INNOVATION STRATEGIES AND PERFORMANCE OF BEER FIRMS IN KENYA

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DECLARATION

This research project is my original work and has not been submitted for examination to any other University.

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The research project has been submitted for examination with my approval as the University Supervisor.

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DEDICATION

I dedicate this research project to my dear and loving wife Dorothy, son Melvin, and daughter, Beverly. Their support and encouragement contributed a lot towards my ability to complete this research project. I dedicate this research project to my parents and I thank them for ensuring that I knew that education is the key to success.
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<tr>
<td>DOI</td>
<td>Diffusion of Innovation</td>
</tr>
<tr>
<td>EABL</td>
<td>East Africa Breweries Ltd</td>
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<tr>
<td>KRA</td>
<td>Kenya Revenue Authority</td>
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<tr>
<td>RBV</td>
<td>Resource Based Value</td>
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<tr>
<td>SAB</td>
<td>South African Brewery</td>
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ABSTRACT
Due to the dynamism and the sophistication of competitors, business organizations are forced to pursue innovative strategies. This is particularly true for beer firms in Kenya which face competition from other beer firms and other beverages such as tea, soda, wine, and water. The intention of this study was to ascertain the impact of innovations on the performance of beer firms in Kenya. In the research study innovation was indicated by product, technological, marketing, and process innovations. Firm performance was indicated by growth in market share, increase in profitability, and increase in output. The study was anchored on the resource-based theory and diffusion of innovation theory. The study used descriptive research design. The target population of the study were the thirteen beer firms listed as beer manufacturers by the Kenya Revenue Authority. The study sampled all the brand managers of the beer firms. The analysis of data was done using descriptive and inferential statistics. The study established that innovations had a positive and statistically effect on the performance of the firms. The study found that technological innovations had a positive and moderate effect on the performance of the beer firms. Marketing and process innovations were also discovered to have positive and statistically significant effects on performance. The study recommended that the beer firms should enhance the use of product, process and marketing innovations. Further, the study recommends that the beer firms should enhance the use of technological innovations which support the operations of the firms and thus impact performance indirectly.
CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

In the current situation, business environment is influenced by growing globalization and fast increase of the Internet and other information technologies, and one cannot carry on with ‘business as usual’ (Bhide, 2010). This is because in the past decade the business environment has given great regard to open innovation as a new source of success in business venture. A Firm has to embrace innovative activity in order to continue in the first lane of new product development in as far as business is concerned to remain competitive. According to (Enkel, 2009) a firm’s innovation process should be open to upgrading the firm’s own pool of knowledge through working together with different stakeholders such as partners in business, customers, and knowledge sourced from external environment as well as releasing ideas to the market and increasing technology by imparting ideas to the external environment.

The concept of Innovation is observed to be a necessary element for the continuous success of firms. It acts as a fire wall to both visible and invisible assets against loss of share in the market. The selection of most favourable innovation strategy to an organization is influenced by various external and internal factors. Innovation which takes place to create business value, can take many forms such as incremental improvements to existing products, creation of products and services which are entirely new, or reduction in costs. According to Benner and Tushman (2002) it is observed that, the nature of competition which includes threats from entry of new players, substitute services, suppliers/buyers bargaining power existence of rivalry among the players in the competition are found in any industry.
The significance of innovative products introduction to beer companies comes from its prospective impact to all these factors. The Kenyan beer industry, just like the world over, has been undergoing a significant restructuring. The Kenyan beer market is essentially controlled by one Company which hold over 90% share in the Market, and with the rest of shares being held by some small, high end players and imported premium beers. Other key players in the industry are the multinational producers who have great distributorship channels in the Kenyan Market, for instance, Heineken, SABMiller plc Carlsberg Molson Coors among others. In certain terms, the past decade has experienced dramatic change in the local beer production, export and consumption of beer. This change is due to the way a number of new producers have used innovations in adopting a variety of research and development actions, which include advanced brewing and quality improvement skills and management, advanced training, knowledge dissemination and transfer of technology. Being ready coupled with the capacity of many new producers to try and implement many of these innovative practices enhances their strong approach to brand and penetrate global market.

The theoretical base of the study is found on the resource based view which is focused on the capital and capabilities controlled by a firm as sources of competitive advantage that propels firm performance. It is observed that the resources held by a beer company and the innovations in place have an overwhelming impact on generating improved performance. According to (Grant 1991) study, the key determinant to superior performance of a firm is Competitive advantage and this ensures its survival and strategic market positioning.
1.1.1 Innovation Strategies

According to Roger (1995) study, it is stated that innovation is development of an idea, practice, or object that is considered as current by an intended user. The study of Eisenhardt and Martin (2000) states that innovation involves new product and service development which are considered to be innovation and is distinguished by its dynamic capability performance. In the study of (Teece et al., 1997), it is stated that firms in an environment which feature rapid technological change and are examined by dynamic capabilities framework experience wealth creation. It is observed in everyday practice, that an innovation does not need to be totally new to the business society but can also be an improvement on the existing product.

In the study conducted by Benner and Tushman (2002) it is observed that investigative innovations are radical innovations that are aimed at meeting new markets requirements and need new knowledge or a departure from existing knowledge within an organization. Exploitative innovations on the other hand are incremental innovations that are aimed at meeting existing customers and market needs. The concept of organizational innovation is broad and perceived to include strategies, structural and behavioural dimensions and this is achieved through having effective production, processing, service offers, technological input or ideas that are readily available to markets, government and society.

Innovative strategies in an organization take different perspectives and these include Market innovation, Product innovations, Process innovations, Management innovations and Technological innovations. Innovative activities are most commonly measured by patent counts, new products and services output, output of unique processes, technology adopted and expenditure on research and development.
1.1.2 Firm Performance

The capability of an organization to attain its objectives such as growth in profits, high quality products, and increased share in the market, excellent financial outcomes, and sustainability at pre-agreed time using applicable strategy for action is known as organizational performance according to studies conducted by Koontz and Donnell (2003). Organizations use Performance as a yardstick to measure progress towards pre-determined goals, an indication of strength and weakness in areas of operation and make decision on the future initiatives with an aim of how to initiate performance improvement (Vanweele, 2006). In the study of Rowley (2011) financial and non-financial indicators are both used in assessment of Performance. The financial indicators were growth in sales and increase in profitability. Public impression and attitude, quality of services and operations efficiency in an organization are used as non-financial indicators in organizational performance.

Performance of a firm is dependent upon its capacity to adjust to the changing environment and the expectation of its customers. The demands of the government, stakeholders and the institutions employees change continuously depending on the changes in their operating environment and consequently, there is need for the organization to align its operations to the changes in order to improve its performance (Mangelsdorf, 2009). According to Hamrick and Mason, (1984) in their study, it is argued that a firm that is able to manage turbulent complex environments and therefore maintain or improve its performance is one that will willingly embrace change in its operating environment since its management will be able to prompt discussion concerning the correct strategic measures, allow them to come up with great range of strategic alternatives and jointly better assess the feasibility of such alternatives.
Gaya, Struwig and Smith (2013) in their study gave a conclusion that when solving complicated non-regular matters, it is important to have groups of individuals composed of various skills, knowledge, capabilities and perspectives. The studies conducted observe that there is no single metrics used in measuring a Firm’s performance. It is noted that some of parameters used in measuring firm performance include firm profitability, firm market share, level of firm growth and level of customer satisfaction.

