

**PACKAGING ATTRIBUTES AND CONSUMER BUYING BEHAVIOR OF
PACKAGED FOODS IN KENYA**

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DECLARATION

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This proposal/ thesis is my original work and has not been presented for a degree in any other University

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DEDICATION

This document is dedicated to my family and friends who inspired me throughout my project and offered me all the support and guidance I needed. Many thanks to you all

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I thank God, the Almighty, for giving me the means, courage, strength and perseverance to complete the project. He has been my strong pillar, my source of inspiration, wisdom, knowledge and understanding and on His wings only have I soared. My sincere appreciation also goes to my supervisor Dr Jane Wanjira whose contribution and constructive criticism has pushed me to expend the kind of efforts I have exerted on this project to completion.

TABLE OF CONTENTS

DECLARATION.....	ii
DEDICATION.....	iii
ACKNOWLEDGEMENT.....	iv
LIST OF FIGURES	viii
LIST OF TABLES	ix
ABBREVIATIONS AND ACRONYMS.....	x
OPERATIONAL DEFINITION OF TERMS.....	xi
ABSTRACT.....	xiii
CHAPTER ONE: INTRODUCTION	1
1.1 Background of the Study	1
1.2 Problem Statement	8
1.3 Objectives of the Study.....	10
1.4 Research Questions.....	10
1.5 Significance of the Study	11
1.6 Scope of the Study	12
1.7 Limitations of the Study.....	12
1.8 Organization of the Study	13
CHAPTER TWO: LITERATURE REVIEW	14
2.1 Introduction.....	14
2.2 Theoretical Background.....	14
2.3 Empirical Literature Review.....	19
2.4 Summary of Research Gaps.....	28
2.5 Conceptual Framework.....	32

CHAPTER THREE: RESEARCH METHODOLOGY	34
3.1 Introduction.....	34
3.2 Research design	34
3.3 Target Population.....	35
3.4 Sample Size and Sampling Technique.....	35
3.5 Data Sources and Collection.....	37
3.6 Validity and Reliability of Research Instrument	38
3.7 Data collection procedure	41
3.8 Data Analysis and Presentation	41
3.9 Diagnostic Tests.....	42
3.10 Ethical Considerations	43
CHAPTER FOUR: DATA ANALYSIS, INTERPRETATION AND DISCUSSIONS..	45
4.1 Introduction.....	45
4.2 Response Rate.....	45
4.3 Respondents Demographic Information	45
4.4 Descriptive Statistics for the Research Variables	54
4.5 Inferential Statistics	56
CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS.....	66
5.1 Introduction.....	66
5.2 Summary.....	66
5.4 Conclusions.....	68
5.5 Recommendations.....	69
5.5.2 Recommendations to Marketing Agencies	70
5.5.3 Recommendations to Retailers	71
5.5.4 Recommendations for Further Studies.....	72

REFERENCES.....	73
APPENDICES.....	84
Appendix 1: Letter of Introduction for the Administration of Questionnaires	84
Appendix II: Research Questionnaire	85
Appendix III: Letter of Authorization to Conduct Research	88
Appendix IV: Letter of Introduction from Kenyatta University.....	89
Appendix V: NACOSTI Research Authorization.....	90

LIST OF FIGURES

Figure 2.1: Conceptual Framework	32
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LIST OF TABLES

Table 2.1: Five Categories of quality elements.....	15
Table 2.2: Research Gaps.....	29
Table 3.1: Reliability Analysis.....	40
Table 4.1: Respondents Gender and Age.....	45
Table 4.2: Marital Status and Buying of packaged foods	47
Table 4.3: Factors influencing buying of packaged foods	47
Table 4.4: Prejudgement towards a food product before an actual consumption	49
Table 4.5: Influence of the packaging of food products displayed on decision to purchase the product.....	54
Table 4.6: Search for information before they purchase packaged foods.....	51
Table 4.7: Decisions on what packaged food product to buy	52
Table 4.8: Influence of packaging of food products displayed on the decision to purchase .	53
Table 4.9: Descriptive Statistics for the Research Variables	54
Table 4.10: Correlations Coefficient.....	57
Table 4.11: Summary of Collinearity Statistics	58
Table 4.12: Test of Homogeneity of Variances	59
Table 4.13: Tests of Normality	59
Table 4.14: Model Summary	61
Table 4.15: Analysis of variance.....	61
Table 4.16: Coefficients.....	62

ABBREVIATIONS AND ACRONYMS

BEA	Bureau of Economic Analysis
CBD	Central Business District
EKB	Engel, Kollat and Blackwell (EKB) Model
FMCG	Moving Consumer Goods
FSA	Financial Services Authority
IGD	Institute of Grocery Distribution
NACOSTI	National Commission of Science, Technology and Innovation
SPSS	Statistical Package for Social Science
TRA	Theory of Reasoned Action
UK	United Kingdom
USA	United States of America
VIF	Variance Inflation Factor

OPERATIONAL DEFINITION OF TERMS

- Consumer Buying Behaviour:** This is the process of searching, selecting, purchasing, using and disposing of goods and services by consumers so as to satisfy their needs and wants. See also consumer decision making.
- Consumer:** This refers to a person who is able to get goods and services for their use rather than acquiring them to resale or for further manufacturing or production
- Convenience goods:** This is an item that can be gotten easily by the consumer and can be easily purchased without much effort.
- Decision making Process:** This cognitive process that is continuous when one is making a decision on the course of action to take among alternatives available when making a final decision
- Fast Moving Consumer Goods:** These are items that are frequently bought and used by consumers. They are items that are cheap and are non-durable.
- Packaging:** This is the material used in the wrapping of consumer items that are used for containing, identification, describing, protecting, displaying, and promotion and making the product marketable and keeping it clean.
- Packaging Attributes:** This refers to the design features or characteristics of the package that highlight the uniqueness of the product or its originality. This includes colour, graphics, shape, size, material, package technology and font.

Visual Elements:

This refers to the visible characteristics contributing to the appearance of a product which include colour, graphics, size, shape and material.

