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## **Effects of Networking as a Business Linkage on the Growth of Dairy Enterprises in the Mount Kenya Region**

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### **Abstract:**

*This research aimed at investigating the effects of networking as a linkage on the growth of micro, small and medium enterprises in the dairy sector in the Mount Kenya region. The paper discusses the background and describes the study problem. The specific objectives and the guiding questions have also been enumerated clearly followed by a review of the literature related to the study including the various business growth models while attempting to inquire into the relationship between networking as a business linkage and enterprise growth. The paper presents the conceptual framework and an analysis of the empirical data. The next section describes the methods used in the study, describing the design, population, sampling procedures, instrumentation, data collection, data analysis and presentation. The study revealed that networking has positive effects on the growth of the Dairy Enterprises in the Mount Kenya Region. Specifically, the study found that business networking led to increased business growth among the dairy enterprises especially profitability, employment, market share, and product base. The key conclusions are that networking frequency is high among the dairy enterprises in the Mount Kenya region. The study also concludes that networking is key to the growth of micro, small and medium enterprises in the dairy sub-sector. Several recommendations are also presented among them promotion of networks, creation of awareness on networking opportunities, creation of an enabling environment and providing incentives for both sizes of enterprises (micro, small, medium and large enterprises) to create mutually beneficial and productive networks.*

**Keywords:** Firm/Enterprise, firm growth, networking, network

### **1.1. Background of the Study**

There is strong evidence that promoting a country's small scale sector plays a crucial role in maintaining high employment and income generation which is critical for achieving sustainable growth and development among economies (United Nations Conference on Trade and Development (UNCTAD), 2005; Hoang, 2000; Daniels, 1998). Further, Micro, Small and Medium enterprises (MSMEs) are widely acknowledged in the developing as well as developed countries to play a critical role in generating employment, stimulating growth and creating social cohesion besides other benefits according to a report by Economic Commission for Africa (ECA, 2000). Additionally, Goldmark and Barber (2005), argues that when MSMEs are operating within a proper framework, have the capacity to contribute towards the building of a sound and competitive economy, wealth creation, employment generation as well as combat poverty and exclusion effectively. This is confirmed in a United States of America International Development report (USAID, 2005) that smaller firms offer a number of potential advantages as partners in value chains, often serving as a flexible and low-cost production resources, offering proximity to markets and other key resources.

On the other hand, these MSMEs and mainly in developing countries are faced by a multiple growth related challenges. They have limited access to market information and financing, lack management skills or production expertise. They are also unable to match product quality requirements or to scale up quickly (Liedholm, 2001). These enterprises are thus under tremendous pressure to innovate and change, restructure their operations and achieve efficiencies in production. However, they often lack resources to do so. Indeed, the potential role of both Micro and Small enterprise is often not fulfilled because of these particular problems characterizing the sector which are related to their size and environment. In many cases these enterprises are often locked in their daily routines and unable to innovate their products and processes to enable look beyond the boundaries of their firms and capture new market opportunities thus continuously and fiercely struggle to preserve their scarce profit margins.

To enhance their growth, MSMEs need to focus on a number of key business challenges such as reducing costs, improving employee productivity and building competitive advantage through quality products and services and other entrepreneurial interventions (UNCTAD, 2005). They can only achieve that if they are competitive in terms of price, quality of goods, and able to meet delivery requirements. In a liberalizing and globalizing world economy, businesses and indeed whole economies operate increasingly in environments which demand entrepreneurial innovation and flexibility to meet the challenges of constantly changing market conditions (UNCTAD, 2006). Business growth involves an increasing number of knowledge-intensive activities such as product design, process engineering, quality management and generally new management routines.

According to Hussain (2000), an emerging opportunity for smaller enterprises to reap the potential benefits of globalization and global trade that will enable them grow is represented by the establishment of business linkages. Enterprise linkages as argued by Pitelis (2002) represent one of the best ways for enterprises to enhance their competitiveness and acquire a series of critical missing assets, such as access to finance, cost reduction, technology, management skills, specialized knowledge and even international markets that can enhance their chances of growth. The Organization for Economic Co-operation and Development (OECD, 2004), confirms that inter-firm linkages facilitate enterprise growth, and offer the prospect to small firms to compete on a par with larger enterprises. Specifically, the report argues that business linkages can lead to greater specialization amongst small firms, opening opportunities for economies of scope and scale. Productivity, innovativeness and competitive performance, can also be enhanced through business linkages (UNCTAD, 2005).

The government of Kenya recognizes the importance of business linkages in the overall growth of a business and particularly the Micro and Small enterprises. Sessional paper no. 2 of 2005 (GOK, 2005), recognizes that weak business linkages is one of the causes of poor market access by MSEs in Kenya. Accordingly, the Government undertakes to provide incentives to the private sector to invest in areas that enhance development of business linkages between MSEs and large enterprises. These areas include establishment of trade information centers and improvement of the quality of MSE products. The paper further argues that, the Ministry of Finance will work out modalities for providing appropriate fiscal incentives to both large and small firms to encourage market/supply linkages. To enhance linkages between smaller enterprises and the large-scale enterprises, the Government will identify suitable zones with basic infrastructure, which will serve as incubators, and improve the image of MSEs and their visibility.

### *1.2. Business Networking and Enterprise Growth*

Networking is an essential activity for MSMEs desiring to be in a position to innovate, since rich and varied information, which is the source of innovation, comes precisely from outside the enterprise (Dyer & Nobeoka, 2000). Thus, networks are based on the detection and the sharing of rich information, allowing learning and innovation as well as the creation of a culture of regional cooperation and a feeling of belonging. Indeed, Elfring and Hulsink (2003) found that transaction costs induce market participants to enter into long-term trading relationships that shape market outcomes. He argues that business institutions can minimize transactions costs through sharing of information. He adds that market entry, due to network externalities, is likely to be easier for network members than nonmembers. Networks tend to steer potential investors towards sectors that have benefits derived through network externalities.

Researchers have found two types of business networks namely, innovation and solidarity networks (Barr, 2002; Fafchamps, 2004; Barr, 1999). Both fulfill the function of improving firm performance by allowing information about the world to flow between members to reduce business uncertainty. Solidarity networking dominates in African enterprises due to the fact that the uncertainty faced by African entrepreneurs is paramount. It is considered that much of the uncertainty facing businesses in Sub-Saharan Africa is due to lack of information, which mainly translates to lost business (Elfring & Hulsink, 2003; Fafchamps, 1998). The absence of business networks to lower uncertainty factors may reduce entrepreneurial efficiency and negatively impact on the survival and success rate of firms. Thus, lower levels of networking or lack of social cohesion among smaller enterprises undermines the efficiency of entrepreneurs in Africa, and may also be the cause of the skewed distribution of firm size in Africa. It should be evident that social capital is very important in strengthening entrepreneurial networks (Dyer & Nobeoka, 2000).

According to Jane (2006), business linkage is the process of building relations to enhance the performances of an organization. It is a way to get access to a range of complementary experiences and expertise. SMEs are trying to incorporate networking strategies to exchange knowledge and increase learning abilities. Different institutions are putting their efforts to support this development between small scale enterprises and strengthen their collective action for economic enhancement. Small scale enterprises are involved in inter-firm cooperation to exchange knowledge, technology transfer and innovation, which has indeed increased their productivity and market segment. The ideas and knowledge sharing among them has built up competitiveness between them. One of the competitive advantages of SMEs is based on continuous innovation, that is, they must build and manage their knowledge (or distinctive skills). In this way, these enterprises become characterized by a more open and learning management and organization. Their technological capacity continuously updated by training, by the accumulation of rich information, and by the transformation of this information. These learning SMEs utilize knowledge to create added value which has become more than necessary for SMEs and even larger firms in the present context of the new economy (Alvarez, A.S. (2005).

In order for SMEs to develop, there must be a dynamic environment, based on a common culture of norms, knowledge, and know-how, that stimulates the entrepreneurial contamination as well as a culture of networking by the enterprises and other stakeholders. Business networking is an essential activity for SMEs desiring to be in a position to innovate, since rich and varied information, which is the source of innovation, comes precisely from outside the enterprise (Julien et al., 2003; Altenburg, (2000)). Thus, networks are based on the detection and the sharing of rich information, allowing learning and innovation as well as the creation of a culture of regional cooperation and a feeling of belonging.

### *1.3. Overview of the Dairy Business Sub-Sector*

Kenya has a well-developed dairy production and processing industry and is a significant part of the nation's economy. From smallholder farmers to milk hawkers there are nearly 1 million households or dairy enterprises, ranging from micro, small and medium sizes. Considering that there are over 625,000 smallholder farmers, for whom dairy is a family business, it is likely that more than 2 million people are employed in the sub-sector in one form or another and this is why it is a key sub-sector in Kenya (Olok-Asobasi & Sserunjogi 2001, Shepherd, 2007).

According to Shepherd (2007), the dairy industry in Kenya plays an important role in the lives of many people and the growth in the sub-sector will lead to much greater overall growth. As argued by Leksmono, Muriuki, Young, Hooton & Romney (2006) that since milk market liberalization in May 1992, competition in milk processing and marketing has increased significantly in the industry. Since then, the Kenya Dairy Board (KDB) has licensed over 40 private and dairy co-operative processors to process and market milk and milk products. There are all types of players in the sector ranging from small holder producers, milk bars, processor up to large scale manufacturers. The market structure in the dairy industry, according to a report on the dairy industry Export Processing Zone (EPZ) (2005), shows that of the 3.1 billion litres of milk produced in Kenya, 30% does not get to the market, 23% is consumed domestically and 7% by the calf. The rest, of the 70% milk that gets to the market, 56% is informally marketed and 14 % formally marketed.

According to the Economic Survey (GOK, 2008), the dairy products sub-sector registered significant growth of 24.4 per cent although the sub-sector experienced significant output challenges with producer prices of raw milk going up by over 16 percent during the period between 2006 and 2007. Also output of milk processed grew significantly by 27 percent from 228.3 million litres in 2006 to 289.9 million litres in 2007 although this was not enough to meet the local and export demand. This trend continued and according to the 2012 Economic Survey (GOK, 2012), the quantity of milk delivered to processors continued on an upward trend for the last three years from 2008. Indeed, the raw milk uptake by processors increased from 515.7 million litres in 2010 to 549.0 million litres in 2011 partly because of the increased processing capacities in the country. Other products such as cheese, butter, cream and ghee recorded improvements.

