ASSESSMENT OF THE COMPETITIVE STRATEGIES ADOPTED BY THE LOCAL SUGAR MILLERS IN KENYA

Shitanda Soita Peter
Masters Student, Jomo Kenyatta University of Agriculture and Technology, Kenya

Dr. Wario Guyo, PhD.
Lecturer, Jomo Kenyatta University of Agriculture and Technology, Kenya

Citation; Peter, S. S. & Guyo, W., Assessment of the competitive strategies adopted by the local sugar millers in Kenya. *International Journal of Arts and Entrepreneurship* 4 (10), 40-62.
Abstract

The Kenyan sugar industry for the last twelve (12) years been operating under trade protectionism by not allowing other developed economies to sell their sugar direct to Kenyan market with a view to allow the industry time to develop to be competitive. Instead, shortfall in supply of the local sugar has been bridged by imports by sugar millers. Specific objectives of the study were: to examine the adoption of cost leadership strategies, to assess the adoption of differentiation strategies, find out the adoption of low-cost focus strategies and to assess the adoption of differentiation focus strategies among the local sugar millers in Kenya. The study used descriptive survey research design which was conducted among all the 12 sugar firms in Kenya. From the findings, the study concludes that more brands of differentiated sugar should to be produced and patented for company’s future competitive growth and firms need to use organizational competence to build product reputation and also forge for new avenues such as the manufacture of gasoline (ethanol) from molasses, production of energy from bagasse and even packaging of drinking water to cushion against escalating costs. In addition to improve differentiation process the following measures to be put in place: use of latest technology, continuous advertisements and invest more resources in researching for other new product uses, more brands of differentiated sugar needs to be produced and patented for company’s growth, and in order to overcome challenges associated with resources such as personnel the Company needs to procure high skilled and creative Human Resource.

Key Words: Competitive strategies, Sugar Millers in Kenya, differentiation strategy, cost leadership, Focused low cost.
Assessment of the competitive strategies adopted by the local sugar millers in Kenya

Introduction

Sugar is produced in more than 100 countries around the world. It is one of the most traded commodities with experts accounting for a quarter of the global production. But it also has one of the most distorted global markets such that there is no level playing ground. Sixty five percent of world sugar trade comes from four countries, namely, Brazil, Australia, Cuba, and Thailand. While the biggest importer is Russia(IEA 2008). All major producer and consumer countries protect their markets from the lower priced sugar available in the world market.

In Kenya, the sugar industry is a major contributor to the Agricultural sector which is the mainstay of the economy and supports the livelihoods of at least 25 percent of the Kenyan population. According to the Kenya sugar Industry strategic plan 2010-2014, the sub-sector accounts for about 15 percent of the Agricultural GDP and is the dominant employer and source of livelihood for most households in Western Kenya comprising Nyanza, Rift Valley, and Western regions.

The sector has been operating under COMESA safeguard measures since 2002 since which were scheduled for one year up to March 2003. The safeguards were however extended for another one year to March 2004 (Kegode, 2005) before another two year extension upon expiry in 2008. The extension to February 2012 expired and the country again applied for a further extension of one year(Kenya sugar strategic plan 2010-2014) which was granted. The country’s sugar sector is expected to have undergone key reforms in various areas to build competitiveness and introduce efficient management in the sugar supply chain.
The safeguards have been necessitated due to the inability of the sugar industry in Kenya to compete with the other giant manufacturers whose sugar costs are far much cheaper compared to that of Kenya. The industry has been facing a lot of challenges including high operational costs, low yields, and high cost of cane growing among others which hinder them from competing with imports from other countries.

The essence of COMESA safeguards was to allow sugar industry to re-organize and be competitive in the region. The mills were expected to purchase newer technologies with high yields and low production costs, diversify into ethanol distillation and power generation from waste bagasse so as to reduce their reliance on revenue from sugar upon expiry of the current safeguard. However, according to Kenya Sugar Board 2014, out of the 12 sugar Millers, only Mumias Sugar Company has met the threshold for competitiveness as required by COMESA (Gibendi 2014). The recent safeguard extension by COMESSA were granted under the World trade Organization regulations. Therefore for the sake of the future of Kenya’s sugar industry, several questions need to be answered. What is the future of the Kenya sugar Industry? What are the challenges experienced by the sugar millers in their bid to become competitive? What should sugar millers do to comply with the limited time period given to them to achieve competitiveness?

