DIFFERENTIATION STRATEGY AND PERFORMANCE OF LARGE RICE MILLING FACTORIES IN KIRINYAGA COUNTY, KENYA

BY

VIRGINIA NJERI GITHUMBI

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Declaration

This project is my original work and has not been presented for any award in any other University. No part of this project should be reproduced without authority of the author or/and Kenyatta University.

Signature: …….. Date: …….

VIRGINIA NJERI GITHUMBI

REG. NO: D53/EMB/PT/23054/2012

Supervisor's Approval:

This research project has been submitted for consideration with my approval as the university supervisor.

Signature:..... Date: .....

Dr. Mary Ragui
Department: Business Administration
Kenyatta University

Dedication

To my husband Edwin whose incalculable support, perseverance and humility sailed me through my education. Your love has been insurmountable. To my children Marion, Catherine and Marvin who have patiently endured, encouraged and cheered me all through this great journey of self-actualization.

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Operational definition of terms

Competitive Advantage - Competitive advantage is the ability of the firm to effectively use organizations resources to satisfy customer demands as compared to its competitors**.**

Differentiation - It is the art of marketing a particular product or service in a way that makes it stand out against other products or services.

Differentiation strategy - A business strategy intended to increase the perceived value of a firm products/services compared to competitors products/services and create a customer preference for the firm's products/services or make it appear distinct.

Product differentiation - A marketing process that show cases the differences between products to make them more attractive by contrasting their unique qualities with other competing products and as a result create a competitive advantage for the seller, as customers view these products as unique or superior.

Physical differentiation- A differentiation strategy which covers location, space, design and display/layout and stores atmosphere

Service differentiation - A differentiation strategy which involves after sales services, retailer own brands, service quality, incentive programs and operating hours.

Strategy - A method or a plan chosen to bring about a desired future, such as achievement of a goal or solution to a problem. Strategy is performing different activities from the rivals or performing similar activities differently.

Abbreviation and acronyms

ANOVA	Analysis of Variance
ATM	Automated Teller Machine
CVI	Content Validity Index
KCSE	Kenya Certificate of Secondary Education
NACOSTI	National Commission for Science, Technology and Innovation
PIMS	Profit Impact of Marketing Strategy
RBV	Resource-Based View

Abstract

Organizations must adapt themselves to the empowered customer by implementing strategies that can sustain them in this competitive environment such as porter`s generic competitive strategy model differentiation, cost leadership, diversification, and new product development. Differentiation is a business strategy where firms attempt to gain competitive advantage by increasing the perceived value of their products or services relative to the perceived value of other firm's products or services The study aimed to establish the effect of differentiation on performance of rice milling factories in Kirinyaga County, Kenya; through finding out the effect of product differentiation, physical differentiation and service differentiation strategy affect performance of large rice milling factories. The study was anchored on three main theories of differentiation strategy which includes knowledge based theory, Profit Impact of Marketing Strategy Principles model and Resource Based Theory. The study zeroed into Mwea Sub-County one of the four (4) Sub-Counties of Kirinyaga County, where rice is grown and milled. The study population comprised of 40 rice milling factories. A sample of fifty three (53) respondents was determined from the population through stratified sampling where the population was arranged into three strata; factory managers, technical officers and employees. The study focused on primary data both qualitative and quantitative. The questionnaire was used as the major data collection instrument and they were self administered to the respondents in the sample size. A pilot study was undertaken to pretest the questionnaires for validity and reliability. The gathered data was analyzed using descriptive statistics and inferential statistics aided by Statistical Package for Social Scientists (SPSS). Descriptive and analytical statistics were used to summarize and analyze the data. Results showed that product, physical and service differentiation had a positive influence to the performance of large rice milling factories. However, physical differentiation was not statistically significant (0.059 which is >0.05). The study concluded that only product and service differentiation strategies are affecting performance of large rice milling. In addition, service differentiation seems to be a key player being significant at 95% level of significant. The study recommended that large rice milling factories to offer online shopping services to have a wider market share, brand their products by attractive packaging, add value to their product by sorting the rice and have variety of sales incentives like offering transport services to the customers which are key to the factories` performance.

CHAPTER ONE

INTRODUCTION

1.1 Background

Many organizations today are focusing on becoming more competitive, by launching competitive strategies that give them an edge over others. To do this, they need to craft differentiation strategies. However, most rice milling industries have not been able to formulate these strategies required to gain competitive advantage. This calls for a strategic fit of an organization's core competence levels, technology, leadership styles, markets, culture, people, and environmental influences, which is an emerging paradigm in the study of strategic management.

Formulation of differentiation strategies involves making a product slightly different from other similar products, by varying certain features. We recognize that this is a strategy for making a firm's products more competitive in such a competitive market. Studies have shown that such attributes will make consumers to perceive it to have properties, which make it distinct from rival products or services. Differentiation recognizes that customers are too numerous and widely scattered, with heterogeneous needs and adequate spending power for them to prefer the same product or service. This move products from competing based primarily on price to competing on non-price factors, or promotional variables. If customers value a firm's offer, they will be less sensitive to aspects of competing offers; whereby price may not be one of these aspects (Roberto &Joaquin, 2008).

The objective of differentiation is to develop a position that potential customers see as unique based on a certain features that satisfy that class of customers. Differentiation strategy practices in the rice milling industries are limited. However, there can be an application of the concept of generic strategies using product reputation building to capture more markets (Chamberline & Robinson, 1996).

Kotler and Keller, (2006) define product differentiation (also known simply as "differentiation") as the process of distinguishing the differences of a product or offering from others, to make it more attractive to a particular target market. Jay argues that the major sources of product differentiation are: Differences in quality which are usually accompanied by differences in price, Differences in functional features or design, Ignorance of buyers regarding the essential characteristics and qualities of goods they are purchasing, Sales promotion activities of sellers and in particular advertising, Differences in availability (timing and location), and reputation.

A successful product differentiation strategy will move products from competing based primarily on price to competing on non-price factors, or promotional variables. Scholars further argue that, if customers value a firm's offer, they will be less sensitive to aspects of competing offers; whereby price may not be one of these aspects. The objective of differentiation is to develop a position that potential customers see as unique based on a certain features that satisfy that class of customers. Differentiation is a business strategy where firms attempt to gain competitive advantage by increasing the perceived value of their products or services relative to the perceived value of other firm's products or services Thus, other firms can either be that firm's rivals or firms that provide substitute products or services (Genessa et al, 2006).

The concept of differentiation focuses on firms making products that appear different from their competitors. This is in order to make them earn a competitive advantage over others. According to the founder of the concept Porter(1990), differential advantage is created when a firms products or services differ from its competitors and are seen as better than a competitors products by customers. All these strategies come along with the concept of creating efficiency within an industry. Porter (1990)further acknowledges that as a result of globalization, the best indicator of a company's future success is the ability to be different from its peers. This therefore implies that rice companies must adopt differential strategies like change the nature of the product, through varying features such as the use varying colorations to make it more attractive on the market. The value added

by the uniqueness of the product may allow the firm to charge a premium price for it. Because of the product's unique attributes, if suppliers increase their prices the firm may be able to pass along the costs to its customers who cannot find substitute products easily (Thomas & Ofobike, 2008).

Thompson and Martin (2005) successful differentiation has three aspects: command a premium price for its product, increase sales because of additional buyers are won over by the differentiating features and gain buyer loyalty to its brand. A product is differentiated if consumers perceive it to have properties, which make it distinct from rival products or services, and ideally unique in some particular way and difficult to emulate. Hence competitors will distinguish their brand, product or service in some way, perhaps by size, quality or style, to give it greater appeal for certain customers.

A differentiation strategy is effectively implemented when the business provides unique or superior value to the customer through product quality, features, or after-sale support and service. Firms following differentiation strategy can charge a higher price for their products based on the product characteristics, the delivery system, the quality of service, or the distribution channels. The quality may be real or perceived, based on fashion, brand name, or image. The differentiation strategy appeals to a sophisticated or knowledgeable consumers interested in a unique quality product or service and willing to pay a higher price for these non-standardized products. Customers value the differentiated products more than they value low costs (Obasiet al, 2006).

Organizational performance in companies with the differentiation strategy is based on: (i) Innovation in marketing technology and methods; (ii) Fostering innovation and creativity; and (iii) Focus on building high market share. It is eight to ten times more expensive to find new customers than it is to market to existing ones. Differentiation strategies practices in the rice milling industry are limited. Nevertheless, we can apply the differentiation focus strategy of generic strategies and craft in means of maintaining reputation in capturing more markets. Rice is a widely traded basic commodity in the

world; which implies that, if the sector is well managed, it can bring numerous returns to any country. However as a result of competition, competitive differentiation strategies must be crafted for rice milling competitiveness (Herbert, 2003).

The challenge posted here is that, "whenever we have any rice imports into this country, local rice milling factories will strive for state protection". This may be an indication of inadequate innovation by local milling companies. This is costly for the country in terms of denial of import taxes and on quality of rice products produced locally. Akan and others aver that differentiation can be successful if tailored to: (i).Extensive training of marketing personnel, providing outstanding customer service, providing specialty products and, services, developing a broad range of new products or services, (ii).Developing brand identification and extensive training of front-line personnel, (iii). Targeting a specific market (iv) Innovation in marketing (v) Technology and methods (vi) Utilizing advertising (vii) Building a positive relationship within the industry for technological leadership (Obasi et al., 2006).

1.1.1 Differentiation Strategy

Institute of Management Accountants (1996) defines an offering or differentiation advantage as one form of competitiveness that occurs if customers perceive a product or service as superior; hence they become more willing to pay a premium price relative to the price they will pay for competing offerings. Differentiation is one of the two types of competitive advantage a firm may possess. Porter(1980) avers that cost advantage and differentiation are the two strengths of a firm which can be applied in either broad or narrow scopes resulting in three generic strategies like cost leadership, differentiation and focus strategies. An organization can differentiate itself from its competitors if it can offer something that is unique and valuable to its customers.

As cited by Baykal and Delagarde(2011), differentiation strategy seeks to provide products or services that offer benefits that are different from those of competitors and

that are widely valued by buyers according to Johnson, Scholes and Whittington(2008). Differentiation is about creating uniqueness and the principal uniqueness drivers according to Porter (1998) include policy choices, supplier and value chain linkages, timing, location, interrelationships, learning and spillovers, integration, scale and institutional factors. Awino *et al.*(2011) argues that the literature on differentiation strategies relates to: core competence, technology, leadership styles, markets, culture, people and environment.

Cole (2008) posits that potential strategies for product or service differentiation include: product features and benefits, location(s), staff, operating procedures, price, customer incentive programs, guarantees and warranties, brand name recognition, goodwill, value-added products/services, extended growing/operating season, soils, buildings, location, and landscape, water, access to irrigation and wetlands, weather, plants and animals, organization and alliances, customer experience and quality. Cole further argues that a venture's most effective differentiation- the one that will bring the venture the most success-will likely come from just one or two strategies. Porter(1990) argues that it is important for a firm to differentiate itself among more than one dimension in order to reach the desired results.

1.1.2 Firm's Performance

Firm performance is the outcomes achieved in meeting internal and external goals of a firm (Peng & Kao, 2008). As a multidimensional construct, performance has several names, including growth (Wolff & Pett, 2006), survival, success and competitiveness. Depending on organizational goals, different firms to measure their performance adopt different methods. These performance indicators can either be financial and non-financial terms (Bakar & Ahmad, 2010). Most firms, however, prefer to adopt financial indicators to measure their performance (Hoskinson, 2000). Return on assets (ROA) (Zahra, 2008), average annual occupancy rate, net profit after tax and return on investment (ROI) (Tavitiyaman, 2012) are the commonly used financial or accounting indicators by firms. Some other common measures are profitability, productivity, growth, stakeholder

satisfaction, market share and competitive position (Bagorogoza & Waal, 2010). However, financial elements are not the only indicator for measuring firm performance. It needs to combine with non-financial measurement in order to adapt to the changes of internal and external environments. Supporting this opinion, Rubio and Aragon(2009) categorized business performance into four dimensions, that is: internal process, open system, rational goal and human relations, where each dimension is measured by any changes in its own variables.

According to Richard, Straub and Aragon (2009) organizational performance encompasses three specific areas of firm outcomes: financial performance (profits, return on assets, return on investment); product market performance (sales, market share); and shareholder return (total shareholder return, economic value added) Most organizations utilize mergers as one of the most frequently selected instruments for growth. In recent years, many organizations have attempted to manage organizational performance using the balanced scorecard methodology where performance is tracked and measured in multiple dimensions such as: financial performance (shareholder return), customer service, social responsibility (corporate citizenship, community outreach), and employee stewardship among others.

This study looked into performance using the financial and customer perspective of the balanced scorecard model of Kaplan and Norton (2003). The study used the measures of customer base, customer royalty and customer satisfaction. Increase in customer base reflects growth and will translate to profitability. Customer royalty and satisfaction reflects customer sustainability of competitive advantage enhancing performance of the firm.

1.1.3 Differentiation Strategy and Firm's performance

In differentiation strategy, a firm seeks to differentiate its product or service by creating something that is perceived industry-wide as being unique (Porter, 1980). Differentiation

approach seeks appropriate and most suitable ways of aligning services and products to meet unique customer requirements and unlike cost leadership strategy, it deals mostly with the external business environment. With this strategy, regardless of price being an important factor, it is not the primary concern of consumers when deciding on the purchase even though customers are willing to pay a premium price. With more sales volume and value on differentiated products, a firm is able to attain a higher market share than its competitors. Therefore, there is a positive relationship between differentiation and performance.

Firm's performance growth is premised on a company attaining relative competitive advantage (Porter, 1980). According to Kotler(2001), competitive advantage is attained when a company achieves a unique configuration of its value chain, defines an appropriate scope of operation and aligns the two with the value chains of its target customers. Bordes(2009) avers that strategies based on high quality may, up to a point, actually increase the potential market share that a firm can gain. One landmark study noted, in fact, that competitive strategies based on high product quality actually increased market share and resulted in significantly increased profitability. Product quality often leads to higher reputation and demand that translate into higher market share.