It is observed that since milk market liberalization in May 1992, competition in milk processing and marketing has increased significantly in the industry. Since then, the Dairy Board has licensed over 40 private and dairy co-operative processors to process and market milk and milk products with numerous other smaller players in the industry (EPZ, 2005). This sector has attracted massive interests from both the government and other development agents mainly because of its potential for growth. This was also the critical consideration in its selection for study.

### *1.4. Problem Statement*

Globalization has generated both new markets and new competitive forces to all types of firms thus significantly changing the institutional, national and international business environment (Perényi, 2007). These changes have opened up new opportunities for entrepreneurship growth in general, and at the same time new problems and threats have emerged raising new challenges for business policy makers in developing countries. Only a limited number (less than 10 per cent) of SMEs in developing countries are well prepared for the new conditions of the global markets (UNCTAD, 2006). The ECA (2000) report questions if African SMEs can take advantage of the potential opportunities globalization presents given the numerous problems they are beset with such as operating under an unfriendly policy and regulatory environment, difficulties in accessing credit, lack of sufficient markets for their products, use of outdated technology, lack of adequate working space and inadequate facilities to design their programmes in response to their specific needs among others. If these MSMEs are to play any meaningful role in markets, they have to be put on a footing similar to their larger competitors through nurturing and support (Perren, 2000).

One sector that has potential for growth in Kenya is the Dairy Industry which according to the EPZ (2005) on the Kenya Dairy Industry, is well-developed and has witnessed phenomenal growth with the entry of many players since 1992 when the Government liberalized it. However, despite all the potential, the sector is faced with a number of challenges that impedes further growth. In terms of capacity for example, all the industry players (100%), large and small, operate below the installed capacity. Essentially, this capacity underutilization in processing can be projected to the other levels of operations such as value addition activities and marketing which directly affects the productivity, competitiveness, performances and overall growth of an enterprise.

Studies in other sectors show that business networking can help address such problems to ensure businesses attain desired growth. There is strong evidence that business networking can help small scale enterprise to grow and compete effectively (UNCTAD, 2006). By working together, firms can gain the benefits of collective efficiency, enabling them to link with larger producers and break into national and global markets. In effect, networking can help firms build their competitiveness and increase market share, increase their productivity, reduce costs to build profits and improving quality as strategies for growth. But despite the various documented evidences of the contributions of business networking to the growth of firms such as in transport, agribusiness, tourism and textile industries among others, little is known over how business networking in the dairy business sub-sector in Kenya has affected growth of dairy firms. Specifically, there is no evidence of any study focusing on the aspects of networking among dairy business players.

### *1.5. General Objective*

To analyze the effects of networking as a business linkage on the growth of micro, small and medium dairy enterprises in in Mt. Kenya region.

### 1.6. Study Justification

Business Networking is critical to SMEs not only in the dairy business but all other industries because firms can reduce costs, increase productivity, enhance reputation and access local knowledge through sharing. Networking can help enterprises integrate into foreign or base of the market pyramids while at the same time helping to create economic opportunities through exchange programs and sharing of information. Expanding and accelerating business linkage activities should therefore be a shared priority among firms in the dairy business sub-sector, development agencies, governments, civil society organizations, research organizations and institutes of higher learning. Jenkins et al., (2007) argues that the challenges faced by SME linkage approaches warrant further study, discussion, and, most importantly, experimentation and action. Understanding the firm dynamics in business networking attempts is critical in determining what role such business linkages can play in the performance overall and growth of a firm.

## 2. Theoretical Framework

A number of entrepreneurial theories including the Social Network Theory, Sociological, Psychological Theory of Entrepreneurship and the Opportunity-Based Entrepreneurship have been reviewed. The Evolutionary Theory of Firm Growth is also reviewed to explain how firms grow and thus essential in this study. Based on these discussions a study model was developed. As explained by Short and Dunn (undated) entrepreneurial success may be a function of specific entrepreneurial behaviors and not just traits or personality patterns. Therefore, different types of entrepreneurial behaviors may be more effective in different social environments and thus appropriate in explaining behaviours such as building of business networks. Thus, the development of a theoretical model in this study considers a social model that reveals the role of entrepreneurship in social process and also the critical entrepreneurial behaviors that contribute to success in a firm including growth. The different theories therefore attempt to explain how business network linkage building behaviours by entrepreneurs may be associated to the growth of dairy enterprises.

### 2.1. Social Network Theory (SNT)

Social Network Theory is grounded on the connections and relationships in a social structure (Kadushin, 2004). The theory attempts to find something that might connect people in their group or communities as actors in a relationship. These actors could be roles, individual persons, organizations, industries, or even nation states. Their ties may be based on conversation, affection, friendship, kinship, authority, economic exchange, information exchange, or anything else that forms the basis of a relationship (Jafaar, 2009). Kadushin (2004) further observes that in a network, flows between objects and actors and exchanges, which might contain an advice, information, friendship, career or emotional support, motivation, and cooperation, can lead to very important ties.

Social Network or Social Capital Theory is relevant in this study because it views entrepreneurs as being embedded in a larger social network structure that constitutes a significant proportion of their opportunity structure (Clausen, 2006 & Hoang, 2000). In all environments, entrepreneurs must build reputation-enhancing relationships with outside resource providers who are willing to share valuable information, technology, and finance. While supporting this theory, Shane and Eckhardt (2003) argues that an individual may have the ability to recognize that a given entrepreneurial opportunity exists, but might lack the social connections to transform the opportunity into a business startup. Therefore, access to a larger social network might help overcome this problem. In a similar vein, Reynolds (1991) as cited in Perenyi (2007) mentioned social network in his four stages in the sociological theory. The literature on this theory shows that stronger social ties to resource providers facilitate the acquisition of resources and enhance the probability of opportunity exploitation. Other researchers have supported this theory by suggesting that it is important for nascent (emerging) founders to have access to entrepreneurs in their social network, as the competence these people have represents a kind of cultural capital that nascent ventures can draw upon in order to detect opportunities (Gartner, Shaver, Carter & Reynolds (Eds.) (2004).

This theory, being part of the broader Sociological Theory of Entrepreneurship whose analysis is traditionally the society which means values, religious beliefs, customs and taboos influence the behaviour of individuals in a society. Accordingly, the entrepreneur is a role performer according to the role expectations by the society. Reynolds (1991 in Perenyi, 2007) identified four social contexts that relates to entrepreneurial opportunity. The first one is social networks where the focus is on building social relationships and bonds that promote trust and not opportunism. In other words, the entrepreneur should not take undue advantage of people to be successful; rather success should come as a result of keeping faith with the people. The second, he called the life course stage context which involves analyzing the life situations and characteristic of individuals who have decided to become entrepreneurs. The experiences of people could influence their thought and action so they want to do something meaningful with their lives. The third context is ethnic identification where one's sociological background is one of the decisive push factors to become an entrepreneur. Reynolds uses this context to explain how marginalized groups may violate all obstacles and strive for success, spurred on by their disadvantaged background to make life better. The fourth social context is called population ecology. The idea is that environmental factors play an important role in the survival of businesses. In this case, the political system, government legislation, customers, employees and competition are some of the environmental factors that may have an impact on survival of new venture or the success of the entrepreneur. Building of a business linkage should be guided by the four contexts identified in this theory for them to be beneficial and long lasting. The importance of Social Network Theory is highlighted further by Barr (1999), Okten (2004) as well as Barr and Fafchamps (1992).

The Sociological Theories of Entrepreneurship have been criticized in a number of ways including too much emphasis on individual entrepreneur's social backgrounds and lack of appreciation of personal entrepreneurial initiatives and drive. Broadly therefore the theory advocates for societal based models. The theory is further weakened by arguments from several authors. Drucker (2007) posits that entrepreneurship is rooted in the concept and theory which means that it can be taught or instilled to people of all kinds and

cultures. Therefore, entrepreneurs by themselves can influence their entrepreneurial orientation as well as governments either through policies or specific programmes.

### *2.2. Opportunity-Based Theory of Entrepreneurship*

According to the opportunity-based theory, developed by Peter Drucker and Howard Stevenson, entrepreneurs do not cause change as claimed by the Schumpeterian or Austrian theories but exploit the opportunities that change creates such as in technology, consumer preferences among others (Drucker, 1985). Drucker indeed argued that the entrepreneur always searches for change, responds to it, and exploits it as an opportunity. Stevenson (1990) extended Drucker's opportunity-based construct to include resourcefulness. Stevenson concluded that the nucleus of entrepreneurial management is the pursuit of opportunity without regard to resources currently controlled. Therefore, what is apparent in this Drucker's construct is that entrepreneurs have an eye more for possibilities created by change than the problems. This is supported also by Comanys (2005) in his argument on exploitation of entrepreneurial opportunities.

Based on these arguments, the Opportunity-Based Theory of Entrepreneurship advises entrepreneurs to seek to create and exploit opportunities within their environments including networks. As regards this study, many changes are being experienced within the dairy industry such as new production, processing and marketing technologies that entrepreneurs can take advantage of through beneficial networks. Through networks to sub-contract the technology rich dairy firms for instance can produce for the smaller one, thus utilizing their capacity, enjoying economies of scale as the smaller one improve on their product quality and image.