**Statement of the problem**

The sugar industry remains to be one of the most lucrative businesses due to the volumes of business involved globally both for domestic and industrial use. The industry also happens to have one of the most distorted global markets such that there is no level playing field (IEA, 2005). Therefore liberalization of the industry would hurt emerging producers and suppress them from taking off. To avert this, the WTO regulations provides for the safeguard of emerging
economies against external competition until a time when they are fully developed to compete in the global market. The safeguards also have timelines for compliance.

The Kenyan sugar industry has for the last twelve (12) years been enjoying trade protectionism by not allowing other countries to sell their sugar direct to Kenyan market (Gibendi, 2014). Instead, the local sugar industry imports to bridge the gap in supplies. The safeguards are aimed at enabling the sugar industry to transform to a competitive industry before trade liberalization. However for the period of 12 years only one sugar miller out of the twelve in the country has been able to diversify to ethanol and power production as per the requirement by COMESA. The country has already exhausted the trade protection window under the WTO and COMESA and is currently on the last year of possible trade protection opportunities. Therefore for sake of the future of the Kenya’s sugar industry several options need to be explored in order to find a wayforward for the industry in Kenya. It is instructive to note that most millers, while complaining about imported sugar have in the process forgotten to pursue avenues that can lead to competitiveness. Most of them appear convinced or misled that the perennial safeguard measures granted by COMESA through Government intervention are there to stay hence their reluctance in embarking on aggressive competitive strategies in the one year granted to survive in the industry. This raises a question as to whether these local millers have adopted any competitive strategies in building sustainable competitiveness as per the guidelines by COMESA.

**Objectives of the Study**

i. To examine the adoption of cost leadership strategies among the local sugar millers in Kenya
ii. To assess the adoption of differentiation strategies among the local sugar millers in Kenya

iii. To find out the adoption of low-cost focus strategies among the local sugar millers in Kenya

iv. To assess the adoption of differentiation focus strategies among the local sugar millers in Kenya

**Literature Review**

This section examines what other researchers and scholars have documented on the competitive strategies adopted by the local sugar millers in Kenya. It shall also diagnose a critique of the existing literature relevant to the study as well as the research gap.

**Theoretical Review**

Although most factory revenue is generated through sugar sales, there has been some interest in moving toward industry diversification through the exploitation of sugarcane by-products, such as bagasse and molasses, for ethanol production and energy co-generation. However, high investment costs, uncompetitive price mechanisms, limited technology and a weak legal and regulatory framework are some of the main reasons why little has been achieved in this direction (KSI, 2009). To ground these study we the researcher has used the following theories.

**Competitive Advantage**

Competitiveness of a firm is its capacity to achieve its targets. These targets are likely to be expressed in a variety of terms depending on the context (Barney 2002). Within a macroeconomic perspective, a competitive firm develops and sustains a level of performance that contributes to the Gross Domestic Product (GDP), employment opportunities, and the wealth
of the people. From an entrepreneurial perspective, a competitive firm needs to survive in the market and to achieve market share and profitability. The success of a competitive firm can be measured by both objective and subjective criteria. Objective criteria include return on investment, market share, profit, and sales revenue, while subjective criteria include enhanced reputation with customers, suppliers, and competitors, and improve quality of delivered services (Barney 2002).

Barney (2002) discusses four approaches to measure the firm’s competitiveness. These measurements are firm's survival, stakeholder approach, simple accounting measures, and adjusted accounting measures. Feurer and Chaharbaghi (1994) measure competitiveness quantitatively by profit, ability to raise capital and cash flow in terms of liquidity status. Soliman (1998) adds cost, quality, delivery dependability, flexibility, and innovation as factors formulating such a competitive position. M. Porter (1985) indicates that a firm experiences a competitive advantage when "its actions in an industry create economic value and when few competing firms are engaging in similar actions." De Wit and Meyer (1999), Buffam (2000), and Christensen (2001) indicate that a firm has a competitive advantage when it has the means to edge out rivals when competing for the favour of customers.

