Relationship between Entrepreneurship Innovation and Growth of the Beauty and Cosmetics Manufacturing Industry in Nairobi, Kenya

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Abstract: Manufacturing companies of beauty products in Kenya are experiencing stiff competition from foreign companies dealing with beauty and cosmetic products. These foreign firms have taken a large share of market in Kenya hence affecting the growth of local companies. The overall objective of this study was to establish the relationship between entrepreneurship innovation and growth of the beauty and cosmetics manufacturing industry in Nairobi Kenya. The objectives of this study were: to determine the influence of product innovation, process innovation and market innovation on the growth of beauty industry in selected manufacturing companies of beauty products in Nairobi. The study targeted sixteen beauty and cosmetics manufacturing industry in Nairobi whereby the respondents included the production managers, marketing managers, process quality design managers and heads of research and development. Four respondents were selected from each manufacturing company bringing a total of 64 respondents. The instrument of data collection was a questionnaire. Data was analysed using both descriptive and inferential statistics with the aid of SPSS version 24.0. Descriptive analysis involved means and standard deviation while inferential statistics involved the use of Pearson’s Product Moment correlation and multiple regression models. The study findings revealed that process innovation had the highest influence on the growth of beauty and cosmetics manufacturing industry (β = 0.423), followed by process innovation (β = 0.252), and lastly market innovation (β = 0.249).

Keywords: Product Innovation, Process Innovation, Market Innovation

I. INTRODUCTION

Entrepreneurship innovation is becoming increasingly important in all areas of business worldwide. Entrepreneurship innovation is focused on developing knowledge, skills and understanding of how an innovative idea, product or process can be used to form a new and successful business, or to help an existing firm to grow and expand (Tucker, 2012).

The importance of innovation in entrepreneurship is key in the longevity of a business. Innovative entrepreneurs see the need within the community and among themselves and come up with a solution. They seize the opportunity to innovate to make lives more comfortable. These solutions keep evolving to become to better, easier and more useful (Dodgson, Gann, & Salter, 2010). Companies and enterprises keep innovation as part of their organization. Innovations contribute to the success of the company. Entrepreneur, as innovators, see not just one solution to a need. They keep coming up with ideas and do not settle until they come up with multiple solutions (Mcdonough, Lin, Berdrow, and Zack, 2008).

Despite the importance and advantages of innovation, there are challenges of innovation. This includes competition. High levels of competition have put serious pressure on innovation speed, on lifecycle costs as well as on the degree of innovativeness that is expected. In times of globalized and fragmented knowledge creation, innovation does not only take place within the sphere of a company’s Research and Development (R&D) department. New products and services emerge from widely distributed R&D activities that take place across borders, time zones and even organizations. Managing today’s corporate R&D means being able to control a wide network of innovation activities (Ulrich & Eppinger, 2011).

Entrepreneurship innovation has contributed immensely to the growth of beauty industry in the world. Direct selling of beauty products represents a huge market of 150 billion euros worldwide, where North America and Latin America have 20% of the total, respectively (Walker, 2013). In East Africa and more particular in Uganda, beauty and personal care sales grew at a value Compound Annual Growth Rate (CAGR)
of 16% over 2009-2014 and reached $210 million. The largest product categories are Hair Care and Bath & Shower products (Falk & Benson, 2015).

Szirmai, Naude and Goedhuys (2010) examined the relationship between entrepreneurship, innovation, and economic growth, drawing vigorously on empirical evidence from developing countries. The study findings indicated that entrepreneurial innovation, whether through small firms, large national firms, or multinational firms, is often vibrant in developing countries, but does not always realise its full potential.

Another study conducted by Baumol (2007) on entrepreneurship, innovation and growth; The David-Goliath Symbiosis indicated that investment in innovation in industrialized economies increasingly is taken over by large firms that operate their own R&D divisions and transform technological change into a routine bureaucratized process. The current study therefore focuses on entrepreneurship innovation and how it influences growth of beauty and cosmetics manufacturing industry in Kenya.