While an opportunity-based approach provides a wide-ranging conceptual framework for entrepreneurship research (Shane, 2000), the theory is weak in that it does not explicitly recognize the deliberate efforts of an entrepreneur to cause change and thus undermines the innovative minds. This is in sharp contrast to Drucker (2007) who argued that innovation is the real hub of entrepreneurship. The theory again builds on the work of the early Schumpeter [1934] who recognized the importance of the entrepreneur in exploiting opportunities but did not pay attention to where opportunities come from. Schumpeter, like others, did not believe that the entrepreneur had to worry about where opportunities come from. But for the study of entrepreneurship as a field, the question of where opportunities come from is central. Indeed, according to Acs and Audretsch (2005) the creation of new knowledge such as a business relationship gives rise to new opportunities and therefore, entrepreneurial activity does not involve simply the arbitrage of opportunities but also the exploitation of new ideas not appropriated by incumbent firms. This is in line with Shane and Shane (2000) interpretation of the field of entrepreneurship that focuses on the discovery of opportunities and subsequent exploitation of such opportunities by individuals as could happen with recognition for business linkage opportunities. In this framework, entrepreneurial activity depends upon the interaction between the characteristics of opportunity and the characteristics of the people who exploit them such as the discovery of novel means-ends relationships, through which new goods, services, resources and agency are created (Casson, 2005).

### *2.3. Psychological Theory of Entrepreneurship*

The psychological theory emphasize that personal characteristics define entrepreneurship as described by the theory of personality traits. These traits together with risk taking, innovativeness, and tolerance for ambiguity have been found to be associated with entrepreneurial inclination. Coon, (2004) defined personality traits as stable qualities that a person shows in most situations. To the trait theorists there are enduring inborn qualities or potentials of the individual that naturally make him an entrepreneur. The obvious or logical question therefore would be to understand the exact traits/inborn qualities of entrepreneurs. Scholars have argued that there may not be a straight forward description of this since it is not easy to point at particular traits. However, this model gives some insight into these traits or inborn qualities by identifying the characteristics associated with the entrepreneur. The characteristics give a clue or an understanding of these traits or inborn potentials which in fact, by explaining personality traits means making inference from behavior.

Coon, (2004) again reveals that some of the characteristics or behaviors associated with entrepreneurs are that they tend to be more opportunity driven (they nose around), demonstrate high level of creativity and innovation, and show high level of management skills and business know-how. They have also been found to be optimistic, (they see the cup as half full than as half empty), emotionally resilient and have mental energy, they are hard workers, show intense commitment and perseverance, thrive on competitive desire to excel and win, tend to be dissatisfied with the status quo and desire improvement. Entrepreneurs are also transformational in nature, are lifelong learners and use failure as a tool and springboard. They also believe that they can personally make a difference, are individuals of integrity and above all visionary.

The relevance of this theory in this study is demonstrated by the fact that such dairy business owners and managers with those entrepreneurial qualities will always seek opportunities such as building beneficial business linkages through networking, outsourcing, sub-contracts and joint projects. Although the theory is relevant in explaining the behaviours of entrepreneurs and managers as regards their activities in business linkage creation, it has been criticized for not being supported by research evidence and thus the only way to explain or claim that it exists is to look through the lenses of one's characteristics/behaviors and conclude that one has the inborn quality to become an entrepreneur.

### *2.4. The Evolutionary Theory of Firm Growth*

The evolutionary theory on firm growth enables the researcher to understand the key foundations of a firm growth and conceptualize the measurement criteria. The evolutionary theory views firm growth as an evolutionary process, which is based on the accumulation of collective knowledge in the context of a purposive firm (Penrose, 1995). Accordingly, growth can be defined from two different

angles; as increase of size and other quantifiable measures, and a process of changes or improvements. The theory believes that firm size is the result of firm growth over a period of time, and, while firm growth is a process, firm size is a state. On the other hand, firm expansion can be organic or through acquisitions. Organic expansion means extending the firms operations by broadening its structure and set of activities while expansion by acquisitions means drawing in resources in the form of already existing firms (Penrose, 1995). In support of the theory, Scot (1987) analyses five stages of growth in small businesses that depicts an evolutionary trend and the roles of entrepreneurs. Therefore, this theory is used to explain the choice of the measurement parameters of the dependent variable.

2.5. The Conceptual Model of Entrepreneurship

SME growth theories suggest that a conceptual framework could be developed incorporating three antecedents of small firm growth, namely; abilities (of entrepreneurs), opportunities (provided in the environment) and needs (of the firm) Davidson, Delmar & Wiklund, (2006).

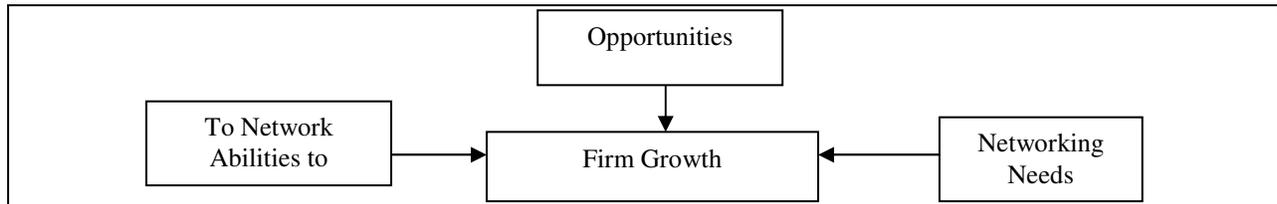


Figure 1: Modified Conceptual Model of Entrepreneurship Antecedents  
Source: Davidson et al. (2006)

The study further appreciates the role of managerial competence of an entrepreneur in the growth of a firm as described by Ghoshal, Hahn & Moran, (2002).

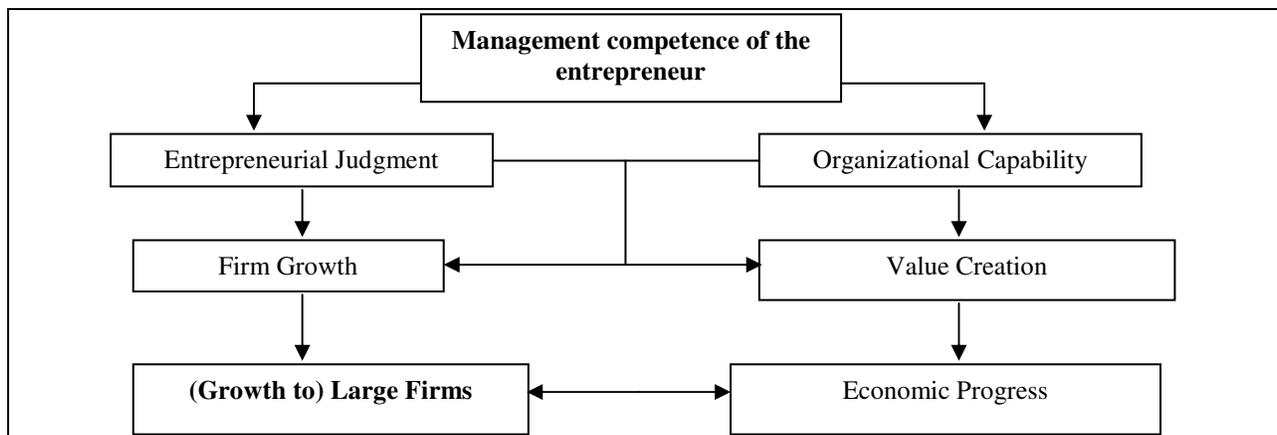


Figure 2: Role of management competence in firm growth  
Source: Ghoshal et al. (2002 p287)

Six fields of possible explanations for growth of entrepreneurship emerge from combining the Davidson et al. (2006) and Ghoshal et al. (2002) models. These are entrepreneurial knowledge, opportunity recognition, motivations to grow, accumulated capacity and resources, environment and economies of scale and growth. All the above factors are closely associated to the SME growth theory and can be studied in inter firm business linkages in relation to entrepreneurial abilities, opportunities for linkages and the firm's need for such partnerships.

Antecedents of Entrepreneurship Growth				
		<b>Abilities</b> (Abilities of the entrepreneur to cause business networks)	<b>Opportunities</b> (Opportunities for business networking among dairy enterprises)	<b>Needs</b> (Need to network with other dairy enterprises to enable growth)
<b>Entrepreneurial judgment</b>		Entrepreneurial Knowledge (on the existing business network opportunities)	Entrepreneurial recognition (of the needs and areas of networking)	Motivation to grow (internal and external drivers for firm growth)
<b>Factors affecting firm growth</b>	Organizational Capacity	Accumulated capacity resources	Environmental resources	Economies of scale and Economies of growth

Table 1: A Modified Model of the Influential factors of firm growth (a combination of approaches)

These three antecedents of growth (abilities, opportunities and needs) described by Davidson et al. (2006) and a model of Ghoshal et al. (2002) identifying entrepreneurial judgment and organizational capability have been identified as factors affecting firm growth. This model has also been implied by Perren (1999 & 2000). In this study, this model can be modified and adopted as follows.

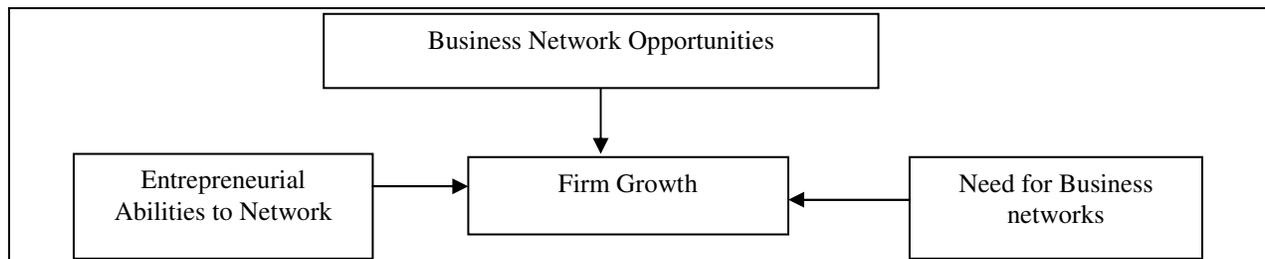


Figure 3: Davidson et al. (2006) Modified Conceptual Model of Entrepreneurship Antecedents

This entrepreneurial conceptual model is supported in Companys (2005) in his analysis of the nature, discovery and exploitation of entrepreneurial opportunities for firm growth. It is also supported by Wiklund (2003) and knowledge-based resources, entrepreneurial orientation, and the performance of small and medium-sized businesses respectively.