1.1.4 Rice Milling factories in Kirinyaga County

All the rice milling factories, with the exception of Mwea Rice Mills are privately owned and thus do not publish their annual financial reports, hence knowledge of how they perform is not open to the public eye. Considering the fact that most of the rice milling in Kirinyaga are family owned, there is the likelihood of adoption of various differentiation strategies which empirically have distinct capacities and weights. There are 130 rice milling factories in Kirinyaga County (Millers Association, 2015). Rice milling factories use different sizes and quality of machinery this results to different production capacities (in volume) and rice quality differences. Therefore, the mills can be easily classified as large, medium and small. The classification is in terms of the number of sacks milled by

machine because of its capacity. The large millers are those who can mill a minimum of 1 tonne of rice per day. They were found to be 40 who met this criteria and they were the unit of analysis in this study.

1.2 Statement of Problem

Competition among firms is getting harder day by day due to many organizational and environmental reasons such as globalization, deregulation, increasing global and domestic competition, and new technologies. The rice milling industries in Kenya have faced a lot of changes in the environment that they operate in such as increasing costs of operations, proliferation of cheap imported rice, high inflation rates, lower consumer spending power and decreasing product margins due to a push for market share through products with a mass market appeal. Despite the challenges the rice milling factories in Kirinyaga County are making enormous progress. There has been a lot of innovation in processes and new product development in an aim to set each company apart from the competitors. Rice milling factories have branded and positioned themselves by capitalizing on the superior value of the unique physical features, products and services and thus enjoy more profits differentiating them from rivals to improve sales performance.

Several studies done on differentiation and performance have failed to establish how differentiation strategy affects performance of rice milling factories in terms of concept, methodology and context. These include a study by Heiko, Anders and Lars(2011) on the relationship between differentiation strategy and business performance on 332 European-based manufacturing firms in which confirmatory factor analysis and structural equation models were used to analyze data. He found out that more complex customer needs may reduce the value of a once sustainable source of Competitive advantage for firms (Barney, 1991). The study focused on one empirical setting a European sample of manufacturing firms, although those companies are conducting business worldwide, the sample limits external validity. The empirical investigation was only able to introduce

customer centricity and innovativeness embedded in the market orientation of the firm, other strategic orientations, such as technological and entrepreneurial orientation can be introduced.

A survey by Farshid and Amir (2012) on the influence of marketing strategy elements on market share of 95 polymer sheets manufacturing in Iran in which one-sample T- test was used in data analysis he found out that in the competitive environment of the market share, it is very important for a firm to be looking forward to the determinants of market share. The research was carried out on sheets manufacturing firms operating in Iran only. Thus, the results cannot be generalized to fit all firms. Shafiwu and Mohamed (2013) case study on the effect of product differentiation on profitability in the petroleum industry of Ghana which employed correlation research model. The study concluded that despite the fact that the petroleum industry is not seen to have differentiated products relative to other industries, that is not to mean that the act of differentiation is not profitable in the industry but rather there may be other factors responsible for that. The study recommended further research should be conducted on fuel other factors such as cost of differentiation, industry attractiveness and consumer test to determine whether they are contributory factors to lack of differentiated product in the petroleum industry hence findings cannot be generalized.

Jelagat (2012) studied the Strategic Issue Management (SIM) practices by the 67 registered tea exporting companies in Kenya in which strategic management and business environment are the key concepts while the relationship between elements was investigated using Chi-square test which showed a significant relationship between strategic issue management and ownership structure of the company as well as the company's external environment. Further, research established that the most preferred methods of scanning a company's environment for strategic issue management were market research, customer analysis, market intelligence and performance monitoring, The study recommended further research in this area with an extension of the geographical

scope to include other tea handling organizations within the region thus limited generalization.

Anyim (2012) studied service differentiation among private hospitals in Nairobi. The study confined itself to private hospitals operating in Nairobi. This study therefore should be replicated in other sectors of the economy and the result be compared so as to establish whether organizations which practice service differentiation gains competitive advantage. Therefore, it failed to examine the effect of differentiation on performance; this study seeks to examine how rice milling factories in Kirinyaga County can use differentiation as a strategy to achieve competitive advantage In order to adapt changes in rising expectations of their customers. This could go a long way in enabling them to achieve business objectives. It is against this background that the researcher has chosen to carry out a study in this important sector.

1.3 Research Objectives

1.3.1 General Objective

The general objective of this study was to establish the effect of differentiation on performance of large rice milling factories in Kirinyaga County, Kenya.

1.3.2 Specific Objectives

The study specifically sought:-

i. To find out the effect of product differentiation on performance of large rice milling factories in Kirinyaga County.
ii. To establish how physical differentiation strategy affect performance of large rice milling factories in Kirinyaga County.
iii. To examine how service differentiation strategy affect performance of large rice milling factories in Kirinyaga County.

1.4 Research Questions

i. What is the influence of product differentiation on performance of large rice milling factories in Kirinyaga County?
ii. How does physical differentiation influence the performance of large rice milling factories in Kirinyaga County?
iii. What is the effect of service differentiation on performance of large rice milling factories in Kirinyaga County?

1.5 Justification/significance of the study

The finding of this study will benefit the rice milling factories management, rice product manufacturers/suppliers, entrepreneurs and other businessmen in gaining new knowledge of developing effective and efficient differentiation strategies aimed at improving rice sales performance. The study findings provide the rice farmers with an opportunity to further understand available differentiation strategies that can be employed to boost sales performance.

The research contributes on the body of knowledge on differentiation. The research provides a useful source of reference for scholars and researchers who may be interested in carrying out future research based on the findings of the study. It also provides literature review on the rice millers which is missing in the documented evidences.

1.6 Scope of the Study

The study was about the effect of differentiation on performance of rice milling factories in Kirinyaga County, Kenya. It specifically concentrated on product differentiation, service differentiation and physical differentiation. It was carried out in Kirinyaga County, in Kenya; targeting forty large rice milling firms. The targeted participants were managers, technical staff and employees of these factories. The study was undertaken within a maximum duration of two months of the year 2017.

1.7 Limitations of the Study

The major challenges that were be faced during the course of the study were; lack of cooperation from the respondents, geographical location of the various rice factories and little secondary data available. The researcher enlightened the community on the importance of this study to reduce the level of suspicion hence were sensitized on the importance of their co-operation as there lacks adequate secondary data from the region Also the letter from the university and NACOSTI was shown to prove it was an educational research and would not be shared for other purposes.

1.8 Organization of the Study

This study consists of five chapters. The first chapter introduces the study. It consists the background of the study, statement of the problem, study objectives, research questions, significance of the study, scope of the study and limitations of the study. The second chapter holds the literature review including theoretical review, empirical review, conceptual framework and literature gap. The third chapter captures the research methodology including research design, population, sampling technique, data collection tool, pilot testing, data collection procedure and data analysis. The fourth chapter holds the findings and discussion of the data collected. The last chapter is on summary, conclusion and recommendation. It also suggests areas of further studies.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter provides information from various publications on topics, subjects, and theories related to the research problem under investigation. The literature review has been sub-divided into five sections; theoretical review, empirical review, summary of literature and research gap, conceptual review and conceptual framework.

2.2 Theoretical review

Various theories underpinning differentiation strategy exist in the literature of strategic management. This study focused on three main theories of differentiation strategy including knowledge-based theory, Profit Impact of Marketing Strategy (PIMS) principles and resource based theory.

2.2.1 Knowledge-Based Theory

Knowledge-based theory of the firm considers knowledge as the most strategically significant resource of a firm. Its proponents argue that because knowledge-based Resources are usually difficult to imitate and socially complex, heterogeneous knowledge Bases and capabilities among firms are the major determinants of sustained competitive advantage and superior corporate performance. This knowledge is embedded and carried through multiple entities including organizational culture and identity, policies, routines, documents, systems, and employees. Originating from the strategic management literature, this perspective builds upon and extends the resource-based view of the firm

(RBV) initially promoted by Penrose(1959) and later expanded by others Barney and Conner (1991).

Although the resource-based view of the firm recognizes the important role of knowledge in firms that achieve a competitive advantage, proponents of the knowledge-based view argue that the resource-based perspective does not go far enough. Specifically, the RBV treats knowledge as a generic resource, rather than having special characteristics, it therefore, does not distinguish between different types of knowledge-based capabilities. Information technologies can play an important role in the knowledge-based view of the Firm in those information systems can be used to synthesize, enhance, and expedite large scale intra and inter-firm knowledge management (Maryam & Dorothy, 2011).

Whether or not the Knowledge-based theory of the firm actually constitutes a theory has been the subject of considerable debate (Foss, 1996; Phelan & Lewin, 2000). The characteristics of the current business scenarios in which enterprises operate, where their role is becoming more proactive in terms of gain, with the zeal of a quality that turns to advantage, leads to consider the scope, role of contingency theory, an aspect that should be considered by management. Knowledge based theory the study as decisions are made based on knowledge. Product, physical and service differentiation are reached upon after using knowledge management considerations giving the firm basis of performance.

2.2.2 Profit Impact of Marketing Strategy model

The Profit Impact of Marketing Strategy (PIMS) concept is a financial model founded in 1980s (Yannopoulos, 1987) that relates business strategies to a firm's performance. It is built on the postulate that, "the quality of goods/services of a firm that is superior to the one of other firms' contributes to its performance". Antoine, Léon and Patrick (2009) argues that within the firm, differentiation-based sources of competitive advantage in value-adding activities can be built through a number of methods. Buyer value can be increased or made more distinctive through several approaches, including (1) lowering

the buyers cost of using the product, (2) increasing buyer satisfaction with the product, (3) modifying the buyer's perception of value. Nevertheless, increasing buyer value or any dimension usually means a need to reconfigure or to improve other activities within the firm's value chain. According to Omari *et al*(2014) differentiation can be found on distinctive and specialized blends of products by pioneering the concept of uniquely blended products which will increase the number of branches in different market destinations.

According to Fornell (1992) both market share and customer satisfaction leads to profitability but it is not certain that market share and customer satisfaction have a positive correlation. Customer satisfaction incentive schemes are increasingly common in a variety of industries (McFadden, 2006). Kamau (2013) states that service differentiation have customer incentive programs which firms offer to attract new and repeat customers through efforts such as giveaways, coupons, sales promotions, and/or volume discounts. Business firms consider the factors which ensure that front and managerial staff offer excellent services and provide a positive customer experience though maintaining a motivated staff. According to Cole (2008), employees are provided with policies, processes, and standards to be employed for smooth operations, create value, and offer a positive customer experience.

The profit impact of marketing strategy principles is relevant to the project as it focused directly on value-added products and customer incentive programmes both of which constitute independent variables of the project. The main emphasis of the model is quality, product features, superior performance, buyer value, uniqueness, branding, consumer incentives and customer satisfaction, all of which are among the sub variables to be measured against market share. This model anchored the product and service differentiation variables as they determine the performance of rice milling factories in Kirinyaga County.

2.2.3 Resource Based Theory

While resource based theory has its roots in Edith Penrose's work in the late 1950s, the resource-based view (RBV) model was largely introduced to the field of strategic management in the 1980s (Wernerfelt, 1984). In the RBV of the firm, a firm's performance is affected by firm-specific resources and capabilities (Barney, 1996). This implies that, in the RBV, resources are allocated heterogeneously (unevenly) within an industry (Peteraf & Barney, 2003). Organizations therefore must be aware of their strengths and weaknesses, as they have to develop strategies on how to outperform competitors with the given resources bundles and capabilities (Wernerfelt, 1984).

A firm can practice differentiation to avoid direct competition with other competing firms. It achieves these benefits by designing a business system within the value chain that is different from that of other exporters in several key respects: size, more locations, and narrower product lines. Customers, however, are generally willing to pay a premium in exchange for the greater convenience it provides. According to Lane *et al* (2003) traditionally, marketers who gain processing efficiencies, create databases, and perform various forms of customer analysis have used technology.

In many industries traditional markets and hierarchical organizations are partly being replaced by networks of inter-organizational relationships (Kotler, 1999). Various business interdependence arrangements such as strategic alliances and joint ventures, but also networks of multiple actors, such as supplier and subsidiary networks, are formed by organizations to compete effectively in the dynamic business environment. According to Forsgren (2008) each subsidiary is embedded in a specific network of business relationships, which is more or less distinct from the networks of other subsidiaries. Investing time and resources in developing these business relationships is indispensable. Håkansson and Snehota (1995) aver that even though the future role, development and performance of a company can be largely explained by its ability to manage relationships with other organizations, still there seems to be only a handful of strategic management researchers on inter-organizational relationship and networks.

The Resource Based view was relevant to the project as it focuses directly on operating procedures and distribution network both of which constitute independent variables of the project. The main emphasis of the model is strategy, internal resources, internal management structures, processes, procedures and inter-organizational network, all of which are among the sub variables to be measured against market share. This study sought to investigate how service differentiation affects performance of rice milling factories in Kirinyaga County.

2.3 Empirical Review

2.3.1 Product differentiation and performance

Product differentiation is found throughout the economy. Within most milling factories, one may find a wide range of differentiated products. Dozens of different products have many small and sometimes large differences. Product differentiation is often employed in many business firms where buyers often appreciate the ability to select from a wide variety of product offerings in order to be better able to select that particular product that best suits their preference (Ellis & Kelley, 2005). A motivation of producers in producing a wide variety of slightly different products is to make it difficult to price compare. Product differentiation is almost inevitable in most industries and business firms.

Grant (2010) argues that, to achieve differentiation advantages successfully product superiority must be taken into consideration where firms should match customers demand for differentiation with the firm's capacity to supply differentiation. Therefore, a successful differentiation depends on both the demand side and supply side of a product. As the demand side is concerned, the key is to fully understand customers in terms of their requirement and preference of product features that make it superior or unique, and their willingness to pay for superior value.

