

BUSINESS ENVIRONMENT EFFICIENCY AND COMPETITIVENESS OF LOCALLY MANUFACTURED GOODS BY AUTOSTERILE EAST AFRICA, KENYA

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This study investigated the influence of business environment efficiency on competitiveness of locally manufactured goods by Autosterile East Africa, Kenya. This study used case study design. This study sampled 69 respondents, including 8 top level employees, 22 middle level employees and 39 lower level employees in Autosterile East Africa. Census sampling was used to select the respondents. Secondary data was obtained from the Autosterile East Africa publications that touches on determinants of competitiveness. Questionnaires used in the survey formed the primary data and was analyzed by use of Statistical Packages for Social Science version 23. Linear regression analysis was done to test the relationship between the independent and dependent variables. The study findings led to the conclusion that business environment efficiency have a positive relationship with competitiveness of locally manufactured goods. The findings revealed that business environment efficiency is significant determinant of competitiveness of locally manufactured goods. It was found out that the demand for goods and services and political stability influences competition of goods and services. The regulations dictate the competition among companies and supply of goods and services controls a firm's competitive advantage.

Keywords: Business environment efficiency, competitiveness, Locally manufactured goods, Autosterile East Africa.

1.0 INTRODUCTION

According to Kalimeris (2012) competitiveness refers to how much a country can create products and enterprises that can sell in the worldwide business sectors, under the states of a free market and reasonable trade, while keeping up and expanding the real incomes of its citizens over a long time. Past ideas supplement the WEF's (2015) meaning of country competitiveness is the organizations' approaches and factors that decide the degree of productivity of a nation. The degree of productivity, thus, sets the degree of flourishing that can be achieved by an economy.

Drivers of competitiveness vary from one country to another and can be gathered into 2 key areas; microeconomic and macroeconomic. Macroeconomic competitiveness is determined by an array of institutions policies and public good investments that set the background for the whole economy. Social infrastructure (education, healthcare and public safety) and political institutions describe the wider context where productive economic activity takes place (Suh & Lee, 2018). Microeconomic are the aspects that have a direct impact on the productivity of a company and labor force conscription and includes factor endowments and demand conditions.

European specialists highlighted three main variables controlling the worldwide competitive status of a place; that is the accessibility and infrastructure; human resources; business environment that, thus, incorporate certain sub-factors. Sub-factors under infrastructure and accessibility include basic infrastructure, technological infrastructure, and infrastructure of knowledge and habitat quality. Human assets include demographic trends and highly skilled labour force. Industrial environment include factors such as entrepreneurial culture, sectoral concentration, internationalization, specialization, innovation, nature and pattern of competition, sufficiency of manufacturing resources, Government and institutional capability (Brykova, 2007).

A study by Pearce and Robinson, (2015) highlights the ever changing environment that continually provides opportunities and threats to organizations. To ensure survival and success, firms need to develop their capabilities to manage threats and exploit the emerging opportunities. Competitive advantage thus is a broader formula on how firms are positioning themselves to compete within the industry. It is the means of what a firm can use to achieve the market. It consists of approaches and initiatives a firm undertake to attract customers and fulfil their expectation better than the competitors (Thomson et al., 2017).

Companies today therefore can no longer afford to pay attention only to their domestic markets, no matter how large they are. Locally manufactured goods meet stiff competition not only by local producers but also from global firms who have lower cost and higher brand awareness (Wiprächtiger, Narayanamurthy, Moser, & Sengupta, 2019). The increasingly competitive local Pharmaceutical markets call upon local manufacturing firms to look beyond their present situation and develop long term strategy to meet changing position in the industry. The rightfully positioning of local pharmaceutical manufacturing firms within the industry is therefore key, if they are to achieve their objectives, maximize the opportunities arising from it and use their resources to achieve uniqueness within the industry.

