European Journal of Business and Management
ISSN 2222-1905 (Paper) ISSN 2222-2839 (Online)
Vol.7, No.35, 2015

The Effect of Market Forces on Performance of Dairy Industries in Kenya. A Case of Kenya Cooperative Creameries

Peter Maina Chege[1*] Hannah Orwa Bula[2]
1. School of Business, Jomo Kenyatta University, P. O. Box 62000 -00100 Nairobi, Kenya
2. School of Business, Kenyatta University, P. O. Box 43844 -00100 Nairobi, Nairobi, Kenya

Abstract

Milk and milk products consumption is common throughout the world. Dairy industry is one of the food industries that make a big contribution to the income of Kenyan farmers as well as food for Kenyans. Kenya Cooperative Creameries (KCC) has been the sole formal sector dealing with milk for over 60 years. However, the milk sector was liberalized in 1992. A lot of research has been done on how strategic practices affect performance. However, there exists minimal information on how market forces affect performance of dairy industries in Kenya. It is in this view that this study aimed at assessing the market forces and performance of dairy industry a case of KCC. A cross sectional analytical research design focusing on a case study was adopted for this study. This study targeted a sample of 32 senior management staff of KCC. A research-administered questionnaire and an observation check list was used to collect information on strategic management practices and performance indicators. Tools were tested for validity and reliability. Data was coded, cleaned and analyzed using SPSS software. Descriptive statistics such as frequency, means and percentages were used to summarize the data. Chi-square test was used to establish the relationship between study variables. Qualitative data from open ended questions was analyzed by coding, combining similar responses together and determining the emerging themes. Results show that the main challenges faced by KCC are the threat of new entrants, which reduced sales, threat of substitute products which led to price reduction, the bargaining power of customers to lowering of prices so as to maintain these customers, bargaining power led to procurement of milk at a lower price. In addition, the intensity of competitive rivalry led lowering of prices leading to low income. This study concludes that the type of market forces adopted affected performance. These are the entry of new firms, presence of substitute products in the market, the bargaining power of customers and suppliers and the competitive rivalry is a major determinant of the competitiveness of the firm.

Keywords: Market forces, performance, dairy industry

1. Introduction

Globally, milk industry makes a significant contribution to the economy. Milk and milk products consumption is common throughout the world. The dynamics that affect milk production tend to differ from country to country (Nyariki & Thirtle, 2000). In African continent; milk production is affected by drought since most of the countries are in arid and semi arid lands (ASAL). The developing countries mostly have limited resources towards industrialization (Siavashan & Khari, 2012).

Strategic management is a process by an organization to define its direction on decision making process on allocating resources to attain a goal (Pearce II & Robinson, 2011; Mcllquham-Schmidt, 2010). The performance of a firm is mainly dependent on the application of strategies. Effective applications of strategies help the firm to achieve a competitive advantage in the market. The type and nature of strategic practices applied to a firm largely affect the performance of a firm (Gamble, Arthur, Thompson, Strickland III & John, 2010).

Strategic practices are mainly based on theories. There are many theories that have been developed. The theories explain the type of approaches that a firm can adopt. Different strategic approaches yield different results to a firm. An example of this theory is Michael Porters five forces theory (Dulcic, Gnjidic & Alfirevic, 2012). The performance of a firm refers to the level of achievement of goals and the ability to compete effectively with other firms. The performance of a firm can be measured in as return on investment (ROI) (profitability) (Grant, 2008; Brown & Laverick, 1994).

Dairy industry is one of the food industries that make a big contribution to the income of Kenyan farmers as well as food for Kenyans. Dairy industry in Kenya operates at both small scale and large scale (Nyariki, 2009). The dairy industry mainly focuses on fresh milk or other processed products like yoghurt, butter, powdered milk and ghee (Karanja, 2003). About 86 per cent of all milk marketed in Kenya is sold raw either directly by producers to consumers or through the informal milk market.

The emergence of formalized institutional and organizational framework for milk marketing as well as delivery of livestock breeding and health services have changed the dairy industry (Ngigi, 2005). There was a crisis in the market which was occasioned by reduction in prices forcing some of the existing creameries to merge. This led to the formation of Kenya cooperative Creameries in 1925 which was incorporated in 1932 under the Cooperative Societies Ordinances (Nyariki, 2009).

Kenya Cooperative Creameries (KCC) has been the sole formal sector dealing with milk for over 60 years. However, the milk sector was liberalized in 1992, and the urban milk sales monopoly was withdrawn from the KCC (Chesire, 2001; Rosemary & Karuti, 2005). Kenya has approximately 60 dairy firms. Currently, the 14 per cent of milk sold by the formal sector is equivalent to approximately 196 million liters. The formal dairy firms are categorised into, large scale, middle level and small firms. The categorization is in terms of production per day.

