DETERMINANTS OF THE GROWTH OF LOCAL MOTOR VEHICLE ASSEMBLY INDUSTRY IN KENYA

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ABSTRACT

Kenya’s automobile industry has posted an economic growth that shows a constant growth for the past few years and it is expected to show growth curves with the latest expectancy projected to be at 6.9% according to the World Bank (2015) index of Economic Freedom. Key to the business world is transport sector, and this cannot go without the consideration of the Automobile industry. According to the Kenya Ports Authority information center, the port of Mombasa in the recent past experienced an upsurge of motor vehicle imports, the available statistics indicate that in the year 2014 a total 157,856 motor vehicles were discharged this is higher when compared to 136,915 units cleared the previous year 2013. The trend serves to make a very strong statement that the market of the Auto Mobiles in Kenya and the East African Community has been constantly and steadily growing. In the past, Kenya has tried a couple of local Motor Vehicle assembly plants with the Uhuru Vehicle projects and the Nyayo pioneer already rolled and failed. The Mobius Motors project already implemented and the preliminary results show a slow start and response by the otherwise vast market. This research sought to understand the possible challenges that the local motor vehicle assembly face and how these challenges is to be mitigated, and as a growing economy to tap into the huge business potential in the automotive world. This study therefore sought to investigate the factors affecting the Local Automobile assembly industry. The study obtained primary data from Sixty- 60 respondents from the three local motor vehicle assembly companies. Overall innovativeness had a mean of 3.34. A correlation was done between innovativeness and growth, a correlation index of (r= 0.557) was obtained. Flexibility had a mean index of 3.55. The study found that there is significant relationship between flexibility and growth which have correlation index of (r= 0.611). Overall mean for pricing was 3.65. The study also found that there is significant relationship between pricing strategy and growth which have correlation index of (r= 0.561). The overall mean for government regulation was 4.10. The study found that there is significant relationship between government regulation and growth which have correlation index of (r= 0.323). The mean obtained on growth of motor vehicle assembly in Kenya was 2.73 on a likert scale. This study therefore recommends the following: first Motor vehicle
assemblers to develop their ability to innovate quickly new production process in order to cope up with new trends in the market. Second, develop coping mechanism especially in areas that concern with changes in uncertain business environment. Third, the government to look into cost of machinery and minimize especially on import duty as this will go a long way towards motivating investors. Fourth, the government also needs to emphasize on the need and benefits of adherence to tax laws of the country. Finally, the government is encouraged to promote locally assembled cars as they have a variety of benefits. This can be achieved through incentives such tax reliefs.

**Key words:** Growth, Flexibility, Pricing, Innovativeness, Government Regulation

**INTRODUCTION**

Today’s motor industry is traced to Henry Ford who laid the foundations for the current mass production techniques. Bradley, (2001) affirms that the evolution of the automotive industry has been influenced by various innovations in fuel consumption efficiency, vehicle components, societal infrastructure, and manufacturing practices, as well as changes in markets, suppliers and business structures and as such Kenya has not been left behind either. The business environment in Kenya has been occasioned by many changes key among them being: increased competition, accelerated implementation of economic reforms, increased customer demands, privatization and commercialization of public sector, international privatization, price controls and liberalization of both domestic and foreign markets (Aosa, 1992). The Automotive industry in Kenya is primarily involved in the retail and distribution of motor vehicles. There are a number of motor vehicle dealers operating in the country, with the most established being Toyota (East Africa), Cooper Motor Corporation, General Motors East Africa, Simba Colt (now Simba Corporation) and DT Dobie. There are also three vehicle assembly plants in the country, which concentrate on the assembly of pick-ups and heavy commercial vehicles. The established dealers face intense competition from imported second-hand vehicles, mainly from Japan and United Arab Emirates. These imports now account for about 70% of the market (KMI Reports, 2000-2006) and is steadily increasing.