Problem Statement

Manufacturing companies of beauty products in Kenya are experiencing stiff competition from foreign companies dealing with beauty and cosmetics products, such foreign companies include; L’Oreal, Estee Lauder, Unilever and Procter and Gamble. These foreign firms have taken a large share of market in Kenya hence affecting the growth of local companies. Enhancing levels of innovation and entrepreneurship to grow a more competitive market is likely to narrow this gap. In today’s competitive business environment, innovations are critical not only to facilitate differentiation, but also to reduce cost and add value for the customers (Juri&Idris, 2008). Business enterprises need to constantly innovate in order to ensure growth and success of their business. Tucker (2012) points out that innovation is the best way for stimulating growth in a firm. The most innovative firms realize higher turnover of products and services introduced within a period of time. (Wong and Ping Ho, 2011;SzaboZsuzsanna, 2012; Mwangi, 2014) studied entrepreneurship innovation but none of their studies focused on entrepreneurship innovation in relation to the growth of beauty Industry. It was in this context that the current study analyzed the relationship between entrepreneurship innovation and growth of the beauty and cosmetics manufacturing industry in Kenya.

Objectives of Study

i. To determine the influence of product innovation on the growth of the beauty and cosmetics manufacturing industry in Nairobi Kenya

ii. To establish the influence of process innovation on the growth of the beauty and cosmetics manufacturing industry in Nairobi Kenya

iii. To determine the influence of market innovation on the growth of the beauty and cosmetics manufacturing industry in Nairobi Kenya

II. LITERATURE REVIEW

Product Innovation and Growth of an Industry

A product innovation is the introduction of a service or good that is new and has significantly improved characteristics or intended uses. It is a new quality of a good (Wong, 2014). According to Susman et al, (2006) product innovation is the introduction of new functions, enhanced performance or the addition of new features into the existing products.

Rosli and Sidek (2013) conducted a study on the impact of innovation on the performance of small and medium manufacturing enterprises in Malaysia. The findings indicated that product innovation and process innovation influenced firm performance significantly, where the impact of the former was stronger than the latter. A study by Selfano and Simiyu (2014) on product innovation strategies among banks in Eldoret Municipality, Kenya focused on the following two objectives; to assess product innovation strategies employed by banks in Eldoret, and to establish the relationship between product innovation and growth of banks. The study found out that market surveys and customers’ feedbacks had effect on product innovation strategies. The study concluded that to a large extent banks innovate new products leading to new customers (new markets).

Goedhuysa and Veugelersb (2008) examined innovation strategies, process and product innovations and growth: firm-level evidence from Brazil. Using World Bank ICS data from Brazilian manufacturing firms, the study identified innovation strategies of firms in particular internal technology creation (make) and external technology acquisition (buy) and their effect on successful process and product innovations. The outcomes demonstrated that innovative performance is a vital driver for firm development. It is especially the blend of product and process advancements that fundamentally enhances firm growth. Both innovation and growth performance are supported by access to finance. Skills of workforce and management matter, but not necessarily tertiary education levels.

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Iavorska (2014) carried out a study on the relationship between innovation activity and firm performance in Ukraine. The main hypothesis was that a new product introduction has beneficial effect on the results of its maker. Using the sample of 6.9 thousand Ukrainian firms over 2004-2010 the researcher found that the relationship between lagged innovation activity and firm performance is actually negative for Return on Assets (RAO) and insignificant for earnings before interest and tax (EBIT) margin and Total factor productivity (TFP). However, the reverse relationship was found. Performance variables were positive determinants of ability to implement new products. Also found was that larger firms tend to launch more number of new products, however, less diversified firms are more likely to innovate.

**Process Innovation and Growth of an Industry**

Process innovation is the process of reengineering and improving internal operation of business process. This process involves many aspects of a firm’s functions, including technical design, R&D, manufacturing, management and commercial activities (Okeet al., 2007).

Varis and Littunen’s (2010) study on SMEs in Finland found that process innovation is positively related with firm performance. Using new technology as a proxy for process innovation, Anderson (2009) found a significant relationship between new technology and firm performance. A study by Ar and Baki (2011) reconfirmed the positive and significant influence of product and process innovation on firm performance.

A study done by Osei, Yunfei, Appienti and Forkuo (2016) investigated the antecedents of process innovation and small and medium enterprises growth: empirical evidence from shoe manufacturing sector in the Ashanti region of Ghana. The outcome showed that, adoption of new and improved distribution strategy impact positively on the growth of the SMEs, by method for diminishing the cost of operations and increasing customers’ satisfaction.

