INFLUENCE OF INNOVATION ON THE PERFORMANCE OF FOOD AND BEVERAGE MANUFACTURING COMPANIES IN NAIROBI COUNTY

BY
CHRISTINE GATHONI GITAU

UNITED STATES INTERNATIONAL UNIVERSITY – AFRICA

SUMMER 2019
INFLUENCE OF INNOVATION ON THE PERFORMANCE OF FOOD AND BEVERAGE MANUFACTURING COMPANIES IN NAIROBI COUNTY

BY
CHRISTINE GATHONI GITAU

A Research Project Report Submitted to the Chandaria School of Business in Partial Fulfilment of the Requirement for the Master’s Degree in Business Administration (MBA)

UNITED STATES INTERNATIONAL UNIVERSITY – AFRICA

SUMMER 2019
STUDENT’S DECLARATION

I, the undersigned, declare that this is my original work and has not been submitted to any other college, institution or university other than the United States International University - Africa for academic credit.

Signed: ___________________________  Date: __________________________

Christine Gathoni Gitau (ID No: 630924)

This research project report has been presented for examination with my approval as the appointed supervisor.

Signed: ___________________________  Date: __________________________

Dr. Maina Muchara

Signed: ___________________________  Date: __________________________

Dean, Chandaria School of Business
COPYRIGHT
Copyright © Christine Gathoni Gitau, 2019

All Rights Reserved
ABSTRACT

The objective of this study was to examine the influence of innovation on the performance of Food and Beverage (F&B) manufacturing companies in Nairobi County. The study sought to: examine the influence of product innovation on the performance of F&B manufacturing companies, to determine the influence of process innovation on the performance of F&B manufacturing companies, and to examine the influence of marketing innovation on the performance of F&B manufacturing companies.

The explanatory research design was used in this study to explain systematically the facts and characteristics of the study population. The population of this study consisted of all F&B manufacturing firms in Nairobi which were 86 in number. The sampling frame for this study was the official list of registered firms under the Kenya Association of Manufacturers (KAM). Census sampling technique was used to select the respondents for the study. Primary data was collected for the study using a self-administered questionnaire. The Cronbach’s alpha value of ≥ 0.7 was used to ensure the questionnaire was reliable for the study. The researcher administered the questionnaires individually to the selected population target. Data analysis entailed editing, coding, and tabulation of data collected into manageable summaries for easy to interpretation. Quantitative analysis was then applied. Descriptive statistics of frequencies, means and standard deviations were used to analyze the collected data. The study also applied the inferential analysis of correlations and regressions. This helped in providing a distinct relationship between innovation and the performance of F&B manufacturing companies.

The study revealed that product innovation was significant to the performance of F&B manufacturing companies. The regression analysis indicated that product innovation variables explained about 3% of the changes in the performance of F&B manufacturing companies, which was relatively insignificant in terms of percentage, and that a unit mean increase in product innovation applied by the firms, would increase the performance of F&B manufacturing companies by a positive mean index rate of 0.113. The study revealed that that process innovation was significant to the performance of F&B manufacturing companies. The regression analysis specified that process innovation variables could explain about 6% of the changes in the performance of F&B manufacturing companies, and that a unit mean increase in process innovation applied by
the firms, would increase the performance of F&B manufacturing companies by a positive mean index rate of 0.201. The study revealed that marketing innovation was significant to the performance of F&B manufacturing companies. The regression analysis revealed that marketing innovation variables could explain about 26% of the changes in the performance of F&B manufacturing companies, and that a unit mean increase in marketing innovation applied by the firms, would increase the performance of F&B manufacturing companies by a positive mean index rate of 0.417.

The study concludes that product innovation, process innovation and marketing innovation were all significant to the performance of F&B manufacturing companies in Nairobi County. That being said though, product innovation and process innovation did not provide nearly as much significant influence on performance like marketing innovation did.

The study recommends that F&B manufacturing firms emphasize on marketing innovation since it was revealed to be most influential on performance while not neglecting product and process innovation as both would continue to give them a competitive edge. The study further recommends that further research be conducted in other regions in the country, and the scope be widened to involve other factors under innovation for a complete and comprehensive research result.
ACKNOWLEDGMENT

I would like to take this opportunity to thank my supervisor Dr. Maina Muchara for his invaluable and insightful support and guidance that has enriched the results of this project. Special regards go to my family for their encouragement, support, and wise words that kept me going. To my siblings and Mwiti who have been a part of this journey, I would also like to say a big thank you! Above all, I am incredibly grateful to God who gave me strength, good health and a sound mind throughout this study.
DEDICATION

To my family and Mwiti, I dedicate this research paper to you in recognition of your motivation and support throughout the study period.
# TABLE OF CONTENTS

**STUDENT'S DECLARATION** .......................................................................................... i

**COPYRIGHT** .................................................................................................................. ii

**ABSTRACT** .................................................................................................................... iii

**ACKNOWLEDGMENT** ...................................................................................................... v

**DEDICATION** ................................................................................................................... vi

**TABLE OF CONTENTS** ................................................................................................ vii

**LIST OF TABLES** .......................................................................................................... ix

**LIST OF FIGURES** ......................................................................................................... x

**LIST OF ABBREVIATIONS AND ACRONYMS** ................................................................. xi

**CHAPTER ONE** ............................................................................................................... 1

1.0 **INTRODUCTION** ............................................................................................................... 1

1.1 Background of the Study .............................................................................................. 1

1.2 Statement of the Problem ........................................................................................... 5

1.3 General Objective ........................................................................................................ 6

1.4 Specific Objectives ....................................................................................................... 6

1.5 Significance of the Study ............................................................................................ 7

1.6 Scope of the Study ....................................................................................................... 7

1.7 Definition of Terms .................................................................................................... 8

1.8 Chapter Summary ....................................................................................................... 8

**CHAPTER TWO** ............................................................................................................... 10

2.0 **LITERATURE REVIEW** ............................................................................................ 10

2.1 Introduction ................................................................................................................ 10

2.2 Product Innovation and Performance of F&B Manufacturing Companies ............. 10

2.3 Process Innovation and Performance of F&B Manufacturing Companies ............ 14

2.4 Marketing Innovation and Performance of F&B Manufacturing Companies ........ 18

2.5 Chapter Summary ....................................................................................................... 23

**CHAPTER THREE** ........................................................................................................... 24

3.0 **RESEARCH METHODOLOGY** .................................................................................. 24

3.1 Introduction ................................................................................................................ 24
3.2 Research Design........................................................................................................24
3.3 Population and Sampling Design............................................................................25
3.4 Data Collection Methods ......................................................................................26
3.5 Research Procedures ..............................................................................................26
Table 3.1 Reliability Results .........................................................................................27
3.6 Data Analysis Methods .........................................................................................27
3.7 Chapter Summary ....................................................................................................28

CHAPTER FOUR ...........................................................................................................29
4.0 RESULTS AND FINDINGS ....................................................................................29
4.1 Introduction .............................................................................................................29
4.2 General Information ...............................................................................................29
4.3 Product Innovation and Performance of F&B Manufacturing Companies ..........33
4.4 Process Innovation and Performance of F&B Manufacturing Companies ..........38
4.5 Marketing Innovation and Performance of F&B Manufacturing Companies .......42
4.6 Chapter Summary ....................................................................................................46

CHAPTER FIVE .............................................................................................................47
5.0 DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS .........................47
5.1 Introduction .............................................................................................................47
5.2 Summary of the Study ............................................................................................47
5.3 Discussions .............................................................................................................48
5.4 Conclusions ...........................................................................................................56
5.5 Recommendations .................................................................................................58
REFERENCES ..............................................................................................................59

APPENDICES ..............................................................................................................700
APPENDIX I: FOOD AND BEVERAGE FIRMS IN NAIROBI .................................70
APPENDIX II: NACOSTI RESEARCH PERMIT .......................................................73
APPENDIX III: USIU-A INTRODUCTION LETTER ..................................................74
APPENDIX IV: COVER LETTER ..............................................................................75
APPENDIX IV: QUESTIONNAIRE .............................................................................76

viii
LIST OF TABLES

Table 3.1 Reliability Results .............................................................................................................. 27
Table 4.1 Descriptive Analysis for Product Innovation and Performance of F&B Manufacturing Companies ......................................................................................................................... 35
Table 4.2 Correlations for Product Innovation and Performance of F&B Manufacturing Companies ................................................................................................................................. 36
Table 4.3 Product Innovation and Performance of F&B Manufacturing Companies Model Summary ........................................................................................................................................ 37
Table 4.4 Product Innovation and Performance of F&B Manufacturing Companies ANOVA ........................................................................................................................................... 37
Table 4.5 Product Innovation and Performance of F&B Manufacturing Companies Regression Coefficients ..................................................................................................................... 38
Table 4.6 Descriptive Analysis for Process Innovation and Performance of F&B Manufacturing Companies .......................................................................................................................... 39
Table 4.7 Correlations for Process Innovation and Performance of F&B Manufacturing Companies ................................................................................................................................. 40
Table 4.8 Process Innovation and Performance of F&B Manufacturing Companies Model Summary ................................................................................................................................. 41
Table 4.9 Process Innovation and Performance of F&B Manufacturing Companies ANOVA ........................................................................................................................................... 41
Table 4.10 Process Innovation and Performance of F&B Manufacturing Companies Regression Coefficients ..................................................................................................................... 42
Table 4.11 Descriptive Analysis for Marketing Innovation and Performance of F&B Manufacturing Companies .......................................................................................................................... 43
Table 4.12 Correlations for Marketing Innovation and Performance of F&B Manufacturing Companies ................................................................................................................................. 44
Table 4.13 Marketing Innovation and Performance of F&B Manufacturing Companies Model Summary ........................................................................................................................................ 45
Table 4.14 Marketing Innovation and Performance of F&B Manufacturing Companies ANOVA ........................................................................................................................................... 45
Table 4.15 Marketing Innovation and Performance of F&B Manufacturing Companies Regression Coefficients ..................................................................................................................... 46
LIST OF FIGURES

Figure 4.1 Response Rate ........................................................................................................29
Figure 4.2 Gender ..................................................................................................................30
Figure 4.3 Education .............................................................................................................30
Figure 4.4 Age Bracket .........................................................................................................31
Figure 4.5 Management Level ............................................................................................31
Figure 4.6 Duration with Organization ...............................................................................32
Figure 4.7 Number of Employees .......................................................................................32
Figure 4.8 Organization Existence .....................................................................................33
Figure 4.9 Business Turnover ............................................................................................33
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>B2B</td>
<td>Business-to-Business</td>
<td></td>
</tr>
<tr>
<td>BPR</td>
<td>Business Process Reengineering</td>
<td></td>
</tr>
<tr>
<td>EA</td>
<td>East Africa</td>
<td></td>
</tr>
<tr>
<td>F&amp;B</td>
<td>Food and Beverage</td>
<td></td>
</tr>
<tr>
<td>IT</td>
<td>Information and Technology</td>
<td></td>
</tr>
<tr>
<td>KAM</td>
<td>Kenya Association of Manufacturers</td>
<td></td>
</tr>
<tr>
<td>NPD</td>
<td>New Product Development</td>
<td></td>
</tr>
<tr>
<td>OECD</td>
<td>Organization for Economic Co-operation and Development</td>
<td></td>
</tr>
<tr>
<td>PODs</td>
<td>Points-of-Difference</td>
<td></td>
</tr>
<tr>
<td>POPs</td>
<td>Points-of-Parity</td>
<td></td>
</tr>
<tr>
<td>R&amp;D</td>
<td>Research and Development</td>
<td></td>
</tr>
<tr>
<td>SMEs</td>
<td>Small and Medium Enterprises</td>
<td></td>
</tr>
<tr>
<td>SPSS</td>
<td>Statistical Package for Social Sciences</td>
<td></td>
</tr>
<tr>
<td>SRS</td>
<td>Simple Random Sampling</td>
<td></td>
</tr>
<tr>
<td>TPS</td>
<td>Toyota Production Systems</td>
<td></td>
</tr>
<tr>
<td>TQM</td>
<td>Total Quality Management</td>
<td></td>
</tr>
<tr>
<td>UBA</td>
<td>United Bank of Africa</td>
<td></td>
</tr>
<tr>
<td>UK</td>
<td>United Kingdom</td>
<td></td>
</tr>
<tr>
<td>US</td>
<td>United States</td>
<td></td>
</tr>
</tbody>
</table>
CHAPTER ONE

1.0 INTRODUCTION

1.1 Background of the Study

Strategic innovation is considered to be one of the most important factors influencing an organization’s performance worldwide (Yang, 2014). This refers to the entire process through which an organization restructures its business processes and products so that it provides a higher quality of output (whether product or service) to its customers (Seybold, 2014). This is also the process through which firms alter the nature of competition within an industry as well as a secure competitive advantage by employing strategies different from those of its competitors (Afuah, 2009).

Innovation can be defined simply as a new idea, device or method. It is often also viewed as the application of better solutions that meet new requirements, unarticulated needs, or existing market needs (Drucker, 2014). Innovation does not just refer to activities in the Research and Development (R&D) department performed for the creation of next-generation products and services; they also challenge the conventional wisdom in particular areas (Belderbos, Carree, Lokshin & Sastre, 2015). Innovation involves recreating markets, consumers’ needs, and the entire value-delivery chain. Through innovation, companies can also redesign methods used by their businesses, and ultimately, bring more value to customers in the marketplace (Yang, 2014).

The recommendation that companies must embrace innovation strategies does not take into account whether a firm has the capacity to improve their activities in pursuit of more complex and advantageous strategies (Drucker, 2014). With this in mind, even food and beverage (F&B) companies must respond by adopting more innovative practices to establish and/or sustain competitive advantage in the marketplace because strategic innovation directly affects the ability of companies to develop their products to fulfill the wide range of customer and market needs (Brunswick & Vanhaverbek, 2014).

Serving attractive niches with innovative products is particularly advantageous for F&B manufacturing companies. There are immense benefits attributable to innovation that can help F&B companies to successfully compete by offering highly innovative products, and avoid price competition (Yang, 2014). In addition, firms with less appropriate innovation
functional capabilities may find difficulty in practicing and sustaining targeted innovative projects in order to improve their firm’s competitive advantage, performance, and business operations. The firms that have the ability to use their innovation to develop differentiation of products are likely to contribute positively to competitive advantage (Weerawardena, Mort, Salunke, Knight & Liesch, 2015). In fact, a firm can have sustained competitive advantage in the marketplace when it implements a strategy that competitors are not capable of implementing and when other firms find difficulty in acquiring the resources needed to implement this strategy (Camison & Villar-Lopez, 2014).

In both developed and developing countries of the world, F&B manufacturing companies have proved to be prominent in terms of employment and added value to the gross domestic product, yet their full potential remains untapped (Phapruke, 2012). Organizations in the F&B industry the world over have been found to provide jobs for about 75% of the workforce of any country (Fouad, 2013). In periods of liberalization and privatization F&Bs especially in emerging economies, have become vital economic tools and bedding seeds for entrepreneurship development and indigenous technology that create employment (Fouad, 2013) and are better positioned over bigger firms in their capacity to be innovative (Dijkstra & Halman, 2012). The support given for F&Bs, necessitate them to becoming important engines for innovation and technological advancement (Weerawardena et al., 2015).