The Kenyan motor vehicle market was liberalized in 1990 and from this period, the domestic market experienced huge influx of fully built new and second hand direct imports (KMI- 2008). However with the liberalization of the market the demand for locally assembled vehicles significantly dropped with annual volumes falling from 14,000 units (49% capacity utilization) in the 1980s to about 7,000 (24% capacity utilization) units in 1990s. In 2006, the volume of locally assembled cars stood at about 5,500 (19% capacity utilization) according to KMVA. The total
The installed production capacity of the three motor vehicle assemblers is 23,200 vehicles on batch basis (Kenya Vehicle Manufacturers Association Report, 2006).

The automotive industry faces many challenges, particularly financial support in export markets, competition from cheap entrants, tariff, availability of market information and foreign exchange fluctuations. One other factor that has seriously affected the local assembly of motor vehicles and subsequently, local sourcing is the importation of used vehicles from Japan and more recently from Singapore. This has reduced the capacity of local assembly plants drastically.

**Statement of the Problem**

According to the Kenya National Bureau of Statistics (KNBS) economic survey (2015), transport sector grew by 13.7% in the year 2014, it was also noted that registration of motor vehicles has maintained an upward trend since 2011. Eighty-Four (84%) of the Kenyan motor industry that is controlled by imported vehicles. This is despite the fact that the Kenya manufacturing capacity has been underutilized over the past five years. The total number of newly registered motor vehicles in the country recorded a 9.1 per cent increase from 94,017 units in 2013 to 102,606 units in 2014. However the number of new cars was way below as market share, new car market share rose to 17% (11,762 units) in 2014 from 12 per cent(10,419 units) in 2013 despite having a production capacity of 23,200 units.

From the literature reviewed, the researcher established that Suter and Bwisa (2013) looked into success of second hand motor vehicles, Olando, Jagongo and Mbewa (2013) looked into the growth of Sacco’s. Therefore, as far as literature reviewed and to the best of the researcher’s knowledge there is very little information on growth of motor vehicle assembly especially within Kenyan context.

**General Objective**

The general objective of the study was to establish factors affecting growth of local motor vehicle assembly industry in Kenya.

**Specific Objectives**

i. To examine the effect of innovation on growth of Motor Vehicle Assemblers.

ii. To establish whether price has an effect on growth of Motor vehicle assemblers.

iii. To identify extent to which flexibility affects growth of motor vehicles assemblers.

iv. To determine how government policies affect growth of motor vehicle assemblies.
LITERATURE REVIEW

Asymmetric Information Theory
The concept of asymmetric information was first introduced in George A. Akerlof’s (1970) paper *The Market for “Lemons”: Quality Uncertainty and the Market Mechanism*. His basic argument is that in many markets the buyer uses some market statistic to measure the value of a class of goods. Akerlof (1970) begins by assuming a model of the automobiles market where there are four kinds of cars; new cars and old cars, which both can be good or bad (the bad cars he refers to as “lemons”). When buying a car there is a probability that it is a good car and a probability, that it will be a lemon.

Cumulative Model of Competitive Priorities
Nakane (1986) put forward the cumulative model first. He proposed that Japanese enterprise followed a pre-arrange sequence in the development of competitive capability. Similar to Hall’s research, he suggested that manufacturers should pursue a step-wise progression through the capabilities, which are offered as a typical goal progression: quality, dependability, cost, and then flexibility. In this perspective, the cumulative model provides a distinct approach to explain relationships between competitive capabilities. The capability to produce at a low cost could be supported by achieving good performance on other capabilities.