In Germany, Bettina (2010) conducted a study on the relationship between product and process innovations and firm performance: micro econometric evidence. Using German data from the CIS3 (3rd Community Innovation Survey) performed in 2006, the study enlarged the CDM model by including an additional equation for the output of process innovations. This new indicator was measured as the share of reduction in unit costs due to process innovations. Estimates showed that the growth rate of labour productivity increases significantly with the success of product innovations, but no similar effect pertaining to process innovations was observed.

Gedoc, Sahand and Mingyan (2013) investigated how different municipalities in Sweden applied process innovation in the waste management department. The purpose of this qualitative study of four municipalities in Sweden was to investigate the impacts of process innovation in waste collection processes on municipalities’ performances in Sweden by the use of grounded theories method. During this study, it was discovered that, the application of process innovation have a positive impact on the municipalities financial and customers performances.

Huergo and Jaumandreu (2013) conducted a study on Firm’s age, process innovation and productivity growth. A model that specifies productivity growth as an unknown function of these variables was devised and estimated using semi parametric methods. Results demonstrated that organisations enter the market experiencing high productivity growth and that above average growth rates tend to keep going for a long time, but also that productivity growth of surviving firms converges. Process innovations at some point then lead to extra productivity growth, which also tends to persist somewhat attenuated for a number of years.

A study by Bocquet, Le Bas, Mothe and Poussing (2014) analyzed the impact of a combined strategy of innovation and corporate social responsibility (CSR) on firm performance. With a sample of 213 firms and a two-step procedure, this study revealed the differentiated effects of strategic versus responsive CSR behavior on the two technological innovation types (product and process), as well as the effect of the two innovation types on growth. The findings thus indicated that firms with strategic CSR achieve growth through both their product and process innovations.

**Market Innovation and Growth of an Industry**

A marketing innovation is the usage of another advertising strategy which involves significant changes in product design or packaging, product placement, product promotion or pricing (Johe, 2010). Market innovation deals with the market mix and market selection in order to meet a customer’s buying preference. Persistent market innovation needs to be done by a firm because state-of-the-art marketing tools, particularly through the Internet, make it possible for other competitors to reach potential customers across the globe at a light speed. Rodriguez-Cano et al. (2012) assert that market innovation plays a crucial role in fulfilling market needs and responding to market opportunities. In this regard, any market innovation must be coordinated at taking care of clients' demand and fulfillment.
Sureerat and Praprukbaramee (2015) carried out a study on strategic marketing innovation and marketing performance: an empirical investigation of furniture exporting businesses in Thailand. Regression analysis was employed to analyze the relationship between the variables. Eighty-two furniture exporter businesses in Thailand were used as samples that collected data form mail survey questionnaires. The result indicated that all dimensions of marketing innovation strategy had an effect on consequence in different ways, include that learning orientation, firm entrepreneurship, and R&D innovation strategy has a positive effect on New product development, customer responsiveness, marketing effectiveness, and marketing performance, whereas, long term vision has full positive influence on three dimension of marketing innovation strategy.

Cascio (2011) conducted a study on marketing innovation and firm performance In USA Florida. Results from qualitative interviews indicated marketing innovation is developed and fostered by marketing insight and marketing imagination, and these relationships appear to be moderated by the market orientation of the firm. As conceptualized, marketing innovation suggested enhancing firm performance via the marketing-product space, the marketing-process space, and the marketing-relationship space. Empirical study results confirmed marketing innovation’s powerful ability to predict firm performance, even in the presence of a multiple of control variables.

In a study by Junge, Battista and Anders (2012) on Marketing innovation, skills, and firm productivity growth, the role of marketing innovation for productivity growth was addressed using survey and register data for the Danish economy. It was found that marketing innovation in ability escalated firms results in significantly faster productivity growth than in unskilled-intensive firms. More precisely, an increase in the share of educated workers of one percentage point, increased productivity growth by around 0.1 percent point in firms with marketing innovation.

Piyush (2013) carried out a research to find whether marketing innovations in Indian agribusiness industry resulted in massive growth. The study highlighted various new propositions of marketing orientation in the agribusiness sector, identifying the reasons for turnaround in the strategic outlook and structural changes in marketing of agricultural products over the last decade. Findings revealed Indian agri-based firms encouraged marketing innovations, resulting in higher market growth and gaining competitive edge.

