. (2004). Dynamic capabilities: A review and research agenda. *International Journal of Management Reviews*, 9(1), 31-51.

Arend, K. R. and Bromiley, J. (2009). The resource based challenge to the industry structure perspective. *Proceedings of the Academy of Management Meeting, Dallas*, 17-21.

Armstrong, C.M. (2006). Customer power, strategic investment and the failure of leading firms, *Strategic Management Journal*, 17, 197-218.

Arthur, T. A. & Strickland, A.J. (2003). *Strategic management concepts & cases*. 13th ed. New York: McGraw-Hill/Irwin

Arthur, T. A. & Strickland, A.J. (2011). *Strategic management concepts & cases*. 13th ed. New York: McGraw-Hill/Irwin

Arthur, T. A. & Strickland, A.J. (2013). *Strategic management concepts & cases*. 13th ed. New York: McGraw-Hill/Irwin

Augir, P. and Teece, D.J. (2007). The dynamic capabilities of firms: an introduction, *Industrial and Corporate Change*, 3(3), 537-556.

Bandiera, G. and Rasul, E. (2006). Overview of developments in the world dairy market. Paper presented at the 5th Holstein Congress of the Americas, Santiago, Chile.

Baretto, J. (2010). Writing the ideal paper for JOM: A new editor's perspective, *Journal of Operations Management*, 20(1), 1-18.

Barney, J. B. (1991). Strategic factor markets: Expectations, luck and business strategy.

Baum, E. (2006). Organizational antecedents of second-order competences, S*trategic Management Journal*, 29, 519-543.

Benner, M.J. (2009). Exploitation, exploration and process management: the productivity dilemma revisited, *The academy of management review*, 28(2), 238-256.

Borg, E. and Gail, J.M. (1983). Electronic Commerce Adoption: An Empirical Study Of Small And Medium US Businesses. *Inf. Manage.*, vol. 42, pp. 197–216.

Bowman, C. and Ambrosini, V. (2003). How the resource-based and the dynamic capability views of the firm inform competitive and corporate level strategy, *British Journal of Management*, 14, 289-303.

Bryman, R. and Cramer, I. (1997). Measuring competence? Exploring firm effects in pharmaceutical research. *Strategic Management Journal,* Winter Special Issue 15: 63-84.

Charles, J. 2009. *Industrial Organization*, Cambridge: MIT Press

Cherono, W. (2005). *Liberalisation of the dairy industry*. In conference proceedings on Improving agricultural Performance. PAM, Nairobi.

Clausen, T. H. (2013). The role of operational and dynamic capabilities in ambidextrous innovation: A longitudinal analysis. *Innovation & entrepreneurship group.* 35th DRUID Celebration Conference, Barcelona, Spain, June 17-19

Clausen, T. H. (2013). *The role of operational and dynamic capabilities in ambidextrous innovation: A longitudinal analysis*. Paper to be presented at the 35th DRUID Celebration Conference, Barcelona, Spain, June 17-19

Cohen, W. & Levinthal, D. (2011). Absorptive capacity: A new perspective on learning and innovation. *Administrative Science Quarterly*, 35(1), 128-152.

Cohen, W. West, H. & Aiken, M. (2013). Absorptive capacity: A new perspective on learning and innovation. *Administrative Science Quarterly*, 35(1), 128-152.

Collins, C. J. and Montgomery, M. (2011). Existing knowledge, knowledge creation capability, and the rate of new product introduction in high-technology firms. *The Academy of Management Journal*, 48(2), 346-357.

Cooper, D.R., & Schindler, P.S. (2003).*Business Research Methods* (8th edn.). McGraw-Hill: New York.

Danneels, E. (2012). The dynamics of product innovation and firm competences. *Strategic Management Journal*, 23(12), 1095-1121.

Day, R. P. (1994). How Much Does Industry Matter? *Strategic Management Journal*, vol. 12.

Delgado, S., Pundziene, A., Margarita P. and Lithuania, K. (1999). The impact of dynamic capabilities on SME performance in a volatile environment as moderated by organizational inertia. *Baltic Journal of Management*. Vol. 8 No. 4, 2013. pp. 376-396

Doyle, R.E. and Bridgewater, E. (2013). *The happy worker: hypotheses about the role of positive affect in worker productivity,* in Barrick, M.R., Ryan, A.M. (Eds),Personality and Work, Wiley & Sons Inc., San Francisco, CA, pp.30-59

Easterby-Smith, M., Lyles, M.A., Peteraf, M.A. (2009). Dynamic capabilities: current debates and future directions, *British Journal of Management*, 20, 1-8.

Ebers, M. and Delfmann, W. (2012). The Value Of Dynamic Capabilities For Strategic Management.*Industrial and Corporate Change*, 1(1), 7-76.