Conceptual Framework

<table>
<thead>
<tr>
<th>Innovativeness</th>
<th>Flexibility</th>
<th>Pricing</th>
<th>Government Policies</th>
</tr>
</thead>
<tbody>
<tr>
<td>- New Product</td>
<td>- how to adopt new designs</td>
<td>- Price setting</td>
<td>- Taxation</td>
</tr>
<tr>
<td>- new processes</td>
<td>- adjust capacity fast</td>
<td>- Vehicle design</td>
<td>- Import Regulations</td>
</tr>
<tr>
<td>- new market locations</td>
<td>- Handling variations in</td>
<td>- Mileage</td>
<td>- Restrictions</td>
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<tr>
<th>Growth</th>
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<tr>
<td>- Local Market Share</td>
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<td>- Increased Sales</td>
</tr>
<tr>
<td>- Exports Market</td>
</tr>
<tr>
<td>- Employment</td>
</tr>
</tbody>
</table>
Independent variables

Figure 1 Conceptual Framework

Innovativeness

According to Assink (2006), innovation has a connotation of newness, success, and change and can be defined respectively as the generation, development, and adaptation of an idea or behavior, new to the adopting organization. In another view, Kumar et al. (2000), define innovation as something that is invented for the first time and is a commercial success. Johannessen et al., (2001) categorize innovation into three types; namely, product innovation, process innovation, and market innovation. According to Langley et al. (2005), as opposed to minor innovations that comprise small-scale alterations to existing products, major product innovations involve a completely new set of attributes, form a new product category, and induce behavioural changes on behalf of the users.

Flexibility

Zhang et al. (2003) define flexibility as —the ability of the organization to manage production resources and uncertainty to meet various customers’ requests. In the same sense, Kathuria and Partovi (2000) state that —flexibility gives manufacturing plants the ability to introduce new designs or new products into production quickly, adjust capacity rapidly, customize products, handle changes in the product mix quickly, and handle variations in customer delivery schedule. According to Stevenson and spring (2007), every manufacturing firm has to be flexible by meeting its customer demands and coping with changes in uncertain business environment which is characterized by increasingly sophisticated consumers that demand customized products and short lead times.

Pricing

Jobber (2004) states that price are one of the key factors in vehicle sale as it represents what a company earns as returns. According to Noble & Gruca (1999), pricing strategy refers to how the firm will address its pricing objectives and thus the means by which a pricing objective is to be achieved. Hence, a certain pricing strategy will imply a certain price or price schedule relative to
the costs of the selling firm. The choice of pricing strategies is, as stated above, seen as contingent on certain conditions, termed determinants, which implies that a firm’s degree of success in pricing is determined by whether chosen pricing strategies are properly adapted to the conditions facing the firm.

**Growth**

Growth is typical of business ventures. Success and growth of enterprises can be viewed in two ways: quantitatively or qualitatively. Quantitative growth is measured by size of the company (annual turnover, benefit and volumes), the profitability of the company and shareholder value. Qualitatively growth includes an enterprises competitive position and customer service.

**Empirical Reviews**

The available studies mostly have focused on western countries where the technology, economic, government policies and customer tastes and preferences are different from the same factors in Kenya. Ndungu (2008) conducted a survey of the vertical integration strategies used in the automotive industry in Kenya; Kipchirchir (2008) surveyed the Kenyan Motor Vehicle Industry of the foreign exchange risk management practices it employs. Ogolla (2013) looked into operations strategy and performance among motor vehicle assemblers in Kenya, it was established the study found that motor vehicle assemblers are facing stiff competition that has made them adopt some operations strategies to remain competitive in the market. Further the companies face challenges such as the second hand imports, competition, delivery constrains, unfriendly policies and regulations, long lead times, high inventory cost among others. Ngung’u (2015) analyzed competition in the motor vehicle assembly sector in Kenya using porter’s five forces model. The study recommended that motor vehicle assembly firms can engage in vigorous price competition, differentiate their products from competitors and imitators as well as enhance the product features to meet the market. From the literature reviewed, the researcher established that Suter and Bwisa (2013) looked into success of second hand motor vehicles; therefore, as far as literature reviewed and to the best of the researcher’s knowledge there is very little information on growth of motor vehicle assembly especially within Kenyan context.

