INFLUENCE OF INNOVATIVENESS ON THE PERFORMANCE OF FOOD AND BEVERAGE MANUFACTURING ENTERPRISES IN NAIROBI CITY COUNTY

Teresa Muthoni Thuita\textsuperscript{1}, Dr. Gilbert Mugambi Miriti\textsuperscript{2} and Dr. Rael Nkatha Mwirigi\textsuperscript{3}

\textsuperscript{1,2,3}Department of Business Administration, Chuka University, Kenya

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ABSTRACT

Increase in global competition, ever-changing technologies and unstable business environment as a result of globalization, market liberalization and Covid 19 impact on businesses, have made firms search for other means of survival and growth. Food and beverage manufacturing enterprises are also experiencing these challenges. This is demonstrated by the decrease in contribution to GDP, ranging from 13.6\% in the early 1990s to 7.6\% in 2020, thereby raising doubt on whether the sector is capable to meet the goals of Vision 2030. Different studies around the world have suggested the adoption of entrepreneurial practices as part of the solution. However, the findings of these studies have been inconclusive. The objective of this study was to establish the influence of Innovativeness on performance of food and beverage manufacturing enterprises in Nairobi City County. Descriptive survey research design was adopted. The target population was one hundred and thirty-eight food and beverage manufacturing firms registered under KAM by 2020. A census was conducted and data was obtained using a questionnaire. Data was analyzed using simple and multiple regression analysis with the help of SPSS version 25.0. Hypothesis was tested using t-statistic at 5\% significance level. The study found that innovativeness had a positive influence on performance (regression coefficient 0.446, p-value of 0.000). The study recommends that firms should assess their ability to embrace new ideas and processes that will lead to development of new products, services, markets or technologies. Innovativeness plays an essential role in doing away with challenges associated with businesses.

Keywords: Innovativeness, Performance, Food and beverage manufacturing enterprises and Kenya Association of Manufacturers.
1. Introduction

Innovativeness represents the extent into which a firm takes part in or welcomes new ideas, products, services or processes (Gathenya, 2011; Wanget al., 2008). By outlining the process of creative destruction, Schumpeter (1942) stressed the importance of innovation in the process of entrepreneurship. When market systems are disturbed by the entry of new goods or services, this process takes place. According to Onyango and Ngahu (2018), the main aspect in entrepreneurship has been proven to be the innovation as it is a consistent theme used in literature. Innovations can differ in their magnitude and innovativeness represents a fundamental inclination towards withdrawing from technologies or practices that have been used formerly and venturing beyond them (Lin & Ho, 2008; Kimberly, 1981). There are many ways to categorize innovations, but among the most important ones are technological innovation, market innovation, process innovation, and product innovation. This can be accredited to the fact that all other classifications of innovation can fall under these three major categories (Mwaura et al., 2015; Callaghan, 2009; Lumpkin & Dess, 1996).

Innovativeness can take on many different forms, such as embracing novel concepts, doing research and development to create new goods, entering untapped areas, or implementing cutting-edge technology to the firm's advantage (Wiklund& Shepherd, 2005). Additionally, Lin and Ho (2008) suggest that innovation is important for the creation of new products and the dissemination of information for advancement in the future. Accordingly, high levels of technology, product and market innovation reflect an essential gauge for SMEs performance (Avlonitis& Salavou, 2007). Lee and Lim (2019) posit that firms which are innovative and apply creativity will create remarkable performance and economic growth (Ritala& Laukkanen, 2013; Krauset al., 2012). Majority of studies advocate that, innovativeness is one of the essential strategic orientation firms can use to attain success in the long run and better their performance (Brettel&Rottenberger, 2013).