Based on data from (2012) Kenya Association of manufacturers (KAM), the manufacturing sector that comprises of more than 700 members have an important role in the general performance in economy in the nation. The manufacturing sector is the third biggest sector in the country and represents 11 percent of the GDP. In 2011, total manufacturing output stood at 1.01 trillion having increased from 842 billion in 2010. Kenya manufacturing sector employs directly more than 275,000 people. An added 1.4 million persons are engaged in the supply and distribution chain, representing 13% of the nation's entire employment (KNBS - Economic survey, 2012). The sector is mostly agro based and characterized by comparatively low value addition, capacity consumption and export volumes partially due to weak connections to other sectors. The sector is extremely import dependent because Kenya's intermediate and capital goods businesses are under-developed. Moreover the sector is extremely disjointed with more than 2,000 manufacturing components with nearly 50 percent of the firms employing 50 workers or less. Majority of manufacturing organizations are family owned and operated.

An organization is deemed to be competitively advantageous when it is actualizing a worth making technique not being implemented by other players in the industry (Clulow et al., 2003). Competitive advantage connotes the ability of a firm to remain in front of present or expected rivalry, henceforth unchallenged guaranteeing market administration. It likewise gives the understanding that assets held by an organization and the business system intensely affect manufacturing competition. Powell, (2001) sees business system as an instrument that controls the assets and make competitive advantage, therefore, suitable business technique may not be sufficient except if it have authority over extraordinary assets that can make such an extraordinary bit of leeway. More or less, competition is a main determining factor of principal execution and guarantees endurance and unmistakable setting of a firm in the market. Where

Superior execution being a definitive wanted objective of a firm, competitive advantage turns into the establishing featuring the noteworthy significance whereupon rivalry is overseen.

Autosterile East Africa Limited has been a manufacturer of various health product majorly IV Fluid that are used largely in the health sector. The products are produced locally by two major firms in Kenya with the third one coming into play soon (Autosterile East Africa, 2020). Despite the fact that there are only two firms producing the products locally for the country vast health sector, the competition has been very stiff by the global firms with their subsidiaries in Kenya. Autosterile has a capacity of 5 Million units but has been producing an average of 1.2 Million units while the total market requirement is 100 Million units. Total production of Autosterile would contribute only 5% of the total requirements in the domestic market, yet this is far from realization. This has resulted into a dismal fronted performance of the Autosterile East Africa Limited in Kenya prompting their management to re-think their marketing strategy.

The Autosterile East Africa Limited is a key player in pharmaceutical sector in Kenya and therefore requires that their marketing strategies are effectively implemented and any challenges faced in the process are overcome (Autosterile East Africa, 2020). It is against this background that the researcher has proposed to conduct a study to find out constrains in Autosterile East Africa competitiveness in the domestic market. The research questions the researcher want to address is what are the competitive challenges facing Autosterile East Africa products in domestic market and how does the company deal with these challenges?

2.0 LITERATURE REVIEW

Open system theory postulated by Ludwig von Bertalanffy (1956), indicates that competition procedure usage can be analyzed from framework point of view. This theory sees association as open framework in dynamic trade with climate. It means interdependency, interconnectedness, and interrelatedness among components in a set that comprises a recognizable entire or gestalt (Wendell & Cecil, 1999). Cole, (2004) characterize system as assortment of parts which structure some entirety. Drawing from Katz, Kahn and Hanna in (Wendell & Cecil, 1999), all open frameworks are input-throughput-yield, they take from the environment in type of energy, data, cash, individuals and crude materials and by means of throughput changes or convert the contribution to conclusive yield that are traded to environment.

A firm marketing policy is set in relation to their interaction with other firms within the industry. The system theory suggests that a firm competitive strength arise from three fundamental processes. Thus sources of the firm inputs or supplies affect how they price their products for effective competition. It also look into firm transformational process that will produce high quality goods that attract customers and finally it looked at the market for the finally products and whether a firm has capability to consolidate that market for their products.

