



Influence of Business Networking on Competitiveness of Small and Medium Agro Processing Firms in Murang'a County, Kenya

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ABSTRACT

The purpose of this study was to analyze the influence of business networking on competitiveness of small and medium agro-processing firms in Murang'a County, Kenya. Most farmers and agro processors in Kenya export semi-processed, low-value produce, some of which they later import as finished products. In order to earn more from their efforts, agro-processors in Kenya must embark on production of consumer ready products that will compete regionally and globally. To attain this competitiveness, the agro-processors must strategically engage in business networks that will greatly influence their competitive success. The choice of the rural county of Murang'a in Kenya was informed by the assumption that the findings of the study can be generalized to suit all the other rural counties of Kenya. Porter's diamond theory of competitiveness guided the study but three other relevant theories were also considered. The study adopted correlation research design to guide the collection, analysis and presentation of data. Questionnaires were the main instruments of collecting data from respondents sampled from 180 agro-processing firms in Murang'a County. Quantitative data was analyzed using SPSS while the qualitative data was subjected to content analysis. The study established that business networking significantly influences the competitiveness of small and medium agro-processing firms in Murang'a County, Kenya since it aided the agro processing firms to improve their brands' value, productivity and profitability. However, the networks that agro processing firms in Murang'a County engaged in were based on trust and not formally established.

Key words: Brand Value, Business Networking, Competitiveness, Productivity, Profitability

INTRODUCTION

Competitiveness of a firm can be defined as its ability to do better than comparable firms in sales, market shares, or profitability (Lall, 2000). It is created at the firm-level and emerges from complex patterns of interactions between the government, enterprises and other actors (Lalinsky, 2013). Competitiveness is synonymous with a firm's long-run profit performance, its ability to compensate its employees and provide superior returns to its owners (Garelli, 2014) and it is therefore at the core of the success or failure of the firm (De Wit & Meyer, 2004). It is usually measured using such indicators as a firm's productivity, profitability, export performance, brand value and/or market share (Lalinsky, 2013). Effective entrepreneurs know that establishing and maintaining a competitive advantage is a great challenge and that without careful attention, competitive advantage can be easily lost (Bateman & Zeithaml, 1990). Firms must aim at attaining sustainable competitiveness by doing things differently from competitors and must adopt different strategies in their bid to sustain their long run

competitiveness which may include knowledge and resources sharing in strategic business networks.

Business networks can be sources of competitive advantage for small and medium agro processing firms in Kenya that face challenges in acquisition of modern manufacturing technology and access to foreign markets. Collaborative networked organizations are structured primarily to make a favorable position against the competition and the relationships are key sources of competitive advantage (Wickham, 2006). Strategic business networks resonate with locking the venture into a set of secure and rewarding network links that competitors find hard or expensive to break (Wickham, 2006). Firms that engage in business networks are also more likely to develop brands with a stronger market value and presence than stand alone firms. This is so because business networks provide access to information, resources, markets, and technologies that have the potential to maintain or enhance the competitive advantage of the firms (Gulati, et al., 2000).

According to the Global Economic Report (2014-2015), Kenya was ranked a poor 90th out of 133 countries in global competitiveness (WEF, 2015). But the poor position contradicts Kenya's vision 2030 of being a globally competitive and prosperous nation with a high quality of life by the year 2030 (RoK, 2010). In the blueprint, one of the strategic areas identified that can make Kenya competitive is value addition to products and services in tourism, agriculture, trade and manufacturing (RoK, 2007). Globally, value addition in agriculture determines the competitiveness of a country's produce in the world markets. However, the Kenyan farmers export semi-processed, low-value produce, which accounts for 91 % of total agriculture-related exports (RoK, 2010). Consequently, the country loses billions in earnings by not adding value to its produce. Business networking using such models as Public Private Partnerships (PPP) in value-added agriculture have received great attention in Kenya vision 2030 blueprint, with an expected investment of US \$ 231 Million in the Ministry of Agriculture and US \$ 15 Million in the Department of Fisheries development for PPPs (FAO, 2013; GoK, 2007). But despite these efforts, weak industrial linkages and collaborations; and weak public private partnerships are often cited as challenges affecting the productivity of agro processing firms in Kenya (Chemengich, 2014; GoK, 2007; Otieno, 2012). From the foregoing, the study aimed at analyzing the influence of business networking on competitiveness of small agro processing firms in Murang'a County, Kenya.