Verbal Elements:

This refers to information that is written on the product, its characteristics and the technology used in packaging

ABSTRACT

Understanding consumer buying behaviour and their preference to product attributes has become a key success factor in today's business environment which is highly competitive and rapidly changing. Consumer are now more discerning and individualistic requiring marketers to gain insights in the buying behaviour of consumers and the attitude they have on product innovation before they make the purchasing decision including the innovation used in elements such as packaging. The general objective of this study was to determine the effect of packaging attributes on consumer's buying behaviour of packaged foods in Kenya. The specific objectives were to determine whether packaged food graphics, colour, size, shape, product information and packaging material influence consumer's buying behaviour in Kenya. The study was supported by the Theory of reasoned action and Kano's theory of attractive quality. The study used descriptive and explanatory research design. A sample of 385 shoppers from three supermarkets in Nairobi was selected using simple random sampling while data was collected using structured questionnaires. The selection of supermarkets was based on judgmental sampling in which location and foot traffic was considered. Validity of the research instruments focused on content validity, construct and face validity. Content validity was established by the academic supervisor of this study, construct validity was established by administering theoretical and conception reviews during the preparation of the questionnaire while face validity was established through the review of the academic supervisor of this study. Reliability of the questionnaire was evaluated using the Cronbach alpha test, which provided an acceptable threshold of 0.8192. Variance Inflation factor (VIF) was also used to confirm multicollinearity in which the results indicated that all variables' VIF ranged between 1 to 4 hence there was no multicollinearity. Equality of variance was also evaluated using levene test which resulted to less than 0.05 showing that there no heteroscedasticity. Normality of the variables was also tested using skewness and kurtosis. The results confirmed that the data collected was normally distributed with a P-value greater than 0.05. Data was analysed using descriptive statistics in the form of mean, percentages and standard deviations, and inferential statistics in the form of correlation tests and regression analysis. The data was represented in tables. The study found a statistically significant relationship between graphics colour, packaging size, shape, product information, packaging material and consumer's buying behaviour. More so, this study found out that that among all the attributes, package information has the most impact on purchase decisions of packaged foods. The study concluded that the packaging attributes examined, contribute in communicating product quality and features in a manner that affects purchase behaviour. The study recommends that food manufacturers understand consumer response to their packages, and integrate the inputs into designing the best packaging style. This can be achieved by involving consumers in the process of packaging so that the right decisions are made without making any assumption regarding the final packaging of food products. This study is beneficial to new and existing food product manufacturers in coming up with strategies and in development of product packaging. Students and researchers can benefit from this research by using the study as a reference point in their study on consumer behaviour and packaging. Additionally, they can formulate studies that further examine each attribute and its effect on product packaging, explain the impact of packaging attributes on other product categories, or conduct a comparative study to possibly identify the different effects of packaging attributes on a variety of types of products.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Stiff competition exists in the environment of business today requiring marketers to be in full understanding of consumer behaviour. As explained by Wambugu, Musyoka and Kaluyu (2014) studying the buying behaviours of consumers is paramount since; this knowledge helps the manufacturers when they plan and implement marketing strategies. This knowledge further allows them to select and segment target markets so that they can come up with the appropriate strategies of marketing that will serve the target market. Secondly it allows enterprises to come up with appropriate marketing mix that can serve the target market. Thirdly when marketers understand the factors affecting the buying behaviour of the consumer, they can predict the way consumer will react to different strategies of marketing. According to Blackwell, Miniard and Engel (2009), knowledge of the consumer buying behaviour and patterns assist marketers in selection and segmentation of the target market which leads to the creation of the right marketing strategies that suits the target market.

It is estimated that consumer spending in the United States in 2015 per consumer unit was \$55,978 (BEA, 2015). In Kenya, consumer spending in 2016 was 2,660,570 Million KES and the projected spend in 2020 is 4,633,755.37 Million KES (Trade economics, 2016), this implies that enterprises across different industries should know and appreciate the consumers buying behaviour so as to appropriately meet their needs. The understanding of the consumer behaviour is important as marketers need to constantly change the strategies they use to accommodate findings that can help them expand their Kenyan businesses.

There has been much research done on consumer behaviour in developed nations including United Kingdom (UK), Canada and United States of America (USA) and in emerging nations such as India and Malaysia. However, the findings of these studies are not applicable in developing nations such as Kenya. According to Booth and Shepherd (1988) economic and cultural factors, personality of consumers, values, attitudes and emotions affect the decision making process of consumers in regard to food selection (as cited in Koutroulou and Tsourgiannis, 2011). Speiers, Gundala and Singh (2014), further explain that there are factors that influence and motivate the behaviours of consumers including; personality, culture, income, lifestyle, motivators, attitudes, knowledge, feelings, family, values, ethnicity, opinions, resources available, experiences, peer group and other groups.

In addition, Levin and Milgrom (2004) state that consumer behaviour is a volatile concept, that is difficult to measure and predict and hence the burden of the success of a product has fallen into the hands of marketers who observe consumer behaviour to create an appealing product, consequently they manipulate packaging attributes in order to turn the unpredictable concept of consumer behaviour into a predictable and economically measurable outcome. This is supported by the views of Kuvykaite (2009) who states that packaging attracts the customer to specific product and they influence the consumer purchase behaviour towards a product.

Mwongera (2012); Wambugu, Musyoka and Kaluyu (2014); Wambugu (2015) and Karimi (2010) are some of the Kenyan researchers who researched on factors that affect consumer behaviour, however their studies did not focus on the packaging attributes. Many of the studies done focused on Kenyan milk consumption and yet other products exist in the Kenyan market that are packaged and consumed by customers. There are many factors that make a quality

product and packaging is one such factor that can transform a good product to a bad one (Africa.com, n.d., para. 2).

From the available literature, there is no study that has looked at the effect of packaging on buying patterns and behaviours of consumers in Kenya. Kenyan consumers just like others in the developing and emerging markets expect more as they increase their buying power and future prospects become brighter. If marketers can research on the buying behaviour and patterns of the Kenyan consumer and how packaging changes the perception to the brand, they will be able to secure lifelong customers.