1.1.3 Beer Industry in Kenya

Kenya’s Brewing Industry can be traced back to the year 1922 when two brothers from Britain started brewing beer. The Kenyan Brewing Industry has a number of players with an earlier market study by Euro Monitor having listed East African Breweries Limited as the leading beer company in Kenya, holding an 83% volume share in 2011. The high quality beer produced by Kenyan Breweries has generated interest in the market attracting other players like SABMiller and Heineken struggling to get a share of the Market. Other companies competing for the available market share in the industry are Keroche Industries, Ozbecco Ltd, Brewers of Sierra Beer and Viva Product Line Ltd, distributors of Corona (East African Standard,2012). The growth in middle-class population with high disposable income, growth in different products and knowledge of different brands has contributed to overall increase in consumption and sales growth. The class position and financial status make them to view spirits such as whisky as a symbol of class, especially among the upper and middle –income population and consumers. The upsurge of bars in high end markets offering advanced spirits and whiskies was observed in the up-market locations in the country according to study conducted by Nyakundi (2012).
Today, the beer industry in Kenya is ahead in changing regional alcohol landscape and this seen as one of the starting point of beer production members that have abandoned old methods for innovation and growth. The upsurge of retail outlets in residential areas and their ease of accessibility, with the increasing in mall culture among the Kenyan population, are slowly becoming preferred channels to reach consumers who have embraced consumption of beer as part of entertainment. Kenya beer industry is on the rise as a result of economic growth, technological advance, and increased per capita beer consumption, improvement in quality, and global markets penetration that has provided opportunities for better markets. This has seen leading alcohol and beer manufacturers engage in increasingly competitive strategies in order to increase their market share. However, the domination of cheap home brews or illicit spirit is still considered to be around 75 per cent of the drinks market in the country and drink companies have a belief that many of these consumers will change to commercially-produced lagers and spirits as they climb up the wealth chain ladder.

The public and private sectors benefit from the beer industry through the support given by innovations and increased value product that are saving the Kenyan economy and changing living standards of the whole society. As the Kenyan market floods causing consumption revenue to fall the capability for innovation and addition of value to various products remains a key distinctive measure among the Beer manufactures. The fast growth in beer industry recently is due to joining of new players in the industry which has been propelled by entry of foreign investors and stable political environment (Markets Business Research Report 2015).
There has been a move by Kenyan Manufactures to create consumer division by making products that target a particular percentage of the entire existing share in the market with local brands becoming cheaper than brands imported. According to study conducted by Mwangulu (2014), producers of beer have launched programs in reduction of cost to achieve reduction in the total production cost through replacement of cereals used in the process of production.

According to market survey, factors restricting new firms entry into the industry are many and these include intensive capital requirement in the nature of business, rigid regulatory requirements by the government, loyalty of customers to many traditional brands and stiff competition from rival companies. Given intensive competitive environment, the Beer manufacturing industry has been forced to re-assess its objectives, strategic measures, and operations so as to attract and retain customers.

1.2 Research Problem

The association between innovation strategies and performance has well been registered in selected industries across the Globe in the past studies. The changes in the global market are continuous and depending on product type, a business whether small or large, needs to counter or lose its clients. The changes in the business environment is characterized by high level of competition, changing customer’s behaviour, high firm operational costs and inadequate resources as some of the challenges that face the manufacturing firms (Mangelsdorf, 2009). Taking up innovation is basically one of the critical measures to stay relevant and survive (Kiraka, 2013).
Since most business entities offer similar services and products, they consistently seek a competitive advantage that will entice new customers and assist them in retaining existing ones. They then must make an effort to come up with innovative programs and initiatives to maintain superior customer service levels cost effectively but remain profitable. Indeed no matter what the industry is, a business cannot possibly succeed without customers who are satisfied from the innovative products (Visscher & Rip 2003). They further observe that to decide which business innovation concept is appropriate to a company, they generally need to evaluate their operations to determine whether they are doing the right thing but further action is required to do better or whether it needs to do new things as alternative means to increase profitability, facilitate growth and expansion. One of these tools is a firm being more innovative in its processes and product range.

Kenyan beer industry is not an exception in the dynamic competitive environment and therefore there is need for companies producing beer in Kenya to come up with innovative ways to enhance their performance. There are no past studies in the Kenyan beer industry concerning relationship between Innovation strategies and Performance hence a gap. The intention of this study is to bridge this gap by ascertaining the innovations strategies in Kenyan beer industry. In the Global scene various studies have been conducted on Innovation strategies and Performance of firms. A study by Hafeez (2013) found that innovation and related knowledge acquisition has an influence on SME performance: empirical evidence from Pakistan was taken and the outcome of the research exhibited that value added innovativeness and its components had a significant positive relationship in process innovation, product innovation, marketing innovation with companies’ attaining profitability.
Locally various studies have also been conducted on innovations and performance. One of the studies on innovativeness and firm Performance was taken by Kiraka (2013) where the objective of the research was to depict the then state of knowledge regarding correlation of innovation and performance in general and for SMEs in particular. The results showed that product and process innovativeness represent considerable positive relationship with performance of SMEs. Ruth (2011) did a study in Kisumu city to understand any correlations between the characteristics of small and medium organizations and performance while another closely related research by Kiraka (2013) on innovations and Micro, Small & Medium enterprises in growth in Kenya as a whole was likewise taken.

From the above studies it is observed that no studies have been conducted or done concerning relationship between innovation strategies and performance in beer production Industry hence leaving a gap. Therefore the significant gap on this among other studies is what are the innovation strategies in the Kenyan beer industry? For this reason, this study will seek to contribute in filling this gap by answering the research question: What are the innovation strategies in the Kenyan beer Industry? Is there correlation between innovation strategies and Industry performance of beer firms in Kenya?

1.3 Research Objective

This research study’s main aim was to establish the impact of innovation strategies on performance of beer industry in Kenya. The particular intended goals are:-

(i) To establish the innovation strategies used by beer firms in Kenya.

(ii) To ascertain the relationship between innovation strategies and performance of beer firms in Kenya
1.4 Value of the Study

The research study will be important to various stakeholders. The management of Beer firms will benefit from the study and from it, they will be able to gain more insights concerning the competitiveness of their company’s innovation processes and also be able to identify the challenges facing innovation in the firm and possible ways of mitigating them. The organization will also be able to reinforce those innovation-based competitive strategies, abilities and capabilities, to enable such firms perform better than their competitors by creating superior value to their customers. To other competitors in the beer industry in Kenya, they will learn crucial hints pertaining to the competitive innovations processes in the beer industry and how to adopt some of these strategies in their organizations.

To the government, this research will form an invaluable source of reference especially the ministry of industrialization in coming out with policies to guide the manufacturing sector in the development of new products. The need to notify competing firms on new products that will charge tariffs is one such case that the research will form an invaluable source on how to manage such policies since it will affect the phase of innovation.

To Scholars, this study is anticipated to grow pool of knowledge base to the scholars in the manufacturing industry and make them be in touch with how competitive innovation processes at Kenyan beer Industry can act as a competitive advantage tool in the manufacturing industry.
CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

This section contains the literature associated with the topic of the study. The theories associated with the study are presented. The study reviews empirical literature on innovation strategies.

2.2 Theoretical Review

The two basic theories that form the theoretical foundation of innovation play important role in understanding the basis of innovation and performance. It is therefore imperative to explore and understand these theories in order to visualize and understand the theoretical perspective of this research study.

2.2.1 Resource Based Theory

The firm’s resource based view puts notice to the internal environment as driver for competitive advantage and emphasizes that an enterprise employs its capital and abilities to build a competitive advantage that finally results into creation of superior value chain. According to Peteraf and Bergen (2003) studies, it is observed that in the resource based view a firm’s competitive and superior performance are fundamentally driven by capital and capability attributes which are of value and very expensive to copy.

In the studies of Barney and Clerk (2007) it is observed that, Resource Based Theory examines the critical role of a firm’s internal organizational capital in influencing the firm’s strategy and performance.
An organisation’s internal resources consists of all its assets, capacities, competences, capabilities, attributes in the firm, processes in the organization, information store, knowledge capacity etc, that the firm commands and allow it to develop and execute plans that will enhance efficient and effective operations. The resource based view puts into recognition that a firm’s tangible and intangible assets are important determinants of performance, emphasising on the intangible expertise that keeps physical organizational resources in place (Alavi and Leidner, 2011).