**Theories of Competition**

An important issue in the theory of industrial organization involves the question of market performance. Theories of competition are reviewed and classified. The concept of workable competition offers a verbal listing of conditions facilitating both efficiency dimensions. A crucial feature of workable competition is the force of potential rivalry. The study of sources of potential entry and market games identifies cases of intermediate competition which can serve as a
welfare-theoretic yardstick for the evaluation of market performance. The nature of multimarket
competition proves to be essential.

The Market-Based View (MBV) of strategy argues that industry factors and external market
orientation are the primary determinants of firm performance (Bain 1968; Caves & Porter 1977;
(SCP) framework and Porter’s (1980) five forces model (which is based on the SCP framework)
are two of the best-known theories in this category. The sources of value for the firm are
embedded in the competitive situation characterizing its end-product strategic position. The
strategic position is a firm’s unique set of activities that are different from their rivals.
Alternatively, the strategic position of a firm is defined by how it performs similar activities to
other firms, but in very different ways. In this perspective, a firm’s profitability, or performance
are determined solely by the structure and competitive dynamics of the industry within which it
operates (Schendel 1994).

The resource-based view of the firm (RBV) draws attention to the firm’s internal environment as
a driver for competitive advantage and emphasizes the resources that firms have developed to
compete in the environment. During the early strategy development phase of Hoskisson’s
account of the development of strategic thinking (Hoskisson et al. 1999), the focus was on the
internal factors of the firm. Researchers such as Ansoff (1965) and Chandler (1962) made
important contributions towards developing the Resource-Based View of strategy (Hoskisson et
al. 1999). From the 1980s onwards, according to Furrer et al. (2008), the focus of inquiry
changed from the structure of the industry, e.g., Structure-Conduct-Performance (SCP) paradigm
and the five forces model) to the firm’s internal structure, with resources and capabilities (the
key elements of the Resource-Based View (RBV). Since then, the resource-based view of
strategy (RBV) has emerged as a popular theory of competitive advantage (Furrer et al. 2008; Hoskisson et al. 1999).

**Cost Leadership Strategy**

The cost leadership strategy represents attempts by firms to generate competitive advantage by achieving the lowest cost in the industry. The focus of firms implementing a cost leadership strategy is on stringent cost control and efficiency in all areas of operation (Porter, 1980). A company that decides to follow a cost leadership strategy has the objective of being able to realize its offer at lowest possible cost. The competitive advantage of cost leadership is achieved by performing important value chain activities at lower cost than competitors (Porter, 1985).

Cost-leadership strategy also strives to supply a standard, no-frills, high-volume product at the most competitive price to customers (Bingxin Li & Juan Li, 2008). These types of strategies are more preferred in developing countries such as Indonesia, Malaysia, India and China where these countries could provide with a lower labour cost hence to having a lower production cost (Aulakh et al. 2000). In contrast, a differentiation strategy is to create value to customers by providing superior quality, innovative products, brand image, and good services. This will make the product differentiation which means the product will be more competitive from others (Hutchinson et al. 2007; Frambach et al. 2003; Porter, 1980).

**Differentiation Strategy**

The generic of differentiation strategy involves creating a market position that is perceived as being unique industry-wide and that is sustainable over the long run (Porter, 1980). Such differentiation can be based upon design or brand image, distribution, and so forth (Frambach, et
al. 2003). In particular, differentiator firms create customer value by offering high-quality products supported by good service at premium prices (Walker & Ruekerts, 1987).

The effectiveness of differentiation strategy depends on how well the firm can balance product benefits and product costs for the customer, relative to competitive offerings (Slater & Olson, 2001). Companies following a differentiation strategy strive to create and market unique products for varied customer groups. They aim to create a superior fulfillment of customer needs in one or several product attributes in order to develop customer satisfaction and loyalty, which can often in turn be used to charge a minimum price for products (Morshett, et al. 2006).

A firm that pursues a differentiation strategy seeks to create a perception in the minds of customers that their products or services possess superior characteristics that are unique from those of its competitors in term of image and reputation, reliability, design features and quality (Dean & Evans, 1994; Sashi & Stern, 1995). A firm creates this perception by incorporating real qualitative difference in its products and services, engaging in advertising programs, marketing techniques, and charging premium prices (Miller, 1986).