RELATED LITERATURE

Theoretical Review

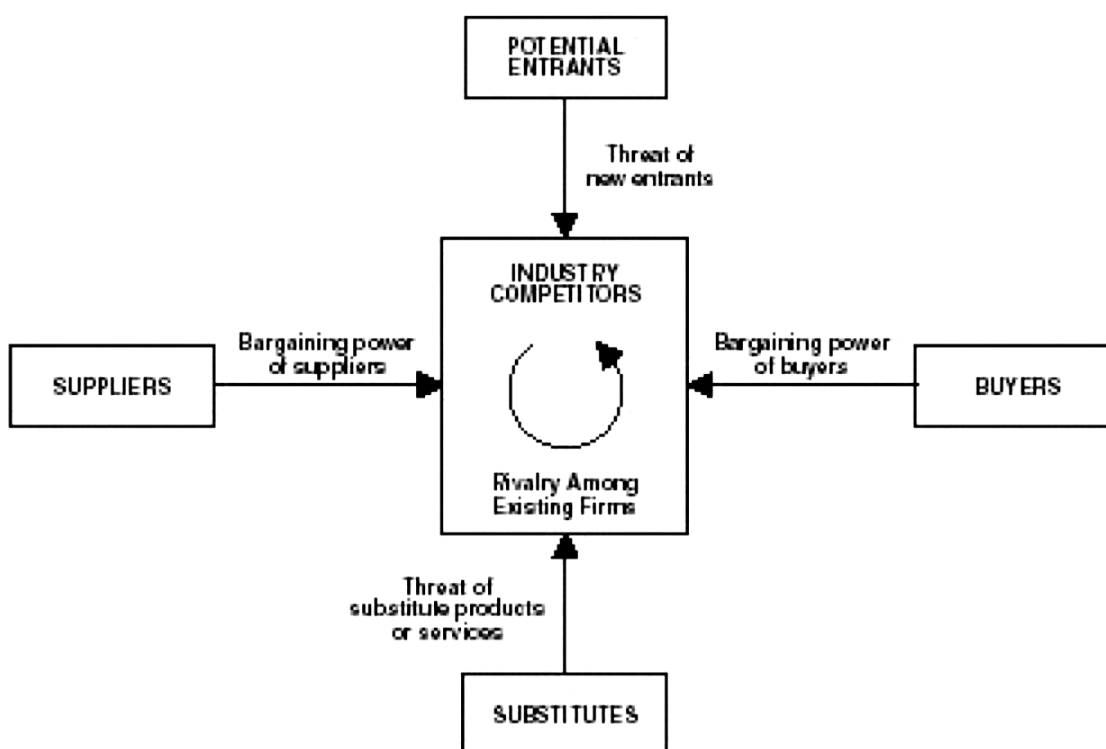
Contending theories of strategic management seek to explain how individual firms can gain competitive advantage in the global marketplace (Barney, 1991; Ohmae, 1982; Penrose, 1959; Porter, 1985; Wernerfelt, 1984). These theories have been extended to the question of why industries in particular regions or nations are more or less competitive in the global economy (Porter, 1990; Rugman & Verbeke, 2002). There are many theories of competitiveness but this study reviewed: Porter's Five Forces Theory and Porter's Diamond Theory of National Competitiveness.

Porter's Five Forces Theory

According to Porter (1980), there are five major forces that determine a firm's ability to compete namely: rivalry within the industry; threat of new entrants; threat of substitutes; bargaining power of suppliers; and bargaining power of buyers. The five forces can be analyzed by firms in the assessment of their competitors and decide how to compete against them (Porter, 1980). The number and concentration of firms in an industry will determine the

intensity of competition among the existing firms. Firms entering an industry, will bring with them new capacity and a desire to gain market share and profits. Entering firms may face entry barriers and competition from existing firms which may opt to launch vigorous defense of their market share. The bargaining power of the suppliers and buyers must also be taken into consideration when formulating competitive strategies. Availability of substitutes places a ceiling on prices that a firm can charge and the buyers' prospects of buying substitutes when the company increases its prices must also be taken into account when formulating competitive strategies. Porter's (1980) five forces theory supports the objective of this study because by appreciating the five forces, a firm that will continually engage in strategic business networks will stay ahead of the competition in an industry and erect significant entry barriers.

Fig 1: Porter's Five Forces Theory



Source: Porter (1980).

Porter's Diamond Theory of National Competitiveness

In this model, Porter (1990) starts at the interaction of four factors that represent a diamond which are: (i) strategy, structure and firm rivalry; (ii) conditions of input factors; (iii) demand conditions; and (iv) related and supporting industries. Porter (1990) argues that competitiveness of an entity lies in the four broad categories or attributes with two intervening attributes (Government and Chance) that shape the environment in which firms or industries compete.

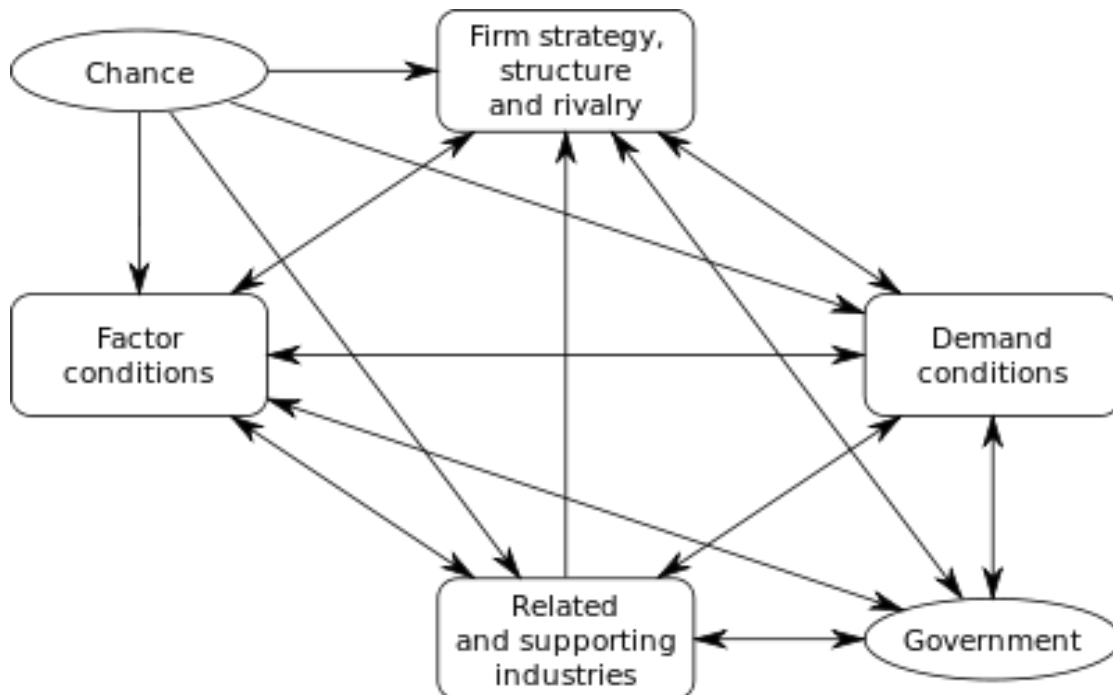
Factor conditions are the advantageous factors of production that give some firms competitive edge over their competitors. They include human resources, physical resources, knowledge resources, capital resources and infrastructure (Porter, 1990). Created factors such as skilled labor, infrastructure, technology and production costs are necessary to compete in a given industry (Sinngu & Antwii, 2014). Small and medium firms in Kenya may benefit from business networks with firms that possess specialized key factors which may otherwise be difficult to obtain in Kenya.