1.1.1 Consumer Buying Behavior

According to Blackwell, Miniard and Engel (2009) the buying behaviour of consumers is a complex and frequently changing issue that is hard to define. Engel, Blackwell and Miniard (1986) define consumer buying behaviour as the acts involved when an individual obtains, uses and disposes economic goods and services including the decision-making processes that comes before the buying behaviour. Schiffman and Kanuk (2000) definition of consumer behaviour is similar as they explain it as the behaviour of consumers shown when selecting and buying products and services using the resources at their disposal so as to meet their needs and wants. There are different definitions of consumer behaviour but all of them lead to the view that the buying behaviour of the consumers involves the selection, purchasing and disposal of goods and services according to their wants and needs.

Egan (2007) highlights the need to understand the behaviour of consumers. According to him the awareness of the consumer behaviour positively contributes to the economy, he further notes that goods and services in nations that the consumer buying behaviour is known are of high quality.

Consumer behaviour is however not static, it is constantly changing as the purchasing attributes of the consumer change overtime because of the consumer's physical, psychological, geographical, or demographic needs. Kotler, Wong, Saunders and Armstrong (2005) state that it is important to note that although there have been great efforts used to understand consumers buying behaviour; it is still hard to pinpoint the reasons why a consumer would prefer a product over another. The reason behind this is because there are times that consumers purchase a product based on emotional beliefs that they themselves might not be aware of.

Bearden, Ingram and Laforge (1995) classified factors that influence consumer behaviour into three groups that is social, individual and situational. While Jobber (1995), highlights that factors that influence consumer buying behaviour can be categorized into economic, social, personal and technical. Where economic concerns cost, social refers to the effect the purchase has on the consumers perceived relationship with others and the influence social norms has on the individual. The personal category is concerned with how the service and product relates to the individual psychologically and the technical category relates product and service performance including the comfort, reliability, convenience and durability. Brassington Frances and Stephen Pettit (2007) group factors that influence consumer behaviour in four groups that is individual, group influences and situational and marketing mix that includes, product, price, promotion and place. Adelina & Morgan (2007) emphasize on the influence of the marketing mix pointing out packaging as one of the most valuable tool in today's marketing communications; impact of packaging and its elements can impact the consumer's purchase decision.

Ogilvy (2009) conducted a study examining the difference between shopper decisions across product categories, channels and brands and how the decisions differ in terms of country and profile of the shopper. More than 14,000 shopper interviews were done in 700 retail outlets

across 24 global markets. The Ogilvy study (2009) covered five retail channels across six product categories. According to the study 70 per cent of the customer purchase decision are made in store. Customers would walk in claiming that they know what they want to buy but they would end up impulsively buying from other categories that they had no intention of buying from before visiting the store. The study showed that brand differentiation in each channel can influence the shopper's behaviour. This can mean using different touch points such as demonstrations or promotions to encourage impulse buying or different packaging formats for various channels to suit the consumption of the product.

Sinclair (2006) explained that the process of consumer buying is not rational. It also does not follow any statistical pre-determined economic patterns. Fitzsimons and Shiv (2001) suggest that consumer choice behaviour is a mix of conscious and non-conscious influences, and the role of non-conscious influences may be quite significant. Baker, Levy and Grewal (1992) alleged that it is important for retailers to be in the know of the factors that trigger impulse buying in consumers. Retailers can assist buyers find the right products by using focused merchandising, store layout and design and other visual effects on merchandise such as the display of products, signage and packaging.

Kotler and Keller (2011) indicate that understanding the process of selection of services and products by the consumer will help manufactures gain competitive advantage over their rivals. Firms can use the information strategically to provide the needed products and services at the right time to the right consumers.

This study therefore seeks to determine the influence of packaging attributes on consumer buying behaviour of packaged foods in Kenya.

1.1.2 Packaging Attributes

Packaging is considered as the fifth 'p' of marketing after product, price, promotion and place (Schrawet and Kundu, 2007, as cited in Nayyar, 2012; Ladipo and Rahim, 2013). Kotler (2000) describes packaging as the designing and the production of the wrapper or container that houses the product (as cited in Nayyar, 2012). This is further elaborated by Arens (1996) whose definition of packaging is the container that encompasses the product, as well as its physical appearance; colour, design, materials, labelling and the shape used.

Packaging is also used as a tool of marketing in a bid to get the attention of the consumer, to convey and promote the products message and characteristics while the product is still on the shelf or at the point of sale (Underwood, Klein & Burke, 2001). Jogger (1999) submitted that each product has a different packaging solution and the important thing is that the solution works when the product is displayed on the shelf next to a competitor's product. Most of the buying decisions are based on the information that consumers have on the product including its name, manufacturers name, brand name, nutritional value, graphics, and country of manufacture and origin. (as cited in Lifu, 2012; Nayyar, 2012).

Packaging is important during the purchase of products as it act as a cue and information source. Packaging is the first thing that a customer's sees before buying the product. Packaging as a tool for communication was investigated by Gonzalez, Thorhsbury and Twede, (2007) while considering that many consumers engage in impulse buying. From their investigation, it can be said that packaging is the only link between a consumer and a product in the store. There are various studies that have been done on the impact of general product packaging (Lifu, 2012; Ladipo and Rahim, 2013; Nayyar, 2012; Kumar and Bishnoi, 2011; Underwood, Blackwell and

Miniard, 2001) but very few have been product specific. This study attempts to focus on packaged foods and answer the question: what packaging attribute has significant relationship with consumer buying behaviour of packaged foods in Kenya.