According to Acquaah & Yasai-Ardekani (2006), differentiation firms are able to achieve competitive advantage over their rivals because the perceived uniqueness of their products and services. Porter (1980) stated that, competitive strategies deal with the development of attributes that characterise a company and differentiate the value it creates and offers in comparison to its competitors. In addition, “the core idea is about how the firm can best compete in the market place” (Pearce & Robinson, 1994, p. 220). The differentiation strategy has been successfully implemented in companies of advanced countries such as France, Sweden, Canada and these companies are likely to go to the less developed countries as foreign companies (Aulakh et al,
2000). As foreign companies, they enjoy inherent advantage over domestic firms with regard to adopting a differentiation strategy.

Research Gaps

Previous studies on competitiveness of the local sugar industry focus majorly on the diversification strategies which are set by the COMESA. Little attention has been given to other strategies such as market penetration, market development and product development and innovation. This study will therefore focus on filling the gap in knowledge on these strategies for enhancing competitiveness of the local sugar industry.

Methodology

Research Design

The study adopted a descriptive research design since the study intended to gather quantitative and qualitative data that describes the competitive strategies adopted by local sugar millers in Kenya. Mugenda and Mugenda (1999) argued that descriptive research design method is appropriate for studies that have specific issues where the problem has been clearly defined. It determines and reports the way things are or answers questions concerning the subjects in the study. Kothari (2004) describes descriptive research as including surveys and fact finding enquiries adding that the major purpose of descriptive research is description of the state of affairs as it exists at present. The study considered this design since it facilitated towards gathering of reliable data describing the true assessment of competitive strategies adopted by local sugar millers in Kenya.
The Target Population

The target population of this study was the local sugar millers in Kenya. According to Kenya Sugar Board (2014), there are a total of 12 sugar millers currently handling over 250,000 sugar farmers across the country. The unit of analysis for this study was the sugar millers/factories. The unit of observation for the study, which was the actual subject where the primary data was collected comprised of the top management of the sugar factories. The top management was preferred unit of observation in this study since most literatures clearly describes strategic management as a discipline which is a preserve of the top management. The sampling frame was drawn from list of the management teams in the sugar factories. This was obtained from the Sugar Arbitration Tribunal (SAT). Current statistics indicated that the top managers in sugar factories in Kenya comprise at least 260 managers (SAT, 2014).

Data Analysis

The study generated both quantitative and qualitative data. Descriptive statistics data analysis method was applied to analyze numerical data gathered using semi structured questions. The Statistical Package for Social Sciences (SPSS) computer software was used for analysis to generate data array that was used for subsequent analysis of the data. SPSS Version 21 was used, which has got descriptive statistics features that assist in variable response comparison and gives clear indication of responses frequencies. The data will be cleaned, coded, categorized per each of the research variables and then will be analyzed using descriptive analysis such as percentages.

Further inferential statistics was conducted using regression to give correlations coefficients, in order to show the relationship between the independent variables and dependent variable. The regression model was computed to show the significance of the research variables. The findings
were shown using frequency tables and figures to represent the respondents’ opinions on the competitive strategies adopted by the local sugar millers in Kenya. Qualitative data analyses method will be applied to analyze the data gathered using open end questions where the respondents gave their personal opinions on the assessment of competitive strategies adopted by the local sugar millers in Kenya.

**Research Findings**

**Response Rate**

The study targeted a sample size of 260 respondents from which 240 filled in and returned the questionnaires making a response rate of 92%. This response rate was good and representative and conforms to Bobbie (2002) stipulates that a questionnaire response rate of 50% and above is sufficient for analysis.

**Reliability Analysis**

A pilot study was carried out to determine reliability of the questionnaires. The pilot study involved the sample respondents (10) from Kibos sugar factory. Reliability analysis was subsequently done using Cronbach’s Alpha which measures the internal consistency by establishing if certain item within a scale measures the same construct.