**3. Conceptual Framework**

A conceptual framework, being a set of broad ideas and principles taken from relevant fields of enquiry and used to structure a subsequent presentation was developed to support this study. From the various theories and the selected theoretical models, the framework was developed to assist the researcher to reflect about the research and its context, develop awareness and understanding of the situation, in this case the variables under scrutiny and to communicate the same as recommended by Reichel and Ramey (1987).The conceptual framework was developed showing the relationships between the independent variables (business networking) and the dependent variables (enterprise growth). The framework also provided an initial basis of analysis of the study relationship between the independent and the dependent variables.

*3.1. The Dependent Variable - Growth of Dairy MSMEs*

According to Perenyi (2008), firm growth is an increase of size and other quantifiable measures and the processes of changes and improvements. Therefore, firm growth is a distinguishing factor in entrepreneurship and is understood as an open process with an unpredictable outcome in evolutionary terms which is also related to adaptation and learning which occurs in the process of dealing with the business environment. Nieman and Bennett (2002) identified growth as an important factor of entrepreneurship and one that distinguishes the entrepreneurial venture from just a small business. The entrepreneurial venture usually has a great deal more potential for growth than the small business because the entrepreneurial venture is usually based on a significant innovation. A small business operates within its market; the entrepreneurial venture is in a position to create its own market. Nieman and Bennett therefore argues that firm growth is, inter alia, measured in financial terms such as; turnover, profit, total assets, net assets, net worth, and number of employees.

However, Baum, Locke and Smith (2001), argues that firm growth cannot be adequately explained from a single perspective, but individual, organizational and environmental research domains predict venture growth better when the web of complex indirect relationships among them is included. The size of a business is a poor guide to whether it is entrepreneurial or not. Indeed, several entrepreneurial theories have been used to explain the role of entrepreneurs in the business linkage activities (Scott, 1987; Bhide,

2000). First, firm growth can be seen from the notion of entrepreneurship on behalf of the owner-management of independent firms (the dairy firms). The entrepreneur's ability to facilitate and manage business linkages can be of great significance to firm growth and this is highly supported by both the Managerial Schumpeterian (innovations or new combinations) theories. This means that firm growth is non-linear which means the ability (innovation, managerial, opportunity recognition, ability to develop social networks and risk taking abilities) of the entrepreneur to initiate some programs including linkage programs can lead to firm growth in terms of profitability, size, employment and turnover. In the entrepreneurial view, managing firm growth requires certain characteristics such as creativity, innovativeness and risk taking (Scott, 1987; Companys, 2005).

### 3.2. The Predictor Variables

Researchers have found two types of business networks namely, innovation and solidarity networks (Barr, 2002; Fafchamps, 2004; Barr, 1999). Both fulfill the function of improving firm performance by allowing information about the world to flow between members to reduce business uncertainty. Solidarity networking dominates in African enterprises due to the fact that the uncertainty faced by African entrepreneurs is paramount. It is considered that much of the uncertainty facing businesses in Sub-Saharan Africa is due to lack of information, which mainly translates to lost business (Elfring & Hulsink, 2003; Fafchamps, 1998). The absence of business networks to lower uncertainty factors may reduce entrepreneurial efficiency and negatively impact on the survival and success rate of firms. Thus, lower levels of networking or lack of social cohesion among smaller enterprises undermines the efficiency of entrepreneurs in Africa, and may also be the cause of the skewed distribution of firm size in Africa. It should be evident that social capital is very important in strengthening entrepreneurial networks (Dyer & Nobeoka, 2000).

Networking is an essential activity for SMEs desiring to be in a position to innovate, since rich and varied information, which is the source of innovation, comes precisely from outside the enterprise (Dyer & Nobeoka, 2000). Thus, networks are based on the detection and the sharing of rich information, allowing learning and innovation as well as the creation of a culture of regional cooperation and a feeling of belonging. Indeed, Elfring and Hulsink (2003) found that transaction costs induce market participants to enter into long-term trading relationships that shape market outcomes. He identified two types of institutions that have arisen to minimize transactions costs: relationships and the sharing of information through networks. Market entry, due to network externalities, is likely to be easier for network members than nonmembers. Networks tend to steer potential investors towards sectors that have benefits derived through network externalities.

### 3.3. The Conceptual Framework

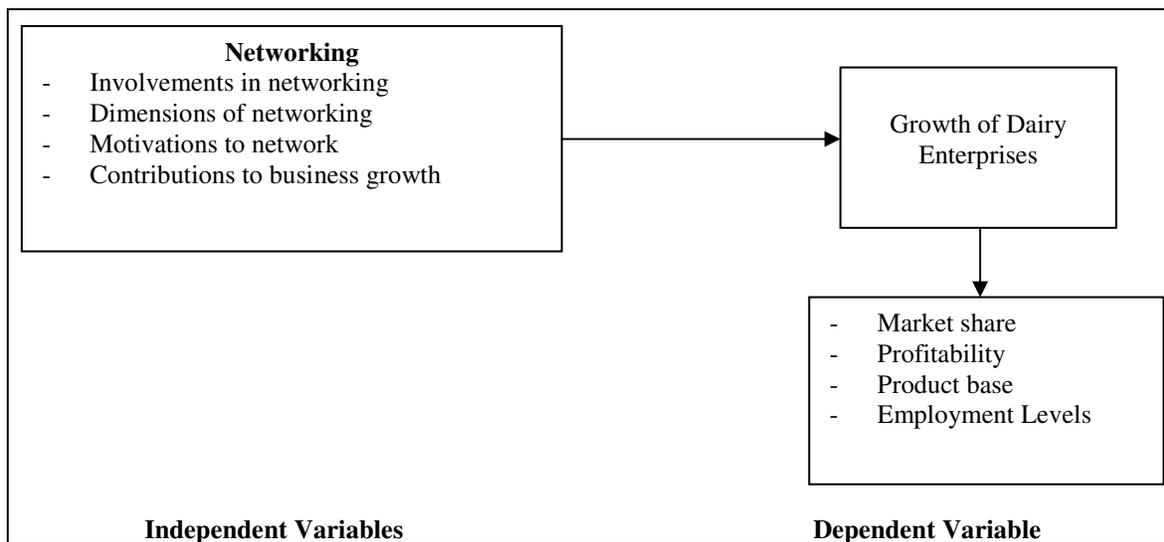


Figure 4: Conceptual Framework

### 3.4. Empirical Review

Empirical analysis reveals interesting relationships between the independent (explanatory/predictor) variables and the dependent variable (enterprise growth) indicators of employment, market share and cost, profitability and sales turnover. Networking has been hypothesized to influence firm growth by alleviating financial constraints, providing technical and market information, and governing contracts and relationships that allow member firms to take advantage of a wider range of economic opportunities (Biggs & Shah, 2006).

Studies by Mullei (2003) give an analysis of successful examples of business linkages in Kenya and across the world. He argues that small firms in the tourism industry with frequent contact and linkages with large firms in the same line of business were found to achieve a higher growth in employment i.e. growth by 19.09 workers than those without such networks, which were found to grow by only 8.29 workers. Similarly, an analysis of the foreign domestic networking in the tourism sector showed that small domestic firms, which collaborate with large foreign firms in the same line of business, benefited by experiencing significant increases in employment, sales and/or assets.

These studies have revealed that Bangseu, a suburb of Bangkok, is the principal furniture wholesaling and retail area in the city where Hakeeh, a small family operated business that links to four small enterprise furniture-manufacturing workshops and a small enterprise upholsterer. The company operates a showroom with samples from the small enterprises but holds no furniture stocks. 90% of the company's customers are retailers who visit the showroom and place orders with the company, and Hakeeh has established a network of 500 furniture retailers across Thailand to whom they supply. On receiving orders the company subcontracts to the small enterprise furniture manufacturers. The manufacturer delivers unvarnished furniture which, following quality control is varnished and finished by Hakeeh and if necessary sent for upholstering to the small enterprise upholsterer. This finishing procedure is undertaken to ensure standardization of the products. The products are then branded and transported to the retailers. Mulei (2003) concluded that this kind of linkage has several benefits to the enterprises involved. Through this arrangement Hakeeh has been able to reduce its overhead costs, by maintaining a smaller work force, having smaller premises and not having its capital held up in stocks, as the large networks of small enterprises is able to meet the demand as it arises. Hakeeh has also managed to overcome three inherent problems faced by many firms; the problem of economies of scale by subcontracting large orders to small enterprises, lack of standardization by undertaking the finishing of the product, and access to non-local markets through network of retailers and thus enhancing its competitiveness (Mullei, 2003).

A Study in India by Narain, (2005) on the effectiveness of horizontal linkages coming from an entrepreneur's association in Delhi revealed interesting examples. The study found that the Okhla Flatted Factory Entrepreneur's Association consisting of 200 small enterprises (5-8 persons) in a variety of manufacturing businesses such as electronics, metalworking, and plastics molding-a few in every conceivable field, all housed in a two-story building, none experiencing much commercial success decided to foster closer business relationships including networking in marketing their products. After months of internal discussions, these individual MSEs realized they needed to market the entire building as a one-stop manufacturing center. They produced a catalogue that, instead of listing each firm and its products, promoted only their capabilities. It presents the firms as a single factory capable of producing any product with all the required equipment, capacity, and expertise under one roof. For the first time, they were perceived as a supplier of interest and were able to talk to larger customers. Still in Bangkok, according to Mullei (2003), Mercantile consolidator Co. Ltd and Trans Air Cargo Ltd are two freight companies who provide important international market linking services for small enterprises involved in the manufacture and wholesale of garments in Bangkok. Both companies operate a freight forwarding company. While the transportation service offered to small enterprises is not unique, the two companies have developed a brokering role between international buyers and the small enterprise manufacturers and wholesalers. Both companies provide information on the prices of enterprise products to international buyers and undertake procurement and purchasing and handle payments on behalf of international buyers.

The results of the business linkages in Bangkok, according to Mulei (2003) allows international buyers to purchase from many small enterprises without visiting Bangkok and transaction costs are reduced since only one international money transfer is required and buyers need only build a trust relationship with the cargo company rather than with a number of relatively small informal enterprises. This brokering role has also developed to the stage where the cargo companies undertake customer introduction and buyers can utilize the cargo companies to introduce them to reliable and quality manufacturers. These linkages provide a number of strong benefits to both the cargo company and the small enterprise manufacturer and wholesalers. Small enterprises are able to access markets that they would otherwise be unable to penetrate and the cargo company receives increase freight business and commissions on sales, thereby creating a win-win situation.