An open framework is a framework which constantly associates with its current circumstance. Open frameworks hypothesis conceptualizes that associations are firmly impacted by their current circumstance and that climate comprises of different associations that apply different powers of a financial, political, or social nature (Bastedo, 2004). The climate likewise gives distinct advantages that support the association and lead to change and survival. Open System Theory (OST) was at first evolved by Bertalanffy, (1956) a scholar, however was quickly relevant over all orders. Points of view of Open System Theory (OST) were additionally best in class from crafted by Emery and Trist (1960). Open framework Theory is a cutting edge framework dependent on changed administration hypothesis and intended to make sound, creative and strong associations and networks in the present quick changing and eccentric conditions.

Firms ceaselessly go up against the vulnerability of new difficulties and issues that they need to address in a convenient, proficient, and successful way for their endurance. In this way, associations pass on or are changed when the necessities fulfilled by them do not exist anymore or have been supplanted by different requirements (Emery and Trist, 1960). A system view considers a firm as a lot of cooperating capacities that procure contributions from the climate, measure them, and afterward discharge the yields back to the outer climate (Luo & Peng, 1999). Best associations, as indicated by frameworks hypothesis, adjust to their surroundings. Pfeffer and Salancik depicted the climate as the occasions happening on the planet that have any impact on the exercises and results of an association. Conditions run from "static" on one extraordinary to "dynamic" on the other. Static conditions are moderately steady or unsurprising and don't have incredible variety, though powerful conditions are in a consistent condition of motion. Since conditions can't be totally static or continually changing, associations have shifting degrees of dynamic or static conditions.

This model, nonetheless, isn't deprived of certain weaknesses. The primary weakness identifies with estimation, and the second is the issue of whether the methods by which a firm endures truly matter. As per Robbins (1990), its attention is

on the methods important to accomplish viability as opposed to on hierarchical adequacy itself. Estimating the methods, or cycle, of an association can be troublesome when contrasted with estimating.

Open framework models center on occasions happening outer to the firm that impact changes inside the firm. Kenyan manufacturing firms in the EAC market have an open and dynamic versatile relationship with their outside environment and accordingly utilizing ideas of Open Systems Theory (OST), the investigation will draw out the job that large scale climate is playing in impacting the connection between key collusions and execution. The study will also provide an opportunity for further empirical investigations on environmental dynamism and how that affects the relationship between competitiveness and performance of firms.

Business Environment Efficiency and Competitiveness of Goods empirical review

According to a descriptive study by Sayed and Slimane, (2014) a significant macro-economic factor taken as an expected determinant of competitiveness is the rate of inflation taken as yearly rate and consumer prices and the demand of goods and services. The impact of inflation on competition can be considered from two perspectives. Along these lines, on one hand, if the inflation builds, it tends to be recorded as an expansion in business openings on the grounds that a more significant level of costs for items and administrations can prompt expanded desires for the income of business people, business advancement and supporting competition. Then again, expansion can have a negative effect since it expands costs for beginning a business and all the expenses available (Salman, 2014).

Dobbs (2014) study distinguished the principle determinants of competitiveness: rules and regulations, transportation costs, accessibility and cost of energy assets, and work costs. A survey of econometric examinations correspondingly found that generally the essential variables impacting site determination by organizations were policies to work (estimated for the most part by the flexibility of work), work expenses (and unionization), transportation (number of thruways and closeness of railways), admittance to business sectors, and admittance to crude materials. Additionally built up a model that clarifies the various determinants that either advance or repress competitiveness.

Social business facility infrastructure (education, healthcare and public safety) and political institutions define the broader context in which productive economic activity takes place (Suh & Lee, 2018). Microeconomic factors are those that have a direct influence on company productivity and labor force mobilization and includes factor endowments and demand conditions. As indicated by Hollensen (2010), public conditions establish an environment where organizations can increase worldwide upper hands yet it relies upon the firm whether it gets the chance to increase upper hand or not. Likewise, they proposed that outer components are pretty much uniform for all contending organizations and it is an association's qualities and activity that decide its gainfulness.