In Kenya, one of the top three production industries is usually manufacturing (KNBS, 2016). Manufacturing firms are those entities that engage in physical activities or processes that add value to a product or raw material (Pycraft et al., 2010). Kenya's manufacturing industry contributes 65 percent of all industrial sectors' GDP. One of the important industries identified in Kenya's Vision 2030 that can promote economic growth is this one (Kirungu, 2012). Under the Big 4 Agenda of Agro-processing, the Government targets to improve manufacturing from 16% to 50% in terms of how it contributes to GDP, create 1000 SMEs and generate 200,000 jobs. According to GOK (2015), the manufacturing sector contributed 11% of the Kenyan income and according to World Bank Group (2018) it has hence been on a downward spiral. By the year 2016, the sector contributed 9.3% of GDP, 26% merchandise exports and 280,000 job opportunities (KNBS, 2017). A significant tradable sector and a driver of economic expansion is
the manufacturing industry (Rotich & Wanjau, 2017). However, this sector has been experiencing low growth rates which average to 4% over the last decade (KAM, 2016). In 2000 (CCG, 2008), manufacturing was the second-largest economic subsector; however, in 2010 it ranked fourth (World Bank, 2013). So, from 13.6 percent in the early 1990s to 9.3 percent in 2016, 8.7 percent in 2017, 8.4 percent in 2018, 7.9 percent in 2019 and 7.6 percent in 2020, it has decreased its contribution to GDP (KNBS, 2021).

Food and beverage is one of the biggest sectors in the world (McGrath, 2016). It comprises of all the firms involved in processing of raw food materials and converting them into finished products. In Kenya, a large number of them are based in Nairobi City County and are privately owned (KAM, 2020). According to Mutunga and Minja (2014), food and beverage manufacturing sector has growth prospects. This is highly attributed to the fact that Kenya is an agricultural country which provides them with more opportunities for manufacturing locally produced products. The contribution of food and beverage manufacturing sector is big. In the year 2015, the food and beverage sector contributed to 41% of the GDP of the manufacturing sector which in turn contributed to 11.4% of the country’s GDP (KNBS, 2016). About 3.5 percent of the GDP and Ksh 254,686 million in exports were attributed to food, beverage and tobacco in 2017 (KAM, 2018; Kenya Business Guide, 2018). The food and beverage manufacturing sector directly impacts the overall economy. According to Kenya’s Economic Survey (2020), production of manufactured and processed food products in 2019 declined by 0.1% compared to an increase of 10.4% in 2018. This sector has been facing several challenges leading to declining margins and contribution to the overall economic growth. This has been a growing industry that has experienced a rapid growth from the early 80’s until recently. The high competition has resulted in a flooded market with products from other countries taking up a large market share of Kenyan local market (Kenya, 2008). The levels of innovation among manufacturing enterprises were: 14% in product innovations; 7% in process and marketing innovation, which were relatively low (KNBS MSME survey, 2016). Out of the 20 business environment indicators reviewed, innovation and patenting scored the lowest (KIPPRA’s County Business Environment for MSEs, 2019). Therefore, in order to boost their potential, these manufacturing firms need to engage in entrepreneurial practices which will improve their general performance and help them compete globally.

Performance is an outcome of enterprise activities. According to Lamine and Lakhal (2018), performance is an analysis of the firm’s activities to confirm if it is working towards achieving goals. Performance includes three aspects namely financial performance, market performance and shareholders’ return on investment (Neely, 2002). Richardet al. (2009), noted that despite firm performance being commonly used, it is rarely defined or measured consistently. According to Behn (2003) different purposes required different measures for them to be meaningful while
Venkatraman and Ramanujam (1986) posit that, by broadening the performance measures, the researcher will face challenges when collecting data. Several measures have been adopted by different researchers to measure performance in relation to entrepreneurial orientation. It is in this regard, that the current study adopted sales growth, profitability and market share growth as the dimensions to measure performance. These dimensions were in line with the research objectives and have previously been adopted by other researchers (Mburu, 2019; Kithaka, 2016).