The World business council for sustainable development gave a summary of the weight F&B has on the government and individuals: F&Bs that are properly supervised become means of employment prospects and affluence creation. The said F&Bs aid in the generation of revenue and create communal solidity (Dijkstra & Halman, 2012). Bigger organizations are provided with local services and supplies and communities have access to affordable goods and services at lower costs. In addition to this, by working closely with F&Bs, large corporations can develop a new customer base that may not be accessible to the traditional distribution networks of these corporations (Phapruke, 2012).
Food and beverage firms in developed countries, especially those in the United Kingdom (UK) are increasingly motivated to adopt the use of strategic innovation to help enhance the coordination of activities between various organizational departments to support and improve decision-making processes, with the overall objective is the achievement of high levels of efficiency and effectiveness (Camison & Villar-Lopez, 2014). The sector has proved remarkably resilient in the recent recession and has maintained its leading position in UK manufacturing in terms of overall employment, turnover and value added. Competition in the industry is increasingly strong both nationally and internationally, thus, mergers and divestments are quite frequent and private equity firms have been active in the sector (Dijkstra & Halman, 2012). Productivity in the UK food and drink sector has been below the UK manufacturing average but the challenge posed by the purchasing power of the industry’s main customers provides a powerful incentive to reduce costs and boost added value, thus, innovation is an increasingly important factor in driving up value added, especially technical innovation (Camison & Villar-Lopez, 2014).

Food and beverage firms in the United States (US) are characterized by high technology and management competencies. These make them more adept in adopting new technologies and as a result, they often lead the way for other F&Bs in the world (Fouad, 2013). Consequently, investing in innovative behaviors strengthens knowledge of employees and individuals that drive resilience of the organizations to create new products, processes, and new behavior of working that generates improve competitiveness and achievement of necessary goals to shape performance (Camison & Villar-Lopez, 2014). The US consumers are also concerned with sustainability, and are becoming increasingly willing to pay more for products from environmentally friendly and socially responsible companies. Green packaging, locally and responsibly sourced materials, and water and energy efficiency are all factors that are gaining more attention and demand. While these can be expensive to implement, the market will bear higher prices for them, and they can provide an edge by which to increase market share (Fouad, 2013).

There have been barriers to the activities of innovation in African F&Bs. Some of the barriers to the activities of innovation (Brunswicker & Vanhaverbek, 2014). Consumer tastes remain a moving target in Africa as well. There are expectations for continued growth in healthy foods and organics, and at the same time, however, on-the-go offerings
remain popular amid demand for products that reduce meal preparation time such as packaged foods. Consumers are more conscious of lowering their intakes of sugar rather than sodium, with demand for salty snacks increasing as high-sugar products such as confectioneries and soda, declining (Awa, Eze, & Urieto, 2011). More momentum and product diversification are expected to grow within the market, with a focus on healthier diets. South African F&Bs include a lack in capital investment, infrastructure, education, and training systems, encumber regulations and in general deficiencies in know-how and skills acquisition (Tidd & Bessant, 2014). Food and beverage manufacturing firms in Nigeria and Ghana face constraints in managerial capabilities, difficulty in utilizing technology which results in low productivity among others (Brunswicker & Vanhaverbek, 2014).

Many F&Bs in East Africa (EA) do not have the necessary know-how to evaluate their need for strategic innovation. Such know-how involves identifying processes that could benefit from strategic innovation (Awa et al., 2011). Food and beverage firms in Uganda, Rwanda, and Tanzania, for instance, consider such a process to be unwieldy and time-consuming (Apulu, Latham & Moreton, 2011; Manochehri, Al-Esmail & Ashrafi, 2012). As a result, these F&Bs seldom engage in requirement engineering activities prior to their decision making on whether or not to adopt strategic innovation. While such F&Bs are generally owned and managed by owners/managers, and while it is also true that the management will not be the only users of the innovation, the potential users within the F&Bs are seldom engaged in the decision-making process (Manochehri et al., 2012). The decision on whether or not to acquire innovation, the type of innovation that is needed, and where to obtain it is generally made in an ad hoc manner by management without consulting with other employees/stakeholders (Awa et al., 2011).

While it can be said that the decreasing cost of innovation along with the increase in innovation products / services that are user-friendly have encouraged more F&Bs in developing countries to adopt innovation, a previous study of F&Bs by Ndiege, Wayi and Herselman (2012) revealed that, F&Bs in Kenya were still lagging behind in successfully converting innovation’s full potential into practice. The characteristics of F&Bs together with the prevailing environments within which F&Bs in Kenya operate are major
contributors to the challenges that these enterprises face in their innovation adoption process (Moyi, Otieno, Mumo & Ronge, 2006).

1.2 Statement of the Problem

Innovation management is a diverse topic with many different layers and dimensions. Although innovation itself is often seen as an abstract concept, it’s a multidisciplinary field of study and has a number of different models, theories and frameworks. Innovation can be defined simply as a new idea, device or method (Sebastian, Jelena, Abbie & Griffin, 2018). Innovation is widely regarded as one of the most important sources of sustainable competitive advantage in an increasingly changing environment because it leads to product and process improvements, makes continuous advances that help firms to survive, allowing them to grow more quickly, be more efficient, and ultimately be more profitable than non-innovators (Fouad, 2013).

A study conducted in Canada revealed that all organizations must innovate regardless of their sector in order to survive and remain competitive (Therrien, Doloreux & Chamberlin, 2011). Similarly, Gunday, Ulusoy, Kilic, and Alpkan (2011) in their study on the effect of innovation types on the firm performance that covered the manufacturing industry in Turkey, found that product innovation had a significant impact on the performance of firms in the industry. Abdi and Ali (2013) in their study on the Telecoms players in Somalia, revealed a significant relationship between product innovation and firm performance. Locally, Ngirigacha and Bwisa (2013) conducted a study on the relevance of entrepreneurial innovation on Small and Medium Enterprises’ (SMEs) market competitiveness. The findings provided evidence of a positive and notable relationship between product innovation and firm performance. This study, therefore, sought to determine the relationship between product innovation and the performance of food and beverage firms in Nairobi County.

Herrera (2015) posits that there exists a significant relationship between process innovation and competitive advantage hence firm performance from her study of organizations in the Philippines. In Nigeria, Oluseye, Ibiidunni, and Adetowubo-King (2014) found that process innovation strategies had a positive effect on creating a new market and expanding the market share of telecommunication industry companies. They
affirmed that process innovation can be of help to the organization as it has benefits of lowering risk and efficiency, therefore, implying that process innovation had a significant effect on firm performance. Karanja (2011) conducted a study on innovation strategies effect on competitive advantage in the United Bank of Africa (UBA). The findings suggested that the adoption of process innovation strategies significantly improved UBA’s delivery method hence their increased market share. The above studies covered service-oriented organizations while this one covers organizations that manufacture goods to determine whether there exists the same relationship for product-oriented firms.

Zhang and Duan (2010), revealed during their study on the impact of market orientation and innovation orientation covering manufacturing firms in China that they both had a positive and significant impact on a firm’s growth and performance. This finding was later affirmed by Olughor (2015) in his study that covered the effect of innovation on the performance of SME organizations in Nigeria. He opined that marketing innovation is an important feature in both market and financial performance. In Kenya, Martin and Namusonge (2014) found that 75 percent of businesses revealed a significant effort in making investments with regard to restructuring the marketing mix with the aim of satisfying the customers’ preferences. This study, therefore, sought to further explore the same relationship in the context of food and beverage firms in Nairobi County.

1.3 General Objective
The general objective of this study was to examine the influence of innovation on the performance of food and beverage manufacturing companies in Nairobi County.

1.4 Specific Objectives
This study sought to:

1.4.1 To examine the influence of product innovation on the performance of food and beverage manufacturing companies in Nairobi County.

1.4.2 To determine the influence of process innovation on the performance of food and beverage manufacturing companies in Nairobi County.

1.4.3 To examine the influence of marketing innovation on the performance of food and beverage manufacturing companies in Nairobi County.
1.5 Significance of the Study

1.5.1 Managers of Food and Beverage Manufacturing Companies
This study may be of significance to the management of food and beverage manufacturing companies because it shows the evidence of how strategic innovation management facilitates the organization’s performance and provides areas for improvement. Recommendations for improvement that have been indicated in this study may facilitate the organization to improve on its processes, products and marketing efforts thus leading to increased business performance.

1.5.2 Policymakers
This study provides evidence that may help the government and the organization’s policy makers understand the significance of strategic innovation management within the organization and the country. Government policy makers have an opportunity of creating policies that may increase the need for more organizations to adopt strategic innovation management in their processes. For the organization’s policy makers, the study recommends areas of improvement that may guide their future policies.

1.5.3 Researchers and Academicians
The study has contributed to the body of knowledge for academicians and researchers interested in strategic innovation management and organizational growth. Equipping academicians and researchers with evidence of how strategic innovation management influences the performance of food and beverage manufacturing companies helps to add to what previous studies on strategic management and innovation have done in the past.

1.6 Scope of the Study
This study examined the influence of innovation on the performance of food and beverage manufacturing companies in Nairobi County. The study was conducted on all food and beverage manufacturing companies in Nairobi County and focused on three key areas of innovation, namely: product, process and marketing and sought to examine how these particular factors influence the performance of firms in the industry. The study was conducted between the months of May and July 2019.
1.7 Definition of Terms

1.7.1 Innovation
Innovation can be defined simply as a new idea, device or method. It is often also viewed as the application of better solutions that meet new requirements, unarticulated needs, or existing market needs (Drucker, 2014).

1.7.2 Strategic Innovation
This is the entire process through which an organization restructures its business processes and products so that it provides a higher quality of output (whether product or service) to its customers (Seybold, 2014).

1.7.3 Product Innovation
Product innovation is defined as the changes made in an organization's production line, the introduction of new products in the market or use of new and better materials in the production process (Kafouros, 2008).

1.7.4 Process Innovation
Process innovation is the implementation of a new or significantly improved production or delivery method - including significant changes in techniques, equipment and/or software (Davenport, 1993).

1.7.5 Marketing Innovation
Marketing innovation refers to the process that involves significant changes in the way an organization changes or creates a different product design or packaging, product placement, product promotion or pricing (Camison & Villar-Lopez, 2014).

1.8 Chapter Summary
This chapter introduces the background and the research problem on the influence of strategic innovation management on the performance of F&B Manufacturing companies in Nairobi County. It has specified the general objective that was to examine the influence of strategic innovation on Nairobi County F&Bs, as well as the specific research objectives that focus on product innovation, process innovation and marketing innovation and how they influence the performance of food and beverage manufacturing companies.
in Nairobi County. The chapter provides the significance and scope of the study and ends with a definition of the key terms used in the project. Chapter two presents the literature review and chapter three discusses the methodology used. Further to this, chapter four gives the study results and findings, and chapter five offers the study’s discussion, conclusion, and recommendations.
CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

The general objective of this study was to examine the influence of innovation on the performance of F&B manufacturing companies in Nairobi County. This section of the study presents literature on the influence of product innovation on the performance of F&B manufacturing companies, the influence of process innovation on the performance of F&B manufacturing companies, and the influence of marketing innovation on the performance of F&B manufacturing companies.

2.2 Product Innovation and Performance of F&B Manufacturing Companies

Product innovation is defined as the changes made in an organization's product line or the introduction of new products in the market (Kafouros, 2008). According to Wang et al. (2014), product innovation comes into existence through the creation of new ideas and therefore cannot be separated from process innovation. Product innovation is the process through which an organization uses new materials to create a completely new product or at the same time using the existing materials to create a new customer satisfaction point (Markham & Lee, 2013).

On the other hand, Zhou et al. (2015) defined product innovation as the process of introducing new goods and services with the aim of attracting new customers and therefore creating new markets. Product innovation will involve the following; technical design of the products features, research and development and eventually marketing of the new product through commercial activities (Crawford & Benedetto, 2003).

2.2.1 Product Line Extension

A product line refers to a group of related products all marketed under a single brand name that is sold by the same company (Kafouros, 2008). Product line extensions occur when a company introduces additional items in the same product category under the same brand name such as new flavors, forms, colors, added ingredients, package sizes (Kotler & Keller, 2012). For example, the Coca-Cola Company has the brand name Coke with an extensive product line that includes Vanilla Coke, Coke Zero, Diet Coke among others. Trott (2017) confirms that corporations must be able to adapt and evolve if they wish to
survive. This is because competitors come to the market and introduce new products that change the basis of competition. The ability to change and adapt therefore is very key to the survival and growth of any business.

As product categories evolve, an organization must continuously adapt its product lines to changing market, competitive, and trade-intermediary conditions. That being said, it is evident that product line extension, therefore, utilizes existing technology and increases value to the customer through features and design changes within the existing market thereby being a factor of incremental innovation (Aragon-Correa, Gacia-Morales & Cordon-Pozo, 2007). Oke, Burke and Myers (2014) in their study established that F&Bs concentrate more on the incremental way of product innovation as opposed to radical product innovation.

According to Choi (2015), practically every product in the market today has been improved. These semi-new products can act as replacements to existing products in a company’s product line. Crawford and Benedetto (2003) note that these products do in fact, provide enhanced performance and greater perceived value over the old products thereby positively impacting the performance of the firm. Food and beverage manufacturing firms should engage in product enhancements in order to make their offerings more attractive to their customers. This will involve identifying the needs of consumers that their products are not meeting then designing and implementing the desired improvements to make it more appealing (Mostafa, 2015).

2.2.2 New Product Development

According to Markham and Lee (2013), the importance of effective new product development cannot be overstated. They state that a higher percentage of profits and revenue mostly comes from newer products and those higher-performing firms are very proficient at product development. Gubler (2010) notes that the ability to provide new products and services over time is very vital to many firms and organizations.

The introduction of a new product faces uncertainty in customer reception, backlash in the market or takes a long time before it breaks through to the market. Hauser and Dahan (2008) observed that innovation is characteristically risky, and organizations could devote
significant resources to new product ideas with no assurance that they will ever become commercially viable. Hauser and Dahan (2008) observed that up to 35% of new products introduced to the market end up failing, they opined that in order to enhance the success of a new product into the market organization should have a good New Product Development (NPD) process. Davis, Chelliah and Minter (2014) identified three main issues that should be observed in the NPD process, one is to make sure the new product being introduced is appealing, secondly the new product should meet consumer expectations and lastly is ensuring the product cycle from its idea inception to product delivery is as short as possible. The NPD process in the organization needs to be well-coordinated with marketing activities to ensure it is delivered at the opportune time in the market. This will enable it to attain market acceptance and be able to and compete favorably with the prior products that are already doing well in the market. Hilletofth and Eriksson (2011) in their study were of the opinion that the NPD process should be coordinated with supply chain management activities to avoid losing on company competitiveness in the market. They called for the production of innovative, value-adding products that should be also delivered fast to the market.

The challenge being faced by F&Bs in regards to developing strategies for new product development and innovation is that most have no sound data archives and more often than not, they do not often learn from experience making it challenging for them to keep track of where they are going wrong as regards new product development. Tacit knowledge is important to F&Bs since it creates an avenue for them to learn from other organizations (Lindman, 2012). There is also a need for an F&B to have dynamic capabilities that are specific knowledge and skills that they learn in order to undertake an effective new product process (Eisenhardt and Martin, 2010).

2.2.3 Importance of Product Innovation
Comison and Lopez (2010) in their study established that product innovation was important for an organization to be able to create a competitive edge in the changing environment. Comison et al. (2010) argued that through product innovation the organization was able to introduce new products into the market and the quality of the products was also improved and therefore in the organization gains a competitive advantage over the competitors in the same industry.
Studies have also proved that there is a positive correlation between the performance of the organization and positive product innovation (Buyus, Erickson & Jacobson, 2013). Espallardo and Ballester (2009) in a study carried out in an organization established that product innovation had a positive impact on the organization’s performance in its industry. Varis and Littunen (2010) established that the more an organization was able to introduce new products into the market the more customers associated success with that organization as it is assumed the organization is performing well. Organizations in the F&B industry have the advantage of closer interaction with the customers and therefore have a better knowledge of their tastes and preferences as opposed to organizations in other industries (Laforet & Tann, 2012). Besides having the knowledge of the customers changing tastes and preferences the F&Bs have the advantage of being able to learn and adjust accordingly faster than organizations in the other industries (Garcia-Morale, Llorens-Montes & Verdu-Jover, 2014).