**METHODOLOGY**

The study used descriptive research design aimed at establishing the determinants of growth of local motor vehicle assembly industry in Kenya. In order to address all of the questions of this research, the respondents for this study was drawn from the three motor vehicle assembly firms
namely General Motors East Africa (GMEA), Associated Vehicle Manufacturers (AVM) and Kenya Vehicle Manufacturers (KVM). Purposive sampling was adopted since allow a researcher to use cases that have the required information with respect to the objectives of his or her study (Mugenda and Mugenda, 2003). According to Mugenda and Mugenda (2003) a sample size of between 10 and 30 % is a good representation of the target population and hence the 30% is adequate for analysis. Therefore the sample size of this study was therefore 60 respondents. This was arrived at taking 30% as the target sample size from a population 200 (Kenya Motor Industry Association, 2013). The study utilized both primary as well as secondary data. The researcher coded and edited the questionnaires for completeness using the Statistical Package for Social Scientist (SPSS). The data collected was analysed using frequencies, percentages, and mean to determine the factors affecting growth of motor vehicle assembly in Kenya.

RESEARCH FINDINGS AND DISCUSSIONS

Innovativeness

This study sought to establish how these assemblers have been dealing with the subject of innovativeness. The study established that innovation in motor vehicle industry was least influenced by, “Ability to operate at different levels of output” with a mean of 3.25. This was followed by “Ability to easily expand or redesign our products” at 3.26, “Ability to quickly innovate new production processes” had 3.31, “Ability to rapidly change production volumes” had 3.34 and “Ability to adapt to organizational changes” had 3.54. Overall innovativeness had a mean of 3.34.

Innovativeness Strategy

The results indicate motor vehicle assemblers need to look at market trends since they affect buyers’ preference and thereby affecting growth. Secondly, there is need to look at customers specifications in order cut a niche for themselves, this seems to have been achieved in large types of vehicles but for smaller vehicles, this is affected by imported car trends. Motor vehicle assemblers have also managed resources to meet customers’ needs such as, allowing them select preferred choice of color and other add-ons such as interiors, suspension thereby driving up sales. Further the assemblers have managed to adjust to economic situations however the challenges that they are yet to manage is coping with changes in uncertain business environment characterized by fluctuating exchange rate, entry of new players and imported second hand motor vehicles.

Flexibility
This study sought to find out how flexibility is handled across these organizations. The findings established overall flexibility had a mean index of 3.55 on the likert scale, when individual factors were considered “Ability to easily expand or redesign the system” had the least influence on index at 3.31 this was followed by “Ability to rapidly change production volumes” at 3.32, “Ability to adopt to organizational changes” at 3.42, “Ability to operate at different levels of output” had 3.85 and the highest was obtained from “Ability to quickly introduce new production” 3.86.

**Flexibility Strategy**

The study also sought to find out what tactics they use when it comes to flexibility. The study revealed that “flexibility to customer’s specifications” was used by most motor vehicle assembler this follows the popular adage that customer is king. This allows motor vehicle assemblers to listen to their customer specification and strive to achieve them. It was also established “Adjusting to changes in economic situations” enabled them to be flexible in terms of production capacity, staff capacity and product design. Motor vehicle assembles also need to manage resources to meet various customers’ needs as well as coping with changes in uncertain business environment that may require adjustments to internal and external business process and requirements such as government policies and regulation. This kind of flexibility allows the assembler’s time to navigate towards growth and customer satisfaction.

**Pricing**

This study therefore sought to find out how pricing has been used to manage growth among motor vehicle assemblers in Kenya. The researcher looked into the mean index obtained the “Cost of machinery is minimized” had the least index at 3.27 this imply that it least influenced pricing this was followed by “Inventory costs is controlled” at 3.40, assemblers kept the price of the product to be constant had 3.72, while keeping overhead cost at a minimum had 3.87 and the highest was “Labor Costs matches industry” at 3.98. Hence motor vehicle assemblers will need to embrace a certain pricing strategy will imply a certain price or price schedule relative to the costs of the selling finished product.