In order to ascertain the connection between EO and performance of SMEs in Labuan, Baba and Elumalai (2011) carried out a study. According to the study, different types of competitive aggressiveness, proactiveness, risk-taking, and innovativeness have their own unique relationships with organizational performance. The study looked at entrepreneurial inclination as a multidimensional phenomenon. Consequently, there is a need for additional research on the impact of entrepreneurial orientation as a uni-dimensional construct, which is one of the study's main foci.

Yoon et al. (2012) established that, there was positive impacts on performance in relation to overall entrepreneurial orientation of start-ups in South Korea. Overall EO effect on firm performance was significantly notable in early stage and in growth stage. However, for proactiveness, performance effect of entrepreneurial orientation was only significant in the growth stage and not for early stage. In growth stage, the performance effect of innovativeness was found to be significant, but insignificant for risk-taking. The study concluded that, entrepreneurial orientation effect patterns are contingent on the stage of growth and are not universalistic. They suggested that, multidimensional aspect of entrepreneurial orientation seems to be more realistic than overall entrepreneurial orientation when displaying the degree of development of entrepreneurship. This is in contrast with studies done by other scholars such as Miller (1983) and Lumpkin and Dess (1996), thus the need for more research.

Ali and Abdel (2014) did a study in order to ascertain the effects of entrepreneurial orientation on the performance of women-owned businesses in Somalia. A sample of 200 companies was purposively selected to fill the questionnaire. Innovativeness was measured using products line changes and service line changes. The results showed a weak but significant positive relationship. By conceptualizing innovation differently, the current study sought to establish whether different results will be obtained.

According to a study by Atalay et al. (2013), technological innovation had a significant and positive impact on firm performance, but non-technology innovation had no impact on firm performance. The goal of this study was to determine whether similar findings could be obtained by concentrating on the Kenyan environment and use other innovativeness indicators.
In a study by Zerenler et al. (2008) to evaluate the impact of innovativeness on SMEs' performance in the Turkish automotive supplier business, it was discovered that innovation was strongly associated to SMEs' ability to grow. Similar findings were made by Wu et al. (2008) who investigated the mediating influence of innovation on the growth of SMEs in Taiwan's manufacturing and non-manufacturing industries. They discovered that these effects are present at a level of significance that is acceptable. These studies conceived innovation differently and evaluated its impact on SMEs. In the current study, innovation's impact on performance was evaluated both alone and in conjunction with other aspects of entrepreneurial orientation.

Similarly, Avlonitis and Salavou (2007) did a study on product innovativeness and performance among SMEs in Greece. Data was obtained from 143 SMEs from food, beverage and textile sectors. Data was analyzed using ANOVA. The results indicated that more innovative SMEs have a considerably higher performance. The study established the need for more and similar studies on the same in other countries and industries so as to validate the empirical data with theory.

In a study conducted by Khalili et al. (2013), the authors utilized confirmatory factor analysis to test their research hypotheses and analyze the data in order to identify the effects of entrepreneurial orientation on innovative performance in Iranian petroleum businesses. The findings showed that the research variables had a good association. The methodologies for data analysis in the current study included descriptive statistics, regression, and correlation.

Kimani (2016) conducted a study in Kenya to determine whether financial innovation adoption enhanced SME performance in Kenya. 487 SMEs that were registered with KRA made up the sample. The findings indicated a beneficial association between performance and financial innovation. The objective of the current study was to see whether the same findings would hold true if the manufacturing of food and beverages were the primary emphasis.

1.1 Objective of the study

The general purpose of the study was to establish the influence of innovativeness on performance of food and beverage manufacturing enterprises in Nairobi City County.

H01: Innovativeness has no statistically significant influence on the performance of food and beverage manufacturing enterprises in Nairobi City County.