The benefits to the customer accrued from product innovation include differentiated products that are more superior, more unique and better quality. Apart from that, they are able to take advantage cost reduction measures and offer similar products at a lower cost (Zhou et al., 2015). Turbulent environments faced and intense competition makes an organization develop not only innovative products but also new organizational methods and organizational capabilities such as organizational structures and culture that fits the strategies of the firm. In order for this competitive advantage to be sustainable, a firm needs to build organizational capabilities that cater for different changes such as a change in customer needs, technological turbulence, and new product development (Kim, Kumar & Kumar, 2012). A high degree of adoption of organizational capabilities will also increase the speed of launching new products to the market, lead to quality improvement in radical and incremental product innovations. This efficiency in the improvement of quality will lead to faster response in the customers and further lead to a reduction in the cost of new products (Nair, 2016).

A study by Laforet and Tann (2012) established that F&Bs concentrate more on incremental way of product innovation as opposed to radical product innovation which is preferred by larger organizations. The authors established that F&Bs spend most of their resources coming up with ways of incrementally innovating products. Due to the nature
of F&Bs innovation is not a daily activity but only happens when the internal structures of the organization allow (Aragon-Correa et al., 2007). Some of the internal structures that have to be in place so that an F&B can achieve its innovative target include the leadership of the F&B and the Culture (Aragon-Correa et al., 2007). To achieve the targeted benefits of innovation resources available within the organization have to be directed to the innovation process (Rosenbusch, Brinckmann & Bausch, 2011).

Incremental product innovation will entail few alterations in the technological aspects of the product which involve additional benefits for the customer. The aim of incremental product innovation is using the new technology to satisfy the needs of the customer by alteration of the existing product making it different from others in the market (Danneels & Kleinschmidt, 2001). Radical innovation on the other hand will involve something completely new, a new idea, new technology and new novelty to the customer (Chandy & Tellis, 2000).

2.3 Process Innovation and Performance of F&B Manufacturing Companies

Process innovation refers to discrete initiatives that are intended to achieve radically redesigned and improved production processes in a bounded time frame (Davenport, 1993). These initiatives are usually with regard to new technology and equipment or the reengineering of the operational processes. This process is heavily reliant on organizational capabilities.

For process innovation to be effective the organization has to include the knowledge available in the organization, the knowledge that the organization has gained through the learning process and finally the need of the customers in the market (Berg et al., 2014). According to Calantone, Cavusgil and Zhao (2012) process innovation is adopted by an organization in order to tweak itself to the changes in the environment. The process of innovation will, therefore, involve building on the capabilities of the organization in order to create new products and services (Yang & Choi, 2009).
2.3.1 New Equipment and Technology Introduction

Introducing technologically enhanced equipment in the production process is an integrated concept that involves changes that are aimed at reducing the costs, waste and lead time or at improving production efficiency (Granovetter, 2015). Equipment changes have a direct and immediate impact on the productivity performance of manufacturing companies (Castillejo, 2016) and due to their nature, they may be able to implement process innovation faster and at lower switching costs as compared to firms in other industries (Buckley & Mirza, 2014).

Subramanian and Nilakanta (1996) state that the introduction of new and technologically sound equipment is considered to be an important driver of explaining business efficiency, corporate success and competitive advantage. This is because it appears to have a great impact on the competitive environment, work productivity, competitive advantage and overall performance of an organization. Introducing efficient equipment to the production process structurally stimulates production factors to move from low productivity (low-value manufacturing) to high productivity (high-value manufacturing) platforms (Castillejo, 2016).

The introduction of new equipment in the production process significantly decreases the unit costs production and produces significantly improved products thereby increasing product quality (Gunday et al., 2011). Process innovation focusing on improving the efficiencies and effectiveness of manufacturing equipment radically improves and changes the way the firm performs. Azis (2015) agreed that process innovation is a significantly improved delivery method or adoption of a new production process thus also includes a significant change in equipment and software and techniques. In India, Tether (2003) conducted a study on the wine industry and revealed that the upgrade of equipment to newer ones that were technologically more superior was positively related to firm performance. Atandi and Bwisa (2013) study found that where technology was used as a potential for process innovation a major relationship exists between new equipment adopted and firm performance. Thatcher and Oliver (2001) opined that investments that reduce the fix costs via technology contribute to higher profits which enhance the productivity of the organization.
Innovations consist of the process by which firms master and implement the design and production of goods and services that are new to the user irrespective of whether they are new to their competitors, countries or the world (Granovetter, 2015). Innovation works to improve many large and small areas of product design and quality productions, organization and management routines as well as marketing. It includes modifications in the production process and techniques that collectively reduce costs, increase efficiency, provide for human welfare and ensure environmental sustainability (Buckley & Mirza, 2014).

For process innovation to be a success, vision and strategy have to be put in place (Lawson & Samson, 2011). Granovetter (2015) argued that innovation is created in social network interactions by the different people that are involved in the formulation of the process. This interaction may involve the organization suppliers, its customers, the members of the public and the corporation (Romijin & Albaladejo, 2012). It has been argued that an organization that has a closer relationship to the potential customers than the competitors will have the advantage of being more creative than the competitors hence being more innovate (Lawson & Samson, 2011). This is because the organization will have new ideas and will be the first to introduce a new and unique product in the market (Panayides, 2012).

2.3.2 Production Process Reengineering
A powerful way to improve the overall performance of an organization is through Business Process Reengineering (BPR), defined by Hammer and Champy (2013) as the fundamental rethinking and radical redesign of processes to achieve dramatic improvements in critical contemporary measures of performance such as cost, quality, service, and speed. BPR is a paradigm that is used by many organizations to survive in the competitive era. Some well-known techniques of BPR are Brainstorming, Synectics Model, of Substitute, Combine, Adapt, Modify and Magnify, put to other uses, Eliminate & Rearrange (SCAMPER), Delphi, Nominal Group, Morphological Analysis, Speculative Excursion, Bionics, Six Thinking Hats, and Lateral Thinking.
According to Minai and Lucky (2011), process innovation embodies business process reengineering and quality function deployment. A supplier who is efficient and constantly works on the productivity gains can expect in time to develop products that give a similar performance at lowered costs. The cost reduction may be passed or may not be passed to customers at lower prices or the organization can continue to offer the products at the same price earning higher margins. Thus, process innovation is a benefit for the supply side of the main product and the support part of products. Both parts of the product offer provide quality standards that can be acquired and maintained. For services, which by their nature often rely on personal interactions to achieve the results, the process innovation management is a challenging environment (Johne & Storey, 2008).

According to Rosli and Sidek (2013) process innovation reengineering radically improves the internal functions of the organization. This involves changing the organizations' functions, technical designs, and the manufacturing procedures together with a new research and development aspect. It is therefore important that organizations prioritize successful BPR by ensuring that it is implemented appropriately. Without proper implementation, organizations may find difficulties in reaping the benefits of BPR. Hammer and Champy (2013) estimate that as many as 70 percent of BPR projects do not achieve the dramatic results they seek. The mixture of successful and unsuccessful firms makes the issue of BPR implementation very important (Al Mashari, Irani & Zairi, 2011). Some authors such as Al Mashari and Zairi (1999) have pointed that failures noted are related to change of management systems and culture, management support, organizational structure, BPR project management, and Information and Technology (IT) infrastructure.

A factor that could make this successful is the presence of flexible structures that encourage collaboration and communication (Dobni, 2016). According to Rosli et al. (2013) process innovation reengineering improves the internal functions of the organization. This involves changing the organizations' functions, technical designs, and the manufacturing procedures together with a new research and development aspect. Oke et al. (2014) argue that process innovation to be successful the organization has to improve its techniques and systems of production of goods and services.
It is expected that the greater the degree of success in BPR implementation, the greater the results or outcomes in top management competence, re-engineering service quality and customer service management (Bingham, 2011). The manufacturing process of reengineering service quality performance may be defined as a series of steps/stages which converts inputs into an identifiable output intended for internal and external customers. To this end, it could be argued that a business process operates in a way analogous to a system which comprises a series of continuous actions or operations performed at different stages. Shostack (2014) argues that business process re-engineering exists as a framework for increasing manufacturing firm’s performance, presented under the umbrella of blueprints of process analysis, process control, process improvement, process redesign. In agreement to this Ar and Baki (2011) also established that for an organization to outperform its competitors it has to improve its process innovation to include technological innovation. When an organization is involved in such kind of innovation it is able to grow due to the uniqueness of its products and services (Morone & Testa, 2016).

2.4 Marketing Innovation and Performance of F&B Manufacturing Companies
Marketing innovation refers to the implementation of a significant change in the design or packaging of a product, in its positioning as well as in its marketing mix (O’Brien, Clifford & Southern, 2011) Organizations should give great importance to market innovation since it enables the organization to reach out to its customers at a faster and more efficiently (Rosli et al., 2013) giving the organization the opportunity to respond to market opportunities faster than competition and at the same time meet the customers’ needs (Rodrigues-Cano et al., 2014).

In today’s turbulent business environment, there is a need for new ideas that can completely change any aspect of the value chain. This goes beyond just innovations in products and services (Birkinshaw et al., 2011). According to Ren et al. (2010) marketing innovation is a necessary tool for organizations to achieve sustainable competitive advantage. Most businesses focus only on technological innovations that they complete neglect marketing innovations (O’Dwyer et al., 2009).
2.4.1 Product Design Changes

Due to the current environmental turbulence and competitive nature of the environment the F&Bs operate in, the design function has become a useful asset. It plays a pivotal role in defining the physical form of the product to satisfy customers’ needs. The product design only makes changes the appearance of the product and may not change the functionality and a feature of the product is also marketing innovation (OECD, 2010). Product design changes combine the creative effort of the designer, technical, strategic and marketing strategy of the firm. Therefore, it is clear that there has to be a convergence of activities that need to support product innovation (Acklin, 2011; Ravasi & Stigliani, 2012).

Product design may be linked to the development of the product while considering the function, use, manufacturing process and the communication requirements (Utterback, Vedin, Alvarez, Ekman, Sanderson, Tether and Verganti, 2016). Most F&Bs have embarked on outsourcing design instead of having an in-house design team and having more efficient management of the design function as a resource that is vital in product innovation (Utterback et al., 2016). Organizations in the F&Bs industry usually source for the services of experienced designers that can supplement the lack of internal organization design skills. The designer is able to link the F&B with the knowledge that can be applied in different socio-cultural contexts so as to produce new aesthetic product solutions (Dell’Era & Verganti, 2009). An organization with a higher-order external resource is better placed to take advantage of the product design features to gain a competitive advantage (Belso-Martinez et al., 2011).

2.4.2 Packaging Changes

Product packaging is recognized as a vital part of the marketing mix (Olander-Roese & Nilsson, 2009). This, in fact, can influence the market position of a product (Olsson & Györei, 2002). The importance of the package in marketing can be explained by the fact that the package is the only marketing tool of the product that is physically bound to it (Mensonen, 2012). Additional explanations are that not all brands can carry the expenditure of a national advertising campaign (Wells et al., 2014), along with the fact that consumers nowadays have started to trust their own judgment and taste rather than being convinced by traditional marketing measures (George, 2015).
In the US there seems to be a change in product marketing trends, leading to less traditional marketing (through television, print, internet, etc.) and more indirect promotion (McGinnis et al., 2006) that can include packaging marketing. Employing packaging as a marketing tool is, in fact, a growing concept (Hawkes, 2010), but Sara (1990) and Mensonen (2012) argue that marketing professionals still neglect to package to a high extent. The packaging is an essential part of the total product offering (George, 2015; Wells, Farley & Armstrong, 2014; Simms & Trott, 2010) as it helps to enhance the value of products (Lutters & Klooster, 2008; Olander-Roese & Nilsson, 2009; Simms & Trott, 2010). There is a need to acknowledge more of the great potential of packaging as a value creator for the product-packaging-complex (Olsson & Larsson, 2009) and packaging ideas and concerns should be considered as more important during product development (Simms & Trott, 2010).

Currently, packaging considerations are generally not made until towards the end of the product development process (Motte et al., 2007). To achieve an optimized product-packaging complex, the development processes of product and packaging must be performed in parallel (Olsson & Larsson, 2009), and concurrent, integrated packaging/product development is preferable (Lutters & Klooster, 2008; Olander-Roese & Nilsson, 2009). Manufacturers commonly outsource packaging development to packaging suppliers. Unfortunately, collaboration and communication between the different actors are then rare (Olander-Roese & Nilsson, 2009). Packaging manufacturers often take a passive role as suppliers to product manufacturers (Bramklev, 2009). They simply develop the package that the product manufacturer (the customer) has asked for, even though this might not always be the most optimal solution (Paine, 1990). For successful development and innovation processes, though, a complete understanding of the customer is needed (Olsson, 2008).

Consequently, companies can achieve more by including customers and suppliers in their innovation processes, because as Tidd and Bessant (2009) state that innovation does not take place in isolation. It is advantageous for companies to utilize and benefit from their suppliers’ expertise, as this may lead to improved processes as well as saving in expenditures and time (Tidd & Bessant, 2009). Thus, supply chains need to become more
integrated and collaborative and the supply chain actors need to understand the value of packaging. To develop successful packaging, packaging manufacturers must understand, consider and meet the needs of all supply chain actors, as well as the end-consumers, as the various actors’ requirements will differ (Olsson, 2008; Simms & Trott, 2010).

2.4.3 Product Positioning

Kotler and Keller (2012) define a positioning strategy as the careful design the image of an organization and its products to occupy a unique position in the mind of the target market. Product positioning is a creative undertaking where an organization distinguishes its products by highlighting unique traits that sets it apart from the competitors’ product offering. According to Levy and Weitz (2001), the positioning strategy can be defined as the choice of a target market segment being the customers a company will pursue to serve and the choice of the advantage of differentiation that defines how it shall compete with competitors in the segment.

Different authors have presented various diverse positioning strategies. For instance, Porter (1980), has the Generic strategies (cost leadership, cost focus, differentiation leadership and differentiation focus). Kotler et al. (2012) mentions the seven strategic positioning approaches which are: positioning based on characteristics of the product or benefits to customers, positioning strategy based on pricing, positioning strategy based on the class of the product, positioning strategy that is based on use or application, positioning strategy that is based on process of product, positioning strategy that is based on competitors and positioning strategy that is based on cultural symbols.

Positioning requires defining the desired or ideal brand knowledge structures and establishing Points-of-Parity (POPs) and Points-of-Difference (PODs) that aim at creating a favorable brand identity and brand image. By building points-of difference, brands can achieve a competitive advantage (Kotler, 2012). Creating strong, favorable and unique brand associations can be a challenge but is essential for a competitive brand positioning. Keller and Kotler (2013) presents three criteria which determine whether brand associations can function as PODs: desirable to consumers: the brand association must be seen by a customer as personally relevant and able to deliver the promised benefits; deliverable by company: the company must possess resources and commitment to
creating a brand association in consumer’s mind. The product design and marketing activities need to support this association, which ideally is ‘pre-emptive, defensible and difficult to attack’; and differentiating from competitors: consumers must see the brand association as distinctive and superior to competitors. The competitive POPs need to be designed to overcome any weaknesses of the brand. The goal of competitive POPs is to negate the competitor’s PODs (Keller & Kotler, 2013).