According to Verlag (2009), Product variety is defined as the number of different versions of a product offered by a firm at a single point in time. Variety within a product

line arises by varying the values of attributes from one product to another. The presence of variety increases two basic categories of costs within supply chains: production costs and market mediation costs. High product variety allows for the satisfaction of the needs and desires of heterogeneously distributed consumers. In addition, product variety allows consumers to enjoy a diversity of options through ‘’variety seeking’ behavior, which satisfies intellectual curiosity.

Product quality is rapidly becoming an important competitive issue. Improved quality leads to higher profitability. The superior reliability of many Japanese products has sparked considerable soul-searching among American managers. In addition, several surveys have voiced consumer’s dissatisfaction with the existing levels of quality and service of the products customers buy. According to Lorentz, Häkkinen andHilmola (2006) on the business units of major American companies showed that managers ranked producing to high quality standards as their chief current concern. Quality is in the sense of satisfying individual customer’s needs, which has become a major differentiating factor among products. It becomes more acceptable that customers are willing to pay more for products that cater to their individual sizes, tastes, styles, needs, or expressions.

A product is anything that can be offered to a market to satisfy a need or a want. It is almost always a combination of tangible and intangible features. A customer attaches value to a product in proportion to its perceived ability to help solve problems or meet his needs (Levitts, 2010). This therefore means that the product is the total package of benefits the customer receives when he buys the product. Differentiation of physical products takes place along a continuum where at one extreme there are highly standardized products that allow little variation. Examples include fertilizer, steel, and aspirin to mention just a few. On the other extreme are products capable of high differentiation such as automobiles, commercial buildings and furniture. However, between the two extremes genuine variations are possible (Kotler, 2012). Thus in some cases simple proclamation that one’s product does better than others may make the whole

difference. In all cases products can be offered with varying features, with high, low, average or superior performance quality, conformance quality and durability.

There is some empirical evidence to the effect that differentiating products can lead to increased benefits for the firm. For instance a study by design Innovation Grouzin Great Britain for three years surveying 221 products found that there was 41% sales increase by companies that differentiated through design (Kotler, 2012). At the same time Levitt (2010), confirms that the list of highly differentiated consumer products that not long ago were sold as undifferentiated or minimally differentiated commodities is long and include; coffee, soap, flour, beer, and salt here in Kenya the Mumias Sugar Company has reentry embarked on branding strategy for its sugar. Product strategies deal with the basic decisions on product and product planning like how the firms' product or services compare with the competition (Kotler, 2013). This strategy looks at product standardization Vs. Product modification; Product positioning, market segmentation, product adoption, branding and packing. It is with the product in mind that marketers are constantly seeking better or more superior products to present to the consumer (Kotler, 2003).

According to Baum and Mezias (1992) a firm may face less competition by differentiating itself from others. From a population ecology perspective, the finite nature of the environment is such that firms occupy a distinct niche and compete for essential resources. From this point of view, a firm out-competes its competitors only when it locates itself in a niche where it possesses exclusive access to the resources it requires for survival another stream of research that emphasizes the benefits of being different derives from the resource-based theory perspective. In this view, it is essential for a firm to preoccupy valuable, non-substitutable, rare, and inimitable resources in order to sustain its competitive advantage over its competitors (Barney, 1991). Because of their very nature, rare and inimitable resources require that a firm exploit and deploy them in a unique way compared to its market competitors; in other words, the way a firm operates in the market differentiates it from its competitors. A firm should constantly strive to

differentiate itself from its competitors and seek rare and inimitable resources with which to sustain its competitive advantage.

According to Lorentz, Häkkinen and Hilmola (2006) differentiation strategy aims to build up competitive advantage by offering unique products characterized by valuable features such as quality, innovation and customer service. Differentiation can be based on the product itself or delivery system. Differentiation can be on the brand, image, technology, features, and customer service and distribution network. This enables the firm earn above average returns by defending it against competitive forces of substitute products, rivalry in the industry and threat of new entrants due to the brand loyalty it commands (Gachambi, 2007).

According to Pearce and Robinson (2007), this is a business strategy that seeks to build competitive advantage for a firm by having its product or service being different from other competitive products on the basis of features and product factors not related to cost and price. The difference would be one that would be hard to create and difficult to copy or imitate. The business concentrates on achieving superior performance in an important customer benefit area valued by a large part of the market. The firm cultivates those strengths that will contribute to the intended differentiation. A firm seeking quality leadership should make products with the best components that have been carefully put together and inspected and the quality difference communicated effectively.

Mwanzia (2015) investigated the effect of differentiation strategy on market share of tea export firms in Kenya. The study employed a descriptive cross-sectional survey design and the target population comprised of the seventy two (72) active tea export firms in Kenya registered by the Tea Directorate, in 2014. Primary data was collected using semi-structured questionnaires that were administered through drop-and-pick and e-mails correspondences. Sixty two (62) firms out of the targeted 72 responded translating to 86.1% response rate. Secondary data was obtained from the statistics of market share of the tea export firms between 2010 and 2014. Descriptive and inferential statistics were

used in data analysis and the results were presented in tables and graphs. The study found that the extent of adoption of differentiation strategies ranges from 66.6% to 77.8% with the highest being value added products strategy while the least was pricing. Amongst the value-added strategies, product features (quality) is the most adopted strategy while certification is the least applied strategy. The effect of differentiation strategies on market share of the firms was low at 11.6%.

2.3.2 Physical Differentiation Strategy

The physical differentiation strategy is more emphasized on the location of a business which should be in a visible, convenient, and accessible place. The physical location of the business should have a parking space for customers to park their vehicles or have restricted taxis to operate from which non-mobile customers can get transport services to their respective destinations. A business location should be chosen with care, preferably in an area near customer traffic. Being tied to an existing location will directly influence other decisions, such as marketing, product distribution and even product selection. The physical location of a firm can also be a source of product differentiation. If a firm is located close to customers, or in a location that is easy for customers to get to, it may have a product differentiation advantage compared to the other firms.

A convenient parking space is also an element of physical differentiation strategies. Most customers would prefer a place that they can park their vehicles and walk in the rice milling factories or business premises with easy. Barone and DeCarlo (2003) stated that location is as amongst the most important or the important criteria for selecting a supermarket. Because all other things at a retail premise can be changed including merchandise, prices, people, infrastructure, but one can never decide to go for another location as the cost involved is too huge or virtually nil for big rice milling factories.

According to Eckman and Yan (2009), choosing a location is a strategic decision which is difficult to return. Enterprises has to be sensitive while choosing location, especially features like population, economic and competition difficulties must be considered Stores

are always profitable when on the main roads or the roads adjoining the main roads. This ensures that not only does it attract its core customer but also attracts fleeting population. The moment they see the store, consumers think that they have to do shopping and replenish their kitchen. Eckman (2009) also found out that another advantage of keeping the store in the main road is that it can be easily found or its signage can be seen easily from a far distance.

The rice milling factories design and display/layout also play a major role in attracting more and more customers. These naturally contribute to and promote impulse stop-over resulting in more walking. Customers prefer a store that has wider walking space between the shelves and the stairs going up and down because of the heavy flow of customers walking in and out and especially during the holiday seasons.

Conducive atmosphere in these stores should also be a priority for customers to entice them to make more frequent visits. They would normally be lured to stay in longer and do more and more shopping if the environment is filled with some visual and audio entertainment. The stores must be spacious enough to allow adequate aeration and lighting. Gathoga (2011) focused on competitive strategies by commercial banks in Kenya. The study revealed that banks in Kenya use various means in order to remain competitive, he also concluded that expansion into other areas by opening new branches has also, been used as a strategy.

2.3.3 Service Differentiation Strategy

Hernant, Andersson and Hilmola (2007) assert that service organizations must meet three key customer needs to deliver service excellence: security, esteem, and justice. Fornell (1992) finds that, as a general psychological phenomenon, satisfaction is primarily a function of a customer's experience with a product or service. Assurance of service, quality of service, reliability of service, physical environments and internationalization have been cited by various researchers as influencing elements to customer satisfaction.

A customer's perception about these elements of customer service will bring about an expectation in his mind. Performance above this expectation is customer satisfaction.

A study conducted by Zeithaml (2000) identified several aspects of the relationship between perceived service quality and profitability. In addition, Bates *et al*. (2003) discuss about customers' expectations, perceptions, satisfaction and loyalty through the service quality of a local Malaysian bank. The study confirmed the linkages between service quality and customer satisfaction, and between service quality and loyalty. Proximity to a comprehensive branch and Automated Teller Machine (ATM) network and friendly courteous branch staff and short queues are among the most important factors which determine a good quality customer service in Spain. Firms in the Netherlands recognize that their delivery on reacting quickly and effectively to both customer requests and complaints is below customer expectations (King, 2005).Service differentiation also have customer incentive programs which rice milling factories offer to attract new and repeat customers through efforts such as giveaways, coupons, sales, promotions, and/or volume discounts

One of the benefits of running sales promotions is that you can often get help from your suppliers. If you have good relationships with your suppliers, they might pay for some additional advertising to drive traffic to your store. They might set up a special display or give you special pricing on merchandise in order to help increase sales. Your suppliers want you to succeed so that they can keep selling you goods (Arthur, Thompson & Jain, 2006). According to Singh, Vishal and Dube (2002), the relationship between advertising and sales performance is sometimes subtle. Many consumers decide to purchase goods for nuanced reasons such as familiarity with a brand. Brand advertisements don't tout a particular product. Instead, they provide information about the business that offers the product and help clarify its brand identity. Researchers measure the effectiveness of brand advertising by asking consumers to thumb through a magazine that contains a print advertisement or view or listen to television or radio content that contains the advertisement (Cullen & Parboteeah, 2005). They found out how the

consumer perceived the advertisement and to determine her knowledge and perception of the sponsor. Anyim (2012) who studied service differentiation among private hospitals in Nairobi sampled 30 out of a population of 64 private hospitals. Data was analyzed using descriptive statistics.

2.4 Research gaps

From the studies reviewed, there is mixed evidence about the effect of differentiation strategies on the performance of firms. It is therefore, important for managers, supervisors, investors and researchers to understand how differentiation strategies affect the performance of firms. Hence, the researchers' main purpose in this project will be to fill this significant gap by providing systematic analysis of the relationship between differentiation strategies and performance of large rice milling factories in Kirinyaga County.

Few researches have been conducted on the area of differentiation strategies and mostly have failed to show that there is a relationship between product, physical and service differentiation and the performance of rice milling factories and thus this has motivated the researcher to fill this gap in the literature.

Table 2.1: Past studies on relationship between differentiation strategies and performance

Kenya				
Author	**Topic**	**Methodology**	**Conclusion**	**Critique**
(Muthoka, 2012)	Response strategies to competition by horticultural export firms in Kenya	Descriptive research	The study established that horticultural export firms in Kenya are being faced by several challenges including: rivalry within the industry, competition for source of suppliers, competition for warehousing facilities and competition for channels of distribution.	The study was based on horticultural industry and also majored on response strategies to competition
(King'oo,	The effect of	Descript	The study found that the extent	The study

2015)	differentiation strategy on market share of tea export firms in Kenya	ive cross-sectional survey design	of adoption of differentiation strategies ranges from 66.6% to 77.8% with the highest being valueadded products strategy while the least was pricing. Amongst the value-added strategies, product features (quality) is the most adopted strategy while certification is the least applied strategy. The effect of differentiation strategies on market share of the firms was low at 11.6%.	findings focused only on market share of tea export firms. And thus little information regarding relationship between differentiation and performance of firms could be retrieved from the study
(Seem, 2011)	Product differentiation as a strategy for sustainable competitive advantage in banks issuing credit cards in Kenya	descriptive survey approach	The study concluded that commercial banks in Kenya need to adopt a number of best practices when trying to create differentiation through credit card which include focusing on strengths, developing a strong marketing campaign, a unique logo and brand, and a unique image inorder to have sustainable competitive advantage.	The study findings are only applicable to financial performance perspective
(Wangure, 2012)	Achieving sustainable competitive advantage through product differentiation in deposit taking microfinance institutions in Kenya	survey design	The study concluded that Deposit Taking Microfinance institutions in Kenya offer different products to the market including loan facilities, training, voluntary savings, fund transfer services, insurance services and effective delivery systems such as ATMs. Deposit Taking Microfinance Institutions therefore differentiate its products through offering services such as loans, savings, money transfers, insurance services, and other financial services to low-income earners in both rural and urban areas.	Findings focused on Microfinance institutions in Kenya and thus cannot be generalized to other milling companies.

2.5 Conceptual framework

A conceptual framework is a figure that shows the relationship between the dependent variable and the independent variable. In this study the dependent variable is performance of rice milling factories while the independent variables are product differentiation, physical differentiation, and service differentiation. A conceptual framework has been drawn to show the relationship of the dependent variable and the independent variables.