1.1.3 Food Packaging in Kenya

In the past decades, packaging of food products has become an important marketing tool. Its primary functions are the protection of the content inside, ease of product transportation, handling and storage. Packaging also shapes the expectations and perceptions of the consumer in regard to the product and gives manufacturers the opportunity to persuade the consumers to purchase the product (Ares & Deliza, 2010). The influence packaging has is especially powerful when the decision to buy something is made with low involvement or as an impulse buy (Liao, Corsi, Chrysochou, & Lockshin, 2015; Rebollar, Lidon, Martin, & Fernandez, 2012; Underwood, 2003). During the time of purchase visual sense is the one at play (Labbe, Pineau and Martin, 2013). In an instant, the package should attract the attention of the buyer visually and convince the buyer that the product is what they need (Rebollar, Lidon, Martin and Fernandez, 2012).

The overall rise in the per capita income, in Kenya has led to the increased consumption of packaged foods and FMCG products. From ready to eat foods, tinned or canned foods to frozen food, consumers are spoilt for choice whenever they walk into a retail shop. Top global brands like Proctor & Gamble, Nestle, Coca-Cola, Kellogg and Unilever have numerous products competing with the local players for market share.

The food packaging industry is characterised by consumer shift to process and speciality foods, the increase in food packaging materials, marketing strategies of organizations, increased

consumer awareness and increased demand for food packaging material (Markets and Markets, 2014). Competition in the industry has led the manufacturers to come up with innovative and more attractive packaging in a bid to appeal to customers. Packaging is therefore highly instrumental in aiding a company's positioning strategy as they target the consumer market. How the consumer places value of the product in their mind, has quite a bit to do with the product packaging strategy in use (Ampuero & Vila, 2006). The consumer is faced with so many products every single time they visit a retail store, it is paramount that the package stands out from the array of similar products, and is attractive enough to evoke a choice. The package should be convincing, bringing together all its elements to appeal to the consumer's need (Rundh, 2009, Kotler & Armstrong, 2010).

1.2 Problem Statement

Packaging attributes attracts consumer's attention to a particular product, enhances its image, and influences consumer's perceptions about product (Rundh, 2005). Moreover, the packaging attributes of a product imparts unique value to products and works as a tool for differentiation and hence stimulates consumer buying behavior (Underwood, Klein, & Burke, 2001). Mohd (2010) concluded that perceived value significantly influences the purchasing intention of food products and that consumer brand preferences guide their future behaviors. Many studies have been conducted in the area of packaging across the world. However, these studies have failed not come up with a shared conclusion in relation to the influence of packaging attribute on consumer's buying behavior (Silayoi and Speece, 2004; Vila and Ampuero, 2007 and Kuvykaite, 2009). Kuvykaite (2009) state that the difference of the findings in this area depends on the context of the research. This seems to suggest that the lack of a common answer to the phenomenon under study is because of diverse contexts, situations/localities products under

consideration, among other issues that affect consumer behavior. According to Kotler and Armstrong (2001), consumer behaviour is not static and different factors affect the buying behaviour including; psychological, cultural, personal and social). How culture influences consumer behaviour is different in various countries thus marketers need to be careful in their analysis of different groups, regions and countries culture (Christ, 2009).

Although the surveys conducted have attempted to examine the link between packaging attributes and consumer behaviour, few of the studies have focused on the African consumer hence the findings from the researches cannot be used in the Kenyan context. More so, African manufacturers underestimate the importance of proper packaging and it is often relegated to functional purpose of transport (Africa.com, n.d., para.2). From the available literature, there is no study that has looked at the effect of packaging attributes on buying patterns of packaged foods and behaviours of consumers in Kenya.

Failure to consider these issues will imply that no understanding will be reached with regards to how packaging attributes influence consumer buying behavior for packaged food. This will present challenges to local marketers because they will not focus on packaging attributes and designs for their products resulting to inappropriate packaging designs .More so with increased competition from global organization and the global village phenomenal, local marketers will face stiff competition from international organization as they will lack packaging innovation of products and understanding of consumer behaviour to gain and maintain a competitive advantage in order to survive in the business environment.

This study therefore aimed to fill this gap by examining the effect of packaging attributes on consumer buying behaviour of packaged foods in Kenya.

1.3 Objectives of the Study

1.3.1 General Objectives

The general objective of the study was to determine the effect of packaging attributes on consumer's buying behaviour of packaged foods in Kenya.

1.3.2 Specific Objectives

The study was guided by the following specific objectives:

- i. To determine the effect of package graphics on consumer's buying behaviour in Kenya
- ii. To determine the effect of package colour on consumer's buying behaviour in Kenya
- iii. To establish the effect of packaging size on consumer's buying behaviour in Kenya
- iv. To establish the effect of shape on consumer's buying behaviour in Kenya
- v. To determine the effect of product package information on consumer's buying behaviour in Kenya
- vi. To establish the effect of packaging material on consumer's buying behaviour in Kenya

1.4 Research Questions

The study was guided by the following research questions:

- i. What is the influence of package graphics on consumer's buying behaviour in Kenya?
- ii. What is the influence of package colour on consumer's buying behaviour in Kenya?
- iii. What is the influence of packaging size on consumer's buying behaviour in Kenya?
- iv. What is the influence of packaging shape on consumer's buying behaviour in Kenya?
- v. What is the influence of product information on consumer's buying behaviour in Kenya?
- vi. What is the influence of package material on consumer's buying behaviour in Kenya?

1.5 Significance of the Study

The findings of this study can be used by new and existing food product manufacturers in coming up with strategies and in development of product packaging that targets the right customers. The findings of this study have revealed that colour, graphics, shape, size, package material and product information do affect the buying behaviour of consumers and hence food product manufacturers can be able to gain insights on what innovations they can make to provide solutions to the current marketing challenges. Food product manufacturers can also benefit from the findings to assist their businesses to have a competitive advantage.

The regulatory and governmental bodies can use the findings to come up with future product packaging regulations, policies and laws that will aid in regulating and the operationalization of the packaging industry. This study has revealed that of the attributes examined, product information had the most influence on consumer buying behaviour. This shows that consumers are more cautious and interested in the ingredients and contents of their packaged food. Hence, regulatory bodies and governmental institutions can use these findings to come up with policies that ensure that consumers understand the product's contents prior to consumption.