Demand size and internationalization of the domestic products contribute to a firm's competitiveness. Customers in the home market can help companies create a competitive advantage, when sophisticated home market buyers pressure firms to innovate faster and to create more advanced products than those of competitors (Porter, 1990). Agro-processing firms in Kenya can benefit from availability of domestic and regional markets by collaborating with firms that will assist in developing more attractive brands.

Related and supporting industries involve the presence or absence of domestic suppliers and related industries that are internationally competitive. Porter (1990) argues that a set of strong related and supporting industries is important to the competitiveness of firms or industries. When the local supporting industries are competitive, local companies are also likely to be competitive as well. Business networks formed with related and supporting industries will provide timely information and resources that will enable a firm to remain sustainably competitive.

Firm strategy, structure and rivalry involves culture, structure, management skills, pricing strategy, buyers' and suppliers' market power, threats of new entrants and substitutes. If competition is very strong in the domestic market then local firms may develop skills that can be used to compete internationally. A more developed and intensive interaction between these factors will generate better productivity, innovativeness and the sector's export growth making the entity more competitive (Porter, 1990). Governments play an important role in international competitive success of their firms since they can influence each of the above determinants either positively or negatively through policies. Government interventions can occur at local, regional, national or supranational level (Porter, 1990). Chance conditions include factors such as wars, political decisions of foreign states and discontinuity of technologies. When they occur, chance factors are beyond the power of the industry and Government. They can either hurt or benefit the industry's competitive position. Porter (1990) argues that government and chance factors must be viewed differently from the other four determinants. Business networks may serve as sources of raw materials and markets in case of unpredicted upheavals thereby cautioning the collaborating firms from huge losses.

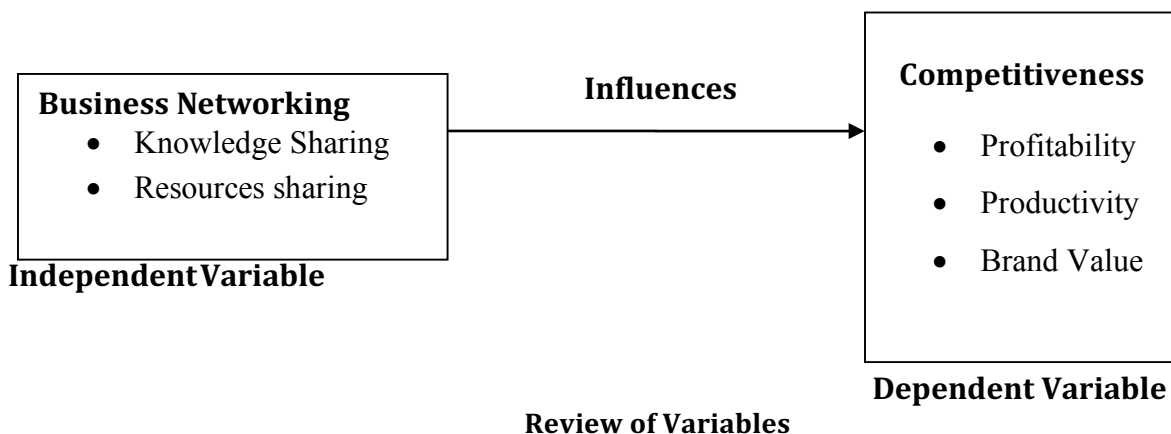
Fig. 2: Porter’s Diamond of National Competitiveness



Source: Porter (1990).

Conceptual Framework

Fig. 3: Conceptual Framework



Competitiveness

Competitiveness of a firm can be defined as its ability to do better than comparable firms in sales, market shares, or profitability (Lall, 2000). It is about being different and seeking to establish a profitable and sustained superior position against the forces that determine an industry’s competition. It involves deliberately choosing to perform activities differently or to perform different activities from rivals in order to deliver a unique mix of value to the customers (De Wit & Meyer, 2004; Porter, 2003). Competitiveness can be conceptualized and measured at country, industry, firm or product levels. The measurement technique of competitiveness varies with the unit of analysis, for example, firm, industry or country and also indicators of competitiveness (Garelli, 2012).

From literature it has been found out that there exists a wide range of determinants of competitiveness but a paucity of all-encompassing conceptualizations (Sancharan, 2011). Researchers have widely selected profitability, productivity, product quality, balance of trade,

market share and rate of growth as the broad measures of competitiveness (Rugman et al., 2012; Sancharan, 2011). Competitiveness at a firm level involves productivity, efficiency and profitability elements (Sancharan, 2011). It is usually measured using such indicators as a firm's productivity, profitability, export performance, brand value and/or market share (Lalinsky, 2013). From the definitions of firm level competitiveness, it can be inferred that a firm's competitiveness rests in its adaptability and ability to realize long-run profit. Firms must adopt different strategies in their bid to sustain their long run profitability which may include innovation, information technology, niche market, network, cluster and foreign direct investment strategies among others. The ability of firms to create, access and commercialize new knowledge in domestic, regional or global markets is also fundamental for their sustained competitiveness.