### III. METHODOLOGY

The study was based on descriptive survey research design. The study targeted sixteen (16) beauty and cosmetics manufacturing industries in Nairobi. The respondents were production managers, marketing managers, process quality design managers and Heads of research and development. The choice of the mentioned respondents was because they have information on how entrepreneurship innovation in a company can influence the growth of an industry. Thus the study targeted four members from each of the selected manufacturing company of beauty and cosmetics products in Nairobi bringing a total of 64 participants. The researcher used census technique to collect data from the respondents. This meant that the sample size was equal to the target population. Primary data was collected using questionnaires which had only closed ended questions. The questionnaire was deemed fit for data collection on account of its ability to give respondents an opportunity to express themselves on key issues in their day to day encounters. To ensure reliability of the instrument, a pilot study was first conducted among 11 respondents that were drawn from Nia Cosmetics limited-Eldoret. The researcher administered the questionnaire individually to all respondents of the study. The study exercised care and control to ensure all questionnaires issued to the respondents were received and in achieving this, the study maintained a register of questionnaires which were sent, and which were received. Data was analyzed using descriptive and inferential statistics with the aid of Statistical Package for Social Sciences (SPSS) version 24.0. Descriptive analysis involved the use of means and standard deviations while inferential statistics involved the use of both correlation and multivariate linear regression analysis to measure the relationship between variables. Data was presented using tables.

### IV. RESULTS AND FINDINGS

**Product Innovation on the Growth of Beauty and Cosmetics Manufacturing Industry**

The first objective of the study determined the influence of product innovation on the growth of the beauty and cosmetics manufacturing industry in Nairobi Kenya. This objective was measured by asking the respondents to respond to several statements pertaining to product innovation in relation to the growth of beauty and cosmetics manufacturing industry. The status of this variable was rated on a 5 point Likert scale ranging from; 1 = Strongly Disagree (SD) to 5 = Strongly Agree (SA). The results are summarized in Table 1.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std. Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction of new beauty and cosmetics products</td>
<td>1</td>
<td>5</td>
<td>3.88</td>
<td>0.806</td>
</tr>
</tbody>
</table>

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From the findings in Table 4.6, majority of the respondents strongly agreed that introduction of new beauty and cosmetics products has assisted in the growth, and expansion of the beauty industry in Kenya. This was shown by a mean score of 3.88. Respondents also strongly agreed that variety in product color helps the industry gain a competitive advantage as shown by a mean score of 3.27. It was also revealed that improvement in product texture has assisted the company gain more customers. This was shown by a mean score of 3.14. Further findings showed that product shape attracts and increases customer purchases as depicted by a mean of 3.04. Products size attracts customers and can help the business achieve more profits due to increased level of sales as shown by a mean score of 3.18. A closer observation showed that majority respondents (mean=3.18) were of the view that new products are costly and reduce profit margins. It was also revealed that due to stiff competition in the market, companies must constantly renovate their products in order to meet the ever changing customer needs (mean=3.35). Without distinction of one from others, all the statements had a mean of above 3.04 meaning that the respondents agreed to all the statements relating to product innovation. Therefore, the results implied that product innovation positively influenced the growth of the beauty and cosmetics manufacturing industry in Nairobi Kenya.

### Process Innovation on the Growth of Beauty and Cosmetics Manufacturing Industry

The second objective of this study sought to establish the influence of process innovation on the growth of the beauty and cosmetics manufacturing industry in Nairobi Kenya. On this objective, six items were administered to the participants. This objective was measured by letting respondents react to several statements pertaining process innovation in relation to the growth of the beauty and cosmetics manufacturing industry. The responses on this objective were rated on a 5-point scale where 1 = Strongly Disagree (SD), 2=Disagree (D), 3=Undecided (UD), 4=Agree (A) and 5 = Strongly Agree (SA). The findings on these are summarized in Table 2.