**Pricing Strategy**

The researcher sought to find out how pricing strategy was being implemented within motor vehicle assemblers in Kenya. It was established that motor vehicle assemblers use mass production as a strategy to achieve pricing strategy; this enables motor vehicle assemblers use economies of scale to cut down on cost thereby affecting the price of individual units and thereby push up sales. Further, motor vehicles assemblers need to cost cut promote intolerance as well as eradication of corruption. Therefore there is need to have a processes for collecting market and cost information,
facilitating an effective interaction with customers, the development of pricing strategy, investments in proper systems or tools to aid decision-makers, and involving people with proper skills.

**Government Regulation**

The researcher sought to find out how government regulation affects growth of motor vehicle assemblers in Kenya. The results indicated government has not done much to promote locally assembled cars this had the least mean at 3.14. This was followed by easily adopting to government regulation, which had a mean of 3.92, they also indicated that government tax is too high at 3.94, importation of second hand cars has hindered our growth at 4.15 and the highest determinant was obtained from government regulations affect our operations at a mean of 4.40. The overall mean for government regulation was 4.10.

**Growth of Motor Vehicle Assembly Industry**

Having looked at all the independent variables the researcher looked at the dependent variable, which was growth. It was established that the overall mean obtained on growth of motor vehicle assembly in Kenya was 2.73 on a likert scale, its factors performed as follows; Our local market share has grown over the last five years had the lowest mean of 1.95. This was followed by growth has seen more employment opportunities at 2.95, our sales volume has increased in the last five years at 3.06 and the highest mean was obtained from we have surplus products for export market” had 3.16.

**COMBINED EFFECT MODEL**

**Multiple Linear Regression Results for all Variables**

The study aimed at finding out the overall effect of the independent variables (that is, Innovation, Flexibility, Pricing and Government Regulation) on Growth of Motor Vehicle Assembly Industry. The model \( Y = \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \varepsilon \) explained .949 of the variations in employee engagement as shown in Table 4.39. This shows that Innovation, Flexibility, Pricing and Government Regulation explains 45.0% of the variation in growth of motor vehicle assembly industry

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Multiple Linear Regression model summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>R</td>
</tr>
<tr>
<td>1</td>
<td>.671(^{a})</td>
</tr>
</tbody>
</table>

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The analysis of variance results Table 2 indicates that the model fit is significant at p=0.000, F=7.985 with 43 degrees of freedom. This implies that Innovation, Flexibility, Pricing and Government Regulation have significant and positive combined effect on growth of motor vehicle assembly industry.

Table 2  Analysis of Variance (ANOVA)\textsuperscript{a,b}

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>102.900</td>
<td>4</td>
<td>25.725</td>
<td>7.985</td>
<td>.000\textsuperscript{b}</td>
</tr>
<tr>
<td>Residual</td>
<td>125.645</td>
<td>39</td>
<td>3.222</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>228.545</td>
<td>43</td>
<td></td>
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</tbody>
</table>

\textsuperscript{a} Dependent Variable: Growth  
\textsuperscript{b} Predictors: (Constant), Government Regulation, Pricing, Innovation, Flexibility

The overall model as shown on Table 3 indicated that innovation and government regulation were highly significant at p=0.031 and p=0.168 respectively. However flexibility and pricing were significant at p=0.708 and p=0.615. The fitted model was:

\[ Y = 2.828 + 0.253X_1 + 0.048X_2 + 0.055X_3 + 0.214X_4. \]