Findings from studies in Singapore by Seck & Mazzarol (2006) show that close contacts/networks with Multi-National Companies (MNCs) may create a steady market for small business products, along with the opportunity to learn pricing, production, and services-providing skills. Doh (1996) found that the Local Industry Upgrading Program (LIUP), initiated by the Economic Development Board (EDB) in 1986, aimed just to foster closer business ties between local businesses and MNCs operating in Singapore. The EDB's goal was to improve the operating efficiency of participating SMEs, widen their product range and introduce new processes, and to undertake joint product or process with the MNCs. Chong (1995) thinks another of EDB's wishes is for SMEs to develop into supporting industries for MNCs whereby the MNCs may even end up providing technical assistance to such suppliers.

The knowledge and better understanding of networks amongst SME's in a developed country has extensively been contributed through several studies, among them Soh (2003). Soh (2003) in a study on the role of networking alliances in information acquisition and its implications for new product performance concluded that networking is critical in critical business information exchanges and thus important in business growth. Empirical studies done in Germany on aspects such as co-operation of SME's as instrument to maintaining innovative flexibility; client-trust in SME networks; and competence in SME-networks have revealed amongst other things that: SME's see multiple-sided forms of co-operation in the form of networks as a definite possibility to use limited resources, capital and know-how in a more synergistic way; elaboration on the question of client-trust in SME networks has also revealed that trust is necessary for successful transactions between networks and clients; working together as SME's in networks will only be efficient and effective when both the competence as well as the chosen network-partner are recognized and it has also become evident that the idea of networking amongst SME's has not yet been accepted generally by SME's.

In several European countries, France being an example, business associations and chambers of commerce arrange meetings, seminars and consultation forums and clinics where SMEs obtain information on new technologies, new equipment, improved techniques, management and marketing from representatives of larger firms operating in the same or similar sub-sector. In some localities in Europe, France and Italy for instance, professional staff from large firms answers questions from SME owners/managers and discuss how to tackle particular problems. Mutual visits are sometimes arranged to expand the interaction to 'on the spot' explanations and advice (Pyke, 1994). This is a perfect example of business linkage in the form of networking.

Empirical studies on the effects of networks are relatively limited, due to both the topic's recent emergence as well as measurement challenges. The available evidence does suggest that entrepreneurs with more extensive social networks have faster growing firms. In Sub-Saharan Africa, for example, social networks based on ethnicity helped minority entrepreneurs' firms to start larger and grow significantly faster than indigenous-owned African firms (Ramachandran & Shah, 1999). A study by Okpara and Wynn (2007) on the determinants of small Business growth constraints in a sub-Saharan African economy reported that much of the minority entrepreneurs' success stemmed from sharing credit information and technology within their ethnically based social networks. Entrepreneurs with more extended social networks also tend to be more productive, as expanded access to information and resources enables them to produce more output from a given set of inputs. An econometric study focused on small-scale manufacturing in Ghana showed that entrepreneurs with larger and more diverse sets of networks are more productive (Berry et al., 2002). Social networks help to reduce the impact of market imperfections, by helping entrepreneurs' lower transaction costs, enhance contract enforcement, and address regulatory and institutional obstacles.

Further studies by Levitsky (1996) show no doubt that networking fosters productivity through inter-firm relations. Some of these relationships according to various studies by Okpara and Wynn (2007) as well as Schilling and Phelps (2007) are simply daily exchange of views and information between the small industries working close by each other. However, all studies show that this leads to more concrete forms of cooperation such as sharing of orders and subcontracting of parts of production, especially when there are capacity problems in supplying customers on time. The physical proximity can stimulate the development of such relations among firms.

### 3.5. Enterprise Growth

According to Penrose (1995), firm growth is the increase of certain parameters of the firm such as employment, revenues, profit, assets etc. The boundaries of the examined entity (the firm) may however change in time, thus measuring growth is ambiguous. SME growth is also defined simply as an increase in the number of firm employees, which may not be sustainable. But growth accompanied by improvements in productivity is likely to contribute to the desired developmental effects. The argument that firm growth causes higher productivity is based on the assumption that economies of scale exist; meaning that firms experience a decline in average costs as output increases. The flaw in this argument becomes clear when one considers that MSMEs tend not to operate in industries where economies of scale are present (Tybout, 2000), precisely because these are not industries where they are likely to be competitive. Small and Medium firms must be innovative and highly adaptive to attain the desired growth.

The growth of a firm is an evolutionary process and can be defined from two different angles; as increase of size and other quantifiable measures such as employees or profits, and as a process of changes or improvement. While firm growth is a process, firm size is a state. Firm expansion can be organic or through acquisitions to extend the firms' operations by broadening its structure gradually through a set of activities, and by means of drawing in resources in the form of already existing firms (Penrose 1995).

Studies by Atieno (2009) as well as Okpara and Wynn (2007), revealed that one of the main reasons why firms form linkages is the ultimate improvement of their performance which has direct bearing on the firm growth and can be measured with different indicators, such profitability and growth in employment, production level, or even sales. However, other studies indicate that firms also have their own performance indicators and growth can be expressed in the conventional terms of turnover, profits, value of assets-total, fixed or net, number of employees, market share and equity of the firm (McCormick, Mitullah and Kinyanjui, 2003); Okech, Mitullah & Atieno 2002).

Critics however have argued that all these indicators have both advantages and disadvantages. Atieno (2009) argues that profitability measure, for example, is problematic because most small firms do not keep records, nor share income information readily. On the other hand, some firms may opt not to expand, preferring to diversify into other activities to minimize risks. This is supported by Penrose (1995) who indicates that growth of a firm when measured in terms of fixed assets has its limitations in that a firm may be large simply because the firm is unable to expand its operations fast enough to make use of its cash resources. She recommends taking long-term profits as the optimum measure as it is the ultimate determinant of a firm's ability to reinvest. Few, if any, firms would want to invest for the sake of growth if the return is negative. Therefore, Penrose argues that to increase the long-term profits of the firm is equivalent to increasing the rate of growth.

Regarding enterprise growth policies, Levitsky (1996) argues that virtually all countries, at whatever stage of economic development, recognize the importance of smaller enterprises and the need to support their development. In some cases, the enthusiasm for MSMEs becomes excessive, giving enterprises privileges which may distort market forces to the point that the MSMEs fail to achieve the very objectives for which the sector was supported in the first place. Over zealousness for small enterprises making them sole producers of certain items (as in the past in countries such as in India) and providing subsidized finance at substantially less than commercial rates, only contributes in the end to the maintenance of weak, uncompetitive SMEs. Firms within such a cosseted SME sector will inevitably become inefficient and will not create employment at low levels of capital investment which is considered to be one of the major comparative advantages of small enterprises in countries where capital is scarce and labour relatively abundant (USAID, 2005). There are many legal and organizational options available to institutionalize inter-firm cooperation, and an even greater variety of informal mechanisms that have been used as a means of helping SMEs grow. Perhaps more important than the mechanism per se is the principle that business collaboration must be commercially grounded because grouping arrangements will hold together only as long as there are clear incentives that reinforce mutually beneficial behavior as argued by Rasiah, (2005).

In this study, firm growth is based on specific indicators that incorporate both the enterprises' own growth measures as well as the conventional measures. Following the extensive literature review, it is hypothesized that the different forms of linkages (the

independent variables) play a positive role on firm growth (dependent variables). The key measures of a dairy enterprise growth are measured by market share, sales turnover, profitability, product base and employment Levels.

### *3.6. Growth of Dairy Sector in Kenya*

Dairy development in Kenya is guided by the Dairy Industry Act, Cap. 336. Following the liberalization of the dairy industry in Kenya in May 1992 it became necessary to revise the Act in order to offer the appropriate guidelines for dairy development in a liberalized economy. The objective of revising the Act was to make it relevant with the Government's policy of milk market liberalization. The need to review the dairy policy paper arose from the realization that the dairy sub-sector policy was not broad-based since it only focused on institutional changes rather than the entire industry. Between the year 2006 and 2007, according to the Economic Survey (GOK, 2008), the dairy products sub-sector registered significant growth of 24.4 per cent although the sub-sector posed significant output challenges with producer prices of raw milk going up by over 16 percent. Also output of milk processed grew significantly by 27 percent from 228.3 million litres in 2006 to 289.9 million litres in 2007 although this was not enough to meet the local and export demand. During the same period, the volume of marketed milk increased from 361 million litres in 2006 to 423 million in 2007. In terms of value, the survey reports that dairy produce recorded an increase of 30.3 percent to stand at Ksh. 8.462.2 million in 2007. This rise was attributed to increased production of dairy products between 2006 and 2007.

The dairy industry is very competitive with a lot of potentials. However, many players are yet to operate at full capacities to enhance their competitiveness in their market. Indeed, the deficiencies in terms of capacities for all firms in the industry means there are some opportunities among these firms to collaborate to increase their capacities. Inter firm linkages is one possible option. The current milk market structure shows that the processors, including the KCC plants have a dairy throughput of about one million litres of milk per day. Dairy products are made from milk and a variety of products are derived from raw milk. These include: Fresh milk (Pasteurized); Ultra Heated Milk (UHT); Butter; Ice cream; Cheese; Milk powder (dried); Condensed milk; Ghee; Mala; Milk shake and Yoghurt. The above products are made by over 45 processors who have been licensed by the Kenya Dairy Board while there are currently over 250 milk "bars" which sell products such as yoghurt, mala, cheese, milk shake, etc. The majority of milk "bars" are located in Nairobi, Mombasa, Kisumu and Eldoret.

According to EPZ (2005), most of the milk sale before liberalization and immediately after liberalization was through the KCC. The trend however has changed with decline of KCC and influx of many small-scale processors. Generally informal milk outlets are shown to absorb most of the milk from smallholder farmers accounting for over 56% of the total milk sold, while formal market accounted for 14% of all the total milk produced. Brokers, traders/hawkers, transporters, co-operatives and farmer groups are identified as the most important participants at the rural markets. Cooperatives remain the main channel for collecting milk destined to the formal market.