Barney (1991) in his study states that the theory of resource-base in a given organization is characteristically a combination of capital and abilities which decide the strategy and performance of a firm. It is further noted that if all firms in the market possess similar combination of capital and abilities, therefore the same value will be created by all firms and thus no competitive advantage will prevail in the industry. In the foundation of the resource-based view it is stated that the basis for firm’s success in competitiveness will depend on distinguished and rare abilities which may be tangible or invisible in nature.

Therefore the significance of strategic measure taken by the firm is or should be influenced by the firm’s distinctive capital and abilities. According to Conner (1991) value is created as a prospective strategy, for an organization’s capability to form and maintain market position profitably which critically relies on the generation capacity of payments from its latent capital and abilities.

According to Thomson, Peteraf, Gamble and Strickland, (2012), Resource based view determines whether the organization’s set up capital and the following resource presentation contributes to a specific firm’s competitive advantage and to the degree in which resources depend on the process of customer value creation.
Customer value creation processes involve the firm’s combination of basic skills or recombination of undertaking of an enterprise using competitive capital to build value for the customer by using differentiated processes and services, cost effective structure and quick response to customer needs and improve customer focus. It is important for Brewery managers to seek distinguished skills and take advantage of particular strong values and maximization of their financial dividend on investment. The distinguished skills are the vertical integration and innovation. The purpose is to identify conditions under which this firm-specific capital provides a competitive advantage, as measured by financial performance. In the studies of Gaya, Struwig and Smith (2013), variance in firm’s performance has been explained. Even though the RBV gives recognition to firm’s tangible capital as significant factors of performance, it primarily puts emphasis on the invisible competence and capital of the firm (Barney, 1991). Some invisible capital of the organization is the assets of the market such as satisfaction of the customer, brand equity and intellectual property.

2.2.2 Diffusion of Innovation Theory

The diffusion of innovation theory was advanced by Rogers in 1962 after conducting research on Innovation. It is noted in the research that an idea or product nature perceived can gain momentum and diffusion (spreading) takes place within a particular population or social structure. The effect resulting from this diffusion activity is that people being part of the social structure adopts fresh ideas, behaviours or new products in the innovation process. Perception of idea, behaviour, or product as new or innovative by the person concerned is considered key in the process of adoption. Thus Diffusion is made possible in the circumstances. It is argued in the study of Hager (2006) that in the social system innovation does not take place concurrently. The process displays differences in people’s appetite to innovation. The
theory is primarily focused on the way prospective adopters view innovations in regard to correlative favourable or unfavourable conditions.

Therefore Innovativeness, complexity, compatibility and relative advantage are some of the factors that are formed in DOI approach framework. The cardinal candidates for early adoption are firms that intensively use particular technology in pursuit of next generation of that technology. Li and Atuagene-Gima (2011) noted that the theory of diffusion in its endeavour to explain new ideas or innovation adoption puts across five factors which play vital role in the process of innovation adoption. These are comparative advantage, compatibility, complexity, trial ability and observe ability. In the theory it is suggested that innovations that clearly have advantage over the earlier approach will be easy in adoption and implementation. If Innovation is viewed by key players to be easy in use then adoption process will be facilitated (Greenhalgh et al., 2004).

Experiment may be done on Innovation on limited basis and this is referred to as Trial-ability. Since innovation require time investment, energy and capital, trial ability becomes very important before full implementation and this promotes easy adoption. It is further noted that in the end, observe-ability which is the extent on which the outcome becomes visible to the adopters play a role because if positive results is noticeable from the implementation of the innovation then adaptation of innovation becomes more easy. The diffusion of innovations approach in this study is significant to comprehending the changes that takes place in the adoption process and usage of innovations in Beer Companies. In the study of Hager, (2006) it is noted that there are discussions going on between organizations and individuals about adoption. In these
two types of adoption there is significant role being played in investigations of diffusion and adoption by Beer Companies.

The decisions being made to adopt technology becomes closely linked with personal view and perspectives of the management in line with that technology. Therefore, beer Company’s activities in innovation give support in the improvement of firm’s competitiveness and profitability. Firms with Market orientation posses above average capacity for innovations and thus will succeed more in response to environmental requirements that result into competitive advantage and superior performance.

2.3 Innovation Strategies

According to the studies of Adriopoulos and Dawson (2009) it is argued that innovation can takes many forms but they are categorized into four innovation strategies as follows: strategies in product/ service innovation, process innovations, market innovations and organisational innovations. An innovation strategy in a firm is a plan to increase profit and market share through product and service innovations and this will depend on the best approach to be used in creating solution which must indicate whether it is product improvement or a disruptive or breakthrough innovation. Innovation strategies considered under this study include strategies in product, technological, marketing, management and process innovations.

2.3.1 Product Innovation Strategies

Product innovation strategies involve idea creation, development and initiation of a satisfactory or management that is current in the market or has been wholly enhanced in connection to its features or applications. According to Tavassoli and Karlsson
(2015) it is observed that product innovation strategies integrate analytical improvements in mechanical confirmation, division and substances, joined, or eases of use among different capacities. It is perceived that technological advance, constant change in customer tastes and preferences, shortening of item life cycles and expansion in competition rivalry drive Product innovation strategies. Product innovation offers an organization good potential protection from business competition and threats in the market. In the studies of Ngirigacha and Bwisa (2013) there is clear evidence provided that a significant and positive correlation exists between product innovation and performance in business enterprise.

2.3.2 Technological Innovation Strategies

According to Munyoroku (2014) it is observed that most firms succeed due to processes in operations which are efficient and the resultant increased investments in technologies that intensify firm internal efficiencies. Therefore it is noted that identification and exploration of new revenue opportunities and improvement of customer satisfaction through reliable delivery should be supported by adoption of technological innovation strategies. Technological innovation strategies entail systems adoption such as ERP systems with provision of capabilities that give support and increase processes associated with production. It is also observed in the study of Valacich and Schneider (2012) that systems should also give aid in improvement of firm activities by automating regular tasks such as in order management.

2.3.3 Marketing Innovation Strategies

The study of Tavassoli and Karsson (2015) puts it that marketing innovation strategies entail putting into effect new methods and models of marketing that would greatly change product design, packaging, placement and pricing. Innovation
strategies in marketing strive to meet needs of customers, new markets opening or positioning of the firm’s product as new in the market to increase sales of the firm thus boosting income. Strategies in marketing innovation that are commonly developed by organizations include; strategies in market pricing, product offering, properties design, product placing and promotional activities. In the study of Hong (2015), it is stated that innovative marketing strategies spur improvement of brand connectivity and experiences with the customers and thus apply effect on brand marketing endeavours which position brands at the centre of customer perception.

2.3.4 Process Innovation Strategies

Process innovation strategies, on the other hand, include execution of new or essentially enhanced creation or conveyance techniques. Basic process advancement procedures incorporate changes in strategies or hardware (Tavassoli & Karlsson, 2015). In the process innovation, the activity is viewed as the application of current or greatly enhanced method in production or delivery which include remarkable changes in skills, tools and/or computer programs with a purpose to achieve decreased costs of units in production or delivery, to improve quality, or be involved in production or delivery of current or remarkably enhance products (OECD Oslo Manual, 2005).

It is observed that procedure and processes which build ground to empower usage of innovations and the overhaul of human action framework brings forth five areas of improvement which include organizational strategy, organizational structure, operational process, business information technology and organizational culture (Debela 2009). In the studies of Atandi and Bwisa (2013), a positive correlation is observed connecting current technology and business performance. This revelation was realized in the process innovation when new technology was used as a substitute
An opinion was therefore reached that there is significant positive correlation between process innovation and performance in business.