In 1964, the Kibaki Commission on post-independence dairy development recommended abolishing contracted milk quotas in favour of access to KCC by all farmers, subject to their milk being of acceptable quality. KCC thus became a guaranteed market for raw milk, buying any amount of milk supplied, regardless of demand (Young et al., 2006). According to Rosemary and Karuti (2005), KCC has dominated the country's market for milk and milk products for more than 70 years. It has been the backbone of Kenya's dairy farming.

The marketing of milk itself was liberalized in 1992 (Ngigi, 2005; Muriuki et al., 2003). Milk prices were decontrolled and KCC's monopoly on urban markets was revoked, ending approximately 60 years of KCC dominance. Other group of players entered the dairy sector. The groups included small scale traders who moved in to sell raw milk from farmers to consumers. The other group entailed other private processors.

Faced by the stiff market competition, KCC's inefficiency and other internal problems led to its gradual demise in the 1990s. With the initial symptoms of delaying farmers payments, the confidence they had was gradually eroded leading to reducing received supplies and consequently KCC collapsed in 1999. This gap was quickly filled by a proliferation of unlicensed small-scale milk vendors (SSMVs) and large-scale, licensed and regulated private sector milk processors (Young et al., 2006). The SSMVs sold raw milk whilst the private dairy companies sold packaged, pasteurised or UHT milk and other dairy products (Young et al., 2006). Given this scenario, this study sought to analyze the effects of market forces on performance of Kenya Cooperative Creameries.

1.1 Statement of the problem

The dynamics in the milk industry have become complex due to the fast growth (Karanja, 2003). This has led to large product mix and a high level of competition in the milk industry. This has culminated to collapse of some industry while others have been bought off. Due to the influence of market forces, KCC's production of whole milk and cream fell at an average of 13.5% per month. There was also decline in ghee, butter, milk powder and cheese. The company posted a loss of nearly Kes 160 million. The capacity of KCC dropped from 1.2 million litres per day. Only four creameries out of 11 were functional while the rest closed (Rosemary & Karuti, 2005).

The expansion requires the involvement of microfinance to these industries. Most of the milk is still being sold in the informal sector as raw milk and it poses public health risks (Muriuki, Omore, Hooton, Waithaka, Ouma, Staal & Odhiambo, 2003). This is an indication of a high opportunity of exploitation in this industry. The performance is largely dependent on strategic practices.

Minimal information exists on how market forces affect performance of dairy industries in Kenya. In addition, previous studies have focused on description only while this study was analytical to look at relationships between variables. It is in this view that this study aimed to assess the market forces and performance of KCC. The proposed study aims at investigating the market forces and performance of KCC.

1.2 Research objective

The objectives of this study were to assess the effect of market forces on the performance of KCC

1.3 Research questions

The study aimed to answer the questions on how do the market forces affect the performance of KCC

1.4 Scope of the study

The study targeted the employees at KCC in Nairobi County. The study was limited to the market forces and performance of KCC.

1.5 Significance of the study

The managers as the practitioners in the dairy industries can use this information to understand how various strategies affect performance with a view to improve. The milk consumers are beneficiaries of the outcome of this study as the information leads to improved service delivery. This information is useful for policy making within the dairy industry. Upcoming firms can use this information to position their entry. Policy makers need this information for use in policy making process. The findings can be used by other researchers interested in related studies. In addition, this study is useful in addition of the existing body of knowledge. It also forms a base for future research.

2.0 Literature review

This section reviews literature on aspects related to select strategic practices as well as performance of a firm. It covers a theoretical review of Michael Porters fives forces theory. It also covers the empirical review.

2.1Theoretical framework

2.1.1 Michael Porters fives forces theory

This theory informs the study objective. In 1979, Michael Porter came up with a model for analyzing the structure of an industry. The model is referred to as "The Five Forces," focus on competitive analysis (Porter, 1998). Mike Porters fives forces theory focus on the challenges that affect the existence of firms especially after their notable growth as well as the best strategies to adopt to address the challenges (Dulčić, Gnjidić & Alfirević, 2012). The entry of new firms affects the performance of existing firms. Profitable markets that yield high returns normally attract new firms. It is a norm that when new entrepreneurs are joining the market, they undertake research to assess the firms that seem to be doing well. This results in many new entrants leading to competitions and decreased profitability for the already existing firms. The new firms may enter the market with low prices, high quality products posing a great threat to the existing firms. When substitute products exist in the market, they pose a threat to the sale of the products of a given firm. The customers normally switch to alternatives. This depends on buyer propensity to substitute, price performance of substitute, buyer switching costs, perceived level of product differentiation, number of substitute products available in the market, ease of substitution, sub-standard product, quality depreciation and availability of close substitute.