### Table 2: Process Innovation on the Growth of Beauty and Cosmetics Manufacturing Industry

<table>
<thead>
<tr>
<th>Statement</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std. Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>New and improved manufacturing processes enables companies to achieve utmost production efficiency, in reduced time and costs thereby increasing profit margins</td>
<td>2</td>
<td>5</td>
<td>3.96</td>
<td>0.637</td>
</tr>
<tr>
<td>Improved processes of manufacturing leads to well designed and quality products that attracts customers</td>
<td>1</td>
<td>5</td>
<td>3.35</td>
<td>0.863</td>
</tr>
<tr>
<td>New and improved production processes eliminates overspending and speed up production process that offer more products to customers.</td>
<td>1</td>
<td>5</td>
<td>3.9</td>
<td>0.818</td>
</tr>
<tr>
<td>New and improved delivery process leads to better service delivery and customer service</td>
<td>1</td>
<td>5</td>
<td>3.78</td>
<td>0.783</td>
</tr>
<tr>
<td>Adoption of new and improved distribution strategy reduces the cost of operations and increases customers’ satisfaction</td>
<td>1</td>
<td>5</td>
<td>3.61</td>
<td>0.901</td>
</tr>
<tr>
<td>Beauty and Cosmetics manufacturing industries which embrace process innovation meet the changing needs of customers</td>
<td>1</td>
<td>5</td>
<td>3.63</td>
<td>0.779</td>
</tr>
</tbody>
</table>

N=51
From the research findings respondent with a mean of 3.96 agreed that new and improved manufacturing processes enables companies to achieve utmost production efficiency, in reduced time and costs thereby increasing profit margins. On whether improved processes of manufacturing leads to well designed and quality products that attracts customers, respondent agreed by the mean of 3.35. Majority of the respondents agreed to a great extent that; new and improved production processes eliminates overspending and speed up production process that offer more products to customers as shown by a mean of 3.9, as to whether new and improved delivery process leads to better service delivery and customer service, respondent as shown by a mean of 3.78 were in agreement. On whether adoption of new and improved distribution strategy reduces the cost of operations and increases customers’ satisfaction, respondent by a mean of 3.61 were in agreement. From the findings on whether beauty and cosmetics manufacturing industries which embrace process innovation meet the changing needs of customers, respondent by the mean of 3.63 were in support of this aspect.

As a whole, all the statements had a mean of above 3.35 meaning that the respondents agreed to all the statements relating to process innovation. Therefore, the results implied that process innovation positively influenced the growth of the beauty and cosmetics manufacturing industry in Nairobi Kenya.

**Market Innovation on the Growth of Beauty and Cosmetics Manufacturing Industry**

To determine the influence of market innovation on the growth of the beauty and cosmetics manufacturing industry in Nairobi Kenya was the third objective of this study. In order to achieve this objective, the respondents were asked to respond to various statements pertaining market innovation in relation to the growth of the beauty and cosmetics manufacturing industry. The responses of this variable were rated on a 5 point Likert scale ranging from; 1 = Strongly Disagree (SD) to 5 = Strongly Agree (SA). These results are presented in Table 3.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std. Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>New and improved product packaging increases sales through the increasing demand for products, which in turn yields additional profit</td>
<td>2</td>
<td>5</td>
<td>4.02</td>
<td>0.769</td>
</tr>
<tr>
<td>Poorly packaged products can turn into customer service and public relations problems for companies thus reduction in customer base</td>
<td>2</td>
<td>5</td>
<td>4.1</td>
<td>0.805</td>
</tr>
<tr>
<td>Product placement make a lesser known brand skyrocket hence more sales</td>
<td>1</td>
<td>5</td>
<td>3.71</td>
<td>0.882</td>
</tr>
<tr>
<td>Product promotion attracts and increases customer purchases</td>
<td>1</td>
<td>5</td>
<td>3.88</td>
<td>0.731</td>
</tr>
<tr>
<td>Giving away free products or services is a good way to get people to try them for the first time, which will lead to more purchases</td>
<td>1</td>
<td>5</td>
<td>3.65</td>
<td>0.914</td>
</tr>
<tr>
<td>Luring new customers with reduced price help turn customers into regular shoppers hence more sales</td>
<td>1</td>
<td>5</td>
<td>3.84</td>
<td>0.746</td>
</tr>
<tr>
<td>Continual market innovation needs to be done by a firm to make it possible to reach potential customers across the globe at a light speed</td>
<td>1</td>
<td>5</td>
<td>3.78</td>
<td>0.766</td>
</tr>
</tbody>
</table>