### *3.7. Business Networking Linkages and Firm Growth*

The government of Kenya recognizes the importance of business linkages in the overall growth of a business and particularly the Micro and Small enterprises. Sessional paper no. 2 of 2005 (GOK), recognizes that weak business linkages is one of the causes of poor market access by MSEs in Kenya. Accordingly, the Government undertakes to provide incentives to the private sector to invest in areas that enhance development of business linkages between small and large enterprises. These areas include establishment of trade information centers and improvement of the quality of SME products. The paper further argues that, the Ministry of Finance will work out modalities for providing appropriate fiscal incentives to both large and small firms to encourage market/supply linkages. To enhance linkages between MSEs and the large-scale enterprises, the Government will identify suitable zones with basic infrastructure, which will serve as incubators, and improve the image of MSEs and their visibility. To address the phenomenon of the "missing middle", mechanisms will be put in place to enable the growth oriented MSEs to graduate to medium enterprises, and for the others to thrive (GOK, 2005, Ndemo & Smallbone, 2015).

Generally, the creation of large and SME linkages is, in fact, neither easy nor automatic. According to UNCTAD, the single most important factor influencing business network formation is the availability of suppliers with competitive costs and quality (UNCTAD, 2005a). Business linkage development can be supported by special programmes, but it is important to note that their success is also dependent on a favourable enabling environment comprising broader policy, economic, social and cultural aspects. Therefore, the role of government and of donor agencies is critical in facilitating the establishment of business network programmes. The areas where their involvement is particularly required include awareness-building, ensuring the commitment from other key partners, liaising with other stakeholders, and coordinating all the aspects of the programme.

According to Ceglie, Geovanna and Marco (1999), linking individual SMEs can address the problems related to their size and improve their competitive position. On account of the common problems they all share; small enterprises are in the best position to help each other. Through horizontal co-operation (i.e. with other SMEs occupying the same position in the value chain), enterprises can collectively achieve scale economies beyond the reach of individual small firms and can obtain bulk-purchase inputs, achieve optimal scale in the use of machinery and pool together their production capacities to satisfy large scale orders (Pyke, 1994). Through vertical integration (with other SMEs as well as with large-scale enterprises along the value chain), enterprises can specialize on their core business and give way to an external division of labour. Inter-firm co-operation also gives rise to a collective learning space, an "invisible college" (Thirikawala, 2011), where ideas are exchanged and developed and knowledge shared in a collective attempt to improve product quality and occupy more profitable market segments. Lastly, networking among enterprises, providers of business development services (BDS) and local policy makers can help to shape a shared local development vision and give strength to collective actions to enhance entrepreneurial strategies (Tsai, 2001).

## 4. Research Methodology

### 4.1. Research Design

According to Saunders, Lewis & Thornhill (2007), research design is the general plan of going about answering the research questions and testing hypothesis. It is the “blueprint” of the research; a “plan for getting from here to there” (Yin, 2003b), where “here” are the questions and “there” are the conclusions. This study adopted a mixed model design. Mixed model combines both quantitative and qualitative data collection and analysis approaches as opposed to a distinct quantitative or qualitative research (Saunders et al., 2007). Therefore, both quantitative and qualitative research approaches (triangulation) were adopted due to the varying issues under investigation.

(Yin, 2003b) advocates the use of triangulation by stating that it strengthens a study by combining methods. This can mean using several kinds of methods or data, including using both quantitative and qualitative approaches. However, the idea of combining methods has been challenged by Barbour (1998). She argues while mixing paradigms can be possible but mixing methods within one paradigm, such as qualitative research, is problematic since each method within the qualitative paradigm has its own assumption in terms of theoretical frameworks. The study adopted a descriptive research design and the subject of analysis was a dairy enterprise. The quantitative approach allowed the researcher to familiarize with the problem studied, and helped generate hypotheses for testing. In this paradigm; the emphasis is on facts and causes of behaviour (Yin, 2003b); the information is in the form of numbers that can be quantified and summarized; the mathematical process is the norm for analyzing the numeric data and the final result is expressed in statistical terminologies. Therefore, this approach enabled the researcher gather information on business linkages and other issues of descriptive nature.

Further, the research was descriptive in nature because it described the type and characteristics of the business relationships existing among SMEs and how they contribute to the growth of concerned businesses. Qualitative research uses a naturalistic approach that seeks to understand phenomena in context-specific settings, such as real world setting where the researcher does not attempt to manipulate the phenomenon of interest. According to Strauss and Corbin (1990), qualitative research when broadly defined, means any kind of research that produces findings not arrived at by means of statistical procedures or other means of quantification and instead, the kind of research that produces findings arrived from real-world settings where the phenomenon of interest unfolds naturally. Qualitative researchers seek instead illumination, understanding, and extrapolation to similar situations.

The study was designed to collect quantitative and qualitative data from a sample picked from the target population of dairy enterprises within Mt. Kenya region with the aim of describing growth phenomenon and determining the causal relationship between the independent and dependent variable as hypothesized in the conceptual framework. The study was therefore descriptive and explanatory in nature, portraying accurate profile of persons, events or situations. This is supported by Mugenda and Mugenda (2009) who argues that descriptive research determines and reports the way things are and portrays the facts as they really are and if another researcher goes to the field later, he or she would find the situation as described. Further, Saunders et al., (2007) explains that a descriptive study describes phenomenon while an explanatory study establishes causal relationship between the identified independent variables and the associated dependent variable.

The qualitative aspect of the research is concerned with establishing attributes, features or characteristics that describe a phenomenon (Kothari, 2009), for example, how business linkages can be sustained, and role of government in developing business linkages or how business linkages can sustainably be developed to create employment. On the other hand, a quantitative study is based on the numerical measurements, that is, amounts of characteristics which can be expressed in terms of quantity, for instance what enterprises outsource number of employees or amount of milk handled per day among others.

Data was collected using the survey methods. All the quantitative data was analyzed using quantitative methods while qualitative was analyzed using qualitative methods, to generate themes and categories relating to business linkages and employment growth among dairy enterprises. All the data of qualitative nature arising out of questionnaires were quantized and analyzed using statistical methods. According to Saunders et al., (2007), quantizing qualitative data means converting it into numerical codes so that it can be analyzed statistically. Quantitative data was compiled and analyzed using SPSS.

### 4.2. Target Population

The target population, made up of 309 dairy enterprises around the Mount Kenya districts of the larger Meru, Embu, Kirinyaga and Nyeri was obtained through the Kenya Dairy Board and updated by way of inquiries from the regional Kenya Dairy Board Offices in Embu, Nyeri and Meru that service the region. These comprised of 106 in the larger Meru, 114 in Nyeri, 37 in Kirinyaga and 52 in Embu making a total of 309 enterprises of different sizes and characteristics.

Region	Registered Dairy Enterprises
Larger Meru	106
Larger Nyeri	114
Kirinyaga	37
Embu and Mbeere	52
<b>Total</b>	<b>309</b>

Table 2: Target Populations

Source: Computed from the Kenya Dairy Board website and the respective regional offices

#### 4.3. Sampling and Sample Size

Since the information available from the Kenya dairy Board website was not complete to ascertain the exact location (region) of the enterprise, further inquiries were made at the regional Dairy offices to enable develop complete sampling frames. This is supported by Saunders et al., (2007) who argues that it is important that the sampling frame is current and accurate. Sampling is the selection of individual observations intended to yield some knowledge about a population of concern, especially for the purposes of statistical inference (Mugenda & Mugenda 2009). This is echoed by Yaunt (2006) that sampling is the process of selecting a group of subjects for a study in such a way that the individuals represent the larger group from which they were selected.

In line with Yin (2003b), who emphasized that a sample size should accurately represent the population under study, the researcher considered various authorities in the sample determination. First, Kothari (2009) explanation that a sample size of between 10% and 20% of the population is considered adequate for detailed or in-depth studies was considered alongside Saunders, Lewis & Thornhill (2009) who argued that 10% to 20% of accessible population was acceptable in descriptive researches but further indicated that the higher the better. Going by these scientific arguments, a sample comprising 10-20% of the target population translated to 30 to 60 respondents. However, Yaunt (2006) emphasized that besides adequacy of the sample, it is important that samples provide a representative cross-section of the population they supposedly represent. "The sample should be a "microcosm", a "miniature model" of the population from which it was drawn. Otherwise, the results from the sample will be misleading when applied to the population as a whole" (Yaunt, 2006).

Since the study involved undertaking statistical analysis on the sample to enable inferences about the population to be made on the basis of the sample, it was necessary to have a sample size that was more robust and ensured inferences about the diverse population characteristics. Therefore, the Central Limit Theorem which provides that when the sample size is at least 30 the approximation to the normal distribution of the sample means is complete and the confidence interval for the population parameter of interest can be determined from the sample mean at a specified level of confidence (Namusonge, 2010; Saunders et al., (2007).

However, notwithstanding the above sample size on the basis of the Central Limit Theorem, the selected sample size was also guided by the 5% level of significance at which the formulated hypotheses were to be tested. The level of significance is the statistical standard which is specified for rejecting the null hypothesis (Namusonge, 2010). At this level of significance confidence, the level of confidence is 95%. This is the level of confidence normally used for research in the social sciences (Saunders et al., 2007).

Mason, Lind and Marchal (1999) explains that the minimum sample size for the population of 10, 000 and more may be computed by the following formula

$$N = p(1-p)(z/e)^2 \dots\dots\dots (1)$$

Where

n is the minimum sample size required

p is the proportion of the population possessing a particular characteristic under study

z is the z value in the standard normal distribution to the corresponding level of confidence

e is the margin of acceptable error

Mason et al., (1999) explains that if an estimate of the proportion that possess the particular characteristic under study is known, whether from a pilot study or any other source, then this may be utilized to compute the sample. A proportion of 0.5 was used to compute the sample size which according to Mason et al., (1999) gives the largest sample size at a given confidence level. At 95% level of confidence therefore;

$$Z = 1.99$$

$$e = 5\%$$

Substituting these in formula (1) above gave a sample size of 384. Saunders et al (2007) explains that this can be reduced where the population is smaller than 10, 000 as in this case with 309 by application of the formula:

$$n' = n/(1+ (n/N)) \dots\dots\dots (2)$$

Where

n' = the adjusted minimum sample size,

n = the minimum sample size as calculated above for a population of 10, 000 and larger was 384

N = the size of population 309

Substituting these values in formula (2) above gave the minimum sample size as n' = 156.73 or 59.14% of the target population.