Students and researchers can also benefit from this research by using the study as a reference point in their study or discussions on consumer behaviour and product packaging. Additionally, future researchers can formulate studies that further examine each attribute and its effect on product packaging, explain the impact of packaging attributes on other product categories, or conduct a comparative study to possibly identify the different effects of packaging attributes on a variety of types of products.

1.6 Scope of the Study

This study determined the influence of packaging attributes on consumer buying behaviour in Kenya. The target population of this study was 385 Shoppers at the three major supermarkets in Nairobi, specifically Tumaini supermarket (Embakasi), Tuskys Supermarket (T-mall) and Uchumi Supermarket (Aga Khan Walk). In each supermarket, 129 respondents were sampled for the questionnaire. The study took place during the month of February 2018 and was based on the perceptions consumers had of the current packaging of products available in the selected supermarkets in the month of February 2018.

The study used judgmental sampling in the selection of supermarkets based on their accessibility, location and population. Simple random sampling was used in the selection of the sample. This was to ensure that every participant had an equal chance of being selected. The study used descriptive and explanatory research design. The study relied on primary data which was collected through the administering of structured questionnaires.

1.7 Limitations of the Study

The study experienced various limitations. One of the limitations experienced was in the getting respondents that were willing to fill in the questionnaires. Majority of the respondents were in a hurry to either enter or leave the supermarkets. This limitation was mitigated by offering incentives to the respondents who took part in the study. The researcher offered a small pack of biscuits to the respondents that accepted to fill in the questionnaires. The second limitation faced was that some of the respondents did not return their questionnaire, once handed the questionnaires they left the premises without handing it back, hence the response rate was lowered. Lastly, another limitation is that the study was confined to Nairobi County, specifically targeting shoppers from Tumaini (Embakasi), Tusky's (T-mall) and Uchumi (Aga Khan Walk)

due to time and resource limitations. Only 370 respondents participated in the study which limits the ability to generalise the findings to a larger scope.

1.8 Organization of the Study

This study has five chapters. Chapter one covers the background of study, problem statement, purpose of study research objectives, hypotheses, significance of study, scope of the study and limitations that were experienced during the study. Chapter two focuses on literature review: theoretical and empirical review as well as the conceptual framework. The theoretical review focuses on theories that discuss consumer behaviour specifically the theory of reasoned Action (TRA) and Kano's theory of attractive Quality. Chapter three highlights the research methodology used to achieve the study's objectives. Chapter four presents the research findings and discussion. The chapter shows the analysis of the response rate, demographic data, descriptive statistics and inferential statistics. The chapter also interprets and discusses the findings. Chapter five provides a summary of the previous chapters together with conclusions made from the findings. It also presents recommendations based on the findings of the study. Future research recommendations are also highlighted.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

The chapter provides a summary of the information from other researches who has done similar research in packaging and consumer behaviour. The study specifically covers the theoretical discussions, empirical literature, conceptual framework and research gap.

2.2 Theoretical Background

2.2.1 Kano's Theory of Attractive Quality

This theory was an inspiration from the Herzberg's Motivator-Hygiene theory in behavioural science, Professor Nariaki Kano, Nobuhiku Seraku , Fumio Takahashi, Shinichi Tsuji came up with the theory of attractive quality in 1984 (Kano, Serau, Takahashi and Tsjui, 1984). This theory explains different aspects in which customers evaluate products (Gustafsson, 1998).

According to the theory, attributes that have perceive quality keep on changing, i.e., with time an attribute can change from being a satisfier to a dissatisfier. The Theory of Attractive Quality gives an explanation on how the degree of sufficiency and quality customer satisfaction relate and how this relationship can be classified to five groups that include perceived quality, must-be quality, attractive quality, one dimensional quality, indifferent quality and reverse quality. Table 2.1 below shows the five categories of quality elements.

Table 2.1: Five Categories of quality elements

Quality Elements	Definition
Attractive quality elements	When these are met they give the customer satisfaction but if they are not part of the product the buyer is not dissatisfied as the buyer does not expect them. An increase in fulfilment (performance/positive disconfirmation) lead to an increased over proportional rate of satisfaction
One-dimensional quality elements	These are elements that lead to satisfaction when they are met and dissatisfaction when not met. An increase in fulfilments leads to the rise of dissatisfaction or the reduction of satisfaction
Must-be Quality Elements	When these quality elements are not met or not delivered to the satisfactory level of the customer they lead to dissatisfaction because the consumer takes them for granted. However, when they are satisfactorily delivered they do not lead to satisfaction they have asymmetric impact. When the fulfilment is decreased there is an over-proportional increased dissatisfaction
Indifferent quality elements	These elements have no effect on satisfaction when they are met they do not bring satisfaction or dissatisfaction.
Reverse quality Elements	These are elements that when fulfilled lead to dissatisfaction and when they are not met they lead to satisfaction

Source: Kano et al (1984)

The theory of attractive quality in packaging helps in the development of knowledge of the role played by packaging attributes in the creation of attractive quality. This knowledge is significant in marketing and in quality management as there is very little knowledge in the areas that look at customer satisfaction and packaging (Underwood, et al., 2001). According to industry and consumer trends, there is an important role played by packaging when used as a strategic tool (Olsmats, 2002) and also when used as a tool of marketing (Underwood and Klein, 2002).

Traditionally packaging is regarded as an important tool for storing and protecting the product inside it. However, customer's expectations are constantly changing and hence packaging plays a

bigger role as it can be used to provide other dimensions of service such as information. Customers buy the benefits provided by goods and services and do not buy the goods and services alone, i.e., customers look for solutions that generate the value they need (Grönroos, 2000). The result is that the conventional perspective of packaging should be widened and not be limited to a bottle, a jar or a box so as to look how packaging can lead to a higher perceived customer and quality value.