Drivers of competitiveness vary from one country to another and can be grouped into two main areas: macroeconomic and microeconomic. Macroeconomic competitiveness is driven by a range of institutions, policies, and public good investments that set the context for an entire economy. Social infrastructure (education, healthcare and public safety) and political institutions define the broader context in which productive economic activity takes place (Hall & Jones, 2016). Microeconomic factors are those that have a direct influence on company productivity and labor force mobilization and includes factor endowments and demand conditions.

Porter has a place with the gathering of initiators of this research science, as he researched business competitiveness and comprehended the nearby connection among miniature and large scale levels (Dima, Begu, Vasilescu, Maassen, 2018). The business environment makes conditions for the intensity of endeavors, which is then reflected in the nation's competitiveness. The premise of this framework are the abilities, choices, and genuine execution of organizations. Nonetheless, more refined systems and more beneficial exercises require more taught individuals, better data, more successful government choices, better foundation, created research establishments, etc. In this manner, a greater, efficiency, and market achievement of business production is reflected in the nation's export performance, in its monetary development, and, eventually, in the better quality of living of its occupants.

As per Tudose, and Rusu, (2015), the examination of competitiveness permits a valuation for the degree to which the different economies of the world's nations have figured out how to handle monetary difficulties. The competitiveness has been and stays a need in the arrangement of the logical discussion, yet additionally a significant worry for every single world economy. Financial approaches and institutional changes were acknowledged as fundamental apparatuses for an expansion in force of the intensity and feasible exhibition. A nation's competitiveness is differently estimated and the degree of competitiveness includes numerous factors of financial thriving. The different determinant variables of

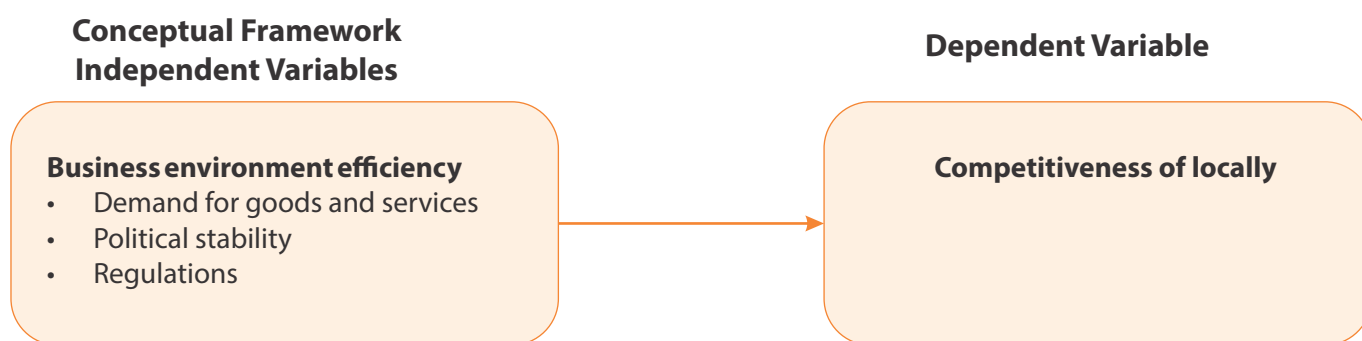
competitiveness and nation explicit macroeconomic pointers permit order of the world economies in various phases of improvement.

Thompson (1961) recognized five principle determinants of competitiveness: admittance to business sectors, location comparative with crude materials, transportation costs, accessibility and cost of energy assets, and costs of labour. A 1989 audit of econometric investigations by Milward and Newman (1989) likewise found that generally the essential components affecting site determination by organizations were admittance to work (estimated ordinarily by the flexibly of work), work expenses, transportation (number of interstates and closeness of railways), admittance to business sectors, and admittance to crude materials. Doorman (1990) additionally built up a model that clarifies the various determinants that either advance or restrain competitiveness.