The bargaining power of customers refers to the pressure that customers put to the firm as regards to the products they want and at what price. Customers are sensitive to price changes. The buyer's power is high if they have many alternatives and low if they act independently. The main potential factors contributing to this are; buyer concentration to firm, degree of dependency upon existing channels of distribution, bargaining leverage, buyer switching costs relative to firm switching costs, buyer information availability, force down prices, availability of existing substitute products, buyer price sensitivity, differential advantage of industry products and customer value analysis. The bargaining power of suppliers mainly focuses on the influence of suppliers of raw materials, components, labour and services. If the numbers of suppliers are limited, one has no alternative than to buy from them. They can also dictate the price at which to supply the goods. Suppliers have also been found to refuse to provide the firm with the resources. The main factors contributing to this are; supplier switching costs, degree of differentiation of inputs, presence of substitute inputs, strength of distribution channel and supplier competition

In most markets, there are many firms providing the same goods and services. The level of competitive rivalry is a major determinant of the competitiveness of the firm. This may lead to change in prices that affect the performance of the firm. The Porter's five forces frame work is used for qualitative evaluating the strategic position of a firm. In most cases it is used as a check list. This study focused to assess the market forces and the extent they affect the performance of dairy firms.

2.2 Conceptual framework

The conceptual framework presents the independent and dependent variables and how they are related. The performance of a firm can be measured using profitability. This performance is influenced by the nature of strategic practices adopted by a firm key being the analysis of the market forces.

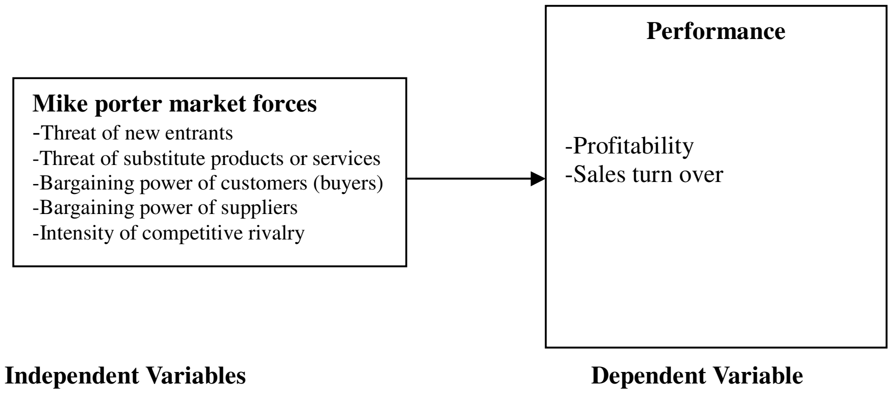

Figure 2.1: Conceptual framework

2.2 Empirical review

A study by Waema (2013) on the effects of competitive strategies on performance of dairy firms in Kenya focused on description of variables with no analytical approach. This study focused on analysis of relationship between the market forces and performance.

A study by Mose (2011) on factors affecting the performance of the marketing communication tools in dairy firms in Kenya focused a single variable on marketing not noting that performance is caused by many variables. This study focused several variable namely KCC.

A study by Nyariki, (2009), on impacts of policy reforms on the livestock industry in Kenya noted the increased competition which is adversely affecting performance. This study does proceed to outline how various strategies influence performance. This study focused how market forces influences performance in KCC.

A study by Kamundi (2014), on corporate leadership in dairy industry noted that informal milk trade resulted from problems in the formal milk trade. The poor performance in the formal milk industry has been attributed to lack of appropriate strategies. This strategies cannot be formulated with the scarce information existing. This study focused to assess the effect market forces influences performance in KCC.

3.0 Methodology

3.1 Research design

A cross sectional analytical research design focusing on a case study was adopted for this study. It was used to bring out the current case scenario pertaining to the KCC. This design is useful for use when analysing the relationships between the study variables which are strategic management practices and performance indicators. A case study ensured an in depth analysis of an individual unit in this case KCC.

3.2 Target population and sampling techniques

This study targeted senior management staff of KCC. The researcher sampled 32 respondents from management staff. The males were 62.5% as compared to females who were 37.5%.

3.3 Research instrument

A research-administered questionnaire and an observation check list were used for data collection. The questionnaires had structured questions but with an allowance for comments on the responses given. The questions were divided in to the various variables.