2.4.4 Marketing Mix
Marketing mix refers to the mixture of controllable marketing variables that a firm uses to pursue the sought level of sales in the target market (Kotler & Keller, 2012). Zontanos and Anderson (2014) opine that marketers ought to put in place activities that communicate with the customers' price, promotion, place, and products. Price is the value that the company puts on its brand (Kotler & Keller, 2012). If a brand desire to be a high-end brand with a limited number of customers, they usually put the price high since high prices are often perceived to be an indicator of high quality while low prices an indicator of poor quality. Promotion is related to the brands' activities in relation to advertising, direct marketing, sales forces and public relations (Kotler, 2015). Promotion can, therefore, be characterized as the external touchpoints between the brand and the consumers.

Aaker and Joachimsthaler (1997) opined that organizations have many alternatives to gaining positive attention other than bombarding the public with repeated messages. They regard sponsorships as an option for brands that seek good access to their target segments and wish to gain representation in the media. The goodwill aspects distinguish sponsorships from advertising, as it is a communication form that profits the society in general, as well as it hides the commercial intent. The degree of goodwill depends on the sponsorship category (Keller, 2008). Sponsorships are often recognized as a brilliant way of building brand equity, as the intention of selling a product are less visible than indirect advertising. Sponsorships also reach venues where consumers are more receptive to information than traditional advertising. For example, in modern times Coca-Cola is credited to be the pioneer of sponsorships by being the official soft drink of the Olympic Games (Aaker & Joachimsthaler, 1997).
Social media is rather a new area within the field of marketing and media communication. According to Solis (2009), all schools that are trying to understand the phenomenon of social media are still in the learning process. Social branding according to Bergsli (2010) is based on three central assumptions of social media i.e. Transparency, Social Aspect, and Dialogue. Firms that participate in, and facilitate open and social dialogue-based conversations about their own brand, are enabling a deep and trusting relationship between the brand and its consumers. Thus, marketers should not own the conversation but instead participate in it (Bergsli, 2010). F&Bs should engage in activities of trying to predict the customer needs by gaining real-time insights from social media (Narver et al., 2004). Food and beverage manufacturing firms, therefore, need to change the marketing mix strategies and adapt newer marketing activities away from traditional marketing activities ones in order to gain a competitive edge (Cummins, Gilmore, Carson & O’Donnell, 2000).

2.5 Chapter Summary
This chapter has examined the literature on the influence of product innovation on the performance of food and beverage manufacturing companies, the influence of process innovation on the performance of food and beverage manufacturing companies, and the influence of marketing innovation on the performance of food and beverage manufacturing companies. The next chapter presents the research methodology that was used in this study.
CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Introduction

This chapter is a blueprint of the methodology that was used in this study. The chapter highlights the research design that the study adopted. The chapter also looks at the population of the study and the sampling design; the chapter indicates the target population, sampling frame, procedure, and the sample size. The chapter also shows the data collection methods and the procedures that were used to undertake the study and finally it states the way the data was presented.

3.2 Research Design

Cooper and Schindler (2013) define research design as a plan or a structure of investigation so conceived as to obtain answers to research questions. The plan is the overall scheme or program of the research. The research design refers to the plan or strategy of shaping the research (Henn, Weinstein & Foard, 2009). Further Tashakkori and Teddlie (2009) note that a research design is the structure of the research, it is the “glue” that holds all the elements in a research project together.

The explanatory research design was used in this study to explain systematically the facts and characteristics of the study population. An explanatory study involves collecting data that tests the validity of the hypotheses regarding the present status of the subjects of the study (Cooper & Schindler, 2011). For this study, the explanatory research design was chosen to examine the relationship between innovation and the performance of F&B manufacturing companies. The design was used because it allowed one to apply the survey research method. Survey research may be in the form of a sample survey or a census survey. In a sample survey, the researcher gathers information from the responses of part of the population that is of interest to the study and in a census survey information is gathered from every member of the population (Denzin & Lincoln, 2011). For the purposes of this study, the researcher used the census survey and every member from the identified population of the study was administered with questionnaires. This method was used because it allowed the study to provide comprehensive results on F&B firms in Nairobi County while ensuring that bias was not introduced in the study.

24
3.3 Population and Sampling Design

3.3.1 Population
A population is defined as the total collection of elements about which we wish to make some inferences (Cohen, Manion & Morrison, 2011). The population of this study consisted of all the 86 F&Bs located in Nairobi County that were registered under the Kenya Association of Manufacturers (KAM) as shown in Appendix I. The study survey was conducted on the specific population of interest which included three managers from each organization because they were the ones responsible for the organization’s strategic direction, thus the total population was 258.

3.3.2 Sampling Design

3.3.2.1 Sample Frame
Sampling frame also referred to as a sample frame or a survey frame is the actual set of units from which a sample has been drawn: in the case of a simple random sample, all units from the sampling frame have an equal chance to be drawn and to occur in the sample (Flick, 2015). Cooper and Schindler (2013) state that, in the ideal case, the sampling frame should coincide with the population of interest. The sampling frame for this study was the official list of registered F&Bs in Nairobi County and was obtained from KAM.

3.3.2.2 Sampling Technique
Statistical sampling techniques are the strategies applied by researchers during the statistical sampling process (Silverman, 2004). Census sampling technique was used to select the respondents from among the list acquired from KAM in order to capture all F&B firms in Nairobi. According to Kumar (2014), census sampling is a statistical sampling technique where the researcher collects and analyzes data from every possible case or group member of the population. In other words, it is the complete enumeration of the target population. This method was used because it allowed the study to provide comprehensive results on F&B firms in Nairobi. The technique also ensured that bias was not introduced in the study.
3.3.2.3 Sample Size
A sample size allows the researcher to make generalizations about the population. A sample is a subset of a population, but that subset is only useful if it accurately represents the larger population (Butler-Kisber, 2018). To ensure that the sample accurately represents the population, O’Leary (2009) states that, the researcher has to clearly define the characteristics of the population, determine the required sample size and chose the best method of collecting members of the sample from the larger population. Since the study made use of the census sampling technique, the sample size was 258 respondents.

3.4 Data Collection Methods
Primary data was collected for the study using a self-administered questionnaire. Butler-Kisber (2018) defines a structured questionnaire as a formal list of questions designed to get facts. He states that open-ended questionnaires are preferred when the researcher is interested in what is top in the mind of the respondent but this is not the case in this study and hence the questions in the questionnaire were closed-ended. The questionnaire first sought to determine the general data of the respondents. The rest were divided into different parts that examined the influence of product innovation on the performance of F&B manufacturing companies, the influence of process innovation on the performance of F&B manufacturing companies and the influence of marketing innovation on the performance of F&B manufacturing companies in Nairobi County.

3.5 Research Procedures
The researcher developed the questionnaire based on the study objectives and later it was piloted. The pilot test was carried out by administering the questionnaire to a selected sample of ten respondents from the target population. This was done in order to refine it and test the reliability of the instrument as well as ensure that the questions therein were able to meet the objective of the study. To achieve this, the researcher randomly selected 10 respondents, who were excluded from the study’s final sample size.

Salda (2012) states that the Cronbach’s alpha is the most commonly used coefficient for the approximation of reliability of test scores for structured questionnaires and for calculating internal consistency. Kumar (2014) notes that the threshold for interpretation of reliability of the research instrument is Cronbach’s alpha value of 0.7. that is calculated
using the Statistical Package for Social Science (SPSS). Thus, Cronbach’s alpha values less than 0.7 indicates that the research instrument is unreliable while Cronbach’s alpha values equal to or greater than 0.7 indicates that the research instrument is reliable. Thus, this study retained questions from the questionnaire that had a coefficient of ≥ 0.7. The results shown in Table 3.1 indicates that the coefficients for the questionnaire items for product innovation and performance of F& Bs, process innovation and performance of F&Bs, marketing innovation and performance of F&Bs and firm performance were .751, .818, .824 and .777 respectively. These were all >0.7 meaning that the questionnaire was valid.

<table>
<thead>
<tr>
<th>Questions</th>
<th>Item No.</th>
<th>Coefficients</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Innovation and Performance of F&amp;Bs</td>
<td>10</td>
<td>.751</td>
<td>Accepted</td>
</tr>
<tr>
<td>Process Innovation and Performance of F&amp;Bs</td>
<td>10</td>
<td>.818</td>
<td>Accepted</td>
</tr>
<tr>
<td>Marketing Innovation and Performance of F&amp;Bs</td>
<td>12</td>
<td>.824</td>
<td>Accepted</td>
</tr>
<tr>
<td>Firm Performance</td>
<td>9</td>
<td>.777</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

The researcher administered the questionnaires individually to the selected target population. The researcher exercised care and control to ensure all questionnaires issued to the respondents were received and to achieve this, the researcher maintained a register of questionnaires, which were handed out, and those that were collected from the respondents. The respondents were given a five-day period to complete and fill the questionnaires. This was done in order to ensure that the respondents had ample time to fill the questionnaire ensuring that the response received was accurate.

3.6 Data Analysis Methods

Data analysis entailed editing, coding, and tabulation of data collected into manageable summaries that were easy to interpret (Salda (2012). This study used a quantitative method of data analysis. To ensure easy analysis the questionnaires were coded according to the questionnaire format to facilitate accuracy during the analysis process. The data collected was quantitative in nature and due to the nature and size of the organizations under the study and the research being conducted; the raw data required minimal manipulation. It was summarized and categorized in frequency distribution tables out of
which graphical presentations were generated to give a visual image of responses. Presentations were done using tables and figures. Descriptive statistics of frequencies, means, and standard deviations were used to analyze the collected data. The study also applied the inferential analysis of correlations and regressions. This helped in providing a distinct relationship between product innovation, process innovation, and marketing innovation and the performance of F&B manufacturing companies.

3.7 Chapter Summary
The chapter has highlighted the research design that the study adopted. The chapter has described the population of the study and the sampling design that was used; the chapter has indicated in detail, the sampling frame, sampling technique, and the sample size selection process. The chapter has provided the data collection methods and procedures that were used to undertake the study and finally it has stated the way the data was analyzed and presented. Chapter four presents the results and findings of the study.
CHAPTER FOUR

4.0 RESULTS AND FINDINGS

4.1 Introduction
This chapter is a graphical representation of the study results and findings. The chapter provides the descriptive and inferential analysis of the study findings based on the objectives of the study. It is divided into various sections that provide analysis of the general data of the respondents, the influence of product innovation on the performance of F&B manufacturing companies, the influence of process innovation on the performance of F&B manufacturing companies and the influence of marketing innovation on the performance of F&B manufacturing companies in Nairobi County.

4.2 General Information

4.2.1 Response Rate
The researcher distributed 258 questionnaires to targeted firms. This was 3 questionnaires to each of the 86 firms. After collection and data cleaning, the researcher was left with 152 questionnaires that were completely filled for analysis. These were coded into SPSS for analysis. This, therefore, provided the study with a response rate of 58.9% (59%) as indicated in Figure 4.1.

![Figure 4.1 Response Rate](image)

4.2.2 Gender
The study sought to examine the gender disparity of the respondents and Figure 4.2 shows that 63% were male and 37% were female. This indicates that there was some little disparity in the gender distribution that could be explained by the nature of the jobs in the manufacturing sector. This however did not affect the study results.
4.2.3 Education
The researcher sought to determine the level of education of the respondents, and Figure 4.3 shows that 64% had attained their university degrees, 27.5% had attained their Master’s degrees, 8.5% had attained their Diploma and none had a Ph.D. or a Certificate. This means the respondents had a strong educational background making it easy for them to comprehend the study questions.

4.2.4 Age Bracket
This study sought to examine the age bracket of the respondents and the results in Figure 4.4 show that 39.2% were aged between 31-35 years, 29.4% were aged between 26-30 years, 19% were between the ages of 36-40 years, 10.5% were aged between 41-45 years of age, 2% were between the ages of 21-25 years, and none was above the age of 46.
years. This shows that all age groups were considered in the study and the availability of a high number of youth may be explained by the Kenyan population demography.

![Figure 4.4 Age Bracket](image)

4.2.5 Management Level
The study captured the management level of the respondents and Figure 4.5 shows that 60.1% were Middle-level managers, 23.5% were Top-level managers and 16.3% were Directors. This shows that the three targeted levels of management were well captured in the study making the results inclusive.

![Figure 4.5 Management Level](image)

4.2.6 Duration with Organization
The study sought to determine the tenure that the respondents had been with their respective firms and Figure 4.6 shows that 59.5% had been with their firm for 0-3 years, 24.8% had been with their firms for 8-11 years, 15.7% had been with their firms for 4-7 years and none had been with their firms for over 12 years. This shows that the respondents were best fit for the study due to their tenure with their respective firm.
4.2.7 Number of Employees
The study captured the number of employees each firm had and Figure 4.7 shows that 52.9% of the firms had 251 employees and above, 30.1% had 51-100 employees, 11.1% had 151-200 employees, 5.9% had between 201 and 250 employees and none had between 151-200 employees. The findings reflect a representation of all the three categories of firms namely; large medium and small enterprises based on the number of employees held.

4.2.8 Organization Existence
The study examined the number of years the firms had been in existence and Figure 4.8 shows that 71.9% had been in existence for over 21 years, 10.5% had been in existence for 11-15 years, 9.2% had been in existence for 0-5 years and 8.5% had been in existence for 11-15 years. The study shows that the firms were a good source of study since they had been in operation for more than 5 years.
4.2.9 Organization Turnover

The study captured the organizations’ turnover and Figure 4.9 shows that 79% of the firms had a turnover of over 201 million Kenya shillings, 19% had a turnover of 51-200 million and 2% had a turnover of less than 50 million. This indicates that all the firms were captured, providing the study with an all-inclusive result.
4.3.1 Descriptive Analysis for Product Innovation and Performance of F&B Manufacturing Companies

Table 4.1 shows that the organizations had a wide range of products under the same brand name as agreed by 61.5% of the respondents, 27.5% disagreed and 11.1% were neutral (M=3.64, SD=1.179). The organization offers different packaging sizes for their products as agreed to by all the respondents (M=4.42, SD=.495). The organizations continually enhance their products in line with market demand as agreed to by 93.5% of the respondents while 6.5% were neutral (M=4.33, SD=.596). The organizations have an active new product development function as agreed to by 70.6% of the respondents, 15% disagreed and 14.4% were neutral (M=3.93, SD=1.062).

The organizations often introduce new products into the market as agreed to by 86.9% of the respondents, 7.8% disagreed and 5.2% were neutral (M=4.07, SD=.804). The products that the firms have introduced into the market have been successful as agreed by 71.9% of the respondents while 28.1% were neutral (M=3.97, SD=.729). The new product development cycle for the firms is short and effective as agreed to by 40.5% of the respondents, 30.7% disagreed and 28.8% were neutral (M=3.03, SD=.966).