Brykova (2007) propose that as worldwide competitiveness gets serious, the main determinants of guaranteeing the seriousness of public areas are the accompanying components: bunches; human resources; ventures and level of improvement of nearby organizations; developments and local advancement frameworks; nature of organization and institutional structure (sort) of a district; local foundation; speculation engaging quality and nature of unfamiliar direct venture. Considering the particular neighborhood qualities is a vital condition for distinguishing the elements of provincial competitiveness.

Thompson (2014) distinguished five principle determinants of competitiveness: admittance to business sectors, area comparative with crude materials, transportation costs, accessibility and cost of energy assets, and work costs. A survey of econometric examinations by Milward and Newman (2013) correspondingly found that generally the essential variables impacting site determination by organizations were admittance to work (estimated for the most part by the flexibly of work), work expenses (and unionization), transportation (number of thruways and closeness of railways), admittance to business sectors, and admittance to crude materials. Watchman (1990) additionally built up a model that clarifies the various determinants that either advance or repress competitiveness.

Innovation and data encourage showcasing development in competitiveness business sectors (Sood & Tellis, 2014). As indicated by Rodríguez-Pose and Crescenzi (2018), extemporization, adjustment, growth or change of existing channels of exchange using innovation can decrease exchange costs. Creative showcasing without the utilization of innovation in an exchanging arrangement rather requires asset based favorable circumstances for starting trade of information and data about circumstances accessible in the commercial center (Grewal, Iyer, & Levy, 2014). The trading of field notes among purchaser and dealer firms can encourage the investigation of unpredicted events and the identification of original plans to address serendipitous chances.



3.0 METHODOLOGY

A research design is the masterplan for collecting, measuring and analyzing data on the basis of research questions or hypothesis being examined (Garner, 2010). It can also be defined as a structure for the specification of the relationships between the variables being studied as well as the blueprint that outlines the various procedures ranging from the hypothesis of the study to the data to be analyzed. According to the positivists approach, a particular research design has to provide sufficient assurance to a community of scientists that the results delivered from following that design captured the true facts and have reliability and validity levels of a high standard.

The study is modeled for a case study design. According to Kothari (2004) a case study is a form of qualitative analysis which involves a careful and complete observation of a social unit be it a family, a person, a cultural group, or an entire

community or institution. The study focused on in establishing competitiveness of Autosterile East Africa Limited products in the domestic market. The results are expected to provide an insight on how on sort coming that the firm needs to improve in order to remain competitive in the current turbulent and sometimes hostile environment. Mugenda and Mugenda (2003), also points out that a case study allows an investigation to retain the holistic and meaningful characteristics of real life events. It is a method of study in depth rather than breadth and lays more emphasis on a limited number of events and other interrelations.

As per Cox (2010) target population for a survey is the whole arrangement of units for which the study information are to be utilized to make conclusions. As per Ngechu (2004) a population is an all-around characterized set of individuals, administrations, components and occasions, gathering of things or family units that are being explored. Target populace comprises the whole or entirety of the things under investigation (Kothari, 2004). The population comprised of the top, middle and lower level employees at Autosterile East Africa.

Table 1: Target Population

Respondents	Frequency
Top level employees	8
Middle level employees	22
Lower level employees	39
Total	69

Sampling frame is a published list in which, there are a set of directions for identifying a population (Borg & Gall, 2007). It is the source material or device from which a list of all elements within a population that can be sampled is drawn (Jwan, 2010). The sampling frame was top, middle and lower level employees at Autosterile East Africa. Sample of responding staff was drawn from the 8 top level employees, 22 middle level employees and 39 lower level employees working at Autosterile East Africa where census sampling technique will be used (Mugenda & Mugenda, 2003). Neuman (2000) argues that the main factor considered in determining the sample size is the need to keep it manageable enough. Also this enables the researcher to derive from it detailed data at an affordable cost in terms of time, finances and human resource (Mugenda & Mugenda, 2003). The study adopted census sampling technique to involve all the respondents in the firm. The study divided the number of respondents in the different level of staff. Consequently, the sample size for the current study was as indicated in Table 2.