4.0 Data analysis and presentation

Data was coded, cleaned and analyzed using SPSS software version 20.0. Descriptive statistics such as frequency, means, percentages and cross tabulation was used to summarize the data. Chi-square test was used to establish the relationship between study variables. Regression analysis was used to model an equation on the market forces on performance. Qualitative data from open ended questions were analyzed to determine the emerging themes.

4.1 Effect of market forces on performance of KCC

The study assessed the effect of market forces on performance of KCC (Table 4.1).

Table 4.1: Proportion of respondent's indication the various extents to which various market forces affected performance

Effect of market forces on performance of KCC	No extent	To a small extent	To a moderate extent	To a great extent	To a very great extent	Mean	Standard Deviation
Extent to which threat of new entrants affected performance	0	2	3	7	20	4.41	0.91
Extent to which the threat of substitute products or services affected performance	0	2	4	15	11	4.09	0.86
Extent to which the bargaining power of customers affected performance	0	2	19	6	5	3.4	0.84
Extent to which bargaining power of suppliers affected performance	0	2	4	19	7	4.0	0.78
Extent to which intensity of competitive rivalry affected performance	0	2	3	5	23	4.5	0.92

Results show that the threat of new entrants affected performance to a very great extent. This is as shown by majority (62.5%) of the respondents indicating to a scale of 5 (very great extent) with a mean score of 4.41 ± 0.91. This was mainly by small and middle level dairy firms which have diverse products. A study by Chesire, (2001) shows similar result by indicating that as new firms enter the market, the existing ones faces competitions thus affecting their performance.

The threat of substitute products affected performance to a great extent. This is as shown by majority (46.9%) of the respondents indicating to a scale 4 (great extent) with a mean score of 4.09 ± 0.86. The presence of other brands of milk in the market led to low sales of KCC products. This is as discussed by Dulcic, Gnjidic, and Alfirevic (2012), who postulates that when two or more products that can substitute each other are available in the market, customers tend to shift from one product to the other especially focusing on cost and preference.

The bargaining power of customers affected performance to a moderate extent. This is as shown by majority (59.4%) of the respondents indicating to a scale 3 (moderate extent) with a mean score of 3. 4 ± 0.84. This is due to the many products in the market, making customers focus on cheap products. Thus, KCC is challenged to lower their prices by this force so as to maintain these customers. Dulcic, Gnjidic, and Alfirevic (2012), describes that customers in the market are so powerful to an extent of pushing a firm to lower the price of a product.

The bargaining power of suppliers affected performance to a great extent. This is as shown by majority (59.4%) of the respondents indicating to a scale 4 (great extent) with a mean score of 4.0 ± 0.78. As more dairy industries enter in the market, the milk suppliers target the best buyer of their milk. In this case, they indirectly require KCC to buy milk at a given low price. Similarly, Dulcic, Gnjidic, and Alfirevic (2012), describes that suppliers in the market determines the price and quantities that a firm is going to buy a product.

The intensity of competitive rivalry affected performance to a very great extent. This is as shown by majority (71.9%) of the respondents indicating to a scale 5 (moderate extent) with a mean score of 4.5 ± 0.92. This was mainly based on developing of new products, whereby when one firm develops a product, it pushes the others to do the same. In addition, lowering of prices leads to a competitive rivalry where the firms compete to have lower prices. Studies by Gamble et al., (2010) and by Young et al., (2006) noted that many firms in the market pose a competitive threat to each other as they compete to gain more customers. This was mainly through lowering of prices.

4.2 Relationships between market forces and performance of KCC

The study assessed the relationships between the various study variables (Table 4.2).

Table 4.2: Relationship between performance and the various market forces affecting KCC

Performance	**X^2**	**df**	**P value**
Threat of new entrants	21.4	6	0.028*
Threat of substitute products	25.8	6	0.030*
Bargaining power of customers	18.7	6	0.048*
Bargaining power of suppliers	21.6	6	0.045*
Intensity of competitive rivalry	24.5	6	0.031*

The study noted that all the market forces significantly ($P<0.05$) affected performance.

4.6 Empirical model equation

An equation was modeled using the study variables. The equation derived was 0.2.54*TNE+0.196*TNP+0.102*BPC+0.125*ICR -0.023 (R=0.84; R^2 = 0.77; SRMSE=0.036. From the equation the threat of new entrants (TNE), threat of substitute products (TNP), bargaining power of customers (BPC) and intensity of competitive rivalry (ICR) had a regression coefficient of 0.711 meaning that the four variables accounts for 71.1% of the performance. A study by Cunha et al. (2003) on Market forces, strategic management, HRM practices and organizational performance found a similar significant contribution of market forces on performance.