The supply chain function of the firms ensures that their products get to the market fast as agreed to by 82.4% of the respondents, while 17.6% were neutral (M=4.13, SD=.685). The organizations utilize existing technology to increase the value of their products to the customers as agreed to by 56% of the respondents, 28.1% disagreed and 15% were neutral (M=3.46, SD=1.076). The organizations use past mistakes and successes to inform new product development decisions as agreed to by 79.7% of the respondents, 13.1% were neutral and 7.2% disagreed (M=3.99, SD=.827).
Table 4.1 Descriptive Analysis for Product Innovation and Performance of F&B Manufacturing Companies

<table>
<thead>
<tr>
<th></th>
<th>SD</th>
<th>D</th>
<th>N</th>
<th>A</th>
<th>SA</th>
<th>M</th>
<th>Std Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>Our organization has a wide range of products under the same brand name</td>
<td>0</td>
<td>27.5</td>
<td>11.1</td>
<td>31.4</td>
<td>30.1</td>
<td>3.64</td>
<td>1.179</td>
</tr>
<tr>
<td>Our organization offers different packaging sizes for our products</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>58.2</td>
<td>41.8</td>
<td>4.42</td>
<td>.495</td>
</tr>
<tr>
<td>Our organization continually enhances its products in line with market demand</td>
<td>0</td>
<td>0</td>
<td>6.5</td>
<td>53.6</td>
<td>39.9</td>
<td>4.33</td>
<td>.596</td>
</tr>
<tr>
<td>The organization has an active New Product Development function</td>
<td>0</td>
<td>15</td>
<td>14.4</td>
<td>32.7</td>
<td>37.9</td>
<td>3.93</td>
<td>1.062</td>
</tr>
<tr>
<td>Our organization often introduces new products into the market</td>
<td>0</td>
<td>7.8</td>
<td>5.2</td>
<td>58.8</td>
<td>28.1</td>
<td>4.07</td>
<td>.804</td>
</tr>
<tr>
<td>The products that we have introduced into the market have been successful</td>
<td>0</td>
<td>0</td>
<td>28.1</td>
<td>47.1</td>
<td>24.8</td>
<td>3.97</td>
<td>.729</td>
</tr>
<tr>
<td>Our New Product Development cycle is short and effective</td>
<td>7.2</td>
<td>23.5</td>
<td>28.8</td>
<td>40.5</td>
<td>0</td>
<td>3.03</td>
<td>.966</td>
</tr>
<tr>
<td>Our Supply chain function ensures that our products get to the market fast</td>
<td>0</td>
<td>0</td>
<td>17.6</td>
<td>51.6</td>
<td>30.7</td>
<td>4.13</td>
<td>.685</td>
</tr>
<tr>
<td>Our organization utilizes existing technology to increase the value of our products to the customer</td>
<td>0</td>
<td>28.1</td>
<td>15</td>
<td>39.9</td>
<td>17</td>
<td>3.46</td>
<td>1.076</td>
</tr>
<tr>
<td>The organization uses past mistakes and successes to inform New product development decisions</td>
<td>0</td>
<td>7.2</td>
<td>13.1</td>
<td>53.6</td>
<td>26.1</td>
<td>3.99</td>
<td>.827</td>
</tr>
</tbody>
</table>

SD-Strongly Disagree, D-Disagree, N-Neither Agree nor Disagree, A-Agree SA-Strongly Agree, M=Mean, Std Dev = Standard Deviation

4.3.2 Correlations for Product Innovation and Performance of F&B Manufacturing Companies

Table 4.2 shows that the correlations analysis for product innovation factors and performance of F&B manufacturing companies. The table shows that product innovation was significant to the performance of F&B manufacturing companies (r=0.180, p<0.05). Product line extension was insignificant to the performance of F&B manufacturing companies (r=0.149, p>0.05). New product development was insignificant to the performance of F&B manufacturing companies (r=0.058, p>0.05). Product innovation importance was insignificant to the performance of F&B manufacturing companies (r=0.111, p>0.05).
Table 4.2 Correlations for Product Innovation and Performance of F&B Manufacturing Companies

<table>
<thead>
<tr>
<th></th>
<th>F&amp;B Performance</th>
<th>Product Innovation</th>
<th>Product Line Extension</th>
<th>NPD</th>
<th>Product Innovation Importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>F&amp;B Performance</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Product Innovation</td>
<td>.180*</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Innovation</td>
<td>.026</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Product Line Extension</td>
<td>.149</td>
<td>.641**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extension</td>
<td>.066</td>
<td>.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NPD</td>
<td>.058</td>
<td>.618**</td>
<td>.193*</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>.478</td>
<td>.000</td>
<td>.017</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Product Innovation</td>
<td>.111</td>
<td>.399**</td>
<td>.473**</td>
<td>.214**</td>
<td>1</td>
</tr>
<tr>
<td>Importance</td>
<td>.172</td>
<td>.000</td>
<td>.000</td>
<td>.008</td>
<td></td>
</tr>
</tbody>
</table>

* Correlation is significant at the 0.05 level (2-tailed)
** Correlation is significant at the 0.01 level (2-tailed)

4.3.3 Regressions for Product Innovation and Performance of F&B Manufacturing Companies

This section provides the linear regression analysis between product innovation and performance of F&B manufacturing companies. The section focuses on the model summary, analysis of variance (ANOVA) and regression coefficients for the same.

4.3.3.1 Product Innovation and Performance of F&B Manufacturing Companies

Model Summary

Table 4.3 is the linear regression model summary for between product innovation and performance of F&B manufacturing companies. It specifies that product innovation variables can be used to explain about 3% of the changes in the performance of F&B manufacturing companies ($R^2 = .032$).
Table 4.3 Product Innovation and Performance of F&B Manufacturing Companies

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>.180</td>
<td>.032</td>
<td>.026</td>
<td>.42112</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Product Innovation

4.3.3.2 Product Innovation and Performance of F&B Manufacturing Companies

ANOVA

Table 4.4 is the linear regression analysis of variance between product innovation and performance of F&B manufacturing companies. It signifies that there wasn’t a statistically significant linear relationship between product innovation and performance of F&B manufacturing companies ($F (1,151) = 5.032, p > .05$).

Table 4.4 Product Innovation and Performance of F&B Manufacturing Companies

ANOVA

<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>.892</td>
<td>1</td>
<td>.892</td>
<td>5.032</td>
<td>.026</td>
</tr>
<tr>
<td>Residual</td>
<td>26.779</td>
<td>151</td>
<td>.177</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>27.671</td>
<td>152</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Product Innovation
b. Dependent Variable: Performance of F&B Manufacturing Companies

4.3.3.3 Product Innovation and Performance of F&B Manufacturing Companies

Regression Coefficients

Table 4.5 is the linear regression coefficients for product innovation and performance of F&B manufacturing companies. This indicates that product innovation could not statistically and significantly influence the performance of F&B manufacturing companies ($\beta = 0.113$, $t (153) = 2.243$, $p > .05$). The anticipated linear regression equation from the table is:

F&B Manufacturing Company Performance = 3.498 + 0.113 * Product Innovation + $\varepsilon$

This linear regression model indicates that product innovation variables positively influence the performance of F&B manufacturing companies, i.e. a unit mean increase in product innovation applied by the firms, would increase the performance of F&B manufacturing companies by a positive mean index rate of 0.113.
Table 4.5 Product Innovation and Performance of F&B Manufacturing Companies

Regression 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>1 (Constant)</td>
<td>3.498</td>
<td>.204</td>
<td>.204</td>
<td>17.112</td>
</tr>
<tr>
<td>Product Innovation</td>
<td>.113</td>
<td>.050</td>
<td>.180</td>
<td>2.243</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Performance of F&B Manufacturing Companies

4.4 Process Innovation and Performance of F&B Manufacturing Companies

This section provides the study results for the analyzed Likert questions. It provides the descriptive analysis, correlation analysis of the study factors and the regression analysis for process innovation and performance of F&B manufacturing companies.

4.4.1 Descriptive Analysis for Process Innovation and Performance of F&B Manufacturing Companies

Table 4.6 shows that the organizations have recently improved their production processes as agreed to by 75.2% of the respondents, while 24.8% were neutral (M=4.07, SD=.749). The organizations use continuous improvement strategies to remain competitive as agreed to by 90.8% of the respondents, while 9.2% were neutral (M=4.26, SD=.615). The organizations use new technology in their production process as agreed to by 75.8% of the respondents, 19.6% were neutral, and 4.6% disagreed (M=4.04, SD=.865). The organizations’ equipment has a high production efficiency as agreed to by 77.1% of the respondents, while 19% were neutral, and 3.9% disagreed (M=4.02, SD=.799). The organizations’ production processes ensure environmental sustainability as agreed to by 70.6% of the respondents, while 28.8% were neutral, and 0.7% disagreed (M=4.03, SD=.806).

The organizations’ production equipment gives the organizations a competitive edge as agreed to by 77.1% of the respondents, while 19% were neutral, and 3.9% disagreed (M=3.99, SD=.778). The organizations’ production technology has increased the quality of their products as agreed to by 91.5% of the respondents, while 7.8% were neutral, and 0.7% disagreed (M=4.48, SD=.670). The organizations recently underwent a business
process reengineering program as agreed to by 45.1% of the respondents, while 29.4% disagreed and 25.5% were neutral (M=3.26, SD=1.146). The organizations constantly seek to improve their productivity as agreed to by 96.7% of the respondents, while 3.3% were neutral (M=4.42, SD=.558). The organizations produce goods at a lower cost than their competitors as agreed to by 65.3% of the respondents, while 28.1% were neutral, and 6.5% disagreed (M=3.81, SD=.856).

Table 4.6 Descriptive Analysis for Process Innovation and Performance of F&B Manufacturing Companies

<table>
<thead>
<tr>
<th></th>
<th>SD</th>
<th>D</th>
<th>N</th>
<th>A</th>
<th>SA</th>
<th>M</th>
<th>Std Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>Our organization has recently improved its production processes</td>
<td>0</td>
<td>0</td>
<td>24.8</td>
<td>43.8</td>
<td>31.4</td>
<td>4.07</td>
<td>.749</td>
</tr>
<tr>
<td>The organization uses continuous improvement strategies to remain competitive</td>
<td>0</td>
<td>0</td>
<td>9.2</td>
<td>55.6</td>
<td>35.3</td>
<td>4.26</td>
<td>.615</td>
</tr>
<tr>
<td>Our organization uses new technology in the production process</td>
<td>.7</td>
<td>3.9</td>
<td>19.6</td>
<td>42.5</td>
<td>33.3</td>
<td>4.04</td>
<td>.865</td>
</tr>
<tr>
<td>Our organization’s equipment has a high production efficiency</td>
<td>0</td>
<td>3.9</td>
<td>19</td>
<td>48.4</td>
<td>28.8</td>
<td>4.02</td>
<td>.799</td>
</tr>
<tr>
<td>Our organization’s production processes ensure environmental sustainability</td>
<td>0</td>
<td>.7</td>
<td>28.8</td>
<td>37.3</td>
<td>33.3</td>
<td>4.03</td>
<td>.806</td>
</tr>
<tr>
<td>Our organization’s production equipment gives us a competitive edge</td>
<td>0</td>
<td>3.9</td>
<td>19</td>
<td>51.6</td>
<td>25.5</td>
<td>3.99</td>
<td>.778</td>
</tr>
<tr>
<td>Our organization production technology has increased the quality of our products</td>
<td>0</td>
<td>.7</td>
<td>7.8</td>
<td>34.6</td>
<td>56.9</td>
<td>4.48</td>
<td>.670</td>
</tr>
<tr>
<td>Our organization recently underwent a business process reengineering program</td>
<td>5.2</td>
<td>24.2</td>
<td>25.5</td>
<td>29.4</td>
<td>15.7</td>
<td>3.26</td>
<td>1.146</td>
</tr>
<tr>
<td>Our organization constantly seeks to improve its productivity</td>
<td>0</td>
<td>0</td>
<td>3.3</td>
<td>51</td>
<td>45.7</td>
<td>4.42</td>
<td>.558</td>
</tr>
<tr>
<td>Our organization produces goods at a lower cost than our competitors</td>
<td>0</td>
<td>6.5</td>
<td>28.1</td>
<td>43.1</td>
<td>22.2</td>
<td>3.81</td>
<td>.856</td>
</tr>
</tbody>
</table>

SD-Strongly Disagree, D-Disagree, N-Neither Agree nor Disagree, A-Agree SA-Strongly Agree, M=Mean, Std Dev = Standard Deviation
4.4.2 Correlations for Process Innovation and Performance of F&B Manufacturing Companies

Table 4.7 shows that the correlation analysis for process innovation factors and performance of F&B manufacturing companies. The table shows that process innovation was significant to the performance of F&B manufacturing companies ($r=0.257$, $p<0.05$). New equipment and technology introduction was significant to the performance of F&B manufacturing companies ($r=0.172$, $p<0.05$). Production process reengineering was insignificant to the performance of F&B manufacturing companies ($r=0.133$, $p>0.05$).

<table>
<thead>
<tr>
<th>F&amp;B Performance</th>
<th>Process Innovation</th>
<th>New Equip &amp; Tech Intro</th>
<th>Production Process Reengineering</th>
</tr>
</thead>
<tbody>
<tr>
<td>Process Innovation</td>
<td>.257**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>New Equip &amp; Tech Intro</td>
<td>.172*</td>
<td>.635**</td>
<td>1</td>
</tr>
<tr>
<td>Production Process</td>
<td>.133</td>
<td>.177*</td>
<td>.137</td>
</tr>
<tr>
<td>Reengineering</td>
<td>.102</td>
<td>.029</td>
<td>.091</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level (2-tailed)
* Correlation is significant at the 0.05 level (2-tailed)

4.4.3 Regressions for Process Innovation and Performance of F&B Manufacturing Companies

This section provides the linear regression analysis between process innovation and performance of F&B manufacturing companies. The section focuses on the model summary, analysis of variance (ANOVA) and regression coefficients for the same.

4.4.3.1 Process Innovation and Performance of F&B Manufacturing Companies Model Summary

Table 4.8 is the linear regression model summary for between process innovation and performance of F&B manufacturing companies. It specifies that process innovation variables can be used to explain about 6% of the changes in the performance of F&B manufacturing companies ($R^2 = .066$).
Table 4.8 Process Innovation and Performance of F&B Manufacturing Companies

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>.257</td>
<td>.066</td>
<td>.060</td>
<td>.41375</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Process Innovation

4.4.3.2 Process Innovation and Performance of F&B Manufacturing Companies

ANOVA

Table 4.9 is the linear regression analysis of variance between process innovation and performance of F&B manufacturing companies. It signifies that there was a statistically significant linear relationship between process innovation and performance of F&B manufacturing companies ($F (1,151) = 10.645, p<.05$).

Table 4.9 Process Innovation and Performance of F&B Manufacturing Companies

ANOVA

<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>1</td>
<td>Regression</td>
<td>1822</td>
<td>1</td>
<td>1.822</td>
<td>10.645</td>
</tr>
<tr>
<td>Residual</td>
<td>25.849</td>
<td>151</td>
<td>.171</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>27.671</td>
<td>152</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Process Innovation
b. Dependent Variable: Performance of F&B Manufacturing Companies

4.4.3.3 Process Innovation and Performance of F&B Manufacturing Companies

Regression Coefficients

Table 4.10 is the linear regression coefficients for process innovation and performance of F&B manufacturing companies. This indicates that process innovation can statistically and significantly influence the performance of F&B manufacturing companies ($\beta = 0.201, t (153) = 3.263, p <.05$). The anticipated linear regression equation from the table is:

\[
\text{F&B Manufacturing Company Performance} = 3.111 + .201 \times \text{Process Innovation} + \epsilon
\]

This linear regression model indicates that process innovation variables positively influence the performance of F&B manufacturing companies, i.e. a unit mean increase in process innovation applied by the firms, would increase the performance of F&B manufacturing companies by a positive mean index rate of 0.201.
Table 4.10 Process Innovation and Performance of F&B Manufacturing Companies

Regression 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>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 (Constant)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Process Innovation</td>
<td>3.111</td>
<td>.201</td>
<td>11.996</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>.259</td>
<td>.257</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Dependent Variable: Performance of F&amp;B Manufacturing Companies</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.5 Marketing Innovation and Performance of F&B Manufacturing Companies

This section provides the study results for the analyzed Likert questions. It provides the descriptive analysis, correlation analysis of the study factors and the regression analysis for marketing innovation and performance of F&B manufacturing companies.