Brand strength can lead to competitive success of an organization since customers who value brand name are more likely to purchase due to the familiarity of the products (MacDonald & Sharp, 2000). An organization achieves this when it sees its customers' objectives as its own objectives and enables its customers to easily add more value or, in the case of final consumers, feel they are gaining true value for money. A firm is said to be competitive if it can produce products and services of superior quality at lower costs than its domestic and international competitors (Garelli, 2014). Chikan (2008) posits that a firm's competitiveness is the capability of that firm to sustainably fulfill its double purpose of meeting customer requirements but at a profit. This capability can be realized by offering goods and services which customers value higher than those offered by competitors.

Business Networking

Business networking is a socioeconomic business activity by which groups of like-minded business people recognize, create, or act upon business opportunities (Osterle, Fleisch & Alt, 2001). Successful cooperation is based on trust and commitment and entails a voluntary and mutual agreement which can be set out in a formal and documented contract or an informal contract aimed at achieving common goals (Osarenkhoe, 2010). The main motive for cooperating is to adopt collective strategies for value generation so as to enhance competitiveness. Business networks are valuable because they minimize transaction costs thereby improving the profitability of the actors in a network (Dhliwayo, 2014). The associative capacity depends on the degree that communities, groups and businesses share norms, common identity and are prepared to subordinate individual interests to those of larger groups (Fukuyama, 1995).

Business networks provide access to information, resources, markets, and technologies that have the potential to maintain or enhance the competitive advantage of the firms (Gulati, et al., 2000). Information sharing is important for a successful business network since firms since it enables collaborating firms to react swiftly to fluctuating markets, seize opportunities as they arise, and work efficiently in a demanding environment. For this to happen, communication between participants must be timely and reliable (Acs & Audretsch, 1990). Challenges, potential solutions and novel ideas that are openly shared and resolved in a business network make the network stronger and may also lead to new innovations (Prahalad & Hamel 1990). In addition, it has been recently shown in several studies that some kinds of knowledge, such as tacit, social, and complex knowledge, are difficult to imitate (Helfat & Rubitschek, 2000) and thus when shared they become a main source of long term profitability (Li, Poppo & Zhou, 2010). ICT tools are the most efficient way of sharing information between partners in a controlled, systematic manner (Ahokangas et al., 2015).

Strategic alliances along the value chain perform a critical function in accessing resources and capabilities not owned in sufficient measure by the organization and in stimulating the learning and appropriation of essential skills and capabilities (Bretherton & Chaston, 2005). When faced with situations of resource scarcity; performance distress; environmental pressures and economic downturns and also in order to gain a potential favorable corporation image and identity; organizations seek out cooperation (Schermerhorn, 1975). Organizations are encouraged to collaborate because partnering can provide access to new and improved resources, technologies, skills and systems necessary to move a firm into a position where business goals can be realized (Bretherton & Chaston, 2005). Competitive advantage can be achieved in two ways as alliances offer the co-ordination and scale associated with large companies, but the flexibility, creativity, and lower overheads of small companies (Bretherton, 2003; Mattysens & Van Den Butte, 1994; Rosenbloom, 1990; Spekman, 1988). Collaboration may occur in many areas, including research and development (R&D), sourcing, manufacturing and sales. Therefore, internal resources presented in the network should be valued because they can become the source of competitive advantages (Barney, 1991; Penrose, 1995; Prahalad & Hamel, 1990; Wernerfelt, 1984).

Several studies (Andersson & Floren, 2008; Clarke & Thorpe, 2006; Fuller-Love & Thomas, 2004; Johnson, Scholes & Whittington, 2005) have shown the benefits of entering formal business networks, such as sharing resources, gaining knowledge, creating strategic alliances and internationalizing. Powell et al. (1996) suggest that a business network with superior knowledge sharing mechanisms between users, customers, suppliers and manufacturers will be able to 'out-innovate' competitors with less effective knowledge-sharing while Nouwens & Bouwman (1996) posit that business networks enable collaborating firms to maximize their profits by taking advantage of higher flexibility at lower costs and risks. Nouwens & Bouwman (1996) add other advantages of business networking such as: risk-sharing by mutual entrepreneurship; exchange of information and knowledge at a higher level than in markets or hierarchies; achievement of higher quality brands; achievement of important innovations by bundling R&D resources and expertise; and a wider market reach.

METHODOLOGY

This study was approached from a blend of both positivism and interpretivism philosophies. While positivism is an epistemological position which generally informs quantitative research by advocating the application of the methods of the natural sciences to the study of social reality and beyond (Bryman, 2004), interpretivism informs qualitative research by referring to the way human beings make sense of the world around them (Saunders, Lewis & Thornhill, 2009). This study adopted correlational research design which seeks to establish the relationship between two or more variables that do not readily lend themselves to experimental manipulation (McLeod, 2008). It is a technique of gathering information by questioning those individuals who are the object of the research and who belong to a representative sample, through a standardized questioning procedure with the aim of studying relationships between variables (Corbetta, 2003; McLeod, 2008; Orodho, 2003; Zikmund, 2003). The correlational research design was appropriate for this study since it enabled the researcher to analyze the influence of the independent variable (business networking) on the dependent variable (competitiveness). The design was also suitable because it produced statistical information which could be displayed in graphical forms and whose results had predictive implications to decision making and therefore would be relevant to policy-makers and businessmen (Berg 2001).

The study obtained a sample of top level and middle level managers from the 180 agro processing firms in Murang'a County. Sampling was done using stratified sampling where each

of the sub counties of Murang'a County was treated as a stratum. From each stratum a simple random sample was obtained using computerized random numbers. The researcher used self administered questionnaires to collect primary data from top and middle level managers of agro-processing firms in Murang'a County. The questionnaires were designed to contain both open ended and closed questions.