5. Conclusion

The main challenges faced by KCC are the threat of new entrants, which reduced sales, threat of substitute products which led to price reduction, the bargaining power of customers to lowering of prices so as to maintain these customers, bargaining power of led to procurement of milk at a lower price. In addition, the intensity of competitive rivalry led lowering of prices leading to low income. This study concludes that the type and the level of Poter's market forces present determined the performance of KCC in the market.

The study recommends that KCC understand fully the various market forces that affect performance so as to adopt appropriate strategies to address the challenges. Also to should adopt strategies that makes a turnaround from the former monopoly mentality to a competitive approach. This study recommends the following for further research; a larger study comparing the performance in other firms, a study focusing on small milk producers and a study focusing on how other strategic theories affect dairy firms.

References

Brown, D. M., & Laverick, S. (1994). Measuring Corporate Performance. *Long Range Planning, 27*, 89-98

Chesire R. (2001). Regulatory challenges after liberalization. Paper for the Institute of

Economic Affairs (IEA) Open Forum on the policy concerns in the liberalized dairy industry, held on 18 September 1998 at Serena Hotel, Nairobi.

Cunha, R., Cunha, M., Morgado, A. N. T. Ó. N. I. O., & Brewster, C. (2003). Market forces, strategic management, HRM practices and organizational performance, A model based in a European sample. *Management Research*, *1* (1), 79-91

Dulcic, z., Gnjidic, V., & Alfirevic, N. (2012). From five competitive forces to five collaborative forces: revised view on industry structure-firm interrelationship. *Procedia-Social and Behavioral Sciences*, *58*, 1077-1084.

Gamble, Arthur A. Thompson, Jr., A.J. Strickland III, John E. (2010). Crafting and executing strategy: the quest for competitive advantage: concepts and cases (17th ed.). Boston: McGraw-Hill/Irwin. p. 149. ISBN 9780073530420

Grant, R. M. (2008). A Framework Linking Intangible Resources and Capabilities to Sustainable Competitive Advantage. *Strategic Management Journal, 14*(8), 607-618.

Kamundi, K. (2014). Corporate Leadership in Dairy Industry (Case of Kenya Dairy Board). European Journal of Business and Management, 6(33), 22-35.

Karanja, A. M. (2003). The dairy industry in Kenya: The post-liberalization

agenda. *Tegemeo Institute of Agricultural Policy and Development, Egerton University, Kenya*.

Kothari, C. R. (2004). *Research Methodology: Methods and Techniques* (2nd ed.). Oxford University Press, Oxford.

Mcllquham-Schmidt, A. (2010). Strategic planning and corporate performance. What is the relationship? *Aarhus University Business School working paper* 02.

Mose, J. A. (2011). Factors affecting the performance of the marketing communication tools: a case of the selected dairy firms in Kenya (Doctoral dissertation).

Muriuki, H., Omore, A., Hooton, N., Waithaka, M., Ouma, R., Staal, S. J., & Odhiambo,

P. (2003). The policy environment in the Kenya dairy sub-sector: A review. *Smallholder Dairy (Research and Development) Project, Nairobi, Kenya*.

Nyariki, D. M. (2009). Impacts of policy reforms on the livestock industry in Kenya: The case of the dairy sector. *Livestock Research for Rural Development*, *21*(10), 2009.

Nyariki D. M. and Thirtle C. (2000). Technical innovation and farm productivity growth

in dryland Africa: The effects of structural adjustment on smallholders in Kenya. Agrekon 39(4): 597–606

Ngigi M (2005). The Case of Smallholder Dairying in Eastern Africa. EPT Discussion

Paper 131, IFPRI, Washington D.C.

Pearce II, J. A., & Robinson, R. B. (2011).*Strategic Management* (12th ed). New York.

Porter, M.E. (1998). Competitive Strategy, Techniques for analyzing Industries and Competitors, Revised Edition, New York free press.

Rosemary A. and Karuti K. (2005). The Revitalization of Kenya Cooperative Creameries: The Politics of Policy Reforms in the Dairy Sector in Kenya, Nairobi

Siavashan, F., & Khari, A. (2012). Strategic Planning in Iran Milk Industries. *World Applied Sciences Journal*, *17*(1), 66-74.

Waema, M. (2013). *The Effects of Competitive Strategies on Performance of Dairy Firms in Kenya* (Doctoral dissertation, Kenyatta University).

Young, J., Hooton, N., Muriuki, H., & Romney, D. (2006). *Informal traders lock horns with the formal milk industry: The role of research in pro-poor dairy policy shift in Kenya*. Overseas development institute (ODI).