2.3.5 Management Innovation strategies

In management innovation strategies there is a mixture of process management innovation and change of management which refers to products, processes in business and innovations in organizations. In strategic management innovations there is a number of factors which are internal and external to organization’s environment that influence choice of superior strategic innovation. Organizational and management ability plays a central role to nature innovation which also depends on the ability of organization to perform it rather than making changes to give it innovative radical approach.

2.4 Performance

A firm’s performance can increase in several aspects due to innovation. In particular four inconsistent performance perspectives which are utilized to constitute a firm’s achievement in the literature are performance in innovations; in production, in the market and financial standing. According to Walker (2004) Innovation has significant effect on organizational performance which produces an improved market position that leads to competitive advantage and superior performance. Innovative performance combines all organizational achievements due to renewed and improved efforts done in consideration of various dimensions of firm’s innovativeness such as processes, products and organizational structure. Therefore in accordance to Hagedoorn and Cloodt (2003) studies, innovative performance is composed of constructs which is found on diverse performance
measures involved, for example, with new patents, new products release, new projects initiation, and new processes together with new organizational structure.

The significance of innovation and the effect it has on the performance of organization was highlighted in the studies conducted by Furst, Lang, and Nolle (2012). In these studies many companies were considered from five countries. The critical factor explained in this study concerned performance distinctions disseminated from firms in five countries which are composed of Japan, United States, France, Germany and England. The studies conducted on impacts of innovation on performance are centred on the benefits realized from first mover and imitator initiatives. It is noted from the studies of Mabrouk and Mamoghli (2010) that banks will continue to reap high profits due to continued innovation processes and advancement in technology over a period of time with diverse production of current or enhanced products. However, exceptionally high financial gain will gradually diminish as innovations are extensively embraced.

2.5 Empirical Review

Innovation as a business strategy involves the capability of an organization to keep a continuous stream of internal and external of fresh ideas that can be changed into modern products, services, processes, technology applications and/ or markets.

2.5.1 Global Perspectives on Innovations

Competition for a country in the Beer Global market is stiff and depends on the ability of a country’s skills in production of ingredients. The exploitation of new prospects and possibly gain in competitive advantage through innovations in markets, processes and products for a business becomes very important in the study of Polevoi (2013). A study by Hafeez (2013) states that innovation and acquisition of knowledge has an
effect on SME achievement. Empirical evidence from Pakistan was taken and the results of the research established that value added innovativeness and its components had an important positive relationship with companies’ profitability.

It has been observed that intense competition, regulation and technological advancement are some of the factors that greatly influence innovations in organization. In their studies O’Sullivan (2008) and Philips, (2010), it is noted that several companies are involved in innovations due to reactions created by environmental change to the external market and quest for market leadership. The study of Fiore (2012) puts it that companies are involved in innovation to attract new customers who have not been engaged with their products or services before. Cost reduction has also been observed to be a major factor that drives organizations to innovate, especially when it comes to improvement of production, logistics development and retailing processes.

Another study on innovativeness and firm performance was taken by McAdam and McClelland, (2012) where the objective of the research was to depict the then state of knowledge regarding the relation between innovation and performance in general and for wine companies in particular. The results showed that product and process innovativeness had a considerable positive relationship with performance of wine companies. According to Chesbrough (2010) the effect of improved standard of goods and services together with increase in the variety of goods and services in products plus increased production capacity and flexibility in process management showed signs of innovation effects.
The study on Technological innovations was established to have significant effect on commercial banks performance. Sakchutchawan, Hong, and Callaway (2011) studied innovation and competitive advantage among global logistics firms and established that implementation of proper logistics innovations, firms reaped benefits in terms of performance in delivery, reduced cost of operations, increased customer satisfaction, increased operational income, improved net income and high sales growth.

2.5.2 Local Innovations in Kenya

In Kenya the subject of innovations in Beer industry is still at its infancy. In 2013, a research was conducted by Ngugi and Karina, on the impact of innovation on performance of beer companies in Kenya. In this study it was concluded that embracing innovations in production affected profitability of the beer companies. In this paper conclusion was made that performance of the beer companies to great extent is influenced by adoption of innovation strategies.

In the study of Kamakia (2014) on the effects of product innovation on performance of commercial banks in Kenya, it was established that services offered to customers in commercial banks showed remarkable improvements by their level of innovations. It is observed that Banks that undertakes rapid innovations becomes very competitive and stand out in the market in terms of reputation. In this study aspects which include location and wide coverage network branches, products range, costs, image, variety of products, customer services system and processes and discipline in relation to product innovation were performed. According to Mathenge (2013) the study conducted study on innovation and competitive advantage on Kenyan telecommunication companies and established that there is remarkable growth in companies that were involved in
financial innovations which impacted positively on the performance of telecommunications companies to a larger extent.

Wanjiku (2014) conducted research on innovation and performance in Kiambu town of Micro and Small Enterprises. The outcome of investigation was found and the conclusion was made that process, product, positioning and paradigm types of innovation had a positive correlation with the performance of some business types of the Micro and Small Enterprises in Kiambu Town. Given the critical role that Beer manufacturers play in the market; they need innovations that will keep them competitive. Ongonga and Ochieng (2013) undertook a study on firms in Kericho and made conclusion that innovation had effect on their performance. The findings of the study established that innovative strategies adopted by the firms contributed to growth in revenues, increased productivity levels and cost reductions.

The significance of Innovations to the survival of the company in the long run cannot be ignored because it helps firms in creation of a competitive advantage over other organizations. According to Tether (2003), it is very clear from the available information in the studies that innovative companies that innovate sustain high level of performance and post fast growth than companies than do not innovate. According to Walker (2004), improvement on the firm’s performance has been observed in different aspects due to innovations. Innovation plays a great role on performance of organizations which produce an improvement on the position of market and bring competitive advantage and superior performance. It is posted in various studies which have centred on the relationship between innovation and performance that increased innovations results in high performance in organizations.
In a study Kotler (2003) made an observation in how innovation and business performance is related, giving example of Sony, as leading company in innovation with remarkable increase shares in the market by means of introducing several new products to clients. High profitability on various new and improved products realized as a result of continuous process innovation and introduction of new technology in a period of time, will continue in innovative banks according to the study of Mabrouk and Mamogholi (2010). However, as innovations are applied widely exceptional profits will reduce. In order for Firms to put effective competition in the turbulent environment they must consistently be involved in production of new products, development of product lines to achieve growth in profits, high sales growth and expanded share in market in line with change in desires and wants of customers according to study by Grundiche (2004).

In the study of Azazeet et al. (2005), it is observed that top business executives regularly mention new product development because of organizations growth, diversity in production to seek competitive advantage over business rivals in organizations. In addition another particular reason for a firm to require generation of new products is to utilize new opportunities. It therefore observed that new products are important for sustainability and long term growth of any organization.

In the studies of Nwokah, Elizabeth and Ofoegbu (2009) it was established and conclusion made that organization performance aspect of making increased profits, increase in sales volume and sustaining customer loyalty is significantly associated with development of quality products, various product lines and product variety among other things. Furthermore, according to research findings by Berger and
Mester (2003) there is a suggestion that a variety of products provide competitive advantage and consequent improvement in performance of Banks.

Neely (2002) revealed that sales turnover in firms that innovate, increase rapidly than firms that do not innovate. They observed that there is a great correlation between share of sales in innovations and change in turnover sales of firms. According to Chesbrough (2010) product oriented results such as improved quality and range in goods and services featured as innovation effects. It was also observed that process-oriented features like increase in production capacity and flexibility came up as innovation efforts.

The study conducted by Naidoo (2010) it is further explained that organizational performance is directly related to market orientation, innovations in marketing and competitive advantage. It is stated that market orientation as a stimulant in the initial stage of innovations in marketing links positively with competitive advantage. It was also observed that competitive advantage which results from achievement in differentiation, cost leadership and focus strategies is positively associated to performance of a company. The study of Grawe et al. (2009) focused and aimed at customer orientation, competitor orientation and innovation in service to weigh the relationship in performance. It was observed that Customer orientation and competitor orientation stimulates innovations in service and has direct relationship to market performance of the firm.
2.6 Conceptual Framework

The framework below shows the association between the autonomous factors (product, technological, marketing, management and process innovation strategies) and the dependent variable (firm performance as measured by profitability, customer satisfaction, new product & service development, market size and efficiency in operations).