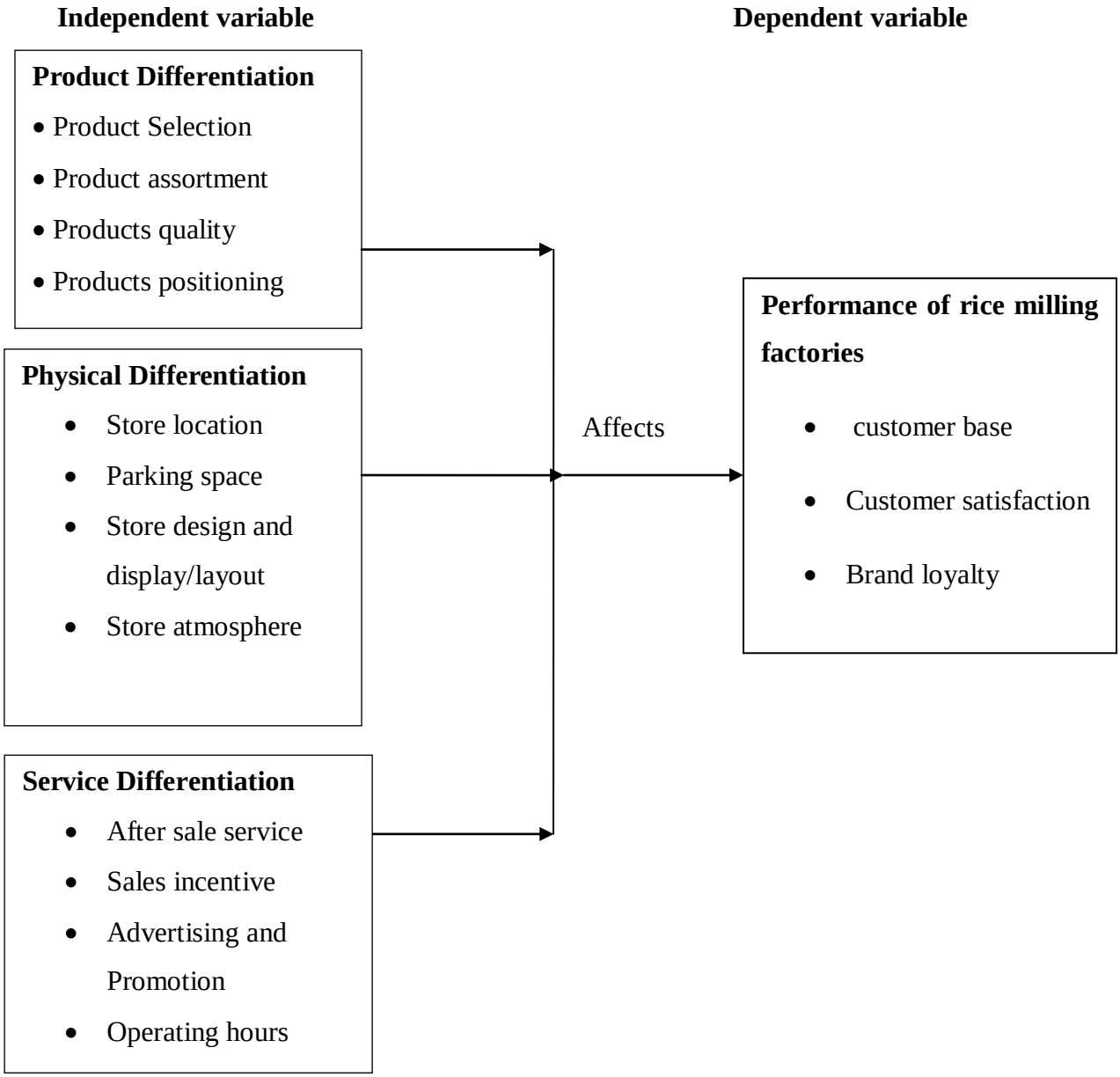

Figure 2.1: Conceptual framework

Source (Researcher, 2017)

This study conceptualizes that product differentiation; physical differentiation and services differentiation (independent variables) affect sales performance (dependent variable) in annual rice sales revenue. In this study product differentiation is argued to comprise of product quality, product superiority, product assortment/Variety and value addition; physical differentiation includes store location, parking space, store design and display/layout, store atmosphere and security. Service differentiation include: advertising and promotion, service quality, core competencies, after sales incentive programs, operating hours and team building. This argument is supported by Carpenter, Vivian Acosta and Peterson (2006).

It was assumed in this conceptual framework that the status of annual sales revenues is affected by the differentiation strategies employed by the large rice milling factories in the study area.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter covers the research methodology that the researcher used to carry out the study. It covers the type of research design adopted by the researcher, population of the study, data collection method to be used and how collected data were analyzed. Research methodology has been subdivided into nine sections; introduction, research design, target population, sample size and sampling design, data sources and collection, data collection procedure, pilot study, data analysis and presentation and ethical consideration.

3.2 Research Design

Thornhill (2003) described a research design as a plan of action that a researcher has to take in order to tackle a problem. A similar definition has been given by Saunders *et al* (2003) who described a research design as a plan of study providing the overall framework for collecting data. Once the problem has been formulated, a design is developed in order to provide a format for detailed steps in the study.

The study adopted a descriptive survey design. A descriptive research design is a scientific method which involves observing and describing the behavior of a subject without influencing it in any way. It is concerned with the what, where and how of phenomena (Mugenda Mugenda, 1999). A survey research collects data from a broad number of members of a population which facilitates comparisons and this study was undertaken to compare various strategies of population members with respect to the competitive strategies they are using.

3.3 Target Population

Population refers to an entire group of individuals, events or objects having a common observable characteristic. It is the aggregate of all that conforms to a given specification

(Mugenda Mugenda, 2003).Population is the total group of persons or objects that meets the designated set of criteria established by the researcher. There are 130 rice milling factories in Kirinyaga County (Millers Association, 2015). Rice milling factories use different sizes and quality of machinery this results to different production capacities (in volume) and rice quality differences. Therefore, the mills can be easily classified as large, medium and small. The classification is in terms of the number of sacks milled by machine because of its capacity. The large millers are those who can mill a minimum of 1 tonne of rice per day. They were found to be forty who met this criteria and they were the unit of analysis in this study. They were all located in one area called Wang'uru where majority of the rice in the county is grown. The forty formed the population of the study.

3.4 Sampling Design

All the forty rice milling factories were included in the study hence a census. The total number of employees of the 40 factories was 230. To get the respondents stratified sampling was used. The sample of respondents to be studied was determined using a formula provided by (Mugenda, 2008).

$$nf = \frac{Nn}{n+N}$$

Where nf was the desired sample size (when the population is less than 10,000), N is the estimated population (230) and n was the desired sample size (30% of 230 = 69).

$$nf = \frac{230 \times 69}{69+230} = 53$$

Therefore the study used a sample of 53 individuals. To get the respondents stratified sampling was used. The workers were arranged into three strata; factory managers, technical officers and employees.

The sample as shown on table 3.1which comprise of 35 employees, 9 factory managers and 9 Technical staff as from the formula.

The factory managers, factory technicians and factory employees respondents was determined using a formula provided by (Mugenda, 2008).

$$nf = \frac{Nn}{n+N}$$

Factory managers

30% 0f 40 = 12

Factory manager = $\frac{40 \ x \ 12}{12+40}$= 9

Factory technicians

30% of 40 = 12

Factory technicians = $\frac{40 \ x \ 12}{12+40}$= 9

Factory employees

30% of 150 = 45

Factory employees =$\frac{150 \ x \ 45}{45+150}$ = 35

Table 3.1 Sample frame

Category	Target population	Sample
Factory managers	40	9
Technical officers	40	9
Employees	150	35
Total	**230**	**53**

3.5 Data collection instruments

. Primary data was used in this study. According to (Ochola, 2007), primary data refers to what is collected directly by the researcher for the purpose of the study. The study used a questionnaire to collect primary data. Questionnaire was appropriate for studies since it collected information that were not directly observable as they inquired about feelings, motivations, attitudes, accomplishments as well as experiences of individuals, (Mellenbergh, 2008). The questionnaire comprised of both open and close-ended

questions. Franker (2006) stated that a questionnaire was useful in obtaining objective data because participants are not manipulated in any way by the researcher. Further, questionnaires had added advantage of being less costly and used less time as an instrument of data collection. The data instrument was developed in line with the objectives of the study and divided into two sections. Section one had general background questions and section two had questions on effect of differentiation on performance of rice milling factories in Kirinyaga County, Kenya.

3.6 Pilot Study

According to Bordens and Abbott (2008), pilot study is as a small-scale version of the study used to establish procedures, materials and parameters to be used in the full study. Pilot study was conducted in determining if there were flaws, limitations, or other weaknesses within the data collection instrument to make the necessary revisions prior to the implementation of the study. This study took 1% of the population that was not to be part of the sample for actual study. A pilot study was undertaken on at least 8 respondents who were drawn from three factories selected through simple random sampling and the findings of the pilot study were not included in the actual study. This sample was as per (Musula, 1990) who says that piloting should involve 10% of the total Sample. After piloting, ambiguous questions will be modified and others discarded

3.6.1 Reliability

Reliability is the extents to which a research instrument yields findings that are consistent each time it is administered to same subjects (Mugenda & Mugenda, 2003).The measurement of reliability provides consistency in the measurement variables(Kumar, 2000). The researcher used test-retest technique to test reliability of the instrument. This is a technique of administering the same instrument twice in the same group of subjects. The questionnaires were administered to the same selected sample again after one week. After test-retest is done, Cronbach's alpha reliability coefficient formulae were used. Normally Cronbach's alpha reliability coefficient ranges between 0 and 1. The closer

Cronbach's alpha coefficient is to 1.0 the greater the internal consistency of the items in the scale. A cut-off of 0.7 was used as advocated by Mugenda and Mugenda (2003).

3.6.2 Validity

Validity is the degree to which the sample of the test item represent the content that is designed to measure, that is, the instrument measures the characteristics or trait that is intended to measure (Mugenda, 2008). Data need not only to be reliable but also true and accurate. If a measurement is valid, it is also reliable (Creswell, 2003). The research adopted a content validity which refers to the extent to which a measuring instrument provides adequate coverage of the topic under study. To ensure content validity the researcher had the questionnaires appraised by the project supervisor. The contributions and suggestions on the same used and ambiguous questions were clarified and new questions were added.

3.7 Data collection procedure

After acquiring the data collection approval from the university and NACOSTI, the questionnaire was administered by the researcher through hand and pick method and it was administered to the managers, the technical staff and the factory employees of which they were expected to hand them back within two weeks. This was with their consent after explaining the need of the same. Follow-up was done to maximise the filling rate through the managers.

3.8 Data Analysis and Presentation

The research resulted into a large volume of raw data which must be suitably reduced for further analysis (Kothari, 2006). Once all data was in, the responses were scrutinized and prepared in a way to facilitate coding and eventual tabulation (Cooper & Schindler, 2003). Several responses were reduced to a small number of classes that contained critical information required for analysis. The data was analyzed using both qualitative and quantitative techniques. Descriptive and inferential statistics helped describe "What is" or "what happened" (Ngecu, 2006), (Mugenda, 2003), (Kothari, 2006). Statistical

Package for Social Sciences (SPSS) was used to easily carry out the analysis. Descriptive statistics were used to summarize and analyze the data. These included the use of frequencies, and percentages. The data was presented in tables, graphs and charts. Inferential statistics (regression analysis, correlation and analysis of variance) technique was used to make generalizations.

Qualitative data was analyzed using content analysis, where the opinion of the respondent was presented in prose form. Multiple regression analysis is a statistical method utilized to determine the relationship between one dependant variable and one or more independent variables (hair et al, 2010) this study used multiple linear regression model analysis as follows

$$Y = \beta_O + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon$$

Where:

Y = Rice mills performance

β_O = Constant term

$\beta_1, \beta_2, \beta_3$ = Beta coefficients

X_1 = Product differentiation

X_2 = physical differentiation

X_3 = Service differentiation

ϵ = error term (residual term that includes the net effect of other factors not in the measurement errors in the dependant and the independent variables)

3.9 Ethical Consideration

The proposal was approved by Kenyatta University and all the necessary study authorization documents secured from the institute. Further consent was sought from the National Commission for Science, Technology and Innovation (NACOSTI) in order to achieve the desired goal. Informed consent from every participant was sought before interview was conducted. No name or respondent identification codes were used in the data collection tool. Confidentiality was assured and maintained throughout the study.

CHAPTER FOUR

DATA ANALYSIS AND PRESENTATION

4.0 Introduction

This chapter presents analysis of the data, interpretation and discussion of findings. Data in this study were generated using questionnaire for the factory managers, factory technicians and factory employees. Data analysis, presentation and discussion were guided by the study objectives: To find out the effect of product differentiation on performance of large rice milling factories in Kirinyaga County, to establish how physical differentiation strategy affect performance of large rice milling factories in Kirinyaga County and to examine how service differentiation strategy affect performance of large rice milling factories in Kirinyaga county.

4.1 Response Rate

The number of questionnaires that were administered to factory managers, factory technicians and factory employees was fifty three (53). A total of forty six (46) questionnaires were properly filled and returned. This represented an overall successful response rate of 86.8% as shown on Table 4.1. According to Mugenda & Mugenda (2003) and also Kothari (2004) a response rate of above 50% is adequate for a descriptive study. Babbie (2004) also asserted that return rates of above 50% are acceptable to analyze and publish, 60% is good and 70% is very good.

Based on these assertions from renowned scholars, 86.8% response rate is very good for the study. Thus the response rate of 86.8% under this study was very good for study. This is comparable to response rates from similar studies carried out on differentiation and market share such as by Heiko, Anders and Lars (2011) on the relationship between differentiation strategy and business performance of European-based manufacturing firms received 21% response rate; Farshid and Amir (2012) study on the influence of marketing mix on market share of polymer sheets manufacturing firms in Iran received 64%

response rate. Muthoka (2012) study on the response strategies to competition by horticultural export firms in Kenya received 44% response rate while Kamau (2013) who studied the effects of differentiation strategy on sales performance in supermarkets within Nakuru received 100% response rate.

Table 4.1: Response Rate

Response	Frequency	Percent
Returned	46	86.8%
Unreturned	7	13.2%
Total	**53**	**100%**

Source: Field Data (2017)

4.2 Pilot Test Results

A pilot study was undertaken on at least 8 respondents who were drawn from three factories selected through simple random sampling and the findings of the pilot study were not included in the actual study. This was to test the reliability and validity of the questionnaire before using it for the study. The outcome was used to modify the final questionnaire which was used for the study.

4.2.1 Validity

To establish the validity of the data collection instruments, the research instruments were given to factory managers in different large rice milling factories. The factory managers were expected to rate the relevance to which the items in the questionnaires addressed differentiation strategy and performance of large rice milling factories in Kirinyaga County, Kenya. The project supervisor also validated the instrument's content and face validity. The results were integrated into the final instrument.