**Table 1: Reliability coefficients for the major variables**

<table>
<thead>
<tr>
<th>Item</th>
<th>Variable</th>
<th>Number Item of Item adopted</th>
<th>Cronbach Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Competitive advantage</td>
<td>16</td>
<td>0.79</td>
</tr>
<tr>
<td>2</td>
<td>Differentiation Strategy</td>
<td>10</td>
<td>0.87</td>
</tr>
<tr>
<td>3</td>
<td>Differentiation strategy</td>
<td>9</td>
<td>0.81</td>
</tr>
<tr>
<td></td>
<td>Strategy Type</td>
<td>Count</td>
<td>Series</td>
</tr>
<tr>
<td>---</td>
<td>------------------------</td>
<td>-------</td>
<td>--------</td>
</tr>
<tr>
<td>4</td>
<td>Cost leadership strategy</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>5</td>
<td>Focused Low-Cost strategy</td>
<td>12</td>
<td>8</td>
</tr>
</tbody>
</table>
Regression Analysis

In this study, a multiple regression analysis was conducted to examine the competitive strategies adopted by the local sugar millers in Kenya. The research used statistical package for social sciences (SPSS V 21.0) to code, enter and compute the measurements of the multiple regressions.

Table 2: Model Summary

<table>
<thead>
<tr>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.903</td>
<td>0.815</td>
<td>0.616</td>
<td>0.97120</td>
</tr>
</tbody>
</table>

R-Squared is a commonly used statistic to evaluate model fit. R-square is 1 minus the ratio of residual variability. The adjusted R2, also called the coefficient of multiple determinations, is the percent of the variance in the dependent explained uniquely or jointly by the independent variables. 61.6% of the variations in competitive strategies adopted by the local sugar millers in Kenya are explained by differentiation strategy, differentiation focus strategy, cost leadership strategy and focused low-cost strategy contribution leaving 38.4% percent unexplained. Therefore, further studies should be done to establish the other factors (38.4%) that explain the competitive strategies adopted by the local sugar millers in Kenya.
Table 3: Regression coefficients

<table>
<thead>
<tr>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
</tr>
<tr>
<td>(Constant)</td>
<td>1.193</td>
<td>0.432</td>
<td></td>
</tr>
<tr>
<td>Differentiation strategy</td>
<td>0.806</td>
<td>0.108</td>
<td>0.146</td>
</tr>
<tr>
<td>Differentiation focus strategy</td>
<td>0.715</td>
<td>0.124</td>
<td>0.111</td>
</tr>
<tr>
<td>Cost leadership strategy</td>
<td>0.648</td>
<td>0.141</td>
<td>0.126</td>
</tr>
<tr>
<td>Focused low-cost strategy</td>
<td>0.716</td>
<td>0.124</td>
<td>0.112</td>
</tr>
</tbody>
</table>

Dependent Variable: Competitive advantage adopted by the local sugar millers in Kenya

The established model for the study was:

\[ Y = 1.193 + 0.806 X_1 + 0.715 X_3 + 0.648 X_2 + 0.716 X_4 \]

The regression equation above has established that taking all factors into account (differentiation strategy, differentiation focus strategy, cost leadership strategy and focused low-cost strategy) constant at zero competitive of sugar millers in Kenya will be 1.193. The findings presented also show that taking all other independent variables at zero, a unit increase in differentiation strategy would lead to a 0.806 increase in competitiveness of sugar millers in Kenya and a unit increase in differentiation focus strategy would lead to a 0.715 increase in the in competitiveness of sugar millers in Kenya. Further, the findings shows that units increase in access to cost leadership strategy would lead to a 0.648 increase in competitiveness of sugar millers in Kenya. In addition, the findings show that a unit increase in focused low-cost strategy would lead to a 0.716 increase in competitiveness of sugar millers in Kenya.
All the variables were significant as their P-values were less than 0.05. In terms of magnitude, the findings indicated that differentiation strategy had the highest influence on competitiveness of sugar millers in Kenya, followed by focused low-cost strategy, followed by differentiation focus strategy while cost leadership strategy had the least influence on competitiveness of sugar millers in Kenya.

**Summary of the Findings**

The study sought to examine the competitive strategies adopted by the local sugar millers in Kenya. While many respondents acknowledged challenges in being ready for market liberalization, slow adoption of competitive strategies by sugar processing firms in Kenya towards the effects of intended liberalization of COMESA market. The findings indicated high ratings for having implemented strategic plans, review of the plans yearly which needs to be changed to quarterly to ensure adherence. Impact of strategic planning on performance was noted to be very low. The findings clearly indicate that all the variables (differentiation strategy, differentiation focus strategy, cost leadership strategy and focused low-cost strategy) are indicated positive influence on competitiveness of sugar millers in Kenya.