N=51

From the research findings, respondent with a mean of 4.02 agreed that new and improved product packaging increases sales through the increasing demand for products, which in turn yields additional profit, majority of the respondents agreed that; poorly packaged products can turn into customer service and public relations problems for companies thus reduction in customer base, as shown by a mean of 4.1. Respondents by a mean of 3.71 agreed that product placement make a lesser known brand skyrocket hence more sales. On the aspect of whether product promotion attracts and increases customer purchases, a mean of 3.88 was in agreement. The study also wanted to find out whether giving away free products or services is a good way to get people to try them for the first time, which will lead to more purchases and respondent by a mean of 3.65 were in agreement. On whether luring new customers with reduced price help turn customers into regular shoppers hence more sales, respondent with a mean of 3.84 agreed whereas respondent with a mean of 3.78 agreed that continual market innovation needs to be done by a firm to make it possible to reach potential customers across the globe at a light speed.
By and large, all the statements had a mean of above 3.65 meaning that the respondents agreed to all the statements relating to market innovation. Therefore, the results implied that market innovation positively influenced the growth of the beauty and cosmetics manufacturing industry in Nairobi Kenya.

**Correlation Analysis**

The study applied Pearson product moment correlation coefficient which is a measure of the strength of linear association between two variables. It was used to measure the degree of association between variables under consideration.

**Table 3: Correlations Coefficient**

<table>
<thead>
<tr>
<th></th>
<th>Process Innovation</th>
<th>Product Innovation</th>
<th>Market Innovation</th>
<th>Growth of Beauty Industry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Process Innovation</td>
<td>Pearson Correlation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.553**</td>
<td>.583**</td>
<td>.615**</td>
<td></td>
</tr>
<tr>
<td></td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>Product Innovation</td>
<td>Pearson Correlation</td>
<td>.522**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.522**</td>
<td>.583**</td>
<td>.615**</td>
</tr>
<tr>
<td></td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>Market Innovation</td>
<td>Pearson Correlation</td>
<td>.627**</td>
<td>.707**</td>
<td>.615**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.627**</td>
<td>.707**</td>
<td>.615**</td>
</tr>
<tr>
<td></td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).**

The correlation summary shown in Table 3 indicates that the associations between each of the independent variables and the dependent variable were all significant at the 95% confidence level. The correlation analysis to determine the relationship between process innovation and the growth of beauty and cosmetics manufacturing industry shows a significant correlation existed ($r = 0.627$, $p < 0.05$). Pearson’s product moment coefficient of correlation was high suggesting that a strong relationship existed between the two variables. The study also sought to determine the relationship between Product innovation and the growth of beauty and cosmetics manufacturing industry. The correlation analysis yielded a Pearson’s product moment coefficient of correlation ($r = 0.707$, $p < 0.05$) indicating that a strong and positive relationship existed between the two variables. In addition, the study sought to determine the relationship between market innovation and the growth of beauty and cosmetics manufacturing industry. The results of analysis yielded a Pearson’s product moment coefficient of correlation ($r = 0.615$, $p < 0.05$) suggesting that a strong and positive relationship existed between the two variables. Hence, it is evident that all the independent variables could explain the growth of beauty and cosmetics manufacturing industry in Nairobi on the basis of the correlation analysis.

**Multiple Regression Analysis**

Multivariate regression analysis was used to determine the significance of the relationship between the dependent variable and all the independent variables pooled together.

**Table 4: Multiple Linear Regression Analysis Model Summary**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.781*</td>
<td>.609</td>
<td>.585</td>
<td>2.705</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Market Innovation, Process Innovation, Product Innovation
From the findings in Table 4, the value of adjusted R squared was 0.585 an indication that there was variation of 58.5 percent on the growth of beauty and cosmetics manufacturing industry. This shows that 58.5 percent changes in the growth of beauty and cosmetics manufacturing industry in Nairobi could be accounted to product innovation, process innovation and market innovation. R is the correlation coefficient which shows the relationship between the study variables, from the findings shown in the table 4 is notable that there exists a strong positive relationship between the study variables as shown by 0.781.

V. CONCLUSION

Based on the findings of this study the following conclusions are drawn, first it was established that product innovation had significant relationship with the growth of beauty and cosmetics manufacturing industry. It was the most significant variable of the study (β = 0.423). Process innovation has also been identified as the second most factors that influenced the growth of beauty and cosmetics manufacturing industry (β = 0.252). The study findings also showed that market innovation was the least significant variable of the study in influencing the growth of beauty and cosmetics manufacturing industry (β = 0.249). Looking at the p values of all the three variables, they had (p < 0.05). Therefore, the study finds that all the variables of the present study were all significant to the growth of beauty and cosmetics manufacturing industry.

REFERENCES