Table 2: Sample Size

Respondents	Sample Size
Top level employees	8
Middle level employees	22
Lower level employees	39
Total	69

A well-planned and carefully constructed questionnaire was used to collect data. This increased the response rate and to facilitate the summarization and analysis of the collected data (Creswel, 2003). The questionnaire designed in this study comprised of two sections. The first part was designed to determine fundamental issues including the demographic characteristics of the respondent, while the second part consisted of questions focusing on the four variables. The structured questionnaire was designed in line with the objectives of the study. To enhance quality of data to be obtained, Likert type of questions were included whereby respondents indicated the extent to which the variables are practiced on a five point Linkert scale (Garner, 2010).

The structured questions were used in an effort to conserve time and money as well as to facilitate easier analysis as they are in immediate usable form; while the unstructured questions were used so as to encourage the respondent to give an in-depth and felt response without feeling held back in revealing of any information ((Mugenda & Mugenda, 2003). Secondary data is data that are already available; published or unpublished (Kothari, 2004). Secondary data was collected from the Autosterile East Africa annual reports, Government performance contracting evaluation reports, Vision 2030, and [Autosterile East Africa](#) websites.

Validity is a measure of the degree to which data obtained from the instrument accurately and meaningfully represents the theoretical concept and in particular how the data represents the variables. It is the degree to which the analyzed data

is the true picture of a given phenomenon being studied"—(Saunders et al., 2019). Validity is normally explained as the degree that items in the instruments represent a satisfactory operational definition of the construct of concern. There are a variety of validity tests including face to face validity, content validity, construct validity, criterion (predictive) validity and convergent validity. For this study, construct validity and face to face validity tests were employed. This was because these tests measure the degree that the set of questions (scale items) determine the existence of the target constructs"—(Saunders et al., 2019).

Where validity has been established, any inferences made from such data was accurate and meaningful (Mugenda & Mugenda, 2003). Validity was determined in by the researcher discussing the items in the instrument with the experts including supervisor, lecturers from the department and colleagues. These people was expected to indicate by tick or cross for every item in the questionnaire if it measured what it was supposed to measure or not. Reliability refers to the level of consistency with which the tool measures a given attribute. As indicated by " – Saunders et al., (2019) it is important to test on whether the instrument produces steady results at various conditions and at different timings, for example, with various respondents. External/Stability reliability involves either test-retest and split half reliability.

According to Kothari (2004) reliability of the questionnaire should be established. Reliability was increased by including many similar items on a measure, by testing a diverse sample of individuals and by using uniform testing procedures. The study selected a pilot group of 10% of the sample to involve seven (7) respondents from the staff working in IVEE aqua limited to test the reliability of the research instrument.

The pilot study allowed for pre-testing of the research instrument (Kothari, 2004). The clarity of the instrument items to the respondents is necessary so as to enhance the instrument's validity and reliability. The aim was to correct inconsistencies arising from the instruments, which will ensure that they measure what is intended. The pilot data was not included in the actual study. Cronbach's Alpha was applied to measure the co-efficient of internal consistency and therefore reliability of the instrument. A reliability coefficient of at least 0.7 was considered high enough for the instruments to be used (Neuman, 2000).

The initial process involved attaining an introductory letter from Management University of Africa. Questionnaires were used to collect data. Thereafter, the researcher booked appointments with the relevant respondents in different departments in Auto sterile East Africa. The questionnaires were delivered by hand to respondents; the researcher was on standby for the respondents as they filled them out and provided any clarifications whenever needed. Due to the Corona virus pandemic, the researcher made sure she does not come into contact with the respondents. The researcher sanitized every time she received the questionnaire from the respondents and always wore a mask to protect herself.