4.2.2 Reliability Analysis

To measure the reliability of the data collection instruments an internal consistency technique Cronbach's alpha was computed using SPSS.. The table 4.2 indicates that the obtained data was reliable since data obtained from all independent variables had a value

of 0.860 to 0.932 and this was above 0.7 which was the threshhold (Zinbarg, 2005) and this indicates that the gathered data had relatively high internal consistency and could be generalized to reflect opinions of all respondents in the target population on differentiation strategy and performance of large rice milling factories in Kirinyaga County, Kenya.

Table 4.2 Reliability Results

Variables	Cronbach's Alpha Values
Product differentiation	.928
Physical differentiation	.860
Service differentiation	.932

Source: Field Data (2017)

4.3 Demographic Characteristics

4.3.1 Gender

This section consists of information that describes basic characteristics such as male and female respondents representing the factory managers, factory technicians and factory employees. Male respondents were 15(33%) and female respondents were 31(67%) as shown in table 4.2 which represents demographic information of the respondents. This shows that rice milling factories have more females than males. Most females dominate the sales and customer care sections. These sections on rice processing to my view have light duties which can easily be managed by females.

Table 4.2 presets the demographic information of the respondents

Gender	**Frequency**	**Percent**
Male	15	33%
Female	31	67%
Total	**46**	**100%**

Source: Field Data (2017)

4.3.2 Demographic status of the respondents

Table 4.4 presets the demographic information of the respondents.

Table 4.4: Demographic status of the respondents

Demographic information	Sample
Age	
Below 25 years	8 (17.4%)
26 – 35 years	19(41.3%)
36 – 45 years	14(30.4%)
Above 45 years	5 (10.9%)
Level of education	
C.P.E/K.C.P.E	5 (10.9%)
O level/K.C.S.E	28 (60.9%)
College	10 (21.7%)
University	3 (6.5%)

Source: Field Data (2017)

Those interviewed 8(17%) were below 25 years of age, 19(41.3%) of the respondents were aged between 26 to 35 years of age. While 14(30.4%) of the respondents were aged between 36 to 45 years and 5(10.9%) were above 45 years.

The study also found that among those interviewed 5(10.9%) of the respondents held primary level education certificate, 28 (60.9%) of those interviewed held secondary school certificate, 10(21.7%) of respondents had gone up to college level while 3 (6.5%) held bachelors degree certificates most of the factory employees are of middle age (between 26- 35) with Kenya Certificate of Secondary education (KCSE), O-level qualifications. To my view rice milling process is very tedious and the factory produces a lot of dust therefore, it requires healthy and energetic people hence the reflection of most workers in the rice milling factories are males and females aged between 26 – 35 years of age. To me, to working in the rice milling factory ordinary level education is sufficient.

4.4 Descriptive Analysis

Descriptive analysis were carried out on the study objective questions. These included questions on product differentiation, service differentiation and physical differentiation. Central measures of tendency (means and standard deviations) were used to describe the data.

4.4.1 Product differentiation

This section addresses the first objective and which sought to find out the effect of product differentiation on performance of large rice milling factories in Kirinyaga County. The data which was used to address this objective was collected using the factory managers, factory technicians and factory employee questionnaire. The respondent's findings are presented on table 4.5 which presets the product differentiation strategy findings.

Table 4.5 product differentiation strategy

	Very large Extent	**Large Extent**	**Moderate Extent**	**Small extent**	**No Extent**	**SD**
Rice quality	19(41.3%)	21(45.7%)	4(8.7%)	0(0%)	2(4.3%)	9.985
Rice value addition	22(47.8%)	15(32.6%)	6(13%)	1(2.2%)	2(4.3%)	9.039
Rice variety	22(47.8%)	17(37%)	2(4.3%)	3(6.5%)	2(4.3%)	9.576
Rice position	19(41.3%)	16(34.8%)	5(10.9%)	2(4.3%)	4(8.7%)	7.727

Source: Field Data (2017)

It was established that on rice quality strategy that 19(41.3%) of the respondents agreed to a very large extent, 21(45.7%) of the respondents agreed to a large extent, 4(8.7%) of the respondents agree at moderate extent, 0(0%) of respondents agreed to a small extent while 2(4.3%) of the respondents agreed to no extent. On rice value addition that 22(47.8%)of the respondents agreed to a very large extent, 15(32.6%)of the respondents agreed to a large extent, 6(13%)of the respondents agree at moderate extent, 1(2.2%)of respondents agreed to a small extent while 2(4.3%)of the respondents agreed to no extent on rice variety On rice value addition that 22(47.8%) of the respondents agreed to a very

large extent, 17(37%) of the respondents agreed to a large extent, 2(4.3%) of the respondents agree at moderate extent, 3(6.5%) of respondents agreed to a small extent while 2(4.3%) of the respondents agreed to no extent and on rice position 19(41.3%) of the respondents agreed to a very large extent, 16(34.8%) of the respondents agreed to a large extent, 5(10.9%) of the respondents agree at moderate extent, 2(4.3%) of respondents agreed to a small extent while 4(8.7%) of the respondents agreed to no extent highest percentage strongly agree on product differentiation.

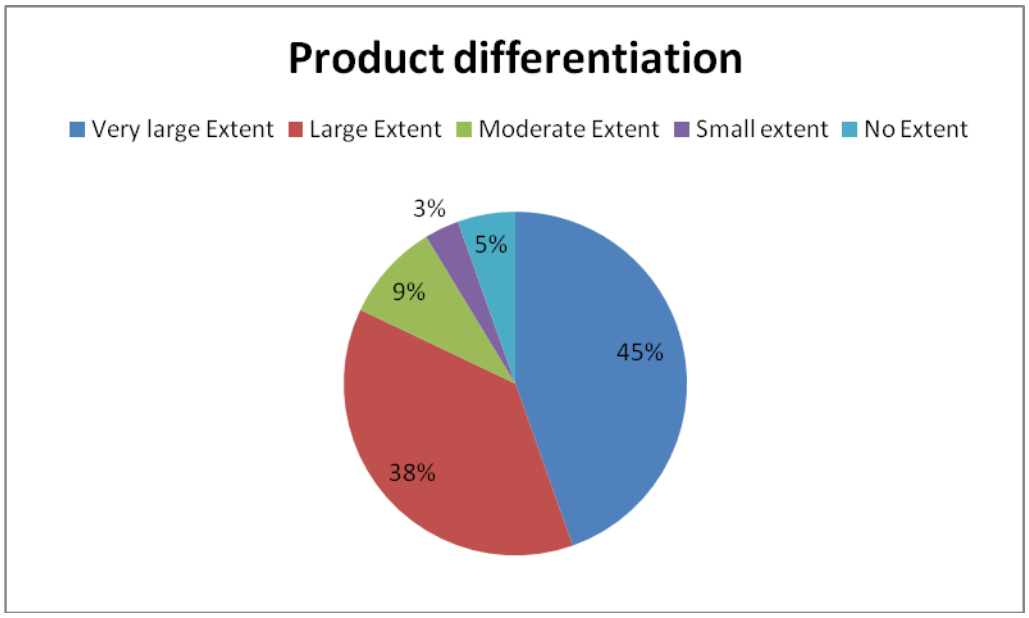

Figure 4.1 product differentiation Source: Field Data (2017)

45% of the respondents agree to a very large extent, 38% of the respondents agree to a large extent 9% of the respondents agree to a moderate extent, 3% of the respondents agree on a small extent while 5% of the respondents agree at no extent on product differentiation strategy. customers are attracted more to products that they value as of good quality in disregard of their prices.

The study also addressed the question of effect of product differentiation on performance. Results on this section are presented on table 4.8.

Table 4.8 effect of product differentiation strategy

Statement	Strongly Agree	Agree	Moderate	Disagree	Disagree Strongly	SD
The factory ensures milling of high quality rice	35(76.1)	11(23.9)	0(0%)	0(0%)	0(0%)	11.798
exercise diligence in selecting suppliers of our machines	20(43.5%)	24(52.2%)	2(4.3%)	0(0%)	0(0%)	15.189
Product selection is based on customer specification	25(54.3%)	11(23.9%)	10(21.7%)	0(0%)	0(0%)	10.281
Product selection is demand driven	28(60.9%)	12(26.1%)	1(2.2%)	2(4.3%)	3(6.5%)	11.389
Product assortment style is distinct from our competitors	26(56.5%)	11(23.9%)	6(13%)	3(6.5%)	0(0%)	10.232
Rice products are well positioned for ease access by customers	32(69.6%)	9(19.6%)	2(4.3%)	2(4.3%)	1(2.2%)	13.142
Add value to our products through packaging of rice	21(46.7)	10(21.7%)	9(19.6%)	5(10.8%)	1(2.2%)	7.497

Source: Field Data (2017)

On a scale of 1-5 where: (1- strongly agree, 2- agree, 3- moderate, 4-disagree, 5- strongly disagree) the respondents on:- the factory ensures milling of high quality rice 35(76.1%) of the respondents strongly agreed, exercise diligence in selecting suppliers machines 24(52.2%) of the respondents agreed, product election is based on customer specification 25(54.3%) of the respondents strongly agreed, on product selection is demand driven28(60.9%) of the respondents strongly agreed, product assortment style is distinct from our competitors 26(56.5%) of the respondents of the respondents strongly agreed, rice products are well positioned for ease access by customers 32(69.6%) of the respondents strongly agreed and on add value to our products through packaging of rice 21(46.7%) of the respondents strongly agreed.

4.4.2 Physical differentiation strategy

This section addresses the second objective and which sought to establish how physical differentiation strategies affect performance of large rice milling factories in Kirinyaga County. The data which was used to address this objective was collected using the factory managers, factory technicians and factory employee questionnaire. The respondent findings are presented on table 4.6 which represents the physical differentiation strategy findings.

Table 4.6 physical differentiation strategy

	Very large Extent	**Large Extent**	**Moderate Extent**	**Small Extent**	**No Extent**
Mill Location	20(43.5%)	14(30.4%)	10(21.7%)	0(0%)	2(4.3%)
Parking space	17(37%)	16(34.8%)	8(17.4%)	4(8.7%)	1(2.2%)
Mill design and display/layout	18(39.1%)	18(39.1%)	6(13%)	4(8.7%)	0(0%)
Mill atmosphere	10(21.7%)	13(28.3%)	15(32.6%)	5(10.9%)	3(6.5%)

Source: Field Data (2017)

It was established that on mill location strategy that 20(43.5%)of the respondents agreed to a very large extent, 14(30.4%) of the respondents agreed to a large extent, 10(21.7%)

of the respondents agree at moderate extent, 0(0%) of respondents agreed to a small extent while 2(4.3%) of the respondents agreed to no extent, on parking space 17(37%) of the respondents agreed to a very large extent, 16(34.8%)of the respondents agreed to a large extent, 8(17.4%) of the respondents agree at moderate extent, 4(8.7%) of respondents agreed to a small extent while 1(2.2%) of the respondents agreed to no extent, on mill design and display/ layout 18(39.1%)of the respondents agreed to a very large extent, 18(39.1%)of the respondents agreed to a large extent, 6(13%) of the respondents agree at moderate extent, 4(8.7%)of respondents agreed to a small extent while 0(0%) of the respondents agreed to no extent and on mill atmosphere 10(21.7%) of the respondents agreed to a very large extent, 13(28.3%) of the respondents agreed to a large extent, 15(32.6%) of the respondents agree at moderate extent, 5(10.9%) of respondents agreed to a small extent while 3(6.5%) of the respondents agreed to no extent.

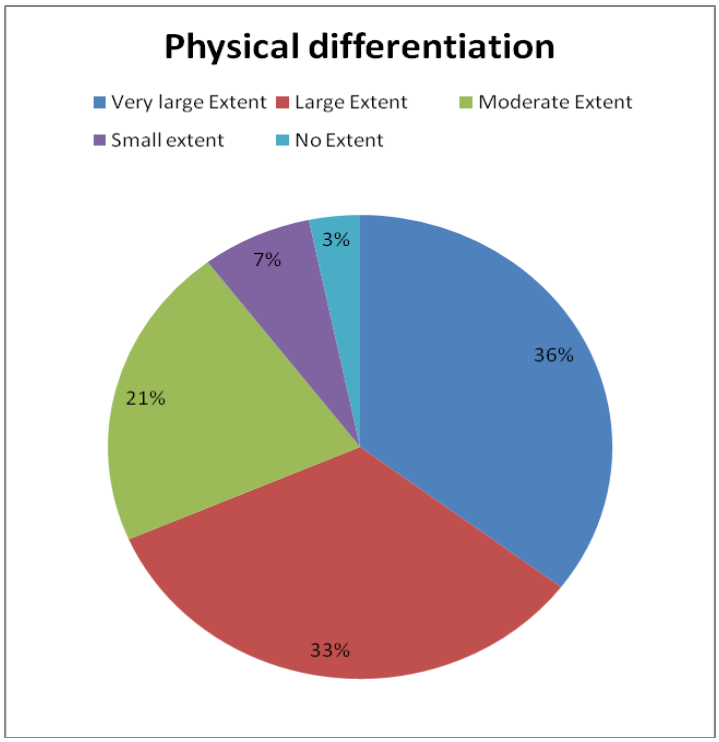

Figure 4.2 physical differentiation Source: Field Data (2017)

36% of the respondents agree to a very large extent, 33% of the respondents agree to a large extent 21% of the respondents agree to a moderate extent, 7% of the respondents

agree on a small extent while 3% of the respondents agree at no extent on physical differentiation strategy. In my view where a factory is situated is paramount to its performance customers like shopping in places that are easily accessible to them as they go about doing others business.

The effect of physical differentiation strategy on performance was addressed using a different set of questions. The results are presented on table 4.9 which represents physical effect of differentiation strategies.