![Conceptual Framework Diagram]

**Figure 2.1: Conceptual Framework**

Source: Researcher (2018)
CHAPTER THREE
RESEARCH METHODOLOGY

3.1 Introduction

In order to ascertain the impact of innovations on performance in the Kenya beer industry, a research methodology was necessary to outline how the research would be carried out. The chapter gives a description of research design, population of study, instruments of collecting data and research methodologies that were utilised in the data analysis.

3.2 Research Design

This is a set of techniques and mechanism used in collecting data and analysis of measures of the variables identified in the research problem. This study employed descriptive research design (Mugenda & Mugenda, 1999) and specifically Census survey method. The main interest of this particular study was to determine the effects and aspects that effect organization performance. The data was collected from brand managers to help in answering the research question. This helped in gathering the necessary information to facilitate this research project on the effects of technology on innovations which impacts on organization performance.

3.3 Population

The population of the study comprised the entire 13 firms operating in the beer industry in Kenya. The researcher conducted a censure survey and this involved the whole population of 13 firms in the beer industry in Kenya. According to a tax report listing released by KRA, these companies include EABL, Keroche Breweries Ltd, SABMiller, Ozbecco Ltd, Sierra Beers, Big Five Breweries Ltd, Blix Inn Ltd, Brew
Distill company Ltd, Kedsta Investments Ltd, Sirville Investments Ltd, Top Rank Industries Ltd, and Vinepack Ltd.

3.4 Data Collection

The researcher collected data from both primary and secondary sources. The researcher used structure questionnaires to gather primary data from Head of Brand Managers in the 13 Beer manufacturing companies in Kenya. This is because they are involved in the innovations of the organizations and have a broad understanding of the affairs of their organizations. Primary data was collected by using structured questionnaires targeting brand managers.

3.5 Data Analysis

This is the procedure of systematically applying statistical and / or logical techniques to describe and illustrate, condense and evaluate collected data. The data generated by questionnaires was checked edited and coded. The coded data was then inputted into Statistical Package for Social Sciences (SPSS) and analyzed using Descriptive and Inferential Statistics. Description analysis involving computation of Mean, Frequency distribution, Standard deviation and Percentages for Independent variables was carried out to determine frequencies and percentage distributions. The study estimated the following regression equation

\[ Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \epsilon \]

Where

\( Y \) = Performance, \( \beta_0 \) = The constant term, \( \beta_1, \beta_2, \beta_3, \) and \( \beta_4 \) = Coefficients. \( X_1 \) = Product Innovation, \( X_2 \) = Technological Innovation, \( X_3 \) = Marketing Innovation, \( X_4 \) = Process Innovation, and \( \epsilon \) = The error term.
CHAPTER FOUR
DATA ANALYSIS, RESULTS, AND DISCUSSIONS

4.1 Introduction

This study collected, interpreted, and analysed data in order to fulfil the purpose of the study. Data analysis, results and discussion of results are presented in this chapter.

4.2 Response Rate

The rate of response refers to the percentage of the study sample that participated in the survey (Orodho, 2009). The study sample was thirteen brand managers working at the respective beer companies in Kenya. The researcher was able to get responses from all the thirteen brand managers.

4.3 General Information

Table 4.1 provides the general information of the respondents.

Table 4.1: Respondents General Information

<table>
<thead>
<tr>
<th>Respondents Demographic Information</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>8</td>
<td>61.5</td>
</tr>
<tr>
<td>Female</td>
<td>5</td>
<td>38.5</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>36-40</td>
<td>1</td>
<td>7.69</td>
</tr>
<tr>
<td>41-50</td>
<td>10</td>
<td>76.92</td>
</tr>
<tr>
<td>51 and Above</td>
<td>2</td>
<td>15.38</td>
</tr>
<tr>
<td><strong>Level of Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>University</td>
<td>8</td>
<td>61.5</td>
</tr>
<tr>
<td>Postgraduate</td>
<td>5</td>
<td>38.5</td>
</tr>
<tr>
<td><strong>Length of Service</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-5 years</td>
<td>5</td>
<td>38.5</td>
</tr>
<tr>
<td>6-10 years</td>
<td>3</td>
<td>23.1</td>
</tr>
<tr>
<td>Above 10 years</td>
<td>5</td>
<td>38.5</td>
</tr>
</tbody>
</table>

Source: Study Data(2018)
The results presented in Table 4.1 indicate that the males were 62% of the respondents while 38% of the respondents were female. This implies that the beer industry has a preference for male employees. The majority of respondents (77%) were between the age of 36-40 while 2 where 51 years and above. None of the respondents was below the age of 35.

The results illustrated in Table 4.1 indicate that 31% of respondents had a postgraduate level of education while 69% of respondents had a university level of education. This indicates that the brand managers have the necessary educational competencies to fulfil their job requirements. The findings in Table 4.1 indicate that 38.5% had worked in their organisation for 1-5 years, 23.1% for 6-10 years, and 38.5% for above 10 years. Given the ages of the respondents, the study concludes that the turnover rate of brand managers in the beer firms is high given that the many of respondents were between the ages of 41-50 while for majority of employees they had been at the firm for between 1-10 years.

4.4 Validity of Research Instrument

The study variables were selected using existing literature. The questionnaire was constructed with reference to existing literature. In order to ensure validity, the questionnaire was subjected to a pre-test. During the pre-test, the researcher administered the questionnaire to four officials working at the brand department of the beer companies. The four companies were chosen at random. From the responses generated from the pre-test, the questions in the questionnaire were reformulated while some questions were rephrased.
4.5 Reliability of Research Instrument

The reliability of the research instrument was established using Cronbach’s Alpha coefficients. The alpha coefficients are presented in Table 4.2.

**Table 4.2: Results of the Cronbach’s Alpha Test**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Number of Items</th>
<th>Cronbach's Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Innovation Strategies</td>
<td>5</td>
<td>0.86</td>
</tr>
<tr>
<td>Technology Innovation Strategies</td>
<td>5</td>
<td>0.77</td>
</tr>
<tr>
<td>Marketing Innovation Strategies</td>
<td>6</td>
<td>0.69</td>
</tr>
<tr>
<td>Process Innovation Strategies</td>
<td>5</td>
<td>0.79</td>
</tr>
<tr>
<td>Firm Performance</td>
<td>3</td>
<td>0.83</td>
</tr>
</tbody>
</table>

Source: Study Data (2018)

Cronbach and Shavelson (2004), state that a Cronbach’s Alpha of 0.7 is normally preferred. However, a minimum of 0.6 is also acceptable. The results summarised in Table 4.3 indicate that the alphas ranged from 0.69 – 0.86. Based on the coefficient values, the items tested were deemed reliable for this study.

4.6 Descriptive Analysis

The study aimed at establishing product, technological, marketing, and process innovation strategies used by the beer companies. Additionally, the study strived to determine the performance of the firms. The descriptive statistics are presented in this section.