Eisenhardt, K. and Martin, J. (2011). Dynamic capabilities: What are they? *Strategic Management Journal*, 21(10/11), 1105-1121.

Eisenhardt, K. M. and Martin, J. (2000). Dynamic Capabilities: What Are They? *Strategic Management Journal*, 21.

Eisenhardt, K.M. and Martin, J.A. (2010). Dynamic capabilities: What are they? *Strategic Management Journal,* 35(21),1105-1122.

EPZ (2013). *Dairy Industry in Kenya*. Retrieved from http://www.epzakenya.com

Ethiraj, S., Kale, P., Krishnan, M. and Singh, J. (2005). Where do capabilities come from and how do they matter? A study in the software services industry. *Strategic Management Journal* 26 (1), 25.

FAO (2009). Dairy commodity notes. Commodities and Trade Division, Food and Agriculture Organisation of the United Nations, Rome.

Farjoun. P. (2010). Dynamic capabilities and the emergence of intra-industry differential firm performance: insights from a simulation study, *Strategic Management Journal*, 24, 97-125.

Field, D. (2009). Dairy commodity notes. Commodities and Trade Division, Food and Agriculture Organisation of the United Nations, Rome.

Flint, D., (2005). The User's View of Why IT Projects Fail, Gartner Report.

Fox-Wolfgramm, Boal and Hunt. (2013). Architectural innovation and modular corporate forms. *Academy of Management Journal,* 2, 99-145.

Garson, E. (2012). Organizational antecedents of second-order competences, S*trategic Management Journal*, 29, 519-543.

Gastwirth, D.G., Madsen, T.L. and Walker, G. (2009). Why Is There A Resource Based View? Toward a Theory of Competitive Heterogeneity. *Strategic Management Journal*, vol 24.

George, G. (2005). Slack resources and the performance of privately held firms. *Academy of Management Journal*, 48(4), 661-676.

Gibson, R. and Brikinshaw, K. L. (2004). Reconceptualization of the division between quantitative and qualitative research methods: cognition, brain, behavior, *An Interdisciplinary Journal*, 12, 4, 337-347.

Greene, R. P. (2003). How Much Does Industry Matter? *Strategic Management Journal*, vol. 12.

Greene, R. P. (2013). How Much Does Industry Matter? *Strategic Management Journal*, vol. 12.

Hacklin, E. (2009). Disruptive technology reconsidered: A critique and research agenda.

Hamel, G. and Prahalad, C.K. (2011). Competing for the future, Boston, MA: Harvard Business School press.

Helfat, C.E, Chan-Olmsted, S. & Kim, H., (200). *The Deployment of Third-Generation investment Services:* A Multinational Analysis of Contributing Factors. University of Florida: Gainesville.

Helfat, C.E. and Peteraf, M.A. (2003). The dynamic resource-based view: capability lifecycles. *Strategic Management Journal* 24 (10): 997-1010.

Helfat, C.E. and Peteraf, M.A. (2009). The dynamic resource-based view: capability lifecycles. *Strategic Management Journal* 24 (10): 997-1010.

Helfat, C.E. and Winter, S.G. (2011). Untangling dynamic and ordinary capabilities: strategy for the (n)ever-changing world, *Strategic Management Journal*, Vol. 32, pp. 1243-1250.

Hooley, K., W. Ferrier, and C. Grimm (2011). Managing resources: linking unique resources, management, and wealth creation in family firms,15, 59-70.

Jaetzold, F. and Schmidt, A. (1983). Social Structure and Organization, *Farm Management Handbook*, Chicago: Rand-McNally.

Kelman, S. (2005). *Unleashing Change: A Study of Organizational Renewal in Government*, The Brookings Institute.

Kimigo, S. (2008). Dynamic Capabilities In International Expansion. *Journal of World Business,* 35 (4), 355-378.

Kioi, C. W. (2001). *Strategies and the forces influencing them within Kenya's dairy industry.* Unpublished MBA Project, University Of Nairobi.

Kiragu, M. (2012). Assessing and managing milk-borne health risks for the benefit of consumers in Kenya. Smallholder Dairy (R&D) project, Nairobi.

Kirschen, P. (2010). Ambiguity and the process of knowledge transfer in strategic alliances, *Strategic Management Journal*, 20(7), 595-623.

Kline, B. (2011). Knowledge and the speed of the transfer and imitation of organizational capabilities: An empirical test. *Organization Science*: 4, 76-92.

Kothari, C. R. (2004). Research methodology: methods and techniques.: New Delhi: New Age International (P) Ltd.