Table 3  Relationship between growth determinants and growth of motor vehicle industry: Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<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>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>2.828</td>
<td>2.226</td>
<td>1.271</td>
<td>.211</td>
</tr>
<tr>
<td>Innovation</td>
<td>.253</td>
<td>.113</td>
<td>.421</td>
<td>.031</td>
</tr>
<tr>
<td>Flexibility</td>
<td>.048</td>
<td>.128</td>
<td>.078</td>
<td>.708</td>
</tr>
<tr>
<td>Pricing</td>
<td>.055</td>
<td>.107</td>
<td>.087</td>
<td>.615</td>
</tr>
<tr>
<td>Government</td>
<td>.214</td>
<td>.152</td>
<td>.199</td>
<td>.168</td>
</tr>
</tbody>
</table>

\textsuperscript{a} Dependent Variable: Growth

Pearson correlation was carried out to determine how the research variables related to each other. Pearson's correlation reflects the degree of linear relationship between two variables. It ranges...
from +1 to -1. A correlation of +1 means that there is a perfect positive linear relationship between variables (Serekan, 2003).

Table 4 shows that government regulation was found to have a statistically significant strong positive correlation with growth ($r=0.492$, $p$-value = 0.000). The relationship was found to be statistically significant at 49.2% significance level ($p$-value = 0.001). Innovation was found to have a statistically significant strong positive correlation with government regulation ($r=0.509$, $p$-value = 0.000). The relationship was found to be statistically significant at 44% significance level ($p$-value = 0.000). Flexibility was found to have a statistically significant strong positive correlation with employee engagement ($r=0.555$, $p$-value = 0.000). The relationship was found to be statistically significant at 55.5% significance level ($p$-value = 0.000). Government regulation was found to have a statistically significant strong positive correlation with flexibility ($r=0.488$, $p$-value = 0.000). The relationship was found to be statistically significant at 48.8% significance level ($p$-value = 0.000).

Pearson correlation results shown on Table 4.16 indicated that innovation is leading with the highest influence on growth with a correlation of 0.634, followed by flexibility at 0.555, then government regulation with a correlation of 0.492 and finally pricing with a correlation of 0.486. Therefore, the research can concludes that based on the study variables, the hierarchy flows from innovation, followed by flexibility, government regulation and pricing. In the context of this study, these were the most prominent indicators of growth of motor vehicle assembly industry in Kenya.

Table 4. Correlation matrix for the study variables

<table>
<thead>
<tr>
<th></th>
<th>Growth</th>
<th>Government Regulation</th>
<th>Innovation</th>
<th>Flexibility</th>
<th>Pricing</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Growth</strong></td>
<td>Pearson Correlation 1</td>
<td>Sig. (2-tailed)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>N</td>
<td>44</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Government Regulation</strong></td>
<td>Pearson Correlation .492**</td>
<td>Sig. (2-tailed)</td>
<td>.001</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>N</td>
<td>44</td>
<td>44</td>
<td></td>
</tr>
<tr>
<td><strong>Innovation</strong></td>
<td>Pearson Correlation .634**</td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>N</td>
<td>44</td>
<td>44</td>
<td>44</td>
</tr>
<tr>
<td><strong>Flexibility</strong></td>
<td>Pearson Correlation .555**</td>
<td>Sig. (2-tailed)</td>
<td>.488**</td>
<td>757**</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>N</td>
<td>44</td>
<td>44</td>
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</table>
**SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

**Innovativeness**
First, the study sought to find out how innovativeness affects growth of motor vehicle industry, the study did confirm that innovativeness affects growth. The study established that 40.61% agreed that their companies were managing innovation properly, further 9.33% strongly agreed, 28.38% were neutral, 18.08% disagreed and only 3.61% strongly disagreed. Of importance to note is the 28.38% of the respondents who were neutral and could swing the scale to either side of the scale. Overall innovativeness had a mean of 3.34 however, there is need to look into the ability to expand or redesign products since this came out as a challenge especially with the low mean index it obtained. It was noted that most of the assemblers did not find it difficult to adopt organizational changes. The study also established that they innovated based on current market trends. This confirms that the motor vehicle assemblers keenly watch developments in terms of products designs and thereby conforming and not being left behind. A correlation was done between innovativeness and growth, a correlation index of \( r = 0.557 \) was obtained. Therefore, the study found that innovativeness has significant relationship to the Growth of Motor Vehicle Assemblers in Kenya.