Data preparation was first done by involving a process of cleaning and transforming raw data prior to processing and analysis. It was an important step prior to processing and often involves reformatting data, making corrections to data and the combining of data sets to enrich data. Data preparation process usually included standardizing data formats, enriching source data, and/or removing outliers.

Data obtained was first cleaned by removing the unanswered or incomplete filled questionnaires. The cleaned questionnaires were then coded and analyzed using SPSS version 25. Imputation was used to take care of missing data. Mohajan, (2018) revealed that missing data could be replaced by use of different estimation methods; this study adopted the "Missing Values Analysis" add-on module. Data analysis took place at two levels – descriptive statistics level and inferential statistics level.

Data obtained was qualitatively analyzed using content analysis techniques. Mugenda and Mugenda (2003), pointed out that the best content-analytical studies use both qualitative and quantitative methods. The information was analyzed and evaluated to determine its usefulness, credibility, consistency and adequacy. Content analysis technique was used because it assisted in making inferences by objectively identifying specific information and relating the same to occurrence trends.

According to Mugenda and Mugenda (2003), the main purpose of content analysis is to study existing information in order to determine factors that explain a specific phenomenon. In coding qualitative data, the researcher read all the responses, identify key information and relate it to emerging patterns. The outcome was compared in an attempt to get more revelation on the processes and challenges on competition of Autosterile East Africa Limited products in the domestic market. Inferential statistics involved regression analysis. Statistical Package for Social Sciences (SPSS) version 23 was used to analyze data.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Where: Y = Competitiveness of locally manufactured goods, $\{\beta_i; i=1,2,3,4\}$ = The coefficients for the various independent variable. X_1 for; X_1 = Economic growth, X_2 = Demand for goods and services, X_3 = Political stability, X_4 = Regulations, ε = Error term.

4.0 FINDINGS

The findings on the influence of business environment efficiency on competitiveness of locally manufactured goods. The results are presented in Table 3.

Table 3: Influence of business environment efficiency on competitiveness of locally manufactured goods

Influence of business environment efficiency on competitiveness of locally manufactured goods	Mean	Standard deviation
Demand for goods and services influences competition of goods and services	1.58	0.29
Political stability has an impact in competition among firms	1.68	0.64
Regulations dictates the competition among companies	1.47	0.52
Supply of goods and services controls a firm’s competitive advantage	1.25	0.01

From the findings, majority agreed that demand for goods and services influences competition of goods and services as shown by a mean of 1.58 and a standard deviation 0.29 while a large number agreed that political stability has an impact in competition among firms as shown by a mean of 1.68 and a standard deviation 0.64. Most agreed that regulations dictate the competition among companies as revealed by a mean of 1.47 and a standard deviation 0.52 while a large number agreed that supply of goods and services controls a firm's competitive advantage as indicated by a mean of 1.25 and a standard deviation 0.01. The manager explained that they endeavor to provide the right working environment for their employees to enhance their competitiveness.

Pearce and Robinson, (2015) highlights the ever-changing environment that continually provides opportunities and threats to organizations. To ensure survival and success, firms need to develop their capabilities to manage threats and exploit the emerging opportunities. Competitive advantage thus is a broader formula on how firms are positioning themselves to compete within the industry. It is the means of what a firm can use to achieve the market.

Linear Regression Analysis

Linear regression was used to determine whether independent variable affect the dependent variable. To achieve this, competitiveness of locally manufactured goods as the dependent variable was regressed against business environment efficiency as independent variables. The regression model for this study generally assumed the following equation:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Where: Y = Competitiveness of locally manufactured goods, $\{\beta_i; i=1,2,3,4\}$ = The coefficients for the various independent variable. X_1 for; X_1 = Economic growth, X_2 = Demand for goods and services, X_3 = Political stability, X_4 = Regulations, ε = Error term.