Kotler, S., Pundziene, A., Margarita P. and Lithuania, K. (2001). The impact of dynamic capabilities on SME performance in a volatile environment as moderated by organizational inertia. *Baltic Journal of Management*. Vol. 8 No. 4, 2013. pp. 376-396

Lanyasunya, M., Felin, T., & Foss, N. (2012). Building micro foundations for the routines, capabilities, and performance links. *Managerial and Decision Economics*, 29(6): 489-502.

Lawson E. and C. Price, (2011). The Psychology of Change Management, *McKinsey Quarterly*.

Leonard-Barton, D. (2011). Core capabilities and core rigidities: a paradox in managing new product development, *Strategic Management Journal*, 13, 111-125.

Makenzi, E. (2013). Rethinking Rouse and Dallenbach's Rethinking: Isolating vs. Testing for Sources of Sustainable Competitive Advantage. *Strategic Management Journal* 23.

Makkonen, J., Pajari, J. and Tikanmäki, J. (2013). Industrial Organization: Competition, Strategy, Policy. 2nd ed.

Marsh, S.J. and Stock, G.N. (2003). Building dynamic capabilities in new product development through inter-temporal integration, *The Journal of Product Innovation Management*, 20, 136-148.

Mburu, L. M., Gitu, K. W., & Wakhungu, J. W. (2009). A cost-benefit analysis of smallholder dairy cattle enterprises in different agro-ecological zones in Kenya highlands. *Livestock Research for Rural Development*, *19*.

Mendola, K. (2007). *Exports of African Manufactures: Macro Policy and Firm Behaviour*. Gothenburg University.

Minetaki, G. and Takemura,W. (2010). Dairy cooperatives and policy reforms in Kenya: effects of livelihood and market liberalisation. *Food Policy,* 23(2), 173 - 85.

Mugenda, A. G. (2008). Social science research: Theory and principles. Nairobi: Applied.

Mugenda, O. M. A. (2003). Research methods Quantitative and Qualititative. Approaches. Nairobi: Acts Press.

Muia, H. (2011). Kenya AI policy issues beyond rehabilitation and breeding program consolidation. *The Kenya Vet. 16:33.*

Muriuki, T. (2003). Report on revitalising the dairy industry in Kenya. Tegemeo institute, Nairobi.

Mutisya, P. M. (2013). *Strategy Implementation By Milk Processors In Kenya.* Unpublished MBA Project, University Of Nairobi.

Nahapiet, W. L. and Ghoshal, W. L. (2013). Social research methods: Qualitative and quantitative approaches. Boston: Pearson.

Narver, M.. and Slater, J. (2011). Dynamic capabilities, entrepreneurial rent-seeking and the investment development path: The case of Samsung, *Journal of International Management*, 4, 241-257.

Nonaka, I. (1994). A dynamic theory of organizational knowledge creation. *Organization Science*, 5, 14-37.

Nonaka, I. and Konno, N. (2013). Seci, ba and leadership: A unified model of dynamic knowledge creation. *Long Range Planning*, 33(1), 5-34.

O'Connor, J. (2008). Learning to build a supply network: An exploration of dynamic business models, *Journal of Management Studies*, 45(4), 774-799.

Omore, A. and Staal, J.(1999). The Kenyan Dairy Sub-sector: A rapid Appraisal. MoARD/KARI/ILRI smallholder Dairy project, Kenya.

Ostroff, F. (2006). Change Management in Government, *Harvard Business Review.*

Owango, J. et al (2013). *Draft dairy industry Bill 2000* and *Dairy development Policy*, Ministry of Agriculture and Rural development (MoARD), Nairobi.

Patton, E. (2002). *The Theory of Growth of the Firm*, London: Basil Blackwell.

Pavlou, P.A. and El Sawy, O.A. (2006). Understanding the elusive black box of dynamic capabilities, *Decision Sciences Journal*, 42(1), 239-273.

Poppo, A. (2009).Building project capabilities: from exploratory to exploitative learning, *Organization Studies*, 25, 1601-1621.

Priem, R. and Butler, J. (2011). Is the resource-based "view" a useful perspective for strategic management research? *Academy of Management Review* 26(1): 22-40.

Protogerou, A., Calothirou, C. and Lioukas, S. (2011). *Dynamic Capabilities and Their Indirect Impact on Firm Performance.* DRUID Working Paper No. 08-11: ISBN 978- 87-7873-265-1.

Rindova, V. and Kotha, S. (2001). Continuous" Morphing": Competing through dynamic capabilities, form, and function. *Academy of Management Journal*, 44(6), 1263-1280.

Robbins, S.P. (2005). *Organizational Behavior*, 11th Ed, Prentice-Hall, India

Robbins, S.P. (2008). *Real word research*. Oxford: Blackwell.

Saunders, M. N., Saunders, M., Lewis, P., and Thornhill, A. (2003). *Research methods for business students, 5/e*. India: Pearson Education.

Sekaran, R. (2010). Do Markets Differ Much? *The American Economic Review.* Vol. 75.