Due to the geographical dispersion of the enterprises, the Central Limit Theorem and the Mason et al., (1999) formula were used in arriving at a moderate sample of not less than 20% and not more than 57.80% to avoid errors associated to sampling. The two limits were added (20% plus 57.80%) and an average of 38.90% obtained to calculate the sample. Since none of the population was less than 30, the entire population was sampled at 38.90% proportionally because the Central Limit Theorem provides that when the sample size is at least 30, the approximation to the normal distribution of the sample means is complete and the confidence interval for the population parameter of interest can be determined from the sample mean at a specified level of confidence. In this case, none was less than 30 and thus the 38.90% sampled from each region.

The proportionate sample sizes were computed on the basis of the size of the cluster (region) and the target population. This again took into account the minimum sample size for the selected level of confidence and the Central Limit Theorem assuming a response

rate of between 50 – 75% for the questionnaires fully completed. A total sample size computed was 119 as shown in the table 3 below. This meant the overall percentage of the sample to target population was 38.90%. This is in line with Saunders et al., (2007), who explain that as long as samples are not biased by the law of large numbers, samples of large size are more likely to be representative of the population from which they are drawn than smaller samples.

Region	Population	Percentage	Sample
Larger Meru	106	38.90%	41
Larger Nyeri	114	38.90%	44
Kirinyaga	37	38.90%	14
Embu	52	38.90%	20
<b>Total</b>	<b>309</b>	<b>38.90%</b>	<b>119</b>

Table 3: Sample Size

Source: Computed from the Kenya Dairy Board website and the respective regional offices

From the sample frames developed, and that majority of the dairy enterprises are found in the major towns, sub-clusters were developed from each region from which a desired sample was picked using simple random sampling method.

#### 4.4. Data Collection Methods

Both primary and secondary data were collected. The secondary data was gathered from review of past studies, dairy sector publications such as Kenya Dairy Board reports, private sector reports and government publications such as the Economic Surveys and Statistical Abstracts. According to Bell (2004), the aim of a survey research is to obtain information which can be analyzed and patterns extracted and comparisons made to enable conclusions and inferences about the population about the population. A survey aims to obtain information from a representative selection from the total population whereby the findings from the sample are used to represent the total population as a whole. The above statistical principle further clarifies that findings based on a sample can correspond closely to those that would be obtained if the whole population were to be studied when sampling ensures proper representation of the total population (Mugenda & Mugenda, 2009; Bell, 2004; Namusonge, 2010). Surveys allow the collection of a large amount of data from a sizeable population in a highly economical way, often obtained by using a questionnaire where the data is standardized, allowing each comparison (Namusonge, 2010; Saunders et al., 2007).

The questionnaires were structured containing both open ended and closed ended questioners to allow flexibility and probing where necessary (Yin, 2003b). The instruments were pre-tested to a selected similar sample of the population to ascertain their reliability. The instruments were reviewed accordingly after the pre-test. The questions, being a set of standardized structured sought to obtain specific information needed to address the research objectives and research questions.

The questionnaires were administered to the respondents directly with help from research assistants. The research assistants were thoroughly trained prior to the field work. This process of training research assistants is supported by Yin (2003b) who argued that for questionnaires, no clarifications are given or questions reworded and the order in which questions are asked will be maintained for all respondents to minimize interviewer's bias. In other words, the researcher is restricted to the questions, their wording and their order as they appear on the questionnaire with relatively little freedom to deviate from it (Mason et., 1999). The author further explain that the questionnaire ensures that any variations between responses can be attributed to the actual differences between the respondents and not to variations in the interview and thus reduces the risk that the changes in the way questions are worded and the way they are asked might elicit differences in responses thus need to train research assistants.

#### 4.5. Data Analysis

In a mixed model research, with both qualitative and quantitative data, either qualitative or quantitative data analysis technique will predominate. Statistical methods were used to analyze quantitative data collected. To the extent also that qualitative data was quantized, quantitative analysis was applied. According to Saunders et al., (2007), quantizing qualitative data means converting it into numerical codes so that it can be analyzed statistically. Data from the open-ended questions were subjected to qualitative methods of analysis. A qualitative method of analysis aims at detecting themes, categories and patterns that enable general statements to be made on how categories or themes of data are in terms of observed attributes and their relative occurrences and thus leading to conceptualization. Quantitative analysis utilized descriptive and inferential statistics. Descriptive statistic is an analysis tool used in descriptive research to determine and report quantitatively the things are in the survey sample (Bell, 2004.). In this study, such data as sources of milk, types of business linkages, types of networks, number of employees were described. Statistical computations done included percentages, mean, frequencies etc. which is in line with Mugenda and Mugenda (2003) and Kothari (2009). All data quantitative data obtained as well as quantized qualitative data was analyzed using Statistical package for Social Scientists (SPSS) software.

Data was also subjected to inferential analysis where a logistic regression model was used to analyze the role of the predictor variables (business linkages) to the dependent variable (employment growth). This is because regression is the closest thing to estimating causality in data analysis, and that's because it predicts how much the numbers "fit" a projected straight line.

## 5. Discussions of the Key Results

The study sought to analyze the effects of networking as a business linkage on the growth of micro, small and medium dairy enterprises in Mt. Kenya region. This was against the background of lack of adequate information on the specific networking effects among the dairy enterprises in the Mount Kenya region. Networking among the dairy enterprises was studied in terms of existence of networking as a practice, types of networks, and the entrepreneurial motivations to network. The study further sought to establish how networking as a business linkage affected dairy enterprise growth as measured in terms of market share, profitability, product base and employment.

### 5.1. Involvement in Networking

The study sought to analyze whether the dairy enterprises in the Mount Kenya region were involved (existence) in networking or not. This was against the background on the lack of adequate information on whether dairy enterprises within the Mount Kenya region networked or not. The study findings established networking to be very common among firms in the dairy industry with all the 110 respondents confirming their firms being involved in networking. Indeed, Gassmann, Enkel and Chesbrough (2010) argue that firms are increasingly using networks and other partnering arrangements to accomplish their innovative goals. Among a variety of alliances, this study is focused on licensing as a sort of contractual strategic alliance. Licensing alliances are one of the more popular inter-firm agreements, particularly in the pharmaceutical, chemical and electronic industries, and form 20-30% of total alliances (Arora & Fosfuri, 2003).

### 5.2. Dimension of Networking

The study sought to establish the dimensions of networking, if any, existed among the dairy enterprises in the Mount Kenya region. This was motivated by the fact there are different form of networking thus necessary to understand the types found among the dairy firms. The most common dimension of networking as illustrated in table 3 was market information sharing (83.6%) followed by price information (10%), sharing training materials (5.5%) and human resource (0.9%).

<b>Dimensions of Networking</b>	<b>Frequency</b>	<b>Percent</b>
Market Information Sharing	92	83.6
Sharing Training Materials	6	5.5
Price Information	11	10.0
Human Resources	1	0.9
<b>Total</b>	<b>110</b>	<b>100</b>

Table 4: Dimension of Networking

These findings collaborate several other studies. Hoang, (2000) found that; small and mediums firms consistently used networks to get ideas and gather information to recognize entrepreneurial opportunities while beyond the start-up stage; entrepreneurs continue to rely on networks for business market related information advice, and problem solving, with some contacts providing multiple resources. Similarly, the study revealed that relationships with distributors, suppliers, competitors, or customers are important conduits of information and know-how. This confirms that information sharing remains a key method of networking among enterprises. Baun (2000) also found that operating under resource constraints within an uncertain business environment, resource holders such as potential investors and employees are likely to seek information in assessing a venture's viability and potential.

Other studies by Ahuja (2000), Provan and Sydow (2007) also found that business network serves as the locus of different forms of resources and opportunities which can be available for network members. These motivating resources include knowledge, information, technology, capabilities, skills, social capital, new partners, learning opportunity (Ahuja, 2000). Similarly, Provan and Sydow (2007) concluded that potential opportunities and resources in the context of a business network can be identified and realized through firms' business relationships such as networking. In this respect, they found that it is possible to extract more value from a business network and create competitive advantage, if there is a critical related capability within the focal firm.

### 5.3. Motivations to Network

The study sought to determine the factors that motivate dairy enterprises to network. The study findings as illustrated in table 5 showed that information sharing had the highest cumulative score for highest (54.57%) and high (27.3%) for being the main motivating factor for the dairy enterprises to network. This was followed by need to share technologies with 42.7% and 29.1% for the highest and high respectively. Other motivations were need to cut costs, improve relationships and other strategic reasons. Indeed, these findings are in tandem with the findings of Okten and Osili (2004) who found that saving on costs, improving on the flow of information, effective redistribution of resources, improving competitiveness and improving entrepreneurial potential were drivers of networking efforts in firms. Others included need to launch new businesses, need for cooperation, improving buyer/supplier relationship, sharing risks with others, access to additional resources as well as need to share entrepreneurial skills.

Factors	None	Least	Average	High	Very High	Totals
Cost reduction (f)	0	10	20	42	38	110
(%)	0	9.2	18.2	38.1	34.5	100
Share information (f)	0	2	18	30	60	110
(%)	0	1.8	16.4	27.3	54.5	100
Share technologies (f)	4	7	20	32	47	110
(%)	3.6	6.4	18.2	29.1	42.7	100
Improve relationships (f)	3	9	46	38	14	110
(%)	2.7	8.2	41.8	34.5	12.8	100
Other Strategic reasons (f)	4	4	41	41	20	110
(%)	3.6	3.6	37.3	37.3	18.2	100

Table 5: Motivations to Network

#### 5.4. Contributions of Networking to Business Growth

The study sought to assess the contribution of networking to the growth of dairy enterprises in the study area. This was motivated by the fact that business growth is as a result of multiple factors. Thus, the need to establish what respondents felt about networking and business growth.