Table 4.9 effect of physical differentiation strategy

Statement	**Strongly Agree**	**Agree**	**Moderate**	**Disagree**	**Disagree Strongly**	**SD**
factories are strategically Located	25(54.3%)	17(37%)	4(8.7%)	0(0%)	0(0%)	11.256
has adequate free parking space	24(52.2)	11(23.9%)	8(17.4%)	0(0%)	3(6.5%)	9.311
Factory layout is strategically placed to attract new customers	34(73.9%)	6(13%)	1(2.2%)	2(4.3%)	3(6.5%)	13.989
Stores are spacious for customers storage	30(65.2%)	9(19.6%)	1(2.2%)	1(2.2%)	5(10.9%)	12.091
Factory environment is filled with entertainment (visual and audio	13(28.3%)	7(15.2%)	9(19.6%)	17(37%)	0(0%)	6.419

Source: Field Data (2017)

On a scale of 1-5 where: (1- strongly agree, 2- agree, 3- moderate, 4-disagree, 5- strongly disagree) the respondents:- on factories are strategically located 25(54.3) of the respondents strongly agree, on has adequate free parking space 24(52.2%) of the respondents strongly agree, on factory layout is strategically placed to attract new customers 34(73.9%) of the respondents strongly agree, on stores are spacious for customers storage 30(65.2%) of the respondents strongly agree and on factory environment is filled with entertainment (visual and audio) 17(37%) of the respondents disagree. This shows that high percentage of the respondents strongly agree that physical differentiation affects performance of large rice milling factories.

The environment is what gives organizations their means of survival and also a source of threats. This is supported by Johnson *et al* (2008) who concluded that it is vital that managers analyze their environments carefully in order to anticipate and if possible influence environmental change.

4.4.3 Service differentiation strategy

This section addresses the third objective which sought to examine how service differentiation strategies affect performance of large rice milling factories in Kirinyaga County. The respondent's findings are presented on table 4.7 which represents the service differentiation strategy findings.

Table 4.7 Service differentiation strategy

	Very large Extent	**Large Extent**	**Moderate extent**	**Small extent**	**No extent**	**SD**
Advertising and Promotion	17(37%)	11(23.9)	15(32.6%)	1(2.2%)	1(2.2%)	7.616
sales Incentives	15(32.6%)	14(30.4%)	14(30.4%)	2(4.3%)	1(2.2%)	7.050
Core competencies	18(39.1%)	15(32.6%)	7(15.2%)	4(8.7%)	2(4.3%)	6.979
Operating hours	23(50%)	14(30.4%)	6(13%)	1(2.2%)	2(4.3%)	9.257

Source: Field Data (2017)

It was established that on advertising and promotion strategy that 17(37%) of the respondents agreed to a very large extent, 11(23.9) of the respondents agreed to a large extent, 15(32.6%) of the respondents agree at moderate extent, 1(2.2%) of respondents agreed to a small extent while 1(2.2%) of the respondents agreed to no extent on sales incentives 15(32.6%) of the respondents agreed to a very large extent, 14(30.4%) of the respondents agreed to a large extent, 14(30.4%) of the respondents agree at moderate extent, 2(4.3%) of respondents agreed to a small extent while 1(2.2%) of the respondents agreed to no extent on core competencies 18(39.1%) of the respondents agreed to a very large extent, 15(32.6%) of the respondents agreed to a large extent, 7(15.2%) of the respondents agree at moderate extent, 4(8.7%)of respondents agreed to a small extent while 2(4.3%)of the respondents agreed to no extent and on operating hours 23(50%) of the respondents agreed to a very large extent, 14(30.4%) of the respondents agreed to a large extent, 6(13%) of the respondents agree at moderate extent, 1(2.2%) of respondents agreed to a small extent while 2(4.3%) of the respondents agreed to no extent.

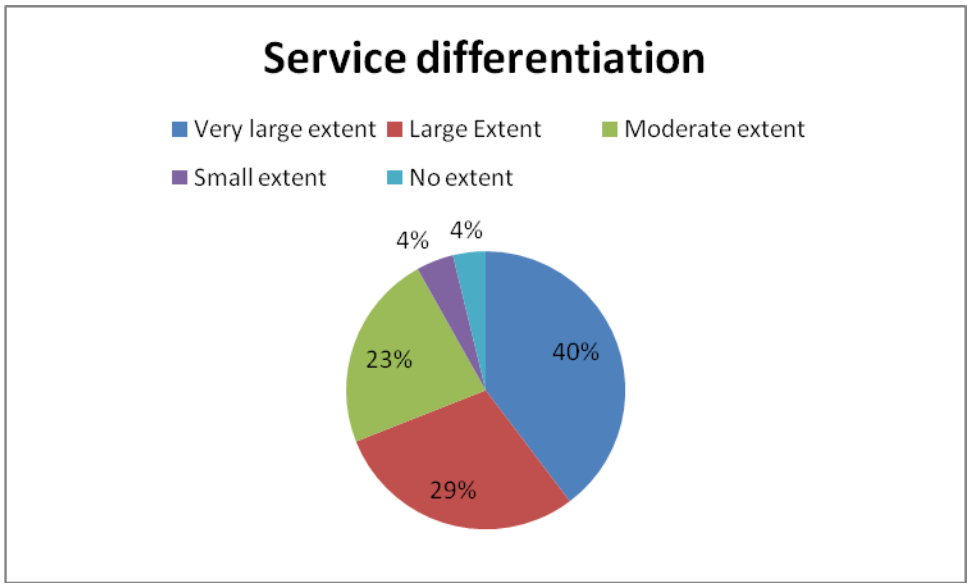

Figure 4.3 service differentiation Source: Field Data (2017)

40% of the respondents agree to a very large extent, 29% of the respondents agree to a large extent 23% of the respondents agree to a moderate extent, 4% of the respondents agree on a small extent while 4% of the respondents agree at no extent on service differentiation strategy. Customers are very specific on what they want. Customers are also impressed by good services.

Trout (2000) emphasizes that service differentiation is the most important strategic and tactical activities in which companies must constantly engage in. It is also the most sustainable source of differentiation and advantage, (Horovitz, 2000). The results presented on table 4.10 represents effect of service differentiation strategies on performance

Table 4.10 Effect of service differentiation strategy

Statement	Strongly Agree	Agree	Moderate	Disagree	Disagree Strongly	SD
Offers transport service to customers	10(21.7%)	17(37%)	4(8.7)	13(28.2)	2(4.3%)	6.221
Use posters for advisement and promotion of factory	23(50%)	12(26.2)	6(13%)	3(6.5%)	2(4.3%)	9.450
Offers online shopping services	6(13%)	15(32.6%)	3(6.5%)	17(37%)	5(10.9%)	6.340
Service delivery is fast in Factory	26(56.5%)	14(30.4%)	5(10.9%)	0(0%)	1(2.2%)	10.895
There is promptness in handling customers complaints/inquiries	24(52.2)	7(15.2%)	5(10.9%)	5(10.9%)	5(10.9%)	8.319
Have skilled and experienced staff	20(43.5%)	19(41.3%)	6(13%)	1(2.2%)	0(0%)	9.680
Have variety of sales incentive programs (smart cards, bank credit cards)	10(21.7%	5(10.9%)	9(19.6%)	18(39.1)	4(8.7)	5.541

Source: Field Data (2017)

On a scale of 1-5 where: (1- strongly agree, 2- agree, 3- moderate, 4-disagree, 5- strongly disagree) the respondents:- on offers transport service to customers 17(37%) of the respondents agreed, on use posters for advertisements and promotion of factory 23(50%) of the respondents strongly agreed, on offers online shopping services 17(37%) of the respondents disagreed, on service delivery is fast in factory 26(56.5%) of the respondents strongly agreed, on there is promptness in handling customer complaints/equerries 24(52.2%) of the respondents strongly agreed, on have skilled and experienced staff 20(43.5%) of the respondents strongly agreed and on have variety of sales incentive 18(39.1%) of the respondents disagreed. This shows that high percentage of the respondents strongly agree that service differentiation affects performance of large rice milling factories. The sales revenue of a firm could be attributed to increased buyer value (Bordes, 2009). This might be as a result of reconfiguring or to improving other activities within the firm's value chain. The contributors of sales turnover include superior quality of goods/services (PIMS Principle); value-adding activities (Bordes, 2009) and uniquely blended products (Omari et al, 2014). These findings are in agreement with other findings such as that of (Grant, 2005) who stated that for strategy to be successful it must be consistent with the firm's goals and values, its external environment, its resources and capabilities, its organization and systems. Decision making capabilities are of interest to decision makers in organizations operating in turbulent environments where environmental change is frequently occurring and response to this change is a necessary component of maintaining a competitive market position or gaining an improved one (Heinriches & Lim, 2008).

4.5 Inferential Statistics

Inferential analysis was conducted to generate correlation results, model of fitness, and analysis of the variance.

4.5.1 Correlation analysis

Pearson correlation was carried out to determine how the research variables related to each other. Pearson's correlation reflects the degree of linear relationship between two variables. It ranges from +1 to -1. A correlation of +1 means that there is a perfect positive linear relationship between variables (Sekeran, 2003), table 4.11 below presents the results of the correlation analysis. The results revealed that product differentiation and service differentiation are positively and significant related (r= 0.99, p=0.001). The table further indicated that physical differentiation and service differentiation are positively and significantly related (r=0.9278, p=0.023). It was further established that physical differentiation and service differentiation were positively and significantly related (r=0.9111, p=0.031). This implies that an increase in any unit of the variables leads to an improvement in performance of rice milling factories. Correlation is significant.

Table 4.11 correlation matrix

		Product differentiation	**Physical differentiation**	**Service differentiation**
Product	Pearson Correlation	1		
	Sig. (2-tailed)			
physical	Pearson Correlation	.990**	1	
	Sig. (2-tailed)	.001		
service	Pearson Correlation	.928*	.911*	1
	Sig. (2-tailed)	.023	.031	

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).
Source: field data (2017)

4.5.2 Regression Analysis

In this subsection, multiple regression analysis was used to determine whether independent variables product differentiation (X1), physical differentiation (X2) and service differentiation(X3) simultaneously affects the dependent variable (Y) performance of large rice milling factories. As a result, the subsection examines whether the multiple regression equation can be used to explain differentiation strategy and performance of large rice milling factories in Kirinyaga County, Kenya. The model used for the regression analysis was expressed in the general form as given below:

$$Y = \beta_O + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon$$

For this model, performance of rice milling factories was used as the dependent variable (Y) and independent variables included X1, X2 and X3. The relationships between the dependent variable and independent variables, and the results of testing significance of the model were also respectively interpreted. In interpreting the results of multiple regression analysis, the three major elements considered were: the coefficient of multiple determinations, the standard error of estimate and the regression coefficients. R squared was used to check how well the model fitted the data. R squared is the proportion of variation in the dependent variable explained by the regression model (Sekeran, 2003). These elements and the results of multiple regression analysis were presented and interpreted accordingly. As can be observed in table 4.12 the value of R-squared is 91.4% which is close to 100% and this implies that the regression model can be used to explain differentiation strategy and performance of large rice milling factories in Kirinyaga County, Kenya. This concurred with Mugenda and Mugenda (2003) that R squared is always between 0 and 100%: 0% indicates that the model explains none of the variability of the response data around its mean and100% indicates that the model explains all the variability of the response data around its mean. In general, the higher the R-squared, the better the model fits the data. Table 4.12 presents the model of the effects of large rice milling factories in Kirinyaga County with the coefficient of determination $R^2 = 0.914$ and $R = 0.956$ at 0.05 a significant level. The coefficient of determination

indicates that 95.6 % of the variation on implementation differentiation strategy and performance of large rice milling factories in Kirinyaga County can be explained by product differentiation (X1), physical differentiation (X2) and service differentiation (X3). The remaining 5.4% of the variation on differentiation strategy and performance of large rice milling factories in Kirinyaga County is affected by other variables not included in the model. This shows that the model has a good fit since the value is above 75%.

Table 4.12 model of fitness

Indicator	**Coefficient**
Multiple R	.956
R Square[a]	.914
Adjusted R Square	.857
Std. Error of the Estimate	27.551

a. Predictors: (Constant), x1, x2, x3

b. Dependent Variable: y

Source: field data (2017)

These results presented in table 4.12 present the fitness of model used of the regression model in explaining the study phenomena. Physical differentiation, product differentiation and service differentiation were found to be satisfactory variables in performance of rice milling factories. This is supported by coefficient of determination also known as the R square of 91.4%. This means that physical differentiation, product differentiation and service differentiation explain 91.4%% of the variations in the dependent variable which is performance of rice milling factories in Kirinyaga County. This results further means that the model applied to link the relationship of the variables was satisfactory.

The study further used one way Analysis of Variance (ANOVA) in order to test the significance of the overall regression model. Green nd Salkind (2003) posits that one way

Analysis of Variance helps in determining the significant relationship between the research variables. Table 4.13 hence shows the regression and residual (or error) sums of squares. The variance of the residuals (or errors) is the value of the mean square which is 3.427. From the table 4.8 the predictors X1, X2 and X3 represent the independent variables, notably; product differentiation (X1), physical differentiation (X2) and service differentiation (X3) as the major factors affecting implementation of differentiation and performance of large rice milling factories in Kirinyaga County, Kenya. As can be observed in the table 4.13 of the Analysis of Variance (ANOVA) for regression coefficients, the results demonstrate the significance of the F statistics is 0.00 which is less than 0.05. This therefore implies that there is a significant relationship between product differentiation (X1), physical differentiation (X2) service differentiation (X3) and organization performance. Table 4.13 also reports the summary ANOVA and F statistic which reveals the value of F (20330.165) being significant at 0.05 confidence level. The value of F is large enough to conclude that the set of independent variables; product differentiation (X1), physical differentiation (X2) and service differentiation (X3) are the major factors affecting performance of large rice milling factories in Kirinyaga County, Kenya. The table 4.13 further provides the data to compute R2 which is SS-regression divided by SS-Total =R2. SS-regression/SS-Total =0.999.

Table 4.13 analysis of variance

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	11389.061	3	3796.354	20330.165	.005[b]
	Residual	.187	1	.187		
	Total	11389.248	4			

a. Dependent Variable: y

b. Predictors: (Constant), x3, x2, x1

Source: field data (2017)

Table 4.14 presents the results of the test of beta coefficients which indicates that the significant relationship between product differentiation (X1), physical differentiation (X2) service differentiation (X3) and organization performance is positive. The coefficient significance of product differentiation (X1) is 0.315, physical differentiation (X2) is 0.357 and service differentiation (X3) is 0.338.