**Discussion**

From the findings, more brands of differentiated sugar should to be produced and patented for company’s future competitive growth and firms need to use organizational competence to build product reputation and also forge for new avenues such as the manufacture of gasoline (ethanol) from molasses, production of energy from bagasse and even packaging of drinking water to cushion against escalating costs. Genessa et al, (2006) in their study established that firms attempt to gain competitive advantage by increasing the perceived value of their products or
services relative to the perceived value of other firm’s products or services. Thus, other firms can either be that firm’s rivals or firms that provide substitute products or services. For example, Rolex attempts to differentiate its watches from Timex watches by manufacturing them in solid gold cases.

In formulating strategy, firms commonly make an overall assessment of their own competitive advantage via an assessment of the external environment based on the five forces model (Porter 1979). The five forces under consideration consist of the following: barriers to entry, threat of substitutes, bargaining power of suppliers, bargaining power of buyers and rivalry among competitors (Porter 1985). In this perspective, a firm’s sources of market power explain its relative performance. Three sources of market power are frequently highlighted: monopoly, barriers to entry, and bargaining power (Grant 1991). When a firm has a monopoly, it has a strong market position and therefore performs better (Peteraf, 1993). High barriers to entry for new competitors in an industry lead to reduced competition and hence better performance. Higher bargaining power within the industry relative to suppliers and customers can also lead to better performance (Grant 1991).

The resource-based view of the firm (RBV) draws attention to the firm’s internal environment as a driver for competitive advantage and emphasizes the resources that firms have developed to compete in the environment. During the early strategy development phase of Hoskisson’s account of the development of strategic thinking (Hoskisson et al. 1999), the focus was on the internal factors of the firm. Researchers such as Ansoff (1965) and Chandler (1962) made important contributions towards developing the Resource-Based View of strategy (Hoskisson et al. 1999).
The study further concludes that in order to overcome challenges associated with resources such as personnel the Company needs to procure high skilled and creative Human Resource. The study found out that there are other challenges, which include inadequate interdepartmental communication towards crafting of strategies. Hence the need for regular interdepartmental staff meetings to be put in place. This will enhance team work and creativity and help define an innovative future for the millers.

**Recommendations**

From the study findings and conclusions, the study recommends that sugar needs to be branded with vitamins A, D and B which are crucial to human diet. Mixing sugar with palm oil to produce diet sugar can be a source of differentiation. The study therefore recommends that the company should use organizational competence to build product reputation and also forge for new avenues such as the manufacture of gasoline from molasses to cushion against escalating costs.

Moreover, environmental challenges such as culture, governmental, societal, compliance with international standards and stiff competition from other low cost sugar producers. Besides the above mentioned challenges, the respondents added piracy of company packaging materials and packing with substandard sugar that demeans the company’s product reputation. The study recommends that companies should invest in branding that cannot be replicated easily and also work on the distribution channels to ensure the cost of sugar on the shelves is low to counter low cost sugar imports.

The study recommends that organization architectural strategy should to be linked to all departments in order to add value to the final products and all this will create synergy. Since most sugar companies just produce sugar, its only Mumias sugar that had started producing sugar with
vitamin A. The study further recommends that firms should adopt online procurement by creating a website where clients can place orders. This will increase product market base and will thus be an efficient point for delivering inquiries by customers.

The study further recommends that since market variables change from time to time core competences should be harnessed to bring out competitive advantage to the sugar firms. In addition to improve differentiation process in sugar firms in Kenya, the study recommends the following measures to be put in place: use of latest technology, continuous advertisements and invest more resources in researching for other new product uses, more brands of differentiated sugar needs to be produced and patented for company’s growth, and in order to overcome challenges associated with resources such as personnel the Company needs to procure high skilled and creative Human Resource.

References

Miles and Huberman (1994). Tended to refer to variance maps as “causal networks,” and to process maps as “event-state networks” (pp. 101–171).


El Mercurio (2005), China duplica superávit comercial, Santiago, Chile.
Gibendi, (26th January 2014) *Daily Nation P.10*. Nairobi