2. Methodology

The study adopted descriptive survey research design because it describes the state of affairs, as it exists at present in the study. The study targeted 138 food and beverage manufacturing
enterprises in Nairobi city county that are registered under Kenya Association of Manufacturers (2020). Census technique was used to improve the reliability of the results. Data was collected from the general managers using a questionnaire. Descriptive and Inferential statistics were used to analyze data. Simple and Multiple linear regression analyses were then conducted using SPSS software version 25.0 in order to address study objective. Assumption of linear regression model of multicollinearity, homoscedasticity, normality and autocorrelation were tested before analyzing the data.

3. Results and Discussions

Innovativeness and Performance

Innovativeness was measured in terms of new products and services, new technology and research and development. Performance was measured using sales growth, profitability and market share growth. Descriptive statistics such as mean, standard deviation and frequencies were carried out. The summary of descriptive statistics is shown in Table 1.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Mean</th>
<th>S. D</th>
</tr>
</thead>
<tbody>
<tr>
<td>The organization regularly introduces new products</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>3.88</td>
<td>.794</td>
</tr>
<tr>
<td>The organization regularly introduces new services</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>3.9175</td>
<td>.70223</td>
</tr>
<tr>
<td>The organization places a strong emphasis on new innovative processes.</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>3.9072</td>
<td>.70832</td>
</tr>
<tr>
<td>The firm has increased the number of products offered during the past two years.</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>4.0309</td>
<td>.69901</td>
</tr>
<tr>
<td>The business places a strong emphasis on continuous improvement in products.</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>4.0515</td>
<td>.72702</td>
</tr>
<tr>
<td>The organization is willing to work towards technological leadership</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>4.0928</td>
<td>.70832</td>
</tr>
<tr>
<td>In the organization there is a strong relationship between the number of new ideas generated and the number of new ideas successfully implemented</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>4.0619</td>
<td>.76123</td>
</tr>
<tr>
<td>The firm emphasizes on market research and development</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>4.1031</td>
<td>.77034</td>
</tr>
<tr>
<td>The firm has a culture of adopting new technology</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>4.0825</td>
<td>.74540</td>
</tr>
<tr>
<td>The organization supports development of new technology</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>4.1649</td>
<td>.77299</td>
</tr>
<tr>
<td>We have a widely held belief that innovation is an absolute necessity for the organization’s future.</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>4.1959</td>
<td>.77243</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>4.044</td>
<td>.50652</td>
</tr>
</tbody>
</table>
It can be noted from the results that the mean of the items falls between 3.8 and 4.1 meaning that most of the respondents agreed to a great extent with the statements while there was no high variation in the responses since the standard deviation falls within 0.699 and 0.794. These results imply that most food and beverage manufacturing firms have incorporated innovative practices into their operations and are aware of the benefits of innovation to their enterprises. Miles et al. (2011) argued that, innovation is a crucial part of a strategy and that entrepreneurship cannot exist without it.

**Pearson Correlation between the Study Variables**

Correlation determines the direction of a relationship between any two variables. Correlation was presented in Table 2.

<table>
<thead>
<tr>
<th>Table 2: Correlation between innovativeness and performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance</td>
</tr>
<tr>
<td>Innovativeness</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
</tr>
<tr>
<td>N</td>
</tr>
</tbody>
</table>

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

The Pearson correlation was used to determine the relationship between innovativeness on performance. As indicated in Table 2, the correlation coefficient was 0.354 with p-value of 0.000 which was found to be significant at 5% significance level. This implies that there exists a strong positive relationship between innovativeness on performance. An increase in innovativeness will lead to an increase in performance. This means that, if innovativeness is improved by a unit, the level of performance would improve by 0.354 units. Therefore, the null hypothesis that stated innovativeness has no statistically significant influence on performance of food and beverage manufacturing enterprises in Nairobi city county was rejected.