Table 4.14 Coefficients of differentiation and performance of large rice milling factories in Kirinyaga County, Kenya

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.179	.614		.292	.819
	x1	.315	.023	.449	14.012	.045
	x2	.357	.033	.314	10.847	.059
	x3	.338	.015	.253	23.115	.028

a. Dependent Variable: y

* 1% level of confidence

**95% level of confidence

From the regression findings, the equation is:

Y= 0.179 + 0.315X1 + 0.357X2 + 0.338X3 + ϵ

The data findings hence shows that a unit changes in product differentiation lead to a 0.315 change in performance of large rice milling factories; a unit change in physical differentiation will lead to a 0.357 change in performance of large rice milling factories; a unit change in service differentiation will lead to a 0.338 change in performance of large rice milling factories. However, the physical differentiation is not significant at 95% level of confidence (0.059>0.05). This shows that it could not be a factor of performance though it correlates with the others. This differs with previous findings that physical

differentiation could affect performance of an organization (Barone & DeCarlo (2003); Eckman & Yan (2009); Eckman (2009); Gathoga (2011). For the rice millers, physical differentiation could not affect them. Product differentiation and service differentiation however are significant at 95% level of confidence. This corroborate with findings from other scholars like Trout (2000); Horovitz (2000); and Lorentz, Häkkinen and Hilmola (2006) who advocates that performance is dependent on product and service differentiation.

This leads to a new model arrived by dropping the physical differentiation as follows:

$Y= 0.179 + 0.315X1 + 0.338X3 + \epsilon$

Strategic issues present the potential for change from the status quo in a firm's business environment (Oliver & Donnelly, 2007). Oliver and Donnelly observe that issues always have some degree of conflict and can generate stress, anxiety and confusion in organizations. Proper management of these issues is therefore very important at a time in under threat (Perrot, 2008). The findings are however, consistent with the differentiation theory which states that the ability of a firm to maintain its competitive advantage depends on how it manipulates other variables, in line on variety and immutability of its organizational strengths and weaknesses (Awino et al, 2011). The findings also support a study by Bordes (2009) who established that increasing buyer values or any dimension in value-adding activities means a need to reconfigure or to improve activities within the firm's value chain.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter looks into the entire research work. It also highlights the conclusions made based on the findings of the study as well as the recommendations that can be implemented by the stakeholders.

5.2 Summary of Findings

The main purpose of this study was to establish the effect of differentiation on performance of rice milling factories in Kirinyaga County, Kenya. The specific objectives of the study were: to find out the effect of product differentiation on performance of large rice milling factories in Kirinyaga County, to establish how physical differentiation strategy affect performance of large rice milling factories in Kirinyaga County and to examine how service differentiation strategy affect performance of large rice milling factories in Kirinyaga County.

A descriptive survey design was employed and the population involved was factory managers, factory technicians and factory employees in Kirinyaga County. A sample of 9 factory managers respondents, 9 factory technician respondents and 35 factory employees respondents from 40 factories in Kirinyaga County. Stratified sampling, purposive and simple random sampling techniques were used to select the sample size. Data was collected using questionnaire for factory managers, factory technicians and factory employees. The data was analyzed using descriptive and inferential statistics. This was done in line with the three objectives of the study. A review of related literature was done in order to establish the basis of the study.

5.2.1 To find out the effect of product differentiation on performance of large rice milling factories in Kirinyaga County.

The study established that high percentage of the respondents strongly agreed to 6 statements of 7 statements. Which includes the factory ensures milling of high quality rice, product selection is based on customer specification, product selection is demand driven, product assortment style is distinct from our competitors, rice products are well positioned for ease access by customers and add value to our products through packaging of rice and agreed with exercise of diligence in selecting suppliers of our machines. Product differentiation has correlation of r = 0.99 (p value 0.0012,) and r = 0.9278(p value 0.0230) to physical differentiation and service differentiation respectively. This is a strong positive correlation, thus change in product differentiation affects performance of large rice milling factories. A unit increase in product differentiation could lead to increase of 0.315 in performance ceteris paribus. It was also found to be statistically significant (0.045) at 95% level of significance.

5.2.2 To establish how physical differentiation strategy affect performance of large rice milling factories in Kirinyaga County.

The study established that high percentage strongly agree with 4 out of 5 statements factories are strategically located, has adequate free parking space, factory layout is strategically placed to attract new customers and stores are spacious for customers storage. While high percentage disagrees that factory environment is filled with entertainment (visual and audio).Physical differentiation has correlation of r = 0.99 (p value 0.0012,) and r = 0.9111(p value 0.0314) to product differentiation and service differentiation respectively. This is a strong positive correlation; change in product differentiation affects the performance of large rice milling factories. A unit increase in physical differentiation could lead to increase of 0.357 in performance ceteris paribus. It was also found to be statistically not significant (0.059) at 95% level of significance. It was therefore concluded that it did not affect performance after all.

5.2.3 To examine how service differentiation strategy affect performance of large rice milling factories in Kirinyaga County.

The study established that high percentage of 4 of 7 strongly agree with statements; use posters for advertisement and promotion of factory, service delivery is fast in factory, there is promptness in handling customers complaints/inquiries and have skilled and experienced staff while high percentage disagree with offers online shopping service and have variety of sales incentive. Service differentiation has correlation of r = 0.9111 (p value 0.0314,) and r = 0.9278(p value 0.0230) to physical differentiation and product differentiation respectively. This is a strong positive correlation; change in product differentiation affects the performance of large rice milling factories. A unit increase in service differention could lead to increase of 0.338 in performance ceteris paribus. It was also found to be statistically significant (0.028) at 95% level of significance.

5.3 Conclusions

The main objective of the research study was to establish the effect of differentiation on performance of large rice milling factories in Kirinyaga County, Kenya. The study drew conclusions that only product differentiation and service differentiation affects rice milling factories in Kirinyaga County. Physical differentiation was not statistically significant and therefore it was not considered.

Product differentiation affects performance of large rice milling factories in Kirinyaga County. Product differentiation entails product selection, product assortment, products quality and products positioning to be able to convince customers that their products are better than those of their competitors.

Service differentiation strategy affects performance of large rice milling factories in Kirinyaga County. Service differentiation entails after sale service, sales incentive, advertising and promotion and operating hours to be able to undo their competitors.

5.4 Recommendations

Based on the research findings the study made the following recommendations:

5.4.1 Product differentiation

The study recommends that the milling factories umbrella come up with minimum expected product standards to set a bar for the factories products. The study recommends that rice milling factories differentiate the product using activities like sorting the rice and polishing it to make it attractive. The study also recommends that the milling factories provide clear grading system and rice specifications for example grade 1, grade 2 and grade 3.

5.4.2 Service differentiation

The study recommends that all rice milling factories to offer online shopping services making their services available to many and not only to those coming to their factories. Packaging it in attractive packets for branding and adding cooking instructions could also differentiate the product. The study also recommends that rice milling factories to offer transport services to customers who buy in bulk. This would add value to the customer and enhance customer royalty.

5.5 Suggestion for Further studies

Further studies are encouraged to investigate other factors affecting performance of large rice milling factories in Kirinyaga County and Kenya at large. With physical differentiation not significant to performance, it would be important to find out if it was only in this case or the knowledge-based theory in deciding the physical location could be proven wrong in the Kenyan industries context.

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Appendix I: Questionnaire

This questionnaire is meant to collect data in Kirinyaga County. The information you give will be used for the purpose of the study only. Please do not write your name on the questionnaire

1. Kindly indicate your gender
   i. Male [ ]
   ii. Female [ ]

2. Please indicate your age from the choices below
   i. Below 25 years[ ]
   ii. 26-35 years[ ]
   iii. 36-45 years[ ]
   iv. Above 45 years[ ]

3. Kindly indicate your highest academic qualification
   i. Primary school level [ ]
   ii. Secondary school [ ]
   iii. College [ ]
   iv. University level [ ]

Any other (please specify)……..

Product Differentiation

4. To what extent does your factory use the following product differentiation strategies?

	Very large Extent	**Large Extent**	**Moderate Extent**	**Small extent**	**No Extent**
Rice quality					
Rice value addition					
Rice variety					
Rice position					

5.

i. Suggest any other strategy that can be used?.....

ii. Give reason for your answer above …….....

……

6. To what extent does your factory use the following physical differentiation strategies?

	Very large Extent	**Large Extent**	**Moderate Extent**	**Small extent**	**No Extent**
Mill Location					
Parking space					
Mill design and display/layout					
Mill atmosphere					

7.

I. Suggest any other strategy that can be used?.....

II. Give reason for your answer above …….....

……

8. To what extent does your factory use the following service differentiation strategies?

	Very large Extent	**Large Extent**	**Moderate extent**	**Small extent**	**No extent**
Advertising and Promotion					
sales Incentives					
Core competencies					
Operating hours					

9.

I. Suggest any other strategy that can be used?.....

II. Give reason for your answer above …….....

10. Effects of differentiation strategy on factory performance.

(A) Product Differentiation

The following statements describe the adoption of product differentiation strategies at your factory. Please state whether or not you agree with them?

	Strongly Agree	**Agree**	**Moderate**	**Disagree Strongly**	**Disagree**
The factory ensures milling of high quality rice					
exercise diligence in selecting suppliers of our machines					
Product selection is based on customer specification					
Product selection is demand driven					

Product assortment style is distinct from our competitors					
Rice products are well positioned for ease access by customers					
Add value to our products through packaging of rice					

11.

I. Suggest any other strategy that can be used?.....

II. Give reason for your answer above …….....

……

(B) Physical differentiation

The following statements describe the adoption of physical differentiation strategies at milling factory. Please state whether or not you agree with them?

	Strongly Agree	**Agree**	**Moderate**	**Disagree Strongly**	**Disagree**
factories are strategically Located					
has adequate free parking space					
Factory layout is strategically placed to attract new customers					
Stores are spacious for customers storage					
Factory environment is filled with entertainment (visual and audio					

12.

I. Suggest any other strategy that can be used?.....

II. Give reason for your answer above …….....

……

(C) **Service differentiation**

The following statements describe the adoption of service differentiation strategies at milling factory. Please state whether or not you agree with them?

	Strongly Agree	**Agree**	**Moderate**	**Disagree Strongly**	**Disagree**
Offers transport service to customers					
Use posters for advisement and promotion of factory					
Offers online shopping services					
Service delivery is fast in Factory					
There is promptness in handling customers complaints/inquiries					
Have skilled and experienced staff					
Have variety of sales incentive programs (smart cards, bank credit cards					

13.

I. Suggest any other strategy that can be used?.....

II. Give reason for your answer above …….....

***** THANK YOU *****

Appendix II: Rice milling factories

No	**Rice milling factories**
1.	**Global Rice Millers**
2.	**Nice Rice Millers**
3.	**Mwea Rice Millers**
4.	**Fine Rice Millers**
5.	**Boma Rice Millers**
6.	**Euro's Rice Millers**
7.	**GwaChege Rice Millers**
8.	**Road To Africa Mills**
9.	**Victory Rice Mills**
10.	**Top Grade Rice Millers**
11.	**Mwea Rice Growers**
12.	**Mwalinu Rice Millers**
13.	**J.M Rice Millers**
14.	**Jericho Rice Millers**
15.	**Mumu Rice Millers**
16.	**Mwega Rice Millers**
17.	**Baraka Rice Millers**
18.	**Nefra Rice Millers**
19.	**wakabui Rice Millers**
20.	**Wajimmy Rice Millers**
21.	**Karuga Rice Millers**
22.	**karimi Rice Millers**
23.	**maingi Rice Millers**
24.	**ThibaTebere Mills**
25.	**Kiarukungu Rice Mills**
26.	**Kamucege Rice Mills**
27.	**Nguka Rice Mills**

28.	**Kiuria Rice Mills**
29.	**Gathigiriri Rice Mills**
30.	**BahatiRice Mills**
31.	**Soweto Rice Mills**
32.	**Thiba North Rice Mills**
33.	**Thiba South Rice Mills**
34.	**Kiamanyeki Rice Mills**
35.	**Karira Rice Mills**
36.	**KwaMubea Rice Mills**
37.	**Gwa Sister Rice Mills**
38.	**Tebere Rice Mills**
39.	**Mathangauta Rice Mills**
40.	**kiandegwa Rice Mills**

Source: Wang`uru Business Community Trust 2010.

Appendix III: Approval of research project proposal.

KENYATTA UNIVERSITY
GRADUATE SCHOOL

E-mail: dean-graduate@ku.ac.ke
Website: www.ku.ac.ke
P.O. Box 43844, 00100
NAIROBI, KENYA
Tel. 020-8704150

Internal Memo

FROM: Dean, Graduate School

DATE: 28th April, 2017

TO: Virginia Njeri Githumbi
C/o Business Administration Department

REF: D53/EMB/PT/23054/2012

SUBJECT: APPROVAL OF RESEARCH PROJECT PROPOSAL

We acknowledge receipt of your revised Research Project Proposal as per our recommendations raised by the Graduate School Board of 19th April, 2017 entitled **"Differentiation Strategy and Performance of Large Rice Milling Factories in Kirinyaga County, Kenya".**

You may now proceed with your Data collection, subject to clearance with the Director General, National Commission for Science, Technology and Innovation.

As you embark on your data collection, please note that you will be required to submit to Graduate School completed Supervision Tracking Forms per semester. The form has been developed to replace the Progress Report Forms. The Supervision Tracking Forms are available at the University's Website under Graduate School webpage downloads.

Thank you.