4.6.1 Product Innovation Strategies

The study required the respondents to show the level at which their respective beer companies were using product innovation strategies. The outcomes are presented in Table 4.3.
Table 4.3: Product Innovation Strategies

<table>
<thead>
<tr>
<th>Product Innovation Strategies</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction of new products</td>
<td>4.92</td>
<td>.277</td>
</tr>
<tr>
<td>Increasing product variety</td>
<td>3.38</td>
<td>1.193</td>
</tr>
<tr>
<td>Improving product quality</td>
<td>3.92</td>
<td>.862</td>
</tr>
<tr>
<td>Shortening product cycles</td>
<td>3.46</td>
<td>.776</td>
</tr>
<tr>
<td>Changing products to reflect changing customer tastes</td>
<td>4.00</td>
<td>.816</td>
</tr>
</tbody>
</table>

Source: Study Data (2018)

The mean of 4.92 and standard deviation of 0.277 illustrated in Table 4.3 imply that for the beer companies sampled the introduction of new products was an important product innovation strategy. The mean of 3.38 to the question of increasing product variety showed that this strategy is not often used by the majority of beer companies. However, the standard deviation of 1.193 shows that there was significant variation in the use of this strategy. The means of 3.92 and 3.46 and standard deviation of 0.862 and 0.776 indicate that the beer firms moderately improve the product quality and shorten product cycles. The respondents indicated that the beer firms change products to reflect the changing customer tastes and preferences.

The results indicate that the beer firms’ generate new products or altering existing products to ensure that they meet the changing needs of the consumer and in order to attain competitive advantage. Innovation for the beer firms is also a means of improving the quality and variety of products. According to Ngugi and Karina (2013), both internal and external factors stimulate the generation of new products and redesign of existing ones.
4.6.2 Technology Innovation Strategies

The study sought to determine the degree at which the beer firms used technology innovation strategies. The outcomes are presented in Table 4.4.

Table 4.4: Technology Innovation Strategies

<table>
<thead>
<tr>
<th>Technological Innovation Strategies</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adopting new innovative technology</td>
<td>4.54</td>
<td>.660</td>
</tr>
<tr>
<td>Process Innovation</td>
<td>3.31</td>
<td>.630</td>
</tr>
<tr>
<td>Adoption of new systems such as ERP</td>
<td>3.38</td>
<td>.506</td>
</tr>
<tr>
<td>Increasing investment in innovative technology</td>
<td>3.46</td>
<td>.776</td>
</tr>
<tr>
<td>Automating routine tasks</td>
<td>4.23</td>
<td>.927</td>
</tr>
</tbody>
</table>

Source: Study Data (2018)

The means of 4.54 and 4.23 with standard deviations of 0.660 and 0.927 respectively indicate that the beer companies adopt new innovative strategies and automate routine tasks to a great extent. The means of 3.31, 3.38, and 3.46 with standard deviations of 0.630, 0.506, and 0.776 imply that the beer firms moderately innovate their processes, adopt new systems such as ERP, and increase investment in innovative technology.

These findings imply that the beer firms use technological strategies very moderately. This indicates that technology is not important to achieving the firm’s goals. For the firms, innovation is geared towards improving product quality and enhancing market share. The finding that the firms invest moderate amounts of money in innovation of new technologies implies that the firms do not originate technology but rather adopt what others have developed.
4.6.3 Marketing Innovation Strategies

The study sought to determine to what extent the beer firms used marketing innovation strategies. The outcomes are presented in Table 4.5.

### Table 4.5: Marketing Innovation Strategies

<table>
<thead>
<tr>
<th>Marketing Innovation Strategies</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use of marketing mix strategy</td>
<td>4.85</td>
<td>.376</td>
</tr>
<tr>
<td>Changing market orientation</td>
<td>1.85</td>
<td>.899</td>
</tr>
<tr>
<td>Changing market pricing strategies</td>
<td>4.38</td>
<td>.768</td>
</tr>
<tr>
<td>Introducing innovative product offers</td>
<td>4.69</td>
<td>.480</td>
</tr>
<tr>
<td>Changing design properties</td>
<td>5.00</td>
<td>0.000</td>
</tr>
<tr>
<td>Coming up with new product placement strategies</td>
<td>2.69</td>
<td>1.182</td>
</tr>
<tr>
<td>Introducing innovative promotion activities</td>
<td>3.77</td>
<td>.599</td>
</tr>
</tbody>
</table>

Source: Study Data (2018)

The outcome presented in Table 4.5 showed that the beer firms use to a great extent market mix strategies, price changes, and innovation of product offers as implied by means of 4.85, 4.38, and 4.69 respectively; the standard deviations of 0.376, 0.768, and 0.480 imply that there was little difference in the feedback given by respondents indicating that the thirteen firms applied the same strategies. The mean of 5.00 and standard deviation of 0.00 indicates that to a very high degree the beer firms change the design properties of their products. The respondents indicated that the beer firms did not alter their market orientation as implied by mean of 1.85 and standard deviation of 0.899. The development of new product placement strategies was used to a low degree as shown by mean of 2.69. However, for some firms, this strategy was used to a great extent as implied by standard deviation of 1.182. The respondents indicated that they used innovative promotions moderately.
These findings imply that market innovation strategies are used to produce a remarkable impact on the market share of the firm which in turn affects performance. This in accordance with the findings of Kinyuru (2014) that firms use market innovation strategies to attainment of the company’s performance goals as they ensure the firm attracts new customers, retains existing customers, and withstands competitors’ aggressive marketing campaigns.

4.6.4 Process Innovation Strategies

Table 4.6 presents the process innovation strategies used by the beer firms. The process innovation strategies entail application of a current or greatly enhanced method of production or delivery of goods and services.

**Table 4.6: Process Innovation**

<table>
<thead>
<tr>
<th>Process Innovation</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>The firm sources barley varieties which improves the quality of beer output</td>
<td>4.91</td>
<td>.630</td>
</tr>
<tr>
<td>Business process re-engineering</td>
<td>4.15</td>
<td>.801</td>
</tr>
<tr>
<td>Installation of a robust and superior processing system</td>
<td>4.69</td>
<td>.480</td>
</tr>
<tr>
<td>Reviewing operational process</td>
<td>2.77</td>
<td>1.589</td>
</tr>
<tr>
<td>Development of new channels for products and services offered by the enterprise is an on going process</td>
<td>4.54</td>
<td>.519</td>
</tr>
</tbody>
</table>

Source: Study Data (2018)

The mean of 4.91 and standard deviation of 0.630 indicates that the beer firms to a great extent sourced barley varieties carefully so as to enhance the quality of beer. This implies that for the beer firms quality of products is important. The means of 4.15, 4.69, and 4.54 and the accompanying standard deviations of 0.801, 0.480, and 0.519 indicate that across the beer firms business process re-engineering, installation
of a robust and superior processing system, and generation of modern channels for products and services were used to a great extent. These indicate that the process of production was closely monitored and improved. The mean of 2.77 indicates that the review of operational processes was done but by a little extent. This implies that for the beer firms the operational processes are not significant considerations. However, the standard deviation of 1.589 shows that the responses varied significantly; indicating that not all firms viewed operational processes in the same manner.

The responses indicate that the beer firms ensure that the production process results in the highest quality product by ensuring quality inputs. The reengineering of business process ensures that the quality of products is maintained. The firms continually develop new channels for their product. According to Mugo (2015), this is to ensure they attain efficiency; over time the firm will be able to produce products at lower costs.

### 4.6.5 Firm Performance

The study aimed at establishing the trends in firm performance over the last five years. The results are given in Table 4.7.

**Table 4.7: Firm Performance**

<table>
<thead>
<tr>
<th>Firm Performance</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Growth in market share</td>
<td>3.92</td>
<td>1.553</td>
</tr>
<tr>
<td>Increase in profitability</td>
<td>4.46</td>
<td>.519</td>
</tr>
<tr>
<td>Increase in output</td>
<td>4.08</td>
<td>1.256</td>
</tr>
</tbody>
</table>

Source: Study Data (2018)

The respondents indicated that the growth in market share over the last five years had increased moderately as implied by a mean of 3.92. The standard deviation of 1.553
implies that the responses varied significantly implying that growth in market share had not been similar for all companies. The respondents indicated that profits had increased by a great extent over the last five years (mean of 4.46, and SD of 0.520).