Table 1: Sample Size by Strata (Sub County)

Sub Sector	Coffee		Dairy		Fruits		Nuts		Animal Feeds		Cottage	
	Top Mgt	Mid Mgt	Top Mgt	Mid Mgt	Top Mgt	Mid Mgt	Top Mgt	Mid Mgt	Top Mgt	Mid Mgt	Top Mgt	Mid Mgt
Kangema	9	9	2	4								
Mathioya	10	10										
Murang'a East	4	4					1	2				
Murang'a South	5	5	1	2	2	4	1	3	3	6	3	7
Gatanga	12	12			3	6	2	3			1	3
Kandara	19	19	2	2								
Kigumo	20	20										
Kahuro	14	14										
Sub Total	93	93	5	8	5	10	4	8	3	6	4	10
Overall Total												249

Source: County Development Planning Office, Murang'a (2013)

DESCRIPTIVE STATISTICS

As shown in table 4.6, a majority of the respondents agreed (mean of 4 and mode of 4) that their firms engaged in business networks and 74.5% of the respondents replied that the business networks they engaged in were based on trust recording a mean of 4 and mode of 4. An impressive majority of the respondents (mean of 4 and median of 5) replied that business networks they engaged in provided useful information that helped them to improve the value of their brands in the market. A majority of the respondents (59.6%) agreed (mean and mode of 4) that business networks assisted their firms in accessing critical capabilities and resources that aided their productivity. A majority of the respondents (62%) agreed (mean of 4 and median of 4) that business networking activities enhanced the existing capabilities of their firms while slightly over 64% of them, with a mean of 4, said that shared information and resources within the networks helped to improve their profitability.

Table 2: Business Networks and Competitiveness of Agro-processing Firms

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	Median	Mode	Standard Deviation
We participate in business networks	0.6%	11.4%	10.2%	63.1%	14.8%	4	4	4	1
Our business networks are based on trust	0.6%	10.8%	14.2%	61.4%	13.1%	4	4	4	1
Our social business contacts provide useful information that improves the value of our brands	0.6%	12.5%	19.3%	33.0%	34.7%	4	4	5	1
Business networks help us to access critical capabilities and resources that aid productivity	1.7%	16.5%	22.2%	44.3%	15.3%	4	4	4	1
Business networking enhances existing capabilities	2.3%	18.2%	17.6%	48.9%	13.1%	4	4	4	1
Shared information helps in increasing our profitability	0.6%	1.4%	23.9%	43.8%	20.5%	4	4	4	1
Shared resources have improved the firm's productivity	0.0%	13.1%	25.6%	49.4%	11.9%	4	4	4	1
Collective strategies reduce our transaction costs.	0.0%	14.8%	25.0%	33.5%	26.7%	4	4	4	1
We collaborate with NEMA and other Quality Assessors to build our reputation	1.1%	19.3%	21.6%	41.5%	16.5%	4	4	4	1
Collaborative training of our employees enhances productivity.	0.6%	15.9%	11.4%	39.8%	32.4%	4	4	4	1

DISCUSSION AND FACTOR ANALYSIS

The findings indicated that business networking influences competitiveness of small and medium agro processing firms in Murang'a County. A majority of the respondents (mean of 4 and median of 5) replied that business networks they engaged in provided useful information that helped them to improve the value of their brands; profitability and productivity to a great extent. A majority of the respondents (72%) were in agreement that collaborative training enhanced productivity of their firms while 62% of them agreed that collective strategies helped to reduce transaction costs of their firms. The results show that shared resources within business networks assisted the small and medium agro processing firms in Murang'a County to access critical capabilities and resources that aided their productivity, enhanced their brands value and improved their profitability.

The findings concurred with Nouwens & Bouwman (1996) who posit that business networks enable collaborating firms to maximize their profits by taking advantage of higher flexibility at lower costs and risks and Dhliwayo (2014) who argues that networks are valuable because they minimize transaction costs thereby improving the profitability of the actors in a network while Destefanis (2012) and Bretherton (2003) posited that collaborating businesses can increase productivity and become more competitive from utilization of established distribution channels and economies of scale associated with big firms. Sharing information between partners of a business network also serves as a breeding ground for new innovations which helps to strengthen the brands value. Prahalad & Hamel (1990) hold the view that challenges, potential solutions and novel ideas that are openly shared and resolved in co-operation make the network stronger and may also lead to new innovations.

The indicators of competitiveness used in the study were profitability, productivity and

brand's value. In response to the question about the percentage profit attributable to business networking a majority of the respondents responded that it contributed between 30 and 40 as shown in table 3 while as shown in table 4, of the respondents 79% agreed that business networks enhanced their productivity

Table 3: Competitiveness and Business Networking

Item	0-20%	20-30%	30-40%	40-50%	Over 50%	Mean	Median	Mode	Standard Deviation
What percentage of your firm's profitability can be attributed to the business networks you engage in?	16.5%	25.0%	38.1%	16.5%	4.0%	3	3	3	1

Table 4: Determinants of Competitiveness

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Count	Mean	Median	Mode	Standard Deviation
Business networks we engage in enhances productivity	0.6%	9.1%	11.4%	58.5%	20.5%	176	4	4	4	1

INFERENCE STATISTICS

Business Networking and Competitiveness

The specific objective of the study was to assess whether business networking significantly influences competitiveness of small and medium agro processing firms in Murang'a, Kenya. The study hypothesized that:

H₀: Business networking does not significantly influence the competitiveness of small and medium agro-processing firms in Murang'a County, Kenya.

Versus

H_A: Business networking significantly influences the competitiveness of small and medium agro-processing firms in Murang'a County, Kenya.

The scatter diagram presented in Fig. 5 depicts a positive linear relationship between business networking and competitiveness from which it can be observed that an increase in one variable led to a corresponding increase in the other variable.