4.5.1 Descriptive Analysis for Marketing Innovation and Performance of F&B Manufacturing Companies

Table 4.11 shows that the organizations’ product design gives them a competitive edge as agreed to by 87.6% of the respondents, while 12.4% were neutral (M=4.20, SD=.639). The organizations have recently changed their product design as agreed to by 84.3% of the respondents, while 15.7% were neutral (M=4.16, SD=.673). The organizations did not use an external design team to handle their product design needs as shown by 54.3% of the respondents who disagreed, while 24.2% agreed and 21.6% were neutral (M=2.59, SD=1.205). The packaging of the organizations’ products is better than that of their competitors as agreed to by 85.6% of the respondents, while 14.4% were neutral (M=4.37, SD=.723). The organizations have recently changed their products’ packaging as agreed to by 75.2% of the respondents, while 22.2% were neutral, and 2.6% disagreed (M=4.03, SD=.794). The organizations have outsourced packaging development as agreed to by 79.1% of the respondents, while 14.4% were neutral, and 6.6% disagreed (M=3.99, SD=.847).

Consumers prefer the firms’ products to those of their competitors as agreed to by 81.1% of the respondents, while 18.3% were neutral and 0.7% disagreed (M=4.20, SD=.755). The organizations offer differentiated products that are overall more superior to those of their competitors as agreed to by 83% of the respondents, while 17% were neutral (M=4.23, SD=.721). The consumers trust that the organizations’ products will deliver the
promised benefits as agreed to by all the respondents (M=4.48, SD=.501). The price of the products is a good indicator of the value they provide as agreed to by 98.7% of the respondents, while 1.3% were neutral (M=4.59, SD=.520). The organizations use sponsorships as a marketing tool as shown by 59.4% of the respondents who disagreed, while 24.2% agreed and 16.3% were neutral (M=2.49, SD=1.268). The organizations have a strong presence on social media platforms as agreed to by 77.8% of the respondents, while 13.7% were neutral, and 8.5% disagreed (M=3.99, SD=.928).

Table 4.11 Descriptive Analysis for Marketing Innovation and Performance of F&B Manufacturing Companies

<table>
<thead>
<tr>
<th></th>
<th>SD</th>
<th>D</th>
<th>N</th>
<th>A</th>
<th>SA</th>
<th>M</th>
<th>Std Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>Our organization’s product design gives us a competitive edge</td>
<td>0</td>
<td>0</td>
<td>12.4</td>
<td>55.6</td>
<td>32</td>
<td>4.20</td>
<td>.639</td>
</tr>
<tr>
<td>We have recently changed our product design</td>
<td>0</td>
<td>0</td>
<td>15.7</td>
<td>52.3</td>
<td>32</td>
<td>4.16</td>
<td>.673</td>
</tr>
<tr>
<td>We use an external design team to handle our product design needs</td>
<td>19</td>
<td>35.3</td>
<td>21.6</td>
<td>15.7</td>
<td>8.5</td>
<td>2.59</td>
<td>1.205</td>
</tr>
<tr>
<td>The packaging of our products is better than that of our competitors</td>
<td>0</td>
<td>0</td>
<td>14.4</td>
<td>34.6</td>
<td>51</td>
<td>4.37</td>
<td>.723</td>
</tr>
<tr>
<td>We have recently changed our products’ packaging</td>
<td>0</td>
<td>2.6</td>
<td>22.2</td>
<td>45.1</td>
<td>30.1</td>
<td>4.03</td>
<td>.794</td>
</tr>
<tr>
<td>Our organization has outsourced packaging development</td>
<td>.7</td>
<td>5.9</td>
<td>14.4</td>
<td>51.6</td>
<td>27.5</td>
<td>3.99</td>
<td>.847</td>
</tr>
<tr>
<td>Consumers prefer our products to those of our competitors</td>
<td>0</td>
<td>.7</td>
<td>18.3</td>
<td>41.2</td>
<td>39.9</td>
<td>4.20</td>
<td>.755</td>
</tr>
<tr>
<td>Our organization offers differentiated products that are overall more superior to those of our competitors</td>
<td>0</td>
<td>0</td>
<td>17</td>
<td>43.1</td>
<td>39.9</td>
<td>4.23</td>
<td>.721</td>
</tr>
<tr>
<td>Our consumers trust that our products will deliver the promised benefits</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>51.6</td>
<td>48.4</td>
<td>4.48</td>
<td>.501</td>
</tr>
<tr>
<td>The price of our products is a good indicator of the value they provide</td>
<td>0</td>
<td>0</td>
<td>1.3</td>
<td>38.6</td>
<td>60.1</td>
<td>4.59</td>
<td>.520</td>
</tr>
<tr>
<td>Our organization uses sponsorships as a marketing tool</td>
<td>24.8</td>
<td>34.6</td>
<td>16.3</td>
<td>15</td>
<td>9.2</td>
<td>2.49</td>
<td>1.268</td>
</tr>
<tr>
<td>Our organization has a strong presence on social media platforms</td>
<td>1.3</td>
<td>7.2</td>
<td>13.7</td>
<td>46.4</td>
<td>31.4</td>
<td>3.99</td>
<td>.928</td>
</tr>
</tbody>
</table>

SD-Strongly Disagree, D-Disagree, N-Neither Agree nor Disagree, A-Agree SA-Strongly Agree, M=Mean, Std Dev = Standard Deviation
**4.5.2 Correlations for Marketing Innovation and Performance of F&B Manufacturing Companies**

Table 4.12 shows the correlations analysis for marketing innovation factors and performance of F&B manufacturing companies. The table shows that marketing innovation was significant to the performance of F&B manufacturing companies \((r=0.514, p<0.05)\). Product design changes were significant to the performance of F&B manufacturing companies \((r=0.161, p<0.05)\). Packaging changes were significant to the performance of F&B manufacturing companies \((r=0.374, p<0.05)\). Product positioning was insignificant to the performance of F&B manufacturing companies \((r=0.064, p>0.05)\). The marketing mix was insignificant to the performance of F&B manufacturing companies \((r=0.124, p>0.05)\).

**Table 4.12 Correlations for Marketing Innovation and Performance of F&B Manufacturing Companies**

<table>
<thead>
<tr>
<th></th>
<th>F&amp;B Performance</th>
<th>Marketing Innovation</th>
<th>Design Changes</th>
<th>Packaging Changes</th>
<th>Product Positioning</th>
<th>Marketing Mix</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>F&amp;B Performance</strong></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Marketing Innovation</strong></td>
<td>.514**</td>
<td>1</td>
<td>.134</td>
<td></td>
<td>.406**</td>
<td></td>
</tr>
<tr>
<td><strong>Product Design Changes</strong></td>
<td>.047</td>
<td>.098</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Packaging Changes</strong></td>
<td>.374**</td>
<td>.230**</td>
<td>.406**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Product Positioning</strong></td>
<td>.064</td>
<td>.005</td>
<td>.170*</td>
<td>.189*</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>Marketing Mix</strong></td>
<td>.429</td>
<td>.954</td>
<td>.036</td>
<td>.019</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

* Correlation is significant at the 0.05 level (2-tailed)
4.5.3 Regressions for Marketing Innovation and Performance of F&B Manufacturing Companies

This section provides the linear regression analysis between marketing innovation and performance of F&B manufacturing companies. The section focuses on the model summary, analysis of variance (ANOVA) and regression coefficients for the same.

4.5.3.1 Marketing Innovation and Performance of F&B Manufacturing Companies

Model Summary

Table 4.13 is the linear regression model summary for between marketing innovation and performance of F&B manufacturing companies. It specifies that marketing innovation variables can be used to explain about 26% of the changes in the performance of F&B manufacturing companies ($R^2 = .264$).

Table 4.13 Marketing Innovation and Performance of F&B Manufacturing Companies 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>.514</td>
<td>.264</td>
<td>.259</td>
<td>.36719</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Marketing Innovation

4.5.3.2 Marketing Innovation and Performance of F&B Manufacturing Companies

ANOVA

Table 4.14 is the linear regression analysis of variance between marketing innovation and performance of F&B manufacturing companies. It signifies that there was a statistically significant linear relationship between marketing innovation and performance of F&B manufacturing companies ($F (1,151) = 54.235, p<.05$).

Table 4.14 Marketing Innovation and Performance of F&B Manufacturing Companies ANOVA

<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>1 Regression</td>
<td>7.312</td>
<td>1</td>
<td>7.312</td>
<td>54.235</td>
<td>.000</td>
</tr>
<tr>
<td>Residual</td>
<td>20.359</td>
<td>151</td>
<td>.135</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>27.671</td>
<td>152</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Marketing Innovation
b. Dependent Variable: Performance of F&B Manufacturing Companies
4.5.3.3 Marketing Innovation and Performance of F&B Manufacturing Companies

Regression Coefficients

Table 4.15 is the linear regression coefficients for marketing innovation and performance of F&B manufacturing companies. This indicates that marketing innovation can statistically and significantly influence the performance of F&B manufacturing companies ($\beta = 0.417$, $t (153) = 7.364$, $p < .05$). The anticipated linear regression equation from the table is:

F&B Manufacturing Company Performance = 2.302 + .417 * Marketing Innovation + $\varepsilon$

This linear regression model indicates that marketing innovation variables positively influence the and performance of F&B manufacturing companies, i.e. a unit mean increase in marketing innovation applied by the firms, would increase the performance of F&B manufacturing companies by a positive mean index rate of 0.417.

Table 4.15 Marketing Innovation and Performance of F&B Manufacturing Companies Regression 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>1 (Constant)</td>
<td>2.302</td>
<td>.226</td>
<td>10.196</td>
<td>.000</td>
</tr>
<tr>
<td>Marketing Innovation</td>
<td>.417</td>
<td>.057</td>
<td>.514</td>
<td>7.364</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Performance of F&B Manufacturing Companies

4.6 Chapter Summary

This chapter presented the graphical representation of the study results and findings. The chapter has provided the descriptive and inferential analysis of the study findings based on the objectives of the study. It was divided into various sections that provided analysis of the general data of the respondents, the influence of product innovation on the performance of F&B manufacturing companies, the influence of process innovation on the performance of F&B manufacturing companies and the influence of marketing innovation on the performance of F&B manufacturing companies in Nairobi County. The next chapter will be on the discussions, conclusions and recommendations of the study.
CHAPTER FIVE
5.0 DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction
This chapter is the conclusion of the study. The chapter provides the study’s discussions, conclusions and recommendations. It is divided into five sections which are as follows: 5.1 introduction, 5.2 summary of the study, 5.3 discussions, 5.4 conclusions, and 5.5 recommendations that are based on the study objectives.

5.2 Summary of the Study
The objective of this study was to examine the influence of innovation on the performance of Food and Beverage (F&B) manufacturing companies in Nairobi County. The study sought to: examine the influence of product innovation on the performance of F&B manufacturing companies Nairobi County, to determine the influence of process innovation on the performance of F&B manufacturing companies in Nairobi County, and to examine the influence of marketing innovation on the performance of F&B manufacturing companies Nairobi County. Explanatory research design was used in this study to explain systematically the facts and characteristics of the study population. The population of this study consisted of all F&B firms in Nairobi County which were 86 in number. The sampling frame for this study was the official list of registered firms under the Kenya Association of Manufacturers (KAM). Census sampling technique was used to select the respondents for the study. Primary data was collected for the study using a self-administered questionnaire. The Cronbach’s alpha value of \( \geq 0.7 \) was used to ensure the questionnaire was reliable for the study. The researcher administered the questionnaires individually to the selected population target. Data analysis entailed editing, coding, and tabulation of data collected into manageable summaries for ease of interpretation. Quantitative analysis was then applied. Descriptive statistics of frequencies, means, and standard deviations were used to analyze the collected data. The study also applied the inferential analysis of correlations and regressions. This helped in providing a distinct relationship between innovation and the performance of F&B manufacturing companies in Nairobi County.
The study revealed that product innovation was significant to the performance of F&B manufacturing companies. The regression analysis indicated that product innovation variables explained about 3% of the changes in the performance of F&B manufacturing companies, which was relatively insignificant in terms of percentage, and that a unit mean increase in product innovation applied by the firms, would increase the performance of F&B manufacturing companies by a positive mean index rate of 0.113. The study revealed that that process innovation was significant to the performance of F&B manufacturing companies. The regression analysis specified that process innovation variables could explain about 6% of the changes in the performance of F&B manufacturing companies, and that a unit mean increase in process innovation applied by the firms, would increase the performance of F&B manufacturing companies by a positive mean index rate of 0.201. The study revealed that marketing innovation was significant to the performance of F&B manufacturing companies. The regression analysis revealed that marketing innovation variables could explain about 26% of the changes in the performance of F&B manufacturing companies, and that a unit mean increase in marketing innovation applied by the firms, would increase the performance of F&B manufacturing companies by a positive mean index rate of 0.417.

5.3 Discussions

5.3.1 Product Innovation and Performance of F&B Manufacturing Companies

The study revealed that the organizations had a wide range of products under the same brand name as agreed by 61.5% of the respondents. The result is supported by Kotler and Keller (2012) who state that, product line extensions occur when a company introduces additional items in the same product category under the same brand name such as new flavors, forms, colors, added ingredients, and package sizes. This is further supported by Trott (2017) who confirms that corporations must be able to adapt and evolve if they wish to survive. This is because competitors come to the market and introduce new products that change the basis of competition.

The study revealed that the organizations offered different packaging sizes for their products as agreed to by all the respondents. The result is supported by Kotler and Keller (2012) who state that, product line extensions occur when a company introduces additional items in the same product category under the same brand name such as new
flavors, forms, colors, added ingredients, package sizes. The ability to change and adapt therefore is very key to the survival and growth of any business as agreed to by Aragon-Correa et al. (2007).

The study revealed that the organizations continually enhanced their products in line with market demand as agreed to by 93.5% of the respondents. This agrees with Aragon-Correa et al. (2007) who state that, the ability to change and adapt therefore is very key to the survival and growth of any business, and an organization must continuously adapt its product lines to changing market, competitive, and trade-intermediary conditions. Further to this, Crawford and Benedetto (2003) note that, these enhanced products do in fact, provide enhanced performance and a greater perceived value over the old products thereby positively impacting the performance of the firm.

The study revealed that the organizations have an active new product development function as agreed to by 70.6% of the respondents. This agrees with Markham and Lee (2013) who state that, the importance of effective new product development cannot be overstated, since a higher percentage of profits and revenue mostly comes from newer products and those higher-performing firms are very proficient at product development.

The study revealed that the organizations often introduced new products into the market as agreed to by 86.9% of the respondents. The result agrees with Gubler (2010) who notes that the ability to provide new products and services over time is very vital to many firms and organizations. Varis and Littunen (2010) established that the more an organization was able to introduce new products into the market the more customers associated success with that organization as it is assumed the organization is performing well.

The study revealed that the products that the firms have introduced into the market have been successful as agreed by 71.9% of the respondents. The result disagrees with Hauser and Dahan (2008) who observed that innovation is characteristically risky, and organizations could devote significant resources to new product ideas with no assurance that they will ever become commercially viable.
The study revealed that the new product development cycle for the firms is short and effective as agreed to by 40.5% of the respondents. The results agree with Davis et al. (2014) who identified three main issues that should be observed in the NPD process, and one was ensuring that the new product meets consumer expectations and that the product cycle from its idea inception to product delivery is as short as possible. Further support to this is made by Hauser, & Dahan, (2008) who opined that in order to enhance the success of a new product into the market organization should have a good new product development (NPD) process.