This section examined whether the linear regression equation can be used to explain the effects of business environment efficiency on competitiveness of locally manufactured goods in Autosterile East Africa in Kenya.

Table 4: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.831 ^a	.691	.679	6.567

Predictors: (Constant), Business environment efficiency,

From the results obtained, an R of 0.831 shows that there is a positive correlation between Business environment efficiency and competitiveness of locally manufactured goods. The adjusted R square of 0.679 indicates that business environment efficiency in exclusion of the constant variable explained the change in competitiveness of locally manufactured goods by 67.9%, the remaining percentage can be explained by factors not included in the model.

The coefficient of determination (r-squared) of 0.691 indicates that 69.1% of competitiveness of locally manufactured goods can be explained by business environment efficiency. Drivers of competitiveness vary from one country to another and can be grouped into two main areas: macroeconomic and microeconomic. Macroeconomic competitiveness is driven by a range of institutions, policies, and public good investments that set the context for an entire economy. Social infrastructure (education, healthcare and public safety) and political institutions define the broader context in which productive economic activity takes place (Suh & Lee, 2018). Microeconomic factors are those that have a direct influence on company productivity and labor force mobilization and includes factor endowments and demand conditions. The findings on ANOVA results on effects of Business environment efficiency on competitiveness of locally manufactured goods are presented in Table 5.

Table 5: ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	10111.282	4	2527.821	58.622	.000 ^b
	Residual	4527.709	62	73.027		
	Total	14638.991	66	221.80289		

a. Dependent Variable: Competitiveness of locally manufactured goods

b. Predictors: (Constant), Business environment efficiency

The Analysis of Variance (ANOVA) indicated a p-value of 0.000. This, therefore, means that the relationship between effect the business environment efficiency was significant at 95% confidence level. The F statistics of 58.622 was large enough to conclude that the set of variable have a significant influence on competitiveness of locally manufactured goods in Autosterile East Africa. This implies that business environment efficiency, is significant predictor at explaining competitiveness of locally manufactured goods in Autosterile East Africa and that the model is significantly fit at 95% confidence level.

Table 6: Model Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.337	2.205		2.153	.029
	Business environment efficiency	1.003	.075	.069	2.354	.026

a. Dependent Variable: Competitiveness of locally manufactured goods Further analysis as shown in Table 6 shows that business environment efficiency had a coefficient of 1.003. From the coefficients, the model developed was as follows; Competitiveness of locally manufactured goods = 0.337 + 1.003 Business environment efficiency

The beta Coefficients of business environment efficiency is significant determinant of competitiveness of locally manufactured goods. Pearce and Robinson, (2015) highlights the ever changing environment that continually provides opportunities and threats to organizations. To ensure survival and success, firms need to develop their capabilities to manage threats and exploit the emerging opportunities. Competitive advantage thus is a broader formula on how firms are positioning themselves to compete within the industry. It is the means of what a firm can use to achieve the market. It consists of approaches and initiatives a firm undertake to attract customers and fulfil their expectation better than the competitors (Thomson et al., 2017).

5.0 Conclusion and Recommendations

It can be concluded that business environment positively influences Competitiveness of Locally Manufactured Goods. The demand for goods and services and political stability influences competition of goods and services. The regulations

dictates the competition among companies and supply of goods and services controls a firm's competitive advantage.

Recommendation

The Kenyan Government should formulate policies that enhance the business environment to enhance competitiveness of locally manufactured goods. This can be done through the Ministry of trade supporting the exportation of locally manufactured goods and limiting the importation of the same products.

Areas for further studies

This study examined the influence of on competitiveness of locally manufactured goods: the case of Autosterile East Africa, Kenya. The study concentrated only on business environment efficiency. However the study did not examine the differences in application of the determinants at Autosterile East Africa and establish whether differences in competitiveness of goods were attributed to business environment efficiency.

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