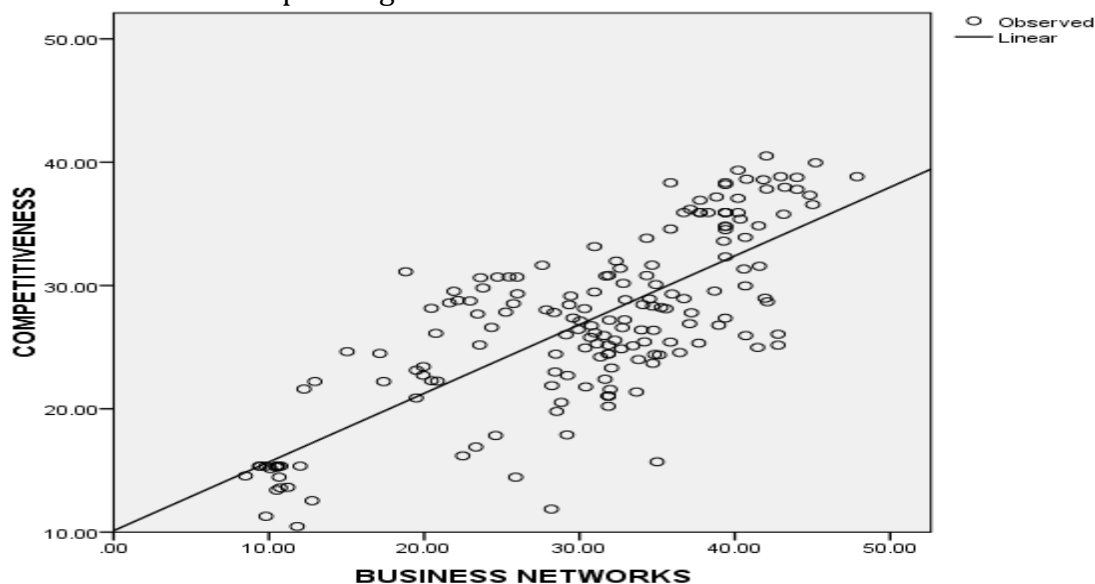


Fig. 5: Scatter Plot for Competitiveness against Business Networks

Pearson correlation coefficient was used to establish the strength of the relationship between business networking and competitiveness of agro processing firms in Murang'a County. Table 5 shows a strong positive and significant correlation ($r = 0.762$, P-value = 0.000) between business networking and competitiveness at 1% level of significance (2 tailed).

Table 5: Correlation Analysis: Business Networking and Competitiveness

		COMPETITIVENESS	BUSINESS NETWORKING
COMPETITIVENESS	Pearson Correlation	1	.762
	Sig. (2-tailed)		.000
	N	176	176
BUSINESS NETWORKING	Pearson Correlation	.762	1
	Sig. (2-tailed)	.000	
	N	176	176

Regression Analysis of Business Networking and Competitiveness

Simple linear analysis was performed to empirically determine whether business networking was a significant determinant of competitiveness of agro processing firms in Murang'a County. Table 6 shows coefficients of the regression analysis from which the following model for competitiveness as influenced by business networking was generated:

$Y = 10.115 + 0.557 X_2$, where Y was the dependent variable (competitiveness) while X_2 was an independent variable (business networking).

From the analysis it can be inferred that for every unit change in business networking, competitiveness changed by 0.557 when all the other factors were held constant. The influence of business networking on competitiveness is significant since P value of 0.000 is less than the level of significance $\alpha = 0.01$ (2 tailed).

Table 6: Regression Analysis for Business Networking and Competitiveness

	Unstandardized		Standardized	T	Sig.
	Coefficients		Coefficients		
	B	Std. Error	Beta		
(Constant)	10.115	1.146		8.830	.000
BUSINESS NETWORKING	.557	.036	.762	15.514	.000

Dependent Variable: competitiveness

Table 7 shows that the adjusted constant of determination, R^2 was equal to 0.578. It can be deduced that when all other factors were held constant, business networking explained 57.8% of variations of competitiveness of agro-processing firms in Murang'a County while 42.2% could have been attributable to other factors.

Table 7: Model Summary for Business Networking and Competitiveness

R	R^2	Adjusted R^2	Std. Error of the Estimate
.762	.580	.578	4.59609

Predictor (constant): Business Networking

Table 8 shows the results of analysis of Variance (ANOVA) for regression coefficients which revealed a P-value of 0.000. Since the P-value is less than $\alpha = 0.01$ then the model of good fit is significant at 1% level of significance which indicate that business networking significantly influenced competitiveness of agro processing firms.

Table 8: ANOVA: Business Networking and Competitiveness

	Sum of Squares	Df	Mean Square	F	Sig.
Regression	5084.336	1	5084.336	240.690	.000
Residual	3675.582	174	21.124		
Total	8759.918	175			

a. Dependent Variable: Competitiveness

b. Predictors: (Constant), Business Networking

To test the hypothesis, the decision rule was to reject the null hypothesis $H_0: \beta_1 = 0$ if the regression coefficient β_1 was significantly different from zero at 1% level of significance and subsequently fail to reject the alternate hypothesis $H_A: \beta_1 \neq 0$. The results of regression analysis and ANOVA indicated that the influence of business networking on competitiveness was statistically significant at 1% level of significance (P value = 0.000 < 0.01) and the coefficient β_2 was significantly different from zero ($\beta_1 = 0.557$). Based on those results, the null hypothesis H_0 which hypothesized that business networking does not significantly influence the competitiveness of small and medium agro-processing firms in Murang'a County was rejected and the alternate hypothesis H_A : Business networking significantly influences the competitiveness of small and medium agro-processing firms in Murang'a County, Kenya was accepted.