The study revealed that the supply chain function of the firms ensures that their products get to the market fast as agreed to by 82.4% of the respondents. The result was supported by Hilletofth and Eriksson (2011) who in their study, were of the opinion that the NPD process should be coordinated with supply chain management activities to avoid losing on company competitiveness in the market, as well as ensure that the production of innovative, value-adding products that should be also delivered fast to the market.

The study revealed that the organizations utilized existing technology to increase the value of their products to the customers as agreed to by 56% of the respondents. This result is supported by Aragon-Correa et al. (2007) who state that, it is evident that product line extension utilizes existing technology and increases value to the customer through features and design changes within the existing market thereby being a factor of incremental innovation. Oke, Burke and Myers (2014) in their study further established that F&Bs concentrate more on incremental way of product innovation as opposed to radical product innovation.

The study revealed that the organizations use past mistakes and successes to inform new product development decisions as agreed to by 79.7% of the respondents. This result is supported by Garcia-Morale et al. (2014) who state that, besides having the knowledge of the customers changing tastes and preferences the F&Bs have the advantage of being able to learn and adjust accordingly faster than organizations in other industries.
The correlation analysis in the study revealed that product innovation was significant to the performance of F&B manufacturing companies. The regression analysis indicated that product innovation variables explained about 3% of the changes in the performance of F&B manufacturing companies, which was relatively insignificant in terms of percentage, and that a unit mean increase in product innovation applied by the firms, would increase the performance of F&B manufacturing companies by a positive mean index rate of 0.113.

5.3.2 Process Innovation and Performance of F&B Manufacturing Companies
The second objective of the study sought to examine the influence of process innovation on the performance of food and beverage manufacturing companies in Nairobi County. The study revealed that the organizations had recently improved their production processes as agreed to by 75.2% of the respondents. This result is supported by Davenport (1993) who states that, process innovation refers to discrete initiatives that are intended to achieve radically redesigned and improved production processes in a bounded time frame, and it differs from quality management often referred to as TQM.

The study revealed that the organizations use continuous improvement strategies to remain competitive as agreed to by 90.8% of the respondents. This result is supported by Davenport (1993) who notes that quality management differs from process innovation due to the distinction that it emphasizes on incremental improvement in work processes and outputs over an open-ended period of time.

The study revealed that the organizations use new technology in their production process as agreed to by 75.8% of the respondents. This agrees with Subramanian and Nilakanta (1996) who state that the introduction of new and technologically sound equipment is considered to be an important driver of explaining business efficiency, corporate success and competitive advantage.

The study revealed that the organizations’ equipment has a high production efficiency as agreed to by 77.1% of the respondents. This is in agreement with Castillejo (2016) who states that introducing efficient equipment to the production process stimulates production factors to move from low productivity to high productivity platforms. The introduction of
new equipment in the production process significantly decreases the unit cost of production and produces significantly improved products thereby increasing product quality (Gunday et al., 2011).

The study revealed that the organizations’ production processes ensure environmental sustainability as agreed to by 70.6% of the respondents. This agrees with Buckley and Mirza (2014) who state that, innovations include modifications in the production process and techniques that collectively reduce costs, increase efficiency, provide for human welfare and ensure environmental sustainability.

The study revealed that the organizations’ production equipment gives them a competitive edge as agreed to by 77.1% of the respondents. This is supported by Lawson and Samson (2011) who note that an organization that has a closer relationship to the potential customers than the competitors will have the advantage of being more creative than the competitors hence being more innovative. This is because the organization will have new ideas and will be the first to introduce a new and unique product in the market (Panayides, 2012).

The study revealed that the organizations’ production technology has increased the quality of their products as agreed to by 91.5% of the respondents. This result is supported by Atandi and Bwisa’s (2013) study which found that where technology was used as a potential for process innovation a major relationship exists between new equipment adopted and firm performance. The introduction of new equipment in the production process significantly decreases the unit cost of production and produces significantly improved products thereby increasing product quality (Gunday et al., 2011).

The study revealed that the organizations recently underwent a business process reengineering program as agreed to by 45.1% of the respondents. The result agrees with Hammer and Champy (2013) who state that, BPR is the fundamental rethinking and radical redesign of processes to achieve dramatic improvements in critical contemporary measures of performance, and is used by many organizations to survive in the competitive era.
The study revealed that the organizations constantly seek to improve their productivity as agreed to by 96.7% of the respondents. The result agrees with Rosli et al. (2013) who observed that process innovation reengineering improves the internal functions of the organization. Oke et al. (2014) argue that for process innovation to be successful the organization has to improve its techniques and systems of production of goods and services.

The study revealed that the organizations produce goods at a lower cost than their competitors as agreed to by 65.3% of the respondents. This study result is supported by Minai and Lucky (2011), who posit that process innovation embodies business process reengineering and quality function deployment. A supplier who is efficient and constantly works on the productivity gains can expect in time to develop products that give a similar performance at lowered costs.

The correlation analysis conducted revealed that process innovation was significant to the performance of F&B manufacturing companies. The regression analysis specified that process innovation variables could explain about 6% of the changes in the performance of F&B manufacturing companies, and that a unit mean increase in process innovation applied by the firms, would increase the performance of F&B manufacturing companies by a positive mean index rate of 0.201.

5.3.3 Marketing Innovation and Performance of F&B Manufacturing Companies

The third objective of the study sought to examine the influence of marketing innovation on the performance of food and beverage manufacturing companies in Nairobi County. The study revealed that the organizations’ product design gives them a competitive edge as agreed to by 87.6% of the respondents. The study result is supported by Ren et al. (2010) who note that, in today’s turbulent business environment, there is a need for new ideas that can completely change any aspect of the value chain, and marketing innovation is a necessary tool for organizations to achieve sustainable competitive advantage.
The study revealed that the organizations have recently changed their product design as agreed to by 84.3% of the respondents. The result agrees with OECD (2010) report that indicates that, due to the current environmental turbulence and competitive nature of the environment that F&Bs operate in, the design function has become a useful asset. It plays a pivotal role in defining the physical form of the product to satisfy customers’ needs.

The study revealed that the organizations did not use an external design team to handle their product design needs as shown by 54.3% of the respondents who disagreed. This study result disagrees with the observations of Utterback et al. (2016) who identified that, most F&Bs have embarked on outsourcing design instead of having an in-house design team and having more efficient management of the design function as a resource that is vital in product innovation.

The study revealed that packaging of the organizations' products is better than that of their competitors as agreed to by 85.6% of the respondents. This disagrees with Sara (1990) and Mensonen (2012) who argue that marketing professionals neglect packaging to a high extent. The study revealed that the organizations have recently changed their products’ packaging trends as agreed to by 75.2% of the respondents. The result agrees with McGinnis et al. (2006) who observed that, in the US there seems to be a change in product marketing trends, leading to less traditional marketing (through television, print, internet, etc.) and more indirect promotion.

The study revealed that the organizations have outsourced packaging development as agreed to by 79.1% of the respondents. This result is supported by Olander-Roese and Nilsson (2009) who state that, manufacturers commonly outsource packaging development to packaging suppliers, and unfortunately, collaboration and communication between the different actors are then rare.
The study revealed that consumers prefer the firms’ products to those of their competitors as agreed to by 81.1% of the respondents. This agrees with Keller and Kotler (2013) who presented three criteria which determine whether brand associations can function as PODs: desirable to consumers, whereby, the brand association must be seen by a customer as personally relevant and able to deliver the promised benefits; deliverable by company.

The study revealed that the organizations offer differentiated products that are overall more superior to those of their competitors as agreed to by 83% of the respondents. The result is supported by Zhou et al. (2015) who state that, the benefits to the customer accrued from product innovation include differentiated products that are more superior, more unique and better quality. Apart from that, they are able to take advantage of cost reduction measures and offer similar products at a lower cost.

The study revealed that the consumers trust that the organizations’ products will deliver the promised benefits as agreed to by all the respondents. The result is supported by Keller and Kotler (2013) who state that brand association must be seen by a customer as personally relevant and able to deliver the promised benefits. This is further supported by Wells et al. (2014) and George (2015) who state that, not all brands can carry the expenditure of a national advertising campaign, along with the fact that consumers nowadays have started to trust their own judgment and taste rather than being convinced by traditional marketing measures.

The study revealed that the price of their products is a good indicator of the value they provide as agreed to by 98.7% of the respondents. This agrees with Kotler (2015) who notes that, if a brand desire to be a high-end brand with a limited number of customers, they usually put the price high since high prices are often perceived to be an indicator of high quality while low prices an indicator of poor quality.
The study revealed that the organizations use sponsorships as a marketing tool as shown by 59.4% of the respondents who disagreed. This agrees with Aaker and Joachimsthaler (1997) who opined that organizations have many alternatives to gaining positive attention, and they regard sponsorships as an option for brands that seek good access to their target segments and wish to gain representation in the media.

The study further revealed that the organizations have a strong presence on social media platforms as agreed to by 77.8% of the respondents. This agrees with Bergsli (2010) who states that, firms that participate in social media, and facilitate open and social dialogue-based conversations about their own brand enable a deep and trusting relationship between the brand and its consumers.

The correlation analysis conducted revealed that marketing innovation was significant to the performance of F&B manufacturing companies. The regression analysis revealed that marketing innovation variables could explain about 26% of the changes in the performance of F&B manufacturing companies, and that a unit mean increase in marketing innovation applied by the firms, would increase the performance of F&B manufacturing companies by a positive mean index rate of 0.417.

5.4 Conclusions

5.4.1 Product Innovation and Performance of F&B Manufacturing Companies

The study concludes that product innovation was significant to the performance of F&B manufacturing companies. The regression analysis indicated that product innovation variables explained about 3% of the changes in the performance of F&B manufacturing companies. This is relatively insignificant in terms of percentage given that a unit mean increase in product innovation applied by the firms, would increase the performance of F&B manufacturing companies by a positive mean index rate of 0.113. The study concludes that though there was a positive relationship between product innovation and firm performance, the impact was not that much to put emphasis on it and neglect process and marketing innovation.
5.4.2 Process Innovation and Performance of F&B Manufacturing Companies
The study concludes that process innovation was significant to the performance of F&B manufacturing companies. The regression analysis specified that process innovation variables could explain about 6% of the changes in the performance of F&B manufacturing companies, and that a unit mean increase in process innovation applied by the firms, would increase the performance of F&B manufacturing companies by a positive mean index rate of 0.201. That being said, F&Bs had recently improved their production processes, they used continuous improvement strategies to remain competitive. New technology was used by the firms in their production process, and their equipment had a high production efficiency. Further to this, the organizations’ production processes ensured environmental sustainability, and their production equipment gave the companies a competitive edge in the market, while their production technology had increased the quality of their products. The study concludes that process innovation was viewed as a key factor of success by organizations in the Food & Beverage manufacturing sector as they had invested in scaling their process with a view to increasing their production efficiency, improving their productivity and producing goods at a lower cost than competitors. Further to this, new equipment and technology introduction had the most significance in terms of process innovation to the performance of the organizations in the industry.

5.4.3 Marketing Innovation and Performance of F&B Manufacturing Companies
The study concludes that marketing innovation was significant to the performance of F&B manufacturing companies. The regression analysis revealed that marketing innovation variables could explain about 26% of the changes in the performance of F&B manufacturing companies, and that a unit mean increase in marketing innovation applied by the firms, would increase the performance of F&B manufacturing companies by a positive mean index rate of 0.417. The study therefore concludes that in terms of marketing innovation, product design and packaging changes had the most significance to the performance of F&B manufacturing firms.
5.5 Recommendations

5.5.1 Recommendations for Improvement

5.5.1.1 Product Innovation and Performance of F&B Manufacturing Companies
The study revealed that F&B firms developed and launched new products often, it therefore recommends them to increase their efficiency in the improvement of quality which may lead to increased customer satisfaction. The study further recommends that the NPD process for F&B manufacturing firms be coordinated with supply chain management activities to avoid losing on the organization’s competitiveness in the market and that the firms also use past mistakes and successes to inform NPD decisions.

5.5.1.2 Process Innovation and Performance of F&B Manufacturing Companies
The study recommends that F&B manufacturing firms bring on board new equipment to their production processes as well as introduce technology to the process which will lower their unit cost of production and increase the quality of their end product which will give them a competitive edge.

5.5.1.3 Marketing Innovation and Performance of F&B Manufacturing Companies
The firm recommends the F&B firms to outsource their product design to professionals. This will facilitate their ability to engage with experienced designers that can supplement internal organization design skills within their respective firms. These designers may be able to link the firms with the knowledge that can be applied in different socio-cultural contexts, as well as produce new aesthetically pleasing product design solutions. The study further recommends that organizations in the F&B manufacturing sector employ sponsorships as a marketing tool to build brand equity and reach customers where traditional marketing could not.

5.5.2 Recommendations for Further Research
This study examined the influence of innovation on the performance of food and beverage manufacturing companies in Nairobi County. It focused on three key areas of innovation, namely: product, process and marketing innovation. This being said, the study was limited in terms of geography and scope. Therefore, further research needs to be conducted in other regions in the country, and the scope be widened to involve other factors under innovation for a complete and comprehensive research result.
REFERENCES