A research conducted by Abbas Dadras (2015) to determine the effect typography and label information used in the packaging design have on the consumers using Kano's attractive quality theory showed that with change of demographic, organizations should have updated information on the preferences of consumers so as to give the right product packaging that satisfies the customer. The study was conducted in three shopping centres in Tehran where 600 random customers were interviewed and the findings showed that female consumers preferred the design with instructions on cooking and the information on weight on the package label of rice but they did not prefer the manufacture information on the package. Male consumers preferred the design with nutritional values on the rice packages (Dadras, 2015). The study also showed that consumers with different education level, income level, marital status and household size had different preferences on the information on the packaging. Concluding that, product labels and its typography are sources of information that can be designed to attract the attention of customers and communicate messages that can encourage consumption and satisfaction (Dadras, 2015).

This theory was relevant to this study as the study aimed at examining the degree in which the packaging attributes increased or decreased the attractive quality of the product leading to consumption, satisfaction or dissatisfaction. Kano's theory of attractive quality in the area

packaging can contribute to developing more knowledge of the role of packaging in attractive quality creation. This knowledge is needed since within quality management and marketing there is relatively little research in the area of packaging and customer satisfaction (Underwood, et al., 2001). Meanwhile, consumer and industry trends suggest an increasingly important role for packaging as a strategic tool (Olsnats, 2002) as well as a marketing vehicle (Underwood and Klein, 2002).

2.2.2 Theory of Reasoned Action (TRA)

The TRA is a general theory of human behaviour that examines the relationship among beliefs, attitudes, intentions, and behaviours (Ajzen & Fishbein, 1980). The theoretical framework developed by Fishbein and Ajzen in 1975 aimed to understand, explain, predict, and influence human purchasing behaviour where one's attitude toward a behaviour can lead to an intention to act. If the outcome seems beneficial to the individual, he or she may then intend to or participate in behaviour.

The TRA may be useful in identifying the factors that influence customer buying behaviour. The theory is used in marketing and social psychology literature explaining the reason why people behave in a certain manner (Ajzen, 1991). Towler and Shepherd (1992) used the TRA model for prediction of high fat foods consumption. As Towler and Shepherd (1992) explains, attitudes (as shown in the model) are significant forecasters and indicators of the future eating patterns for different foods. Towler and Shepherd (1992) also did mention that TRA explains that behaviour is based on a rational design to participate in an act i.e. the behavioural intention. Behavioural intention is categorized into two components, the first component is the attitude or perception of the person towards the behaviour i.e. if the behaviour is seen as bad or good and the second component is the subjective norm which is if the person feels social pressure from important

individuals which influences the performance of the behaviour. According to the study findings, using TRA standard components there was a good prediction in eating of chips frequency and attitude was found to be significant in determining the behaviour than subjective norm.

Shappard, Hartwick and Warshaw (1988), explain that TRA is a profound model that is used for the prediction of consumers purchasing behaviour when they point out that the model seems to predict consumer intentions and behaviours well. People intention to behave in a certain manner is stimulated by positively evaluating a product (Hassandoust & Perumal, 2010); or better said if the consumer feels positive about the product's packaging, they are likely to purchase the product.

The attitude of the consumer towards a product has been shown to be an important determinant in evaluating the innovation of the product, this study wants to look at the way product attributes affect the purchasing behaviour of the consumer, it is important that we understand the relationship between purchasing behaviour of the consumers and their attitude. The TRA model has attitude and behaviour as relevant and corresponding components. The model further acts as an important framework to analyse the consumer attitude towards the different elements of the product packaging. This theory is therefore relevant to this study as it investigates the attitudes consumers have in relation to the packaging attributes and examines its influence on the buying behaviour of consumers.

2.3 Empirical Literature Review

2.3.1 Product Package Graphics and Consumer Buying Behavior

Wells, Farley and Armstrong (2007), in their study 'Packaging Design for Own-Label food brands' explored the relationship between packaging and quality perception. The study was conducted in the United Kingdom. The study used observation as a research technique. The results showed that more than 43% of consumers use packet photography as proof of product quality. Thus, graphics that attract consumers at the point of sale help the consumers make the purchase decision quickly. This study demonstrated the importance that is placed on package graphics as a tool for differentiation from competitor products. The findings clearly indicated that there is a strong association regarding the influence of package graphics on the purchase decision. The impact of packaging graphics represents an important issue for food suppliers to consider. However, the limitation of this study is that the context used is the United Kingdom and while consumer buying behavior differs due to different factors, this study will be able to fill that gap.

Another study by Mizutani, Okamoto, Yamguchi, Kusakabe, Dand and Yamanaka (2010) that was conducted on ninety-two students using experimental research. The findings showed juice packages that had images on them had the power to influence the purchased decision. Pleasant images were a source of positivity in regard to taste and juice freshness even if some of the images had no relation to the presented juice. The study also concluded that juices that had congruent images were rated to having a better aroma compared to juices with non-congruent images. The findings were an experimental confirmation that attractive images are efficient in portraying a congruent and pleasant image of the product, the customer will perceive the product in a positive light (Mizutani et al. 2010). The limitations of this study however were that the

study only looked at one attribute and there was not comparison with other packaging attributes to be able to determine which attribute affected consumer behaviour more. The study also took place in Japan hence the findings are not applicable in the Kenyan Context.

In another study by Tobias Otterbing (2013), on pictorial and textual packaging elements, the results showed that if the textual images are placed on the left-hand side they are more likely to be noticed and pictorial images if placed on the right side are more, likely to be noticed. This study was carried out in Sweden using observation as the research methodology of the study. The findings showed that not only is attractiveness of graphics important but the placement of textual and pictorial element is also important so that consumers can notice them. By using graphics manufacturers help consumers to find their choice products quickly by eliminating clutters and if they are not loyal to one brand the graphics attract the consumers and give them the opportunity to consider purchasing a given product (Silayoi, 2004). This study however focused only on the graphical attributes of packing.

However, in a study conducted by Lee (2010) showed that graphics on the packaging for convenience goods has no significant relationship with buying decision. Johan and Tobias (2008) in their study found that all attributes and not just one attribute must be combined to affect purchase behaviour (as cited in Sioutis 2011). Sioutis (2011) suggests that graphical information is usually misleading hence consumers do not consider pictures on a package when buying.