The finding was consistent with the findings of various other studies (Andersson & Floren, 2008; Fuller-Love & Thomas, 2004; Johnson, Scholes & Whittington, 2005; Powell et al., 1996) that had shown the benefits of entering formal business networks, such as sharing resources, gaining knowledge, creating strategic alliances and internationalizing. The findings also resonate with Porter's (1990) diamond theory of competitiveness that postulated that a set of strong related and supporting industries was important to the competitiveness of firms or industries.

CONCLUSIONS

The study found out that business networks that the agro processing firms in Murang'a County engaged in were based on trust. Knowledge sharing within business networks helped the firms to access useful information that helped them to improve the value of their brands; access critical capabilities that improved their productivity; and enhanced their existing capabilities that helped them to improve productivity and profitability. The study also found out that collaborative training of the employees enhanced productivity and that collective strategies of firms in a business network reduced transaction costs of the firms. The study revealed that business networking explained 57.8% of the variations in competitiveness. The influence of business networking on competitiveness of small and medium agro-processing firms in Murang'a County was found to be positive and significant ($\beta_2 = 0.557$; P-value = 0.000). Of the four independent variables of the study, business networking was found to have the greatest influence on the competitiveness of the small and medium agro processing firms in Murang'a County.

Based on the findings of the study, it can be concluded that business networking significantly influences the competitiveness of small and medium agro-processing firms in Murang'a County, Kenya. Therefore business networking is a key determinant of competitiveness of small and medium agro processing firms since it aids agro processing firms to improve their brands' value, productivity and profitability. Collective strategies of firms in a business network reduce transaction costs of the collaborating firms. However, the business networks that agro processing firms in Murang'a County engaged in were found to be based on trust and not formally established.

RECOMMENDATIONS

Managerial Recommendation

The managers of small and medium agro processing firms in Kenya should seek to establish viable business networks that will help them to produce products that can compete not just regionally but globally. The managers should not only rely on business networks based on trust but engage in formal strategic business networks so as to gain from the synergy of the network and be able to influence policy making in their favor.

Policy Recommendations

In order to achieve the 10% economic growth envisioned in Kenya Vision 2030, it is critical to transform smallholder agriculture from subsistence to an innovative, commercially oriented and modern agricultural sector. to achieve the Government of Kenya should assist local agro manufacturing firms to form business networks with more developed agro processors and packaging firms from around the world.

Areas for Further Studies

This study analyzed the influence of business networking on competitiveness of small and medium agro processing firms in Murang'a County, Kenya. The study revealed that business networking explained 57.8% of the variations in competitiveness while 42.2% could be attributed to other factors outside the model. Therefore, similar studies may be carried out to establish other determinants of competitiveness that will strategically position the agro processing firms in Kenya to be more competitive. Although business networks were found to explain great variations in competitiveness of firms they were based on trust and not formally constituted. The study therefore recommends further research to establish how business networks can be formally institutionalized through supportive regulatory frameworks by both the national and county governments in Kenya.

The study adopted exploratory research design. A similar study but using longitudinal research design will enrich the strategic management body of knowledge. Such a study will establish the influence of business networking on competitiveness of agro processing firms but over a longer period of time. A longitudinal study will also be of interest to the county governments in Kenya since they are relatively young and may benefit from the findings of the longitudinal study of small and medium agro processing firms as they formulate policies for SMMES in the counties.

References

- Acs, Z. & Audretsch, D.B. (1990). *Innovation and Small Firms*. Cambridge, MA; MIT Press.
- Ahokangas, P., Alila, H., Halaakoski, H., Kyllonen, V., Lehtikaki, T., Peltomaa, I., Seppanen, V. & Tanner, H. (2015). *Collaborative Business Networks of the Future*. Espo, Finland. Technical Research Centre of Finland Ltd.
- Andersson, S. & Florén, H., (2008), "Exploring managerial behavior in small international firms", *Journal of Small Business and Enterprise Development*, Vol. 15 No.1, pp.31-50.
- Barney, J.B (1991). "Firm Resources and Sustained Competitive Advantage." *Journal of Management*, 17 (1): 99-120.
- Bateman T.S. and Zeithaml C.P. (1990). *Management*. Boston. Irwin,
- Berg, B. (2001). *Qualitative Research Methods for the Social Sciences*. Boston: Allyn and Bacon.
- Bretherton, P. & Chaston, I. (2005). Resource Dependency and SME Strategy: An Empirical Study. *Journal of Small Business and Enterprise Development*, Vol. 12 (2) 274 – 289. Doi: 10.1108/14626000510594656 .
- Bretherton, P. (2003), "Trust-Based Strategic Alliances in the New Zealand Wine Industry; A Context, Content and Process Perspective. PhD Thesis, University of the Sunshine Coast, Maroochydore
- Bryman, A. (2006) 'Integrating Quantitative and Qualitative Research: How it is Done?'. *Qualitative Research*, Vol. 6, No. 1, Pp. 97-113.
- Chemengich, M.K. (2014). Determinants of Competitiveness of Electrical and Electronics Manufacturing Enterprises in Kenya. Juja. JKUAT Library. Unpublished.
- De Wit, R. & Meyer, R. (2004). *Strategy: Process, Content and Context. An International Perspective*. (3rd Ed). London. Thompson Learning. High Holborn House.
- Destefanis, S. (2012). Skills for Competitiveness: Country Report for Italy. *OECD Local Economic and Employment Development (LEED) Working Papers*, 2012/04, OECD Publishing. Doi: org/10.1787/5k9bb1vhzmr2-en.
- Dhliwayo, S. (2014). Entrepreneurship and Competitive Strategy: An Integrative Approach. *The Journal of Entrepreneurship* 23(1) 115–135. DOI: 10.1177/0971355713513356
- FAO. (2013). *Agribusiness Public-Private Partnership: A Country Report of Kenya*. Country Case Studies- Africa. Rome. Retrieved from www.fao.int
- Fukuyama, F. (1995). *Trust: The Social Creation Virtues and the Creation of Prosperity*. New York: Free Press.
- Fuller-Love, N. and Thomas, E. (2004). Networks in small manufacturing firms. *Journal of Small Business and Enterprise Development*, Vol. 11 No.2, pp.244-53.
- Garelli, S. (2014). The Fundamentals and History of Competitiveness. In *IMD World Competitiveness Yearbook* (pp. 488-503). Lausanne: IMD World Competitiveness Center.
- GoK. (2007). *Final Draft National Industrial Policy*. Ministry of Trade and Industry. Nairobi. Government Printer.
- Gulati, R., Norhia, N. and Zaheer, A. (2000). Strategic Networks. *Strategic Management Journal* 21:203-15.
- Lalinsky, T. (2013). Competitiveness Determinants: Results of a Panel Analysis Working Paper 4(2013), National Bank of Slovakia. Bratislava, Slovakia. Retrieved from <http://www.nbs.sk/en/publications-issued-by-the-nbs/workingpapers>
- Lall, S. (2000). The Technological Structure and Performance of Developing Country Manufactured Exports. *Oxford Development Studies*, 28(3), 337-369. doi: 10.1080/713688318.
- Helfat, C. & Rubitschek, R. (2000). Product Sequencing: Co-evolution of Knowledge Capabilities and Products. *Strategic Management Journal* 21:961-79.