Somekh, B., & Cathy, C. (Eds.). (2005). *Research methods in the social sciences*. London: Sage.

Staal, D.G., Madsen, T.L. and Walker, G. (2013). Why Is There A Resource Based View? Toward a Theory of Competitive Heterogeneity. *Strategic Management Journal*, vol 24.

Staber, R. and Sydow, J. (2012). Dynamic capabilities: a review and research agenda", *International Journal of Management Reviews*, 9, 31-51.

Su, H. and Lin, C. (2005).When does start-up innovation spur the gale of creative destruction? *RAND Journal of Economics* 33(4), 571-586.

Tabachnick, R. and Fidell, I. (2007). Measuring competence? Exploring firm effects in pharmaceutical research. *Strategic Management Journal,* Winter Special Issue 15: 63-84.

Tatsuno, C. (2013). Unbundling the structure of inertia: resource versus routine rigidity, *Academy of Management Journal*, 48, pp. 741-763

Teece, D., Pisano, G. and Shuen, A., (1997). Dynamic Capabilities and Strategic Management.*Strategic Management Journal* (1986-1998) 18 (7), 509.

Teece, D.J, Pisano, G. and Shuen, A. (2009). Building dynamic capabilities in new product development through inter-temporal integration, *The Journal of Product Innovation Management*, 20, 136-148.

Teece, D.J, Pisano, G. and Shuen, A. (201O).*Adaptability: How Dynamic Capabilities And Slack ResourcesShape*

Teece, D.J. (2007). Explicating dynamic capabilities: the nature and micro foundations of (sustainable) enterprise performance, *Strategic Management Journal*, 28,1319-1350.

Thomas, H. (2012). Core competence and competitive advantage: A model and illustrative evidence from the pharmaceutical industry. In *Competence-Based Competition*, Wiley: Chichester.

Tushman, M. and O'Reilly, E. (2011). Organizational evolution: a metamorphosis model of convergence and reorientation, in L. L. Cummings and B. M. Staw (eds) *Research in Organizational Behavior*, Greenwich: JAI Press.

Tushman, M.L. and O'Reilly, P. (2011). Technological discontinuities and organizational environments. *Administrative Science Quarterly*, 31, 439-465.

Wade, G. and Hulland, J. (2004) Structural and competitive elements of a global integration strategy. *Strategic Management Journal*, 16, 637-655.

Wade, J. and Hulland, J. (2004). The Resource-Based View And Information Systems Research: Review, Extension, And Suggestions For Future Research. *MIS Q.*, vol. 28, pp. 107–142.

Wang, C.L. and Ahmed, P.K. (2007). Dynamic capabilities: A review and research agenda, *International Journal of Management Reviews*, 9(1), 31-51.

Weick, K. E. (2007). *The Social Psychology of Organizing*. Reading, MA: Addison-Westley.

Wilden, R., Gudergan, S., and Lings, I. (2014). *Dynamic Capabilities and Organisational Performance*. Unpublished PhD thesis, University of Technology, Sydney.

Williamson, O.E. (2012). Strategy research: governance and competence perspectives. *Strategic Management Journal*, 20, 1087-108.

Wimmer, G. & Dominick, V. (2011). Surviving radical technological change through dynamic capability: Evidence from the typesetter industry. *Industrial and Corporate Change*, 6(2), 341-377.

Winter, E. M. (2003). *Diffusion of innovations*. New York: Free Press

Winter, S. (2012). Understanding dynamic capabilities, *Strategic Management Journal*, 24, 991-995.

Zahra, S.A., Sapienza, H. and Davidsson, P. (2006). Entrepreneurship and dynamic capabilities: a review, model and research agenda. *Journal of Management Studies,*43 (4), 918-955

Zahra, S.A., Sapienza, H. and Davidsson, P. (2013). Entrepreneurship and dynamic capabilities: a review, model and research agenda. *Journal of Management Studies,*43 (4), 918-955

Zhang, K. (2007). Post-Adoption Variations In Usage And Value Of E-Business By Organizations: Cross-Country Evidence From The Retail Industry. *Inf. Syst. Res.*, vol. 16, pp. 61–84.

Zolla, M. and Winter, S. (2002). How dynamics, management, and governance of resource deployments influence firm level performance. *Strategic Management Journal*, 26(5), 489-496

Zollo, M. and Winter, S. (2007). Deliberate learning and the evolution of dynamic capabilities. *Organization Science,* 13 (3), 339.

Zollo, M. and Winter, S. (2012). Deliberate learning and the evolution of dynamic capabilities. *Organization Science,* 13 (3), 339.

Zott, C. (2003). Intra-Industry Differential Firm Performance: Insights From A Simulation Study. PHD thesis, University of British Columbia.