2.3.2 Product Package Color and Consumer Behavior

Ares, Deliza, Besio and Gimenez (2010), carried out a research on the influence of various attributes of packaging on the willingness of the consumer to buy chocolate milk desserts and

evaluated if the characteristics influence was affected by the level of involvement the consumer had with the product. The study was conducted on 60 participants in Uruguay. The finding disclosed that the level of involvement consumers had with the product had an effect on the interest and reaction of the buyer towards the product (Ares *et al.*, 2010). Package colour and image that were found on the product were the attributes with the highest significance regardless of the consumer involvement with the product. Chocolates that were coloured brown rather than black and those had pictures of milk desserts were associated with positive values meaning that they were more likely to be bought by the consumers. Additionally, the shape of the package whether round or square did not have a significant effect on the consumer purchasing behaviour in the different segments (Ares *et al.*, 2010). The importance of colour and image was far much higher compared to the indicated dessert which showed that the packaging played an important role in influencing the perception and purchasing decision of the consumer. However, the limitation of this study is that the thinking that underlies participants' observed actions cannot be observed (Cohen, Manion, and Morrison, 2000)

Marshall's, Stuart's & Bell (2006) conducted a study in the United Kingdom to investigate the role packaging colour plays in the selection of the products among kindergarten students considering age and gender across three different categories of products including cereals, drinks and biscuits. The logo and brand information for the three product categories was hidden and were presented with an assortment of nine colours. 43 kindergarten students were requested to select a package from each of the group of categories for themselves, another item from each of the categories for a girl and another item from each of the categories for a boy. According to the findings there was a high correlation between the choice of the product and favourite colour across the sampled children but the correlations for individuals was much lower. The study

showed that the younger children were likely to choose products in line with their colour preferences (Marshall, Stuart & Bell 2006). However, Hedge (1996) reported that the age of a person has an effect on colour judgement as a preference attribute.

Mutti, Hammond, Borland, Cummings and Fong (2011) conducted a survey in four countries of current and former smokers. The study showed that a fifth of the smokers thought that some cigarette brands were less harmful compared to other brands. The colour on the label was behind this conclusion. Colours such as blue, purple and silver were seen as less harmful compared to black and red colours. Madden et al. (2000) explains that cultures associate different colours with different things and thus their preferences will be biased in line with their culture colour associations. Conversely, Deliya and Parmar (2012) pointed out that the different colours on the product packaging set off differing moods among the consumers.

According to a research done by Hollywood (2013) in Belfast, United Kingdom where 6 focus groups containing 33 participants were interviewed on consumer attitudes towards packaging design as a tactical strategy for increasing the commercial value of liquid milk within the dairy industry. The findings showed that skimmed, whole and semi-skimmed milk were differentiated by consumers on the bases of the packet colours. However, the use of standardized colours did not affect the buying behaviour of the consumer as there was nothing new on the packaging. Therefore, products are accepted by buyers if the colour on their packaging are common with other packaged products in a given product class (Hannele Kauppinen-Raisanen, 2010). Hence, radical colour changes can result to confusion for consumers as they look for a particular brand (Hannele Kauppinen-Raisanen, 2010).

In a study by Alervall and Saied (2013) conducted in Nigeria on 450 participants to investigate Graphic design application to packaging technology. Majority of respondents, a total of seventy five percent confessed that the major visual factor that affected their purchase behaviour was colour. According to the results colour had an influence on human psychology and instincts. Ares, Deliza, Besio and Gimenez (2010) as well as Nawaz and Asad (2012) supported the importance of colour from their studies that found that irrespective of consumers' involvement with the product package, colour is the most important variable.

However, Sioutis (2011) in his study differs on the influence of colour to consumer buying behaviour. The findings of his study indicate that colour appears to be of low significance. In fact, it is the least significant attribute for all convenience goods. The preferences for the colour appeared to be slightly product oriented. However, participants still stated that calmative colours such as green tend to be healthiness indicators.

2.3.3 Product Package size and Consumer Behaviour

The size of the package is dependent on the target market and the features of the product (Smith, 2004). Frequency of use and consumption of a product rises is dependent on the packaging size (Kotler, 2008). According to Smith (2004) large pack sizes give the impression of better quality and influence consumers in engaging in impulse buying (as cited by Keller, 2009). Big and taller products attract more attention when placed with competing brands, when the consumer has a choice between different brands, they will probably choose to buy packages that are taller than the other (Hoyer & MacInnis, 2010). This is finding is supported by an investigation conducted by Agatiya (2012) on the size attribute of packaging that showed that using different packaging size can extend a product into new markets.

A study done by Rundh, (2013) on the relationship between packaging and the influence it has on marketing showed that changes in household sizes lead to changes in the product size purchased. The study was conducted in Sweden through use of four case studies which limited the study as it combined data sources including both qualitative and quantitative data. These findings were however reinforced by a study on packaging size by Silayoi (2004) that was conducted in Thailand using a focus group. The findings that showed that small package size is perceived by the buyers as for small family while large packages are seen as a waste of product for the small families. Another study by Ahmadi (2013) investigated the effect visual components of packaging on consumer behaviour in Iran showed that the willingness of the consumer to buy a product rises if the product is packaged in small containers or packages and if the product expiry date is short consumers prefers smaller packages compared to those products in large packages (Ahmadi, 2013). This study was conducted on 49 respondents through a quantitative survey. The findings also showed that market demand suggests that small household purchase products are packaged in small packages (Rundh, 2005).

On the other hand, a qualitative study by Alervall and Saied (2013) that was conducted in Sweden to investigate the communication of packaging elements stated that majority of the participants argued that every visual element is important depending on the situations. However, the participants prioritised colour in their selection of alternatives, followed by graphics whilst size and shape were chosen by the least number of participants. This study however did not focus on specific product hence the conclusion was generalized across different product categories.