JULIA GITU
FOR: DEAN, GRADUATE SCHOOL

CC. Chairman, Business Administration Department

Supervisors:

1. Dr. Mary Ragui
   C/o Business Administration Department
   Kenyatta University

JG/rwm

Appendix IV: Research Authorization

NATIONAL COMMISSION FOR SCIENCE,
TECHNOLOGY AND INNOVATION

Telephone: +254-20-2213471,
2241349,3310571,2219420
Fax: –254-20-318245,318249
Email:dg@nacosti.go.ke
Website: www.nacosti.go.ke
when replying please quote

9th Floor, Utalii House
Uhuru Highway
P.O. Box 30623-00100
NAIROBI-KENYA

Ref: No. **NACOSTI/P/17/69456/17163** Date: **12th May, 2017**

Virginia Njeri Githumbi
Kenyatta University
P.O. Box 43844-00100
NAIROBI.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on ***"Differentiation strategy and performance of large rice milling factories in Mwea Sub-County, Kirinyaga County,"*** I am pleased to inform you that you have been authorized to undertake research in **Kirinyaga County** for the period ending **11th May, 2018.**

You are advised to report to **the County Commissioner and the County Director of Education, Kirinyaga County** before embarking on the research project.

On completion of the research, you are expected to submit **two hard copies and one soft copy in pdf** of the research report/thesis to our office.

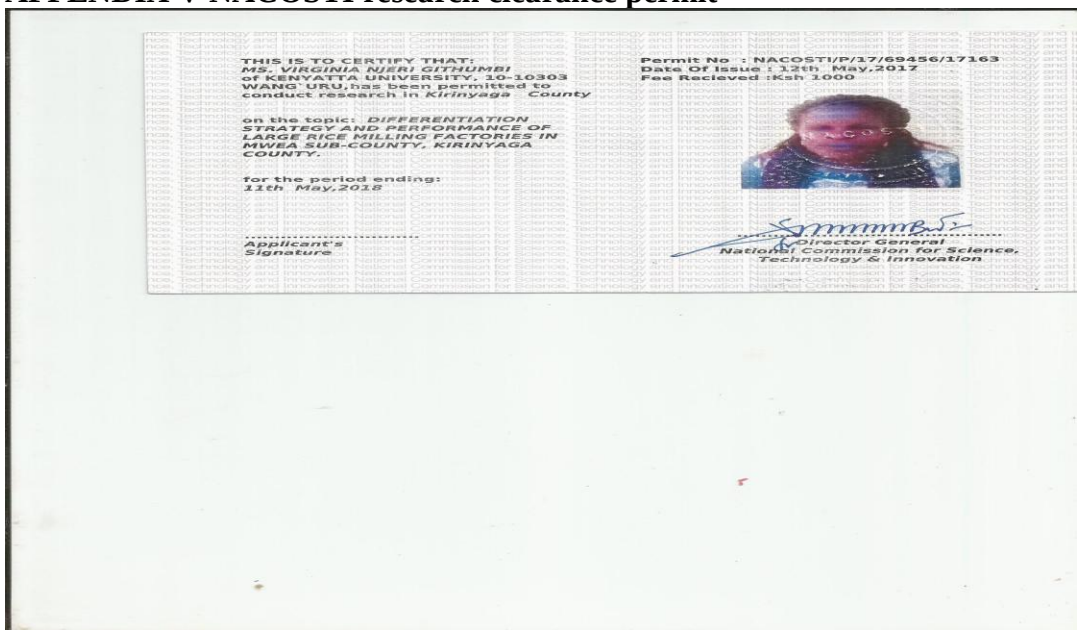
BONIFACE WANYAMA
FOR: DIRECTOR-GENERAL/CEO

Copy to:

The County Commissioner
Kirinyaga County.

The County Director of Education
Kirinyaga County.

APPENDIX V NACOSTI research clearance permit



THIS IS TO CERTIFY THAT:
MS. VIRGINIA NJERI GITHUMBI
of KENYATTA UNIVERSITY, 10-10303
WANG`URU,has been permitted to
conduct research in Kirinyaga County

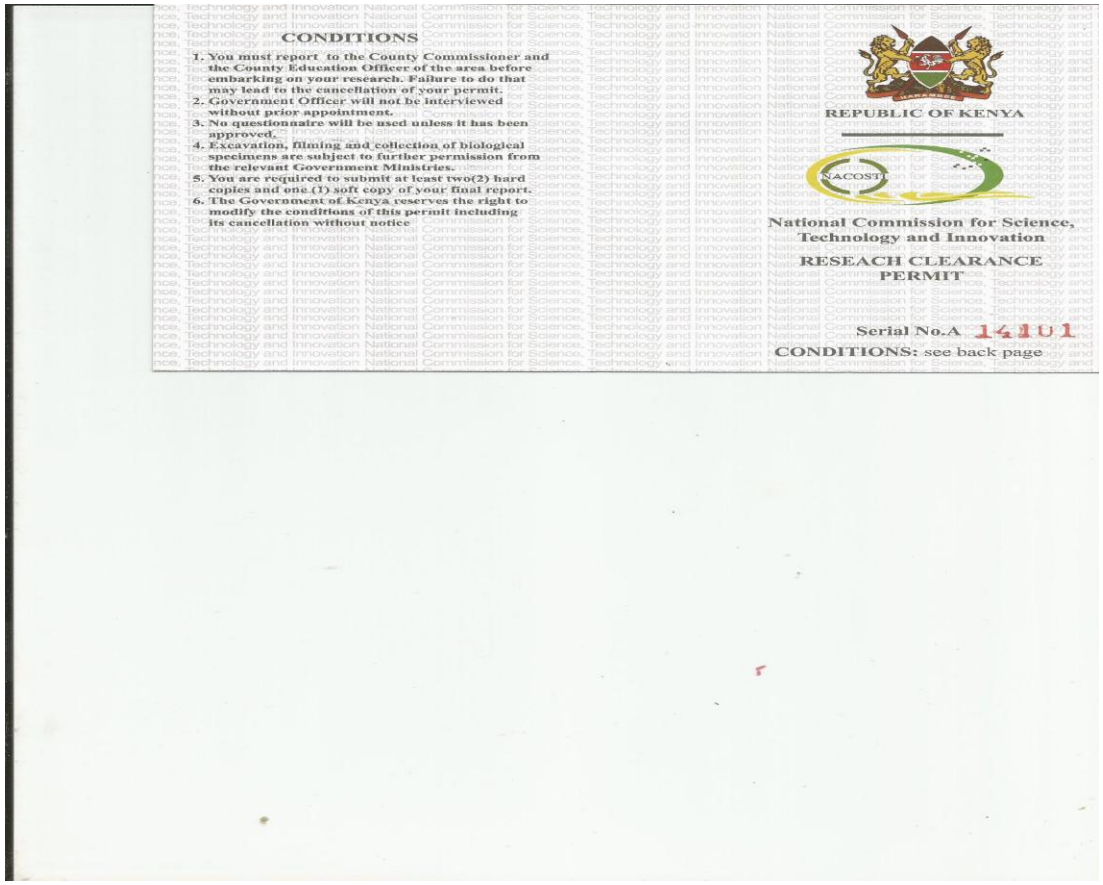
on the topic: DIFFERENTIATION STRATEGY AND PERFORMANCE OF LARGE RICE MILLING FACTORIES IN MWEA SUB-COUNTY, KIRINYAGA COUNTY.

for the period ending:
11th May,2018

Applicant's Signature

Permit No : NACOSTI/P/17/69456/17163
Date Of Issue : 12th May,2017
Fee Recieved :Ksh 1000

Director General
National Commission for Science, Technology & Innovation



CONDITIONS

1. You must report to the County Commissioner and the County Education Officer of the area before embarking on your research. Failure to do that may lead to the cancellation of your permit.
2. Government Officer will not be interviewed without prior appointment.
3. No questionnaire will be used unless it has been approved.
4. Excavation, filming and collection of biological specimens are subject to further permission from the relevant Government Ministries.
5. You are required to submit at least two(2) hard copies and one (1) soft copy of your final report.
6. The Government of Kenya reserves the right to modify the conditions of this permit including its cancellation without notice

REPUBLIC OF KENYA

National Commission for Science, Technology and Innovation

RESEACH CLEARANCE PERMIT

Serial No.A 14101

CONDITIONS: see back page

APPENDIX VI Ministry of Interior and Coordination of National Government permit

THE PRESIDENCY

MINISTRY OF INTERIOR AND COORDINATION OF NATIONAL GOVERNMENT

Telegrams "*COMMISSIONER*" Kerugoya
Telephone. 21053 Kerugoya

countycommissionerkirinyaga@gmail.com

COUNTY COMMISSIONER
KIRINYAGA COUNTY
P.O. BOX 1
KERUGOYA

ADM 1/23 VOL.I/210

23RD MAY 2017

Virginia Njeri Githumbi
Kenyatta University
P.O. Box 43844-00100
NAIROBI

RE: RESEARCH AUTHORIZATION

You have been authorized to conduct research on ***"Differentiation strategy and performance of large rice milling factories in Mwea East Sub-County"*** in Kirinyaga County, for a period ending 11th May, 2018.

By a copy of this letter Deputy County Commissioner, Mwea East Sub County and County Director of Education are requested to accord you the necessary assistance.

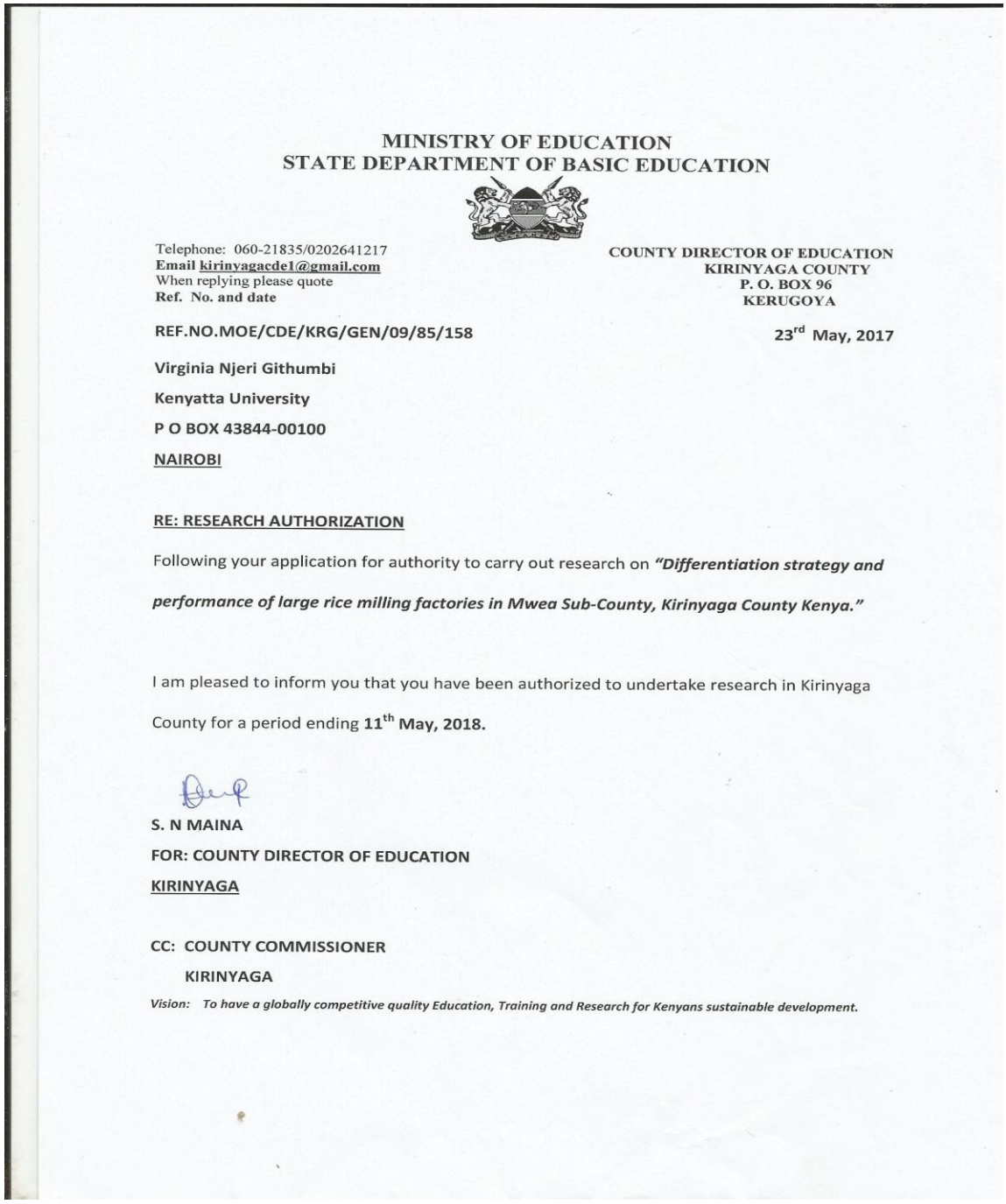
LINET B. OBWOGE
FOR: COUNTY COMMISSIONER
KIRINYAGA COUNTY

c.c.

Deputy County Commissioner
Mwea East Sub County

County Director of Education
Kirinyaga County

APPENDIX VII Ministry of Education and State Department of Basic Education authorization



MINISTRY OF EDUCATION
STATE DEPARTMENT OF BASIC EDUCATION

Telephone: 060-21835/0202641217
Email kirinyagacde1@gmail.com
When replying please quote
Ref. No. and date

COUNTY DIRECTOR OF EDUCATION
KIRINYAGA COUNTY
P. O. BOX 96
KERUGOYA

REF.NO.MOE/CDE/KRG/GEN/09/85/158

23rd May, 2017

Virginia Njeri Githumbi
Kenyatta University
P O BOX 43844-00100
NAIROBI

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on *"Differentiation strategy and performance of large rice milling factories in Mwea Sub-County, Kirinyaga County Kenya."*

I am pleased to inform you that you have been authorized to undertake research in Kirinyaga County for a period ending 11th May, 2018.

S. N MAINA
FOR: COUNTY DIRECTOR OF EDUCATION
KIRINYAGA

CC: COUNTY COMMISSIONER
KIRINYAGA

Vision: To have a globally competitive quality Education, Training and Research for Kenyans sustainable development.