Similarly, the output had increased over the last five years as indicated by a mean of 4.08. However, the standard deviation of 1.256 indicates that growth had not been even across all firms. The findings imply that growth in market share, profitability, and output are indicators of the beer firms’ performance. The increase in output stimulates the profits more than the market share. This is implied by the fact that the profitability and output increased but the increase in market share was moderate. The findings further imply that for the beer firms it is difficult to expand or grow the market share.

The study sought to ascertain the trends in financial performance over the last five years. The outcome are presented in Table 4.8

**Table 4.8: Trends in Financial Performance, 2013-2017**

<table>
<thead>
<tr>
<th>Trends in Financial Performance</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of Firm performance</td>
<td>4.15</td>
<td>1.068</td>
</tr>
</tbody>
</table>

Source: Study Data (2018)

The study established that over the surveyed beer firms had an average income of between Kshs. 75 million and Kshs. 100 million. The standard deviation of 1.068 indicates that there was significant difference in the level of income earned by the firms surveyed.
4.7 Effect of Innovation Strategies on Performance

This section provides the outcome of the multiple linear regression analysis performed to ascertain the impact of innovation strategies on the performance of beer firms in Kenya.

4.7.1 Significance of the Model

The study evaluated the goodness of fit of the regression model. The outcome are summarized in Table 4.9.

**Table 4.9: Model Summary**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted Square</th>
<th>R</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.749ₐ</td>
<td>.561</td>
<td>.542</td>
<td>.006</td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Process Innovation, Technological Innovation, Product Innovation, Marketing Innovation

Source: Study Data (2018)

R is referred to as the correlation coefficient (Gujarati & Porter, 2009). This indicates the relationship between the study variable. The computed R is 0.749 implying that there is a strong relationship between the dependent variable performance and innovation strategies. R² is referred to as the coefficient of determination. It shows the degree of response in the dependent variable that is illustrated by the linear model (Minitab, 2013). The computed R² is 56.1%; this indicates that 56.1% of the variation in firm performance is illustrated by product, technology, marketing, and process strategies.
4.7.2 Anova Output

Table 4.10 provides the results of the Anova test. This test computes the significance of the linear regression model (Gujarati & Porter, 2009). The null hypothesis for the F-test states that the independent variables have no impact on the dependent variable.

Table 4.10: 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>7.688</td>
<td>4</td>
<td>1.922</td>
<td>2.561</td>
<td>.000a</td>
</tr>
<tr>
<td>Residual</td>
<td>6.004</td>
<td>8</td>
<td>.751</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>13.692</td>
<td>12</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Level of Firm performance
b. Predictors: (Constant), Process Innovation, Technological Innovation, Product Innovation, Marketing Innovation
Source: Study Data (2018)

The results summarised in Table 4.10 indicates that the significant value is 0.000 which is below the critical value 0.05. This shows that the null hypothesis is not accepted. This indicates that product innovation, technological innovation, marketing innovation, and process innovation have a significant impact on the financial performance of the beer companies surveyed.

4.7.3 Significance of the Regression Coefficients

The regression coefficients of the constant, product innovation, technological innovation, marketing innovation, and process innovation are summarized in Table 4.11.
Table 4.11: 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>(Constant)</td>
<td>2.108</td>
<td>1.680</td>
<td>1.255</td>
<td>.245</td>
</tr>
<tr>
<td>Product Innovation</td>
<td>.362</td>
<td>.198</td>
<td>.495</td>
<td>1.822</td>
</tr>
<tr>
<td>Technological Innovation</td>
<td>.129</td>
<td>.285</td>
<td>.169</td>
<td>.451</td>
</tr>
<tr>
<td>Marketing Innovation</td>
<td>.259</td>
<td>.307</td>
<td>.350</td>
<td>.844</td>
</tr>
<tr>
<td>Process Innovation</td>
<td>.018</td>
<td>.355</td>
<td>.444</td>
<td>0.041</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Firm performance

Source: Study Data (2018)

In Table 4.11, the standardized and un-standardized coefficients indicate the contribution of each independent variable. The significance level in the last column indicates whether the contribution of the independent variable is statistically significant. The t value indicates the probability that the value of the individual variable in the regression model is not zero (=0). The smaller the t value the higher the likelihood that the value of the variable is higher than 0. Based on the outcome presented in table 4.11, the common form of the equation to forecast performance of beer firms in Kenya based on innovation strategies is adopted as follows:

\[ \text{Performance} = 2.108 + 0.362 \text{ Process Innovation} + 0.129 \text{ Technical Innovation} \\
+ 0.259 \text{ Marketing Innovation} + 0.018 \text{ Process Innovation} + \epsilon \]

The forecast model was obtained from the unstandardized coefficients, as summarised in Table 4.11. The Unstandardized coefficients show how much the dependent variable differs with a unit change in the independent variable, when all other independent variables are held constant. In the prediction model if the innovation strategies were not used the firm would register a performance of 2.108 as indicated
by the results of the constant. For every unit change in process innovation performance would change by 0.362. A unit change in technological innovation would result in a 0.129 unit increase in performance. A unit increase in marketing innovation would result in a 0.259 unit increase in performance. While a unit increase in process innovation would result in a 0.018 increase in performance.

The corresponding significance values indicate that the effect of the constant is statistically insignificant. The impact of product innovation on performance is statistically significant. The significance value of 0.664 for technological innovations indicates that technological innovations have a statistically insignificant impact on performance. The correlation between marketing innovations and performance is significant. Similarly, process innovation has a remarkable impact on performance.

4.8 Discussions

The production of goods that meet the desires of the consumers plays a pivotal role in the competitiveness and performance of the firm. Kotler (2003) indicated that the successful innovation of the firm’s product and services leads to improved quality, enhanced diversity, and better adherence to consumers needs. Azazeet et al. (2005) established that top business executives prefer new product developments as they spur firm growth as the new products increase diversity.

The assertions of Kotler (2003) and Azazeet et al. (2005) are confirmed by the study findings that product innovation increases the performance of the firm. The study discovered that the firms used technological innovations such as adoption of new technologies, innovation of the production process, adoption of new systems such as ERP, increasing investment in innovation, and automating routine tasks. However, these innovations were established to have an insignificant effect on the performance
of the firm. These discoveries contradict the conclusions of Munyoroku (2014) that most firms succeed due to technological innovations. According to Valacich and Schneideer (2012), the technological innovations provide improvements to firm activities. It is these improvements and not the technological innovations that result in improvement in financial performance. The study established that the beer firms use different marketing innovations such as innovative and mix of the target market, pricing, offers on products, and product designs to increase their performance. The regression analysis indicated that these strategies influence performance positively. These findings confirm the findings of O’Sullivan (2008) and Phillips (2010) that market innovations enhance the market position of the firm. This according to Fiore (2012), is achieved by attracting and retaining new customers.

The study established that the beer firms surveyed used business process re-engineering, change organisational strategy, and business information technology as part of their process innovation strategy. These innovation strategies were established to have a positive impact on the beer companies’ performance. In accordance to Debela (2009) study, process innovations empower usage of advanced techniques and enhance the human action in the production process resulting in enhanced performance.
CHAPTER FIVE

SUMMARY, CONCLUSION, AND RECOMMENDATIONS

5.1 Introduction

This chapter provides a synopsis of the study findings draws conclusions on the basis of outcome and provides recommendations.

5.2 Summary of Findings

The beer companies in Kenya face a dynamic and complex business environment that is determined by technological advancements, competition, and complex customer tastes and preferences. As such, the beer companies have adopted various innovations to ensure survival, gain a competitive edge, and to meet the requirements of their shareholders. These innovations include product innovations, technological innovations, market innovations, and process innovations.

The study established that the beer firms sampled used various dimension of product innovation including the launching of new products, improvement of product quality, shortening the product cycles, and changing products to reflect the changing tastes and preferences of the consumers. These innovations were found to have a positive and statistically significant effect on the performance of the firms.