**Flexibility**
Secondly, the study sought to find out how flexibility affects growth of motor vehicle assemblers in Kenya. The findings establish that 41.41% were in agreement with how flexibility was being handled, 15.76% of the respondents strongly agreed, 27.06% were neutral, 13.65% disagreed and 2.12% strongly disagreed. Overall flexibility had a mean index of 3.55 on the likert scale and it was noted that there was constrain in terms of ability to easily expand and redesign the system. However on the brighter side it was established that the assemblers had the ability to quickly introduce new productions. When asked what tactic they use to achieve flexibility it was noted that most indicated they are flexible to customer’s specifications however there is a need to enhance their coping mechanism especially with changes in uncertain business environment. The study
found that there is significant relationship between flexibility and growth which have correlation index of \( r = 0.611 \) therefore, the study found that flexibility has significant relationship to the growth of motor vehicle assemblers in Kenya.

**Pricing**

Third the researcher looked into pricing and its impact on growth of motor vehicle assembly; it was established from the study that 44.94% of the respondents agreed that pricing affects growth, another 19.29% strongly agreed, 24.24% were neutral, 12.24% were in disagreement and a further 3.29% strongly disagreed. There is also need to look into the cost of machinery and the overall index was 3.65. Further the researcher looked into strategies that motor vehicle assemblers have been using as tactics to controlling prices they indicated that they used mass production, however there is need to encourage adherence to tax laws of the country. The study also found that there is significant relationship between pricing strategy and growth which have correlation index of \( r = 0.561 \) therefore, the study found that pricing strategy has significant relationship to the growth of motor vehicle assemblers in Kenya.

**Government Regulation**

Fourth, the researcher looked into government’s regulation, its role towards growth the results obtained indicated that 47.35% of the respondents indicated that government regulations affects the growth of motor vehicle industries, they were further supported by 34.41% who strongly agreed, 12.4% were neutral, those who disagreed were 4.71% and only 0.59% strongly disagreed. The overall mean for government regulation was 4.10 on the down side to this is that the government is not doing much to promote locally assembled cars on the other side is that government regulations affect our operations. The study also found that there is significant relationship between government regulation and growth which have correlation index of \( r = 0.323 \) therefore, the study found that government regulation has significant relationship to the growth of motor vehicle assemblers in Kenya.

**Growth**

Finally, the researcher looked into the growth of motor vehicle assembly industry in Kenya. It was evident from the study that the responses was spread across the five points on the likert scale whereby 12.55% strongly disagreed with the growth of motor vehicle assembly industry, 27.45% disagreed, 38.43% were neutral, and 18.04% were in agreement with growth of motor vehicle assembly industry in Kenya and only 3.53% strongly agreed. The study looked into the overall mean; the mean obtained on growth of motor vehicle assembly in Kenya was 2.73 on a likert scale. Its factors performed as follows; “Our local market share has grown over the last five years” had
the lowest mean of 1.95 and the highest mean was obtained from “We have surplus products for export market” had 3.16.

Conclusion
This study, conclusion and lessons learnt will enable motor vehicle assemblers and other service industry to realize which areas they need to improve on in terms of their determinants of growth. Based on Schmenner and Swink, (1998) in cumulative model perspective, modern manufacturing systems allow for improvement in more than one manufacturing capabilities which in a general way states that improvement in certain capabilities can amplify certain other capabilities. This study therefore agrees with them by confirming that the assemblers have the ability to quickly introduce new production processes as well as confirming that they have flexibility to customer’s specifications.