APPENDICES

APPENDIX I: FOOD AND BEVERAGE FIRMS IN NAIROBI

<table>
<thead>
<tr>
<th>No:</th>
<th>Company Name</th>
<th>Company Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Afribon</td>
<td>Flavors</td>
</tr>
<tr>
<td>2.</td>
<td>Africa Spirits</td>
<td>Airline sickness bags</td>
</tr>
<tr>
<td>3.</td>
<td>Afrimac Nut Company</td>
<td>Macadamia nuts processing</td>
</tr>
<tr>
<td>4.</td>
<td>Agri Pro-Pak Ltd</td>
<td>Drinking Water</td>
</tr>
<tr>
<td>5.</td>
<td>Agriner Agricultural Development</td>
<td>Acaricides</td>
</tr>
<tr>
<td>6.</td>
<td>Almasi Beverages Ltd</td>
<td>Coke</td>
</tr>
<tr>
<td>7.</td>
<td>Alpha Fine Foods Ltd</td>
<td>Meat and food products</td>
</tr>
<tr>
<td>8.</td>
<td>Alpha Grain Millers Ltd</td>
<td>Kifaru Maize Meal</td>
</tr>
<tr>
<td>9.</td>
<td>Alpine Coolers Ltd</td>
<td>Bottled water</td>
</tr>
<tr>
<td>10.</td>
<td>Aquamist Ltd</td>
<td>Flavored Water &amp; Drinks</td>
</tr>
<tr>
<td>11.</td>
<td>Aviano East Africa</td>
<td>Bottled Water</td>
</tr>
<tr>
<td>12.</td>
<td>Bakers Corner Ltd</td>
<td>bread</td>
</tr>
<tr>
<td>13.</td>
<td>Bdelo Ltd</td>
<td>Maize &amp; Totillas (Chapati)</td>
</tr>
<tr>
<td>14.</td>
<td>Bio Food Products Ltd</td>
<td>Bio stirred yoghurts</td>
</tr>
<tr>
<td>15.</td>
<td>Breakfast Cereal Company (K) Ltd</td>
<td>Weetabix</td>
</tr>
<tr>
<td>16.</td>
<td>British American Tobacco Kenya Plc</td>
<td>Tobacco Products</td>
</tr>
<tr>
<td>17.</td>
<td>Bulto Foods Ltd</td>
<td>Fortified Foods</td>
</tr>
<tr>
<td>18.</td>
<td>C. Dormans Ltd</td>
<td>Coffee</td>
</tr>
<tr>
<td>19.</td>
<td>C.Czarnikow Sugar (EA) Ltd</td>
<td>Sugar Market Services &amp; supply</td>
</tr>
<tr>
<td>20.</td>
<td>Cadbury Kenya Ltd</td>
<td>Cocoa Based Products</td>
</tr>
<tr>
<td>21.</td>
<td>Candy Kenya Ltd</td>
<td>Confectioneries</td>
</tr>
<tr>
<td>22.</td>
<td>Capel Food Ingredients</td>
<td>Flavors</td>
</tr>
<tr>
<td>23.</td>
<td>Chirag Kenya Ltd</td>
<td>Crisps</td>
</tr>
<tr>
<td>24.</td>
<td>Coca-Cola East Central and West Africa Ltd</td>
<td>Coca-Cola</td>
</tr>
<tr>
<td>25.</td>
<td>Coca-Cola Juices (K) Ltd</td>
<td>Juice</td>
</tr>
<tr>
<td>26.</td>
<td>Danone Baby Nutrition Africa And Overseas</td>
<td>Fresh Dairy Products</td>
</tr>
<tr>
<td>27.</td>
<td>DPL Festive Ltd</td>
<td>Bread</td>
</tr>
<tr>
<td>28.</td>
<td>East African Breweries Ltd</td>
<td>Alcoholic &amp; Non-Alcoholic Beverages</td>
</tr>
<tr>
<td></td>
<td>Company Name</td>
<td>Products</td>
</tr>
<tr>
<td>---</td>
<td>--------------------------------------------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>29.</td>
<td>East African Sea Food Ltd</td>
<td>Meat Products</td>
</tr>
<tr>
<td>30.</td>
<td>East African Seed Co. Ltd</td>
<td>Seeds</td>
</tr>
<tr>
<td>31.</td>
<td>Eastern Produce Kenya Ltd (Kakuzi)</td>
<td>Avocado</td>
</tr>
<tr>
<td>32.</td>
<td>Edible Oil Products</td>
<td>Cooking oil and fat</td>
</tr>
<tr>
<td>33.</td>
<td>Elekeea Ltd</td>
<td>Baobab Powder</td>
</tr>
<tr>
<td>34.</td>
<td>Elle Kenya Ltd</td>
<td>Metropolitan Gin, Metropolitan Brandy, Sir Ambirio</td>
</tr>
<tr>
<td>35.</td>
<td>Erdemann Co. (K) Ltd</td>
<td>Bread</td>
</tr>
<tr>
<td>36.</td>
<td>Europack Industries Ltd</td>
<td>Co-Packing</td>
</tr>
<tr>
<td>37.</td>
<td>Excel Chemicals Ltd</td>
<td>Flavored Water</td>
</tr>
<tr>
<td>38.</td>
<td>Farmers Choice Ltd</td>
<td>Meat Products</td>
</tr>
<tr>
<td>39.</td>
<td>Frigoken Ltd</td>
<td>Fresh products</td>
</tr>
<tr>
<td>40.</td>
<td>Frutarom Kenya (Ltd)</td>
<td>Food Flavors (Vanilla)</td>
</tr>
<tr>
<td>41.</td>
<td>Glacier Products Ltd</td>
<td>Ice cream</td>
</tr>
<tr>
<td>42.</td>
<td>Global Fresh Ltd</td>
<td>Vegetables</td>
</tr>
<tr>
<td>43.</td>
<td>Gonas Best Ltd</td>
<td>Corn Starch</td>
</tr>
<tr>
<td>44.</td>
<td>Green Forest Foods Ltd</td>
<td>Honey Products</td>
</tr>
<tr>
<td>45.</td>
<td>Honey Care Africa</td>
<td>Honey</td>
</tr>
<tr>
<td>46.</td>
<td>Kamili Packers Ltd</td>
<td>Dry Cereals</td>
</tr>
<tr>
<td>47.</td>
<td>Kedsta Investment Ltd</td>
<td>Euro Gin</td>
</tr>
<tr>
<td>48.</td>
<td>Kenafic Industries Ltd</td>
<td>Confectioneries</td>
</tr>
<tr>
<td>49.</td>
<td>Kenchic Ltd</td>
<td>Poultry Breeders</td>
</tr>
<tr>
<td>50.</td>
<td>Kenya Co-Operative Coffee Dealers Ltd</td>
<td>Shiriki Lifestyle Coffee</td>
</tr>
<tr>
<td>51.</td>
<td>Kenya Highland Seed Co. Ltd</td>
<td>Vegetable Seeds</td>
</tr>
<tr>
<td>52.</td>
<td>Kenya Sweets Ltd</td>
<td>Confectioneries</td>
</tr>
<tr>
<td>53.</td>
<td>Kenya Tea Development Agency</td>
<td>Association of tea growers</td>
</tr>
<tr>
<td>55.</td>
<td>Kirinyaga Flour Mills</td>
<td>Baby Porridge</td>
</tr>
<tr>
<td>56.</td>
<td>Koba Waters Ltd/ Broomhill Springs Water</td>
<td>Mineral water bottlers</td>
</tr>
<tr>
<td>57.</td>
<td>Kuguru Food Complex Ltd</td>
<td>Soft drinks</td>
</tr>
<tr>
<td>58.</td>
<td>Kwale International Company Ltd</td>
<td>Sugar</td>
</tr>
<tr>
<td>59.</td>
<td>Landeco Ltd</td>
<td>Onions</td>
</tr>
<tr>
<td>60.</td>
<td>Manji Food Industries Ltd</td>
<td>Confectioneries</td>
</tr>
<tr>
<td></td>
<td>Company Name</td>
<td>Product(s)</td>
</tr>
<tr>
<td>---</td>
<td>-------------------------------------------------</td>
<td>-------------------------------------------------</td>
</tr>
<tr>
<td>61</td>
<td>Melvin Marsh International</td>
<td>Tea products</td>
</tr>
<tr>
<td>62</td>
<td>Monwalk Investment Ltd</td>
<td>Vodka (Moonwalker)</td>
</tr>
<tr>
<td>63</td>
<td>Nairobi Bottlers Ltd</td>
<td>Drinks</td>
</tr>
<tr>
<td>64</td>
<td>Nairobi Flour Mills Ltd</td>
<td>Maize flour</td>
</tr>
<tr>
<td>65</td>
<td>Nas Airport Services Ltd</td>
<td>Airline food</td>
</tr>
<tr>
<td>66</td>
<td>Nestle Kenya Ltd</td>
<td>Baby food and gripe mixture</td>
</tr>
<tr>
<td>67</td>
<td>Patco Industries Ltd</td>
<td>Confectionaries</td>
</tr>
<tr>
<td>68</td>
<td>Pearl Industries Ltd</td>
<td>Confectionaries</td>
</tr>
<tr>
<td>69</td>
<td>Pembe Flour Mills Ltd</td>
<td>Baking flour</td>
</tr>
<tr>
<td>70</td>
<td>Pernod Ricard Kenya Ltd</td>
<td>Spirits</td>
</tr>
<tr>
<td>71</td>
<td>Premier Food Industries Ltd</td>
<td>Flavored water and drinks</td>
</tr>
<tr>
<td>72</td>
<td>Proctor &amp; Allan (E.A.) Ltd</td>
<td>Animal feed &amp; health products</td>
</tr>
<tr>
<td>73</td>
<td>Propak Kenya Ltd</td>
<td>Potato crisps</td>
</tr>
<tr>
<td>74</td>
<td>Rafiki Millers Ltd</td>
<td>Wheat flour</td>
</tr>
<tr>
<td>75</td>
<td>Razco Ltd</td>
<td>Ice cream</td>
</tr>
<tr>
<td>76</td>
<td>Re-Suns Spices</td>
<td>Drinks</td>
</tr>
<tr>
<td>77</td>
<td>Sahara Venture Capital Company Ltd</td>
<td>Wheat flour</td>
</tr>
<tr>
<td>78</td>
<td>Salim Wazarani Kenya Company</td>
<td>Noodles</td>
</tr>
<tr>
<td>79</td>
<td>SBC Kenya Ltd</td>
<td>Pepsi drinks</td>
</tr>
<tr>
<td>80</td>
<td>Shree Sai Industries</td>
<td>Wheat flour</td>
</tr>
<tr>
<td>81</td>
<td>Simply Foods Ltd</td>
<td>Uji mara moja</td>
</tr>
<tr>
<td>82</td>
<td>Sky Foods Ltd</td>
<td>Orange juice</td>
</tr>
<tr>
<td>83</td>
<td>Spice World Ltd</td>
<td>Green grams</td>
</tr>
<tr>
<td>84</td>
<td>Stawi Foods And Fruits Ltd</td>
<td>Composite baby porridge</td>
</tr>
<tr>
<td>85</td>
<td>Tropical Heat Ltd</td>
<td>Crisps and crisp bran</td>
</tr>
<tr>
<td>86</td>
<td>Trufoods Ltd</td>
<td>Fruit-based Jams under Zesta Brand</td>
</tr>
</tbody>
</table>
APPENDIX II: NACOSTI RESEARCH PERMIT

This is to certify that Miss. Christine Gitau of United States International University Africa, has been licensed to conduct research in Nairobi on the topic: Influence of Innovation on the performance of Food and Beverage Manufacturing Companies in Kenya for the period ending: 19/August/2020.

License No: NACOSTI/P/19/746

Applicant Identification Number: 169883

Date of Issue: 19/August/2019

Director General
NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION

Verification QR Code

NOTE: This is a computer generated License. To verify the authenticity of this document, scan the QR Code using QR scanner application.
TO WHOM IT MAY CONCERN

5th AUGUST 2019
Dear Sir/Madam,

REF: PERMISSION TO CONDUCT RESEARCH- CHRISTINE GATHONI GITAU
STUDENT ID NO. 630924

The bearer of this letter is a student of United States International University (USIU)-Africa pursuing a master’s Degree in Business Administration.

As part of the program, the student is required to undertake a dissertation on the “Influence of Innovation on the Performance of Food & Beverage Manufacturing Companies in Kenya” requires her to collect data.

Please note that information provided will be treated with utmost confidentiality and will only be used for academic purposes.

Kindly assist the student get the appropriate data and should you have any queries contact the undersigned

Yours Sincerely

[Signature]

Prof. Amos Njoguna
Dean School of Graduate Studies, Research and Extension
Tel: 730 116 442
Email: amnjuguna@usiu.ac.ke
APPENDIX IV: COVER LETTER

Christine Gitau,
United States International University – Africa,
P.O. Box 14634 – 00800,
Nairobi.
09 May 2019.

Dear Respondent,

RE: REQUEST TO PARTICIPATE IN MY RESEARCH.
I am a graduate student pursuing a Masters of Business Administration (MBA) degree. I am currently undertaking research on the Influence of Innovation on the Performance of Food & Beverage manufacturing companies in Kenya. This is a requirement in partial fulfillment of my MBA degree at the United States International University - Africa (USIU-A).

This study seeks to explore the influence of Product Innovation, Process Innovation, and Marketing Innovation on the performance of Food and Beverage Manufacturing firms in Kenya. This is academic research and confidentiality shall be strictly adhered to. Kindly spare at least 20 minutes to complete the five sections of the questionnaire attached.

Thank you for your time and cooperation.

Kind Regards

Christine Gitau.
APPENDIX IV: QUESTIONNAIRE

The following questionnaire has been developed to facilitate the researcher to carry out the indicated study. Please fill it out appropriately.

Section A: General Information

1. What is your Gender?
   Male ( )   Female ( )

2. What is your highest level of education?
   Certificate ( )   Diploma ( )   Degree ( )   Masters ( )   PhD ( )

3. What is your age bracket?
   21-25 ( )   26-30 ( )   31-35 ( )   36-40 ( )   41-44 ( )   45 and Above ( )

4. What is your management level?
   Director ( )   Top Level Manager ( )   Mid-Level Manager ( )

5. How long have you worked in this organization? (in years)
   0-3 ( )   4-7 ( )   8-11 ( )   12-15 ( )   16 and above ( )

6. How many employees does your organization have?
   1- 50 ( )   51-100 ( )   101 - 150 ( )   151 - 200 ( )   201 - 250 ( )
   251 and above ( )

7. How many years has your organization been in existence?
   0 - 5 ( )   6 - 10 ( )   11 - 15 ( )   16 - 20 ( )   21 and above ( )

8. What is your organization’s turnover in Kenya Shillings?
   < 50 Million ( )   51 - 100 Million ( )   101 - 150 Million ( )   151 - 200 Million ( )
   >200 Million ( )
Section B: Product Innovation and Performance of F&B Manufacturing Companies

9. Using the scale 1-Strongly Disagree, 2-Disagree, 3-Neutral, 4-Agree, and 5-Strongly Agree, please rate the following statements as it relates to the organization.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Our organization has a wide range of products under the same brand name</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Our organization offers different packaging sizes for our products</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Our organization continually enhances its products in line with market demand</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>The organization has an active New Product Development function</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Our organization often introduces new products into the market</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>The products that we have introduced into the market have been successful</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Our New Product Development cycle is short and effective</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Our Supply chain function ensures that our products get to the market fast</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Our organization utilizes existing technology to increase the value of our products to the customer</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>The organization uses past mistakes and successes to inform New product development decisions</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Section C: Process Innovation and Performance of F&B Manufacturing Companies

10. Using the scale 1-Strongly Disagree, 2-Disagree, 3-Neutral, 4-Agree, and 5-Strongly Agree, please rate the following statements as it relates to the organization.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Our organization has recently improved its production processes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>The organization uses continuous improvement strategies to remain competitive</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Our organization uses new technology in the production process</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Our organization’s equipment has a high production efficiency</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Our organization’s production processes ensure environmental sustainability</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Our organization’s production equipment gives us a competitive edge</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Our organization production technology has increased the quality of our products</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Our organization recently underwent a business process reengineering program</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Our organization constantly seeks to improve its productivity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Our organization produces goods at a lower cost than our competitors</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Section D: Marketing Innovation and Performance of F&B Manufacturing Companies

11. Using the scale 1-Strongly Disagree, 2-Disagree, 3-Neutral, 4-Agree, and 5-Strongly Agree, please rate the following statements as it relates to the organization.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Our organization’s product design gives us a competitive edge</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>We have recently changed our product design</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>We use an external design team to handle our product design needs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>The packaging of our products is better than that of our competitors</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>We have recently changed our products’ packaging</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Our organization has outsourced packaging development</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Consumers prefer our products to those of our competitors</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Our organization offers differentiated products that are overall more superior to those of our competitors</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Our consumers trust that our products will deliver the promised benefits</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>The price of our products is a good indicator of the value they provide</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>Our organization uses sponsorships as a marketing tool</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>Our organization has a strong presence on social media platforms</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
12. Using the scale 1-Strongly Disagree, 2-Disagree, 3-Neutral, 4-Agree, and 5-Strongly Agree, please rate the following statements as it relates to the organization.

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Market Performance</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Our customer satisfaction ratings are better than those of our competitors</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Our total sales are higher than those of our competitors</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Our market share is larger than that of our competitors</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Financial Performance</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Our profits are higher than those of our competitors</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Our annual turnover is higher than that of our competitors</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Our innovation strategies have led to an increase in Return on Assets</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Balanced Scorecard</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Our employee satisfaction ratings have consistently increased</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. We have consistently reduced safety incidents in the factory</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Our profits have consistently increased</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

THANK YOU