- Johnson, G., Scholes, K., Whittington, R. (2005), *Exploring Corporate Strategy: Text and Cases*, Prentice-Hall, Seventh edition.
- MacDonald, E. & Sharp, B.K. (2000). Brand awareness effectson consumer decision making for a common, repeat purchaseproduct: A replication. *Journal of Business Research* 48(1),5–15.
- Li, J. J., Poppo, L. and Zhou, K. (2010).Relational Mechanisms, Formal Contracts and Local Knowledge Acquisition by International Subsidiaries. *Strategic Management Journal* 31:349-370.
- McLeod, S.A. (2008). *Correlation*. Retrieved from www.Simplypsychology.org/
- Nouwens, J. & Bouwman, H. (1996). Living Apart Together in Electronic Commerce . The use of Information and Communication Technology to Create Network Organizations. *Journal of Computer-mediated Communication*. Den Bosch: New Media Marketplace.
- Orodho, A. J. (2003). *Essentials of Educational and Social Science Research Methods*. Nairobi: Mazola Publishers.
- Osarenkhoe, A.(2010). A Study of Inter-Firm Dynamics Between Competition and Cooperation: A Competition Strategy, Database Marketing & Customer Strategy Management, Vol.17, N.3, pp.201-221.
- Osterle, H., Fleisch, E. and Alt, R. (2001). *Business Networking: Shaping Collaboration Between Enterprises*. (2nd Ed.) Boston. Springer.
- Otieno, S. (2012). Influence of Entrepreneurship Orientation and Strategy on Performance of Kenya's Manufacturing Firms Operating under the East African Community Regional Integration. JKUAT Library. 90320.
- Penrose, E. (1959). *The Theory of the Growth of the Firm*. New York: John Wiley.
- Porter M.E. (1996). What is Strategy? *Harvard Business Review*. Vol.74 Pp 61-78.
- Porter, M. E. (1985). *Competitive Advantage. Creating and Sustaining Superior Performance*. New York. The Free Press.
- Porter, M.E. (2003). Building the Microeconomic Foundation of Prosperity. Findings from the Business Competitive Index. In M.E. Porter, X. Sala-i-Martin & E.V. Artadi (Eds.), *Global Competitiveness Report 2003-2004*. World Economic Forum.
- Powell W., Koput, K. & Smith-Doerr, L. (1996), Inter-Organizational Collaboration and the Locus of Innovation: Networks of Learning in Biotechnology. *Administrative Science Quarterly*, Vol. 41. (1) pp.116–145.
- Prahalad, C.R. & Hamel, G. (1990).The Core Competencies of the Corporation. *Harvard Business Review*. Vol. 68(3).79-91.
- RoK. (2007). *Kenya Vision 2030: A Globally Competitive and Prosperous Kenya*. Nairobi. Government Printer.
- RoK. (2010). *Agricultural Sector Development Strategy 2010–2020*. Nairobi. Government Printer.
- RoK. (2013). *Murang'a County First Integrated Development Plan 2013-2017*. Nairobi: Government Printer
- Rosenbloom, B. (1990). Motivating your International Channel Partners. *Business Horizons*, March-April, pp. 53-7.
- Rugman, A. M., Oh, C. H. & Lim, D. S. K. (2012). The Regional and Global Competitiveness of Multinational Firms. *Journal of the Academy of Marketing Science*, Volume 40, p. 218–235.
- Rugman, A. and Verbeke, A. (2002). Edith Penrose's Contribution to the Resource - Based View of Strategic Management. *Strategic Management Journal*, 23 (8): 769-80.
- Saunders, M., Lewis, P. & Thornhill, A. (2009). *Research Methods for Business Students*. (5thEdn). Rome. Prentice Hill.
- Schermerhorn J.(1975). Determinants of Inter-Organizational Cooperation. *Academy of Management Journal*, Vol.18, N.4, pp.846-855.
- Spekman, R.E. (1988). Strategic Supplier Selection: Understanding Long-Term Buyer Relationships. *Business Horizons*. July/August, p. 75-81.
- WEF. (2014). *Global Competitiveness Report 2014-2015*. Geneva. World Economic Forum.
- Wernerfelt, B. (1984). A Resource Based View of the Firm. *Strategic Management Journal*, 5: 171-80.
- Wickham,P.A. (2006). *Strategic Entrepreneurship* (4th ed.). London: Pearson Education.
- Zikmund, W. G. (2003). *Business Reasearch Methods*. Ohio: South-Western Cengage.