The study found that the firms used technological innovations such as adoption of new technologies, innovation of the production process, adoption of new systems such as ERP, increasing investment in innovation, and automating routine tasks. However, these innovations were established to have insignificant effect on the performance of the firm.
The study confirmed that the beer firms use different marketing innovations such as innovative and mix of target market, pricing, offers on products, and product designs to increase their performance. The regression analysis indicated that these strategies influence performance positively and significantly.

The study established that the beer firms surveyed used business process re-engineering, change organisational strategy, and business information technology as part of their process innovation strategy. These innovation strategies were established to have a positive and significant impact on the beer companies’ performance.

### 5.3 Conclusion

In order to remain viable and to grow in today’s complex business environment firms need to enhance their products and process. The main aim of innovations is to help the company to retain in its current market position, and to win market share from its competitors. In the instance of beer companies in Kenya, innovation is integral to retaining and growing the customer base. The study found that product innovations have positive effect on performance. The study concludes that in order to survive and be relevant beer firms need to increase their product offerings, enhance the quality of their products, and change their products to meet the tastes and preferences of their customers.

The study found that technological innovations do not have a significant effect on the performance of beer firms in Kenya. The study, therefore, concludes that the companies can do away with these strategies and still be profitable. Further, the study concludes that technology innovations are not relevant to the core business of the beer firms. The study found that market innovations have a positive and statistically remarkable influence on performance. The firm concludes that these strategies
contribute to attracting new customers, retaining existing customers, and meeting the competitive threats presented by rival firms.

The study established that product innovations have a positive and significant effect on firm performance. The study concluded that continual business process re-engineering, changing organisational strategy and business information technology are important for firm performance.

5.4 **Recommendations**

The results indicate that product innovations have a positive and significant influence on performance. As a result the managers of the beer firms are encouraged to continually innovate their products and product offerings. The beer companies should invest in research and development so as to upgrade the quality and variety of their products.

The study found that technological innovations have an insignificant effect on the performance of the beer firms. Arising from this result, the study recommends that firms should not focus on technological advancements but rather on their products, their marketing strategies, and processes.

5.5 **Recommendations for Further Research**

The study investigated the effect on innovation strategies on the performance of beer firms in Kenya. The computed $R^2$ was 56.1% implying that 56.1% of the variation in performance of the beer firms could be attributed to the variables used in the study, indicating that 43.9% of variation in performance was occasioned by variables not included in the study. The study gives recommendation that future studies should
increase the number of variables used in the study in order to identify all the elements that affect performance.

Further, this study only focused on beer firms. This leaves gaps in the effect of innovative strategies on other firms such as airline companies, large-scale farms, manufacturing firms, motor firms amongst others. Future research should be undertaken to identify the effect of innovations on other sectors.
REFERENCES


APPENDICES

APPENDIX I: RESEARCH QUESTIONNAIRE

This questionnaire seeks to collect data on the impact of innovation strategies adopted on the performance of Beer firms in Kenya. Please fill in the questionnaire. Any information provided will be treated with strict confidence and shall be used for academic purposes only. Your identity shall not be disclosed.

SECTION A: GENERAL INFORMATION

1. Gender

   Male [ ]   Female [ ]

2. Age

   20-25 years [ ]   26-30 years [ ]
   31-35 years [ ]   36-40 years [ ]
   41-50 years [ ]   51 years and Above [ ]

3. Highest Level of Education

   High school [ ]   Certificate [ ]
   Diploma [ ]   University [ ]
   Postgraduate [ ]

4. Length of Service

   Less than 1 year [ ]   1-5 years [ ]
   6-10 years [ ]   Above 10 years [ ]

SECTION B: INNOVATION STRATEGIES

5. Kindly indicate to what extent your firm has adopted the particular innovation strategies. Tick as applicable using the following Likert Scale where 1= No
Extent; 2 = Little Extent; 3= Moderate Extent; 4 = Great Extent; 5= Very Great Extent

<table>
<thead>
<tr>
<th><strong>Product Innovation Strategies</strong></th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduce new products</td>
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<tr>
<td>Increasing product variety</td>
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<tr>
<td>Improving product quality</td>
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<tr>
<td>Shortening product cycles</td>
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<tr>
<td>Changing products to reflect changing customer tastes and preferences</td>
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</table>

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<tr>
<th><strong>Technological Innovation Strategies</strong></th>
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<th>4</th>
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<tbody>
<tr>
<td>Adopting new innovative technology</td>
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<td>Process Innovation</td>
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<tr>
<td>Adoption of new systems such as ERP</td>
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<tr>
<td>Increasing investment in innovative technology</td>
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<tr>
<td>Automating routine tasks</td>
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<tr>
<td>Changing design properties</td>
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<tr>
<td>Coming up with new product placement strategies</td>
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</table>

<table>
<thead>
<tr>
<th><strong>Marketing Innovation Strategies</strong></th>
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<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
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<tbody>
<tr>
<td>Use of marketing mix strategies</td>
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<tr>
<td>Changing market orientation</td>
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<tr>
<td>Changing market pricing strategies</td>
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<tr>
<td>Introducing innovative product offers</td>
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<tr>
<td>Changing design properties</td>
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<tr>
<td>Coming up with new product placement strategies</td>
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<tr>
<td>Introducing innovative promotion activities</td>
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<table>
<thead>
<tr>
<th><strong>Process Innovation</strong></th>
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<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>The firm sources barley varieties which improves the quality of beer output</td>
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<tr>
<td>Business process re-engineering</td>
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<tr>
<td>Installation of a robust and superior processing system</td>
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<tr>
<td>Reviewing operational process</td>
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<tr>
<td>Development of new channels for products and services offered</td>
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</tr>
</tbody>
</table>
SECTION C: FIRM PERFORMANCE

6. Kindly indicate to what extent the dimensions indicate measures of performance in your firm. Tick as applicable using the following Likert Scale where 1= No Extent; 2 = Little Extent; 3= Moderate Extent; 4 = Great Extent; 5= Very Great Extent.

<table>
<thead>
<tr>
<th>Firm Performance</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Growth in market share</td>
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<tr>
<td>Increase in profitability</td>
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</tr>
<tr>
<td>Increase in output</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

7. Kindly indicate the trends in performance indicated by net profit of your firm over the last five years.

   - Kshs 1,000, 000 – Kshs 25,000,000
   - Kshs 25,000, 001 – Kshs 50,000,000
   - Kshs 50,000, 001 – Kshs 75,000,000
   - Kshs 75,000, 001 – Kshs 100,000,000
   - Above Kshs 100, 000,000

8. Kindly indicate to what extent the different innovation strategies have influenced the trends in financial performance of the last five years. Tick as applicable using the following Likert Scale where 1= No Extent; 2 = Little Extent; 3= Moderate Extent; 4 = Great Extent; 5= Very Great Extent.

<table>
<thead>
<tr>
<th>Innovation Strategies</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Innovation</td>
<td></td>
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<tr>
<td>Technological Innovation</td>
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<tr>
<td>Market Innovation</td>
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<td></td>
</tr>
<tr>
<td>Process Innovation</td>
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</tr>
</tbody>
</table>
APPENDIX II: LIST OF BEER COMPANIES IN KENYA

1) KENYA BREWERIES LTD
2) KEROCHE BREWERIES LTD
3) SABMILLER
4) OZBECCO LTD
5) SIERRA BEERS
6) BIG FIVE BREWERIES LTD
7) BLIX INN LIMITED
8) BREW DISTILL COMPANY LTD
9) KEDSTA INVESTMENTS LIMITED
10) MOUNTAIN SLOPES COMMERCIAL SERVICES LTD
11) SIRVILLE INVESTMENTS LIMITED
12) TOP RANK INDUSTRIES LTD
13) VINEPACK LIMITED

SOURCE - KRA: LICENSED MANUFACTURERS AND IMPORTERS- 2018