According to instinct theories, people are motivated to behave in certain ways because they are evolutionarily programmed to do so. This study wanted to find out whether whenever there is a change in market preference either in design or others areas how fast they will adapt to ensure that they are not left behind in an ever changing and dynamic market place. The study confirmed that motor vehicle assemblers have the ability to innovate quickly and come up with new production processes and innovation is based on market trends.

According to Stevenson and spring (2007), every manufacturing firm has to be flexible by meeting its customer demands and coping with changes in uncertain business environment which is characterized by increasingly sophisticated consumers that demand customized products and short lead times. This study confirms that motor vehicle assemblers in Kenya are keen to innovate by attending to customers specifications and also by expanding or redesigning the system.

Jobber (2004) states that price are one of the key factors in vehicle sale as it represents what a company earns as returns. Price setting has been regarded with most concern as both undercharging and overcharging can have dramatic effects on the company’s profitability. When setting a price a company has to be aware about the elasticity of its product. Motor vehicle assemblers in Kenya have ensured that their prices are constant even when the dollar exchange rate goes up further they have embraced mass production to cut down on cost.

Government regulation has a direct impact with growth. As of the study it was established that the government has not done much to promote, locally assembled cars such as the Mobius that is manufactured by Kenya Vehicle manufacturers. The study also revealed that import of second hand cars has hindered our growth and thereby the government is encouraged to give incentives to
motor vehicle assemblers. The government at times has stifled the growth by promoting anti-growth measure. A case is in 2013 when they wanted duty paid on individual part of the CKD yet for one unit to be completed it required more than four thousand part to be put together which would have been a challenge for to declare tax yet they have never misreported on units sold.

**Recommendation**

This study therefore recommends the following: According to the research findings, motor vehicle assemblers face stiff competition from importers of second hand Japanese cars. This stiff competition has caused shrinking of their market size. Further, the study established that motor vehicle assemblers face challenges in terms of ability to easily expand or redesigning their products thus motor vehicle assemblers need to look into ways or avenues that will assist in their ability to innovate quickly new production process in order to cope up with new trends in the market.

The study in its findings established that motor vehicle assemblers under innovation their coping mechanism with changes in uncertain business environment had a very low index. This could be because of changes in design of imported cars, buyer’s preference, and fluctuation in exchange rate of local currency or cost of production, therefore there is need to enhance coping mechanism especially in areas that concern production, cost of production, buyer’s choice and preference, government policies and regulations as well as marketing of locally assembled cars.

The research revealed that the cost of machinery in this case machines that are used for production are costly to import, this has a direct impact on price of locally assembled cars this alongside the cost of inventory being high hampers growth in terms of profit and production. The government is encouraged to look into cost of machinery and minimize especially on import duty as this will go a long way towards motivating investors and encourage importation of more machines and motor vehicle parts therefore positively affecting production capacity of motor vehicle assemblers in Kenya.

The research findings also established that the adoption to government regulation was low; this was noted as majority noted that government tax is too high this alongside high cost of production became a motivating factor for assemblers to avoid and reduce full compliance of policies and regulation. Therefore, there is need for enhancing implementation government regulations and need to emphasize on the need and benefits of adherence to tax laws of the country.

The research also established that promotion of locally assembled cars especially by the government was still low. This together with high government taxes is reducing the profit margin
of motor vehicle assemblers in Kenya. The government is also encouraged to promote locally assembled cars as they have a variety of benefits. This can be achieved through incentives such as tax reliefs for assemblers and setting up favorable pricing for the buyers.

Areas for further Studies
The researcher recommends to those researchers who have an interest in after motor vehicle assembly industry to conduct a detailed study isolating the individual parameters in order to exhaustively establish how and to what extent each affects growth and also establish the effect of the factors on growth.

The researcher also recommends that future research to consider pricing as a motivator for buyers to own locally assembled cars as well as effect of locally assembled vehicle design on buyer’s preference.

The researcher wishes to suggest that a detailed study be conducted on the impact of imported second hand cars on the market share and preference of locally assembled cars.

REFERENCES