**Multiple Linear Regression**

A multiple linear regression was used to examine the relationship between innovativeness and performance. Results were represented in Table 3a, b and c.
Table 2a: Summary of regression model for Innovativeness

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of Estimate</th>
<th>Change Statistics</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.354a</td>
<td>.125</td>
<td>.116</td>
<td>.5996</td>
<td>.125</td>
<td>13.631</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), innovativeness


Results in Table 3a shows the model explanatory power as measured using R squared (coefficient of determination). The R squared is 0.125. This implies that innovativeness explains 12.5% of the variation on performance of food and beverage manufacturing enterprises while the remaining 87.5% can be explained by other factors excluded in the model.

Table 3b: Analysis of variance for Innovativeness

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig. F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>4.900</td>
<td>1</td>
<td>4.900</td>
<td>13.631</td>
<td>0.000p</td>
</tr>
<tr>
<td>Residual</td>
<td>34.151</td>
<td>95</td>
<td>0.359</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>39.051</td>
<td>96</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: performance

c. Predictors: (Constant), innovativeness

Results on Table 3b, show the analysis of variance which tests whether the independent variable have a significant influence on dependent variable. As presented in Table 3b, the F-value was found to be 13.631 and a p-value of 0.000. The p-value was less than the significance level of 0.05 hence indicating that the model testing the influence of innovativeness on performance of food and beverage manufacturing enterprises was statistically significant. The findings of this study shows that innovativeness is a good predictor of performance of food and beverage manufacturing enterprises.

Table 3c: Regression Coefficient for innovativeness

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>Correlations</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td>t</td>
</tr>
<tr>
<td>I (Constant)</td>
<td>2.379</td>
<td>.492</td>
<td>4.832</td>
<td>.000</td>
</tr>
<tr>
<td>Innovativeness</td>
<td>0.446</td>
<td>.121</td>
<td>.354</td>
<td>3.692</td>
</tr>
</tbody>
</table>
Results in Table 3c show the regression coefficients which indicate the nature of the relationship between independent variable and dependent variable. Model 1 indicates that there is a positive and significant relationship between innovativeness and performance of food and beverage manufacturing enterprises ($\beta = 0.354$, p value $< 0.05$). This implies that a unit change in innovativeness increases performance of food and beverage manufacturing enterprises by 0.354 units. The study found out that constant of regression was 2.379. The slope of regression model obtained was 0.446. The t-statistic obtained for this model was 4.382 at a P-value of 0.00 which is less than the significance value of 0.05. This implies that innovativeness has statistically significant influence on performance. The simple regression model for effect of innovativeness on performance can be presented by the equation below.

$$Y = 2.379 + 0.446X1 + \epsilon$$

The objective of this study was to examine the influence of innovativeness on the performance of food and beverage manufacturing enterprises in Nairobi City County. Descriptive analysis revealed that majority of them have placed a strong emphasis on innovative processes, regularly introducing new products and services as well as adopting new technology. However, only a small percentage support development of new technology and conduct market research. Correlation analysis revealed a positive and significant relationship between innovativeness and performance. Similarly, regression analysis showed a positive and significant relationship between innovativeness and performance whereby, innovativeness explained 12.5% of the changes in performance. In order to realize good performance which is sustainable, an organization must come up with innovative strategies that will ensure that they continually improve on their products as well as come up with new updated ones. They must also buy the technology that is most efficient, effective and cost cutting so as to give their customers quality goods and services.

4. Conclusion

The study concluded that there was a positive relationship between innovativeness and performance. Innovativeness reflects the firm’s ability to incorporate new ideas and creative processes that may result in new products, markets, or technological process. Innovation is a crucial part of a strategy and that entrepreneurship cannot exist without it. Therefore, there is need to examine the innovativeness employed by food and beverage manufacturing enterprises. They should adopt measures aimed at gathering knowledge and adopting technologies that are geared towards developing customized products, increasing customer satisfaction and minimizing the production costs.

5. Recommendations
Food and beverage manufacturing enterprises need to understand their ability to engage in new ideas and creative processes that may result in new products, markets, or technological process. Innovativeness will play a significant role in solving business problems and challenges regardless of market turbulence, which in turn provides firms with the ability to succeed.

REFERENCES