The study found, as illustrated in figure 5 that 38.2% of the respondents felt networking highly contributed to growth, 30% felt the contribution was very high, 18.2% felt contribution was low, 11.8% reported very low while 1.8% felt networking did not contribute at all to business growth.

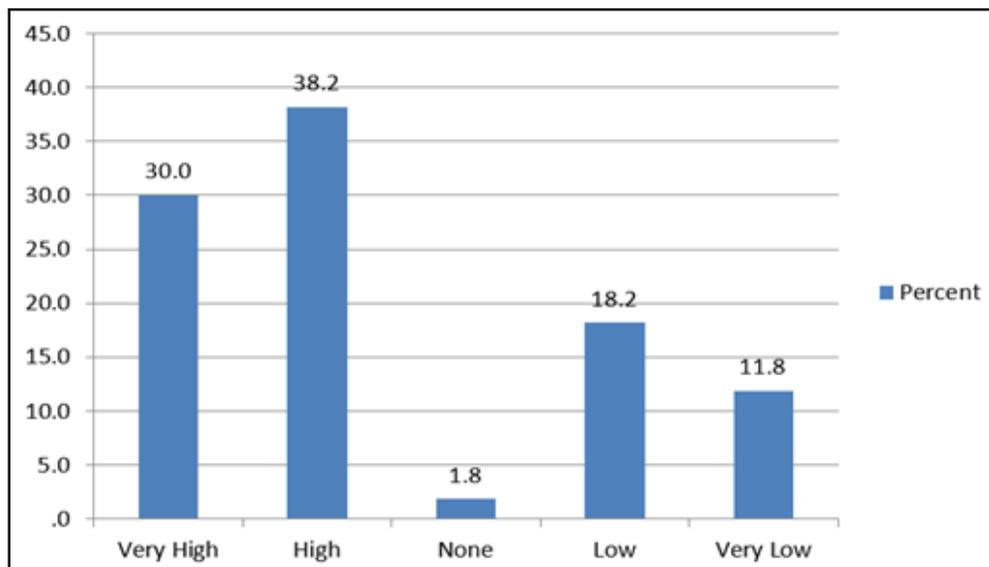


Figure 5: Contributions of Networking to Enterprise Growth

These findings support several studies done previously. Researches by Shaw and Conway (2000) and Rasiah (2005) concluded that networks and networking are important entrepreneurial tools that contribute to the establishment, development and growth of small firms. They further posited that networking assist small firms in acquisition of information and advice thus contributing to growth of the small firm by strengthening understanding and intuition which in turn make it possible to take the necessary actions and streamline the organisation of the firm that benefit growth. They further postulate that since the gathering of information and its dissemination throughout the external environment is one of the objectives of network formation, it can be inferred that network development leads to firm growth.

Terziovski (2003), in a study of SMEs in the Australian manufacturing industry, found that networking practices do have a significantly positive effect on business excellence. Quantitative data from a stratified sample of SMEs across the Australian manufacturing industry showed that the strength of the relationship between networking practices and business excellence is significant and positive. He found that networking allowed the small firm to achieve business excellence by: searching and incorporating diverse points of view; challenging the status quo; learning from failures; communicating with people outside the company, including experts; and the allocation of resources to support communication linkages. Wheelen and Hunger (2002) supports these finding arguing that the network organisation allows a company to concentrate on its distinctive competencies, while gathering efficiencies from other firms who are concentrating their efforts in their areas of expertise. Still on contributions to growth, Ojala (2009) found that knowledge-intensive SMEs, expanding to psychically distant markets were influenced by networks relationships; findings which were confirmed by Zain and Ng (2006) who found that network relationships were the most important factor in the internationalization process as they highly influenced the choice of market and entry mode.

The contributions of networking are adequately summed in a study by Karin and Barbara (2009) who reported that companies that frequently network with educational, research, and supporting institutions express their income and asset growth. Similar results are found for companies that express frequent cooperation with final users, suppliers, and agents. They also express income growth. That kind of cooperation enables them to achieve better performance in the value chain, which brings them to a superior competitive position. They do not have so much need for hiring additional employees as they can share some activities among partners in the value chain. Mu and Benedetto (2012), in a survey of SMEs revealed that those SMEs which have created better and stronger positioning in business networks have experienced faster and more successful internationalization, an indicator of growth.

### 5.5. Regression Analysis

Using a multiple regression analysis model, each of the independent variable was subjected to further tests to determine the extent of the contribution of each of the variable to the growth of a dairy firm. To find out whether the model as a whole predicted occurrence better than chance, a model chi-square tests of coefficients was run to test the capability of all predictors (independent variables, that is networking as a business linkages) in the model jointly to predict the response (dependent, that is, dairy firm growth). The p-value was compared to a critical value (0.05) to determine if the overall model was statistically significant. The number of degrees of freedom (df) for the model was one degree for each predictor in the model.

### 5.6. Effects of Business Networking Linkages

Networking was found to have significant contribution to the profitability of a dairy enterprise.

Variable	B	S.E.	Wald	Df	Sig.	Exp(B)
Profitability	1.906	.594	10.282	1	.001	6.727
Market Share	.909	.286	10.088	1	.001	2.481
Product Base	.010	.270	.001	1	.970	1.010
Employment	.491	.219	5.014	1	.025	1.634

Table 6: Effect of Networking as Business Linkages

The study sought to examine whether networking as business linkage can lead to increased profitability among the dairy enterprises. This variable was found to be significant at 0.001 level of significance and [Exp (B) 6.727] indicating that it was important in enhancing generation of profits among dairy enterprises. This means that there is a positive relation between networking as a business linkage and profitability since the Exp (B) is greater than one. The study also sought to examine whether networking as business linkage can lead to increased market share among the dairy enterprises. This variable was found to be significant at 0.001 level of significance and [Exp (B) 2.481] indicating that it was important in enhancing market share among dairy enterprises. This means that there is a positive relation between networking as a business linkage and market share since the Exp (B) is greater than one. Further, the study sought to examine whether networking as business linkage can lead to increased product base among the dairy enterprises. This variable was found to be significant at 0.001 level of significance and [Exp (B) 2.163] indicating that it was important in enhancing growth of Product base among dairy enterprises. This means that there is a positive relation between networking as a business linkage and product base since the Exp (B) is greater than one. Finally, the study sought to examine whether networking as business linkage can lead to increased Employment levels among the dairy enterprises. This variable was found to be also significant at 0.025 level of significance and [Exp (B) 1.634] indicating that it was important in enhancing employment growth among dairy enterprises. This means that there is a positive relation between networking as a business linkage and employment growth since the Exp (B) is greater than one.

These findings are in line to findings by (McCormick & Atieno, 2002) who found that linkages, in the form of network, help to reduce the uncertainties faced by enterprises and offer a number of potential benefits to firms: helping to improve firm performance by reducing marketing costs, increasing firm flexibility, improving skills and their diffusion, as well as facilitating information-sharing. This is generally firm development which translates to including others employment growth. This study did not establish any significant relationship between subcontracting, joint venturing, business clustering and licensing of a business with Employment growth among dairy enterprises. The p-values for the four predictors were more than 0.05.

## 6. Conclusions and Recommendations

### 6.1. Conclusions

Regarding effects of networking as a business linkage on the growth of micro, small and medium dairy enterprises in in Mt. Kenya region, the study concluded that networking remains an important practice for both MSMEs and larger enterprises because of the numerous benefits associated with it.

On the effects of networking as a business linkage on the growth of micro, small and medium dairy enterprises in in Mt. Kenya region the study concluded that indeed firms are increasingly using networks and other partnering arrangements to accomplish their innovative goals. Business exposure through industry networking can boost firm growth including employment growth because savings from costs can be reinvested in new enterprises. Networking relationships particularly on information sharing are one of the more popular inter-firm partnerships, not only among the dairy firms under study but also in other industries.

Business networking, being a social process can easily benefit not only the smaller enterprises but also the larger enterprises in understanding the market dynamics such as in pricing, demand and supply trends among others. These variables are important in the growth endeavors of any enterprise.

## 6.2. Recommendations

### 6.2.1. Promotion/Awareness of Business Networking Opportunities

Based on the benefits derived from business networks, there is high need for awareness creation among players in the dairy industry on identifying linkage gaps and importance of business linkages so that the relationships are beneficial to all parties. Majority of the smaller dairy firms are not aware of the opportunities to collaborate because there exists no forum to share information thus continue to perform even activities that are not cost effective but necessary. In the same line, partners should be encouraged to develop official contracts or agreements between partners so that to define the nature of the relationship. This will ensure a mechanism for promptly attending to business linkage/relationship challenges once they occur to ensure no breakdowns of such relationships in dairy sub-sector.

### 6.2.2. Business Linkage Opportunities

Both Government and private players should encourage business linkage programs through policy development. This can be done by creating a coordination mechanism within the Kenya Dairy Board to coordinate and promote collaboration among stakeholders for joint approaches in dairy business development to reduce fragmentation of efforts. Such practices as outsourcing of services will enable firms determine what is cost effective to produce or market while working with other firms to offer other services.

### 6.2.3. Development of Management Information Systems

The Kenya Dairy Board to be facilitated to have a management information system in place so that it can extend its services better to the dairy enterprises in Kenya. For, example, the Board in conjunction with the Dairy Training Institute in Naivasha took the initiative of launching a publication called "Maziwa News". The Ministry of Agriculture and the Kenya Dairy Board need to provide relevant information/data to the mass media for dissemination to dairy farmers and processors. The Kenya Dairy Processors Association in collaboration with the Kenya Dairy Board and the Ministry in charge of Livestock Development to take the lead in this effort. Policy should be geared towards encouraging the processors to adopt cheaper, domestically available packaging materials and technologies. If not locally available, the Government should assist dairy farmers and other willing investors to acquire appropriate dairy processing technology from abroad. The goal should be to encourage competition and efficiency in packaging across the country.

### 6.2.4. Suggestions on Further Research

It is imperative to explore further appropriate policies that can encourage micro, small and medium enterprises particularly to form productive business networks.

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