2.3.4 Product Package shape and Consumer Behaviour

Agariya (2012) conducted a quantitative investigation in India on packaging shape and consumer behaviour. The findings from the 103 respondents showed that consumer's feeling toward the

packaging is transferred to how they felt about the product and that innovative packaging helped consumers easily prefer a product and identify the brand in retail stores. A unique package can create a brand image that stands out from rival brands. This survey however did not conclude which shapes consumer prefer. Ahmadi (2013) did an investigation on the design characteristics of packaging which showed that beautiful designs on packages increases and persuades the customer to buy and eat food products.

In qualitative research conducted by Silayoi and Speece (2004) on food package preferences of consumer in Bangkok, Thailand, showed that products with a shape that was straight had a positive utility in comparison too curved shaped products and the same was observed for classic designed packages in contrast to colourful designs. The conclusion was that consumers were highly attracted to a package that is familiar and reliable rather than an exciting package. The study also illustrated that most of the consumers believe that the packaging shape was associated with the ease of carrying and using the product. However according to an study by Ares, Besio, Gimenez and Deliza (2010) that was conducted in Uruguay, the shape of a package, whether round or square had no influence on the buying behaviour of the consumer.

2.3.5 Product Package Material and Consumer Behaviour

Hollywood (2013) investigated in the UK on the perception of milk based on the packaging material using six focus groups. Cardboard, glass and plastic were the three packaging materials discussed. According to the research findings, there was different perception in line with the packaging materials. Glass as a product of packaging was most preferred however it was considered heavy and it needed to be washed after use. The cardboard packaging was disregarded and it was stated that the packaging cannot keep products fresh and one cannot be able to view the product (Hollywood, 2013). Study participants preferred the plastic containers

for milk packaging more than the glass and cardboard containers adding that the top cap screw was able to protect the milk from leaking (Hollywood, 2013).

Kuvykaite, Dovaliene, and Navickiene (2009) investigated on the impact of package elements on consumer purchase decision. The study was based on a descriptive research carried out in Lithuania. The findings of the study showed that material of the product was the most influential visual element that affected the purchasing of washing powder and milk. Other elements such as colour, form and graphic were treated as insignificant element of the product package. The study findings were however dependent on time pressure and consumer's involvement level. Contrary, in a study by Ahmed, Parmar and Amin (2014) their findings revealed that consumers can easily change their decisions regarding packaging material depending on different situations.

2.3.6 Product Information and Consumer Behaviour

Spink, Singh and Singh (2011) investigated if consumers could assimilate and understand the information written on the container of the product. The study was conducted in the United States through a quantitative survey of 233 respondents. The finding was that packaging information did affect the consumer purchasing behaviour and sometimes wrong interpretation of information on the package can affect the sales made. For instance, a warning sign according to the study could influence the buying behaviour of the consumer leading to non-purchase of the product. The study however only focused on products with warning labels.

A qualitative study done by Chandon and Wansink (2012) did an analysis of the practices used in food marketing in the united states and their effect on the consumption of calories rich diet and how food companies can reach their goals of assisting people eat healthier foods. Chandon and Wansink (2012) mentioned that packaging is a tool that has an influence on healthy eating

habits. Furthermore, according to the study the design and messaging on the packaging can influenced eating of a balanced diet. Prathiraja and Ariyawardana (2003) looked at how nutritional labelling affected the purchasing behaviour of consumers india using a quantitative survey. According to the study consumers referred to the nutritional labelling so as to make a buying decision this is because most of the consumers were health conscious. Most of the respondents confessed that they would not mind paying more to access the nutritional information on the food products. Of the people who did not mind paying extra for the nutritional information most of them were aged 36-50 years, they also have tertiary education and have households with less than four family members. These studies however focused only on nutritional information.

Adam and Ali (2014) in their quantitative study revealed that expiry date of packaged milk positively correlated with the buying behaviour of consumers in Pakistan. This shows that before making a purchase, consumers look at expiry dates of packaged milk thus, prolonged expiry dates on products does influence buying behaviour. Poturak (2014) carried out a study and found that people aged 22 and above give more consideration to label information when purchasing products. The participants said that the content of the product rather than the appearance interested them more.

Although packaging plays an important role in communicating, it is important to remember that the package should not have too much information which can be misleading or inaccurate because buyers can get confused and lose interest (Silayoi & Speece, 2007). It is also significant to remember that not all consumers are literate to read and understand the information on the product packaging. In addition, not all consumers understand the information as provided on the

packaging material. Hence, this study seeks to investigate whether product information always influence Kenyan consumers to buy their products.

2.4 Summary of Research Gaps

Based on empirical review, various researches have investigated the impact of packaging attributes on consumer buying behaviour. Each study has had a focus on a particular aspect that applies to this study however there are some gaps that have been identified. The gaps vary in terms of the target population, region, attributes and product, this study intend to fill the gaps. Table 2.2 below highlights the study's being reviewed, their findings, the gaps presented and how this study filled the gaps.

Table 2.2: Research Gaps

Author	Study focus	Findings	Research Gap	Focus of the current study
Ares, Deliza, Besio and Gimenez (2010)	The existing relationship between involvement and functional milk desserts intention to buy: The influence on attitude towards packaging characteristics.	The level of involvement the consumer has with the product affected the consumer's interest in the product and also the reaction on the packaging attributes variables.	This study focused on consumer level of involvement more than the packaging attributes. The study also only focused on milk desserts.	This study focused more on packaging attributes and examined the various attributes individually resulting to a more comprehensive discussion on the packaging attributes.
Hollywood (2013)	Attitude toward milk packaging material	The use of plastic containers is better than use of cardboard and glass.	Packaging material was the only attribute that was investigated in the packaging of milk.	Other than packaging material, this study looked into colour, size, shape, product information and graphics as factors of packaging that influence consumer buying behaviour.
Kuvykaite, Dovaliene, Navickiene (2009)	Impact of package elements on consumer purchase decision: A case study on the purchase of milk and washing powder.	The effect package elements have on the purchase decision of consumers is dependent on the involvement of the consumer, time pressure and the analysed individual characteristic.	The study focused on package elements' correlation to time pressure, consumer involvement and consumer characteristics.	Focus of the study was on each packaging attributes and its correlation to consumer buying behaviour of packed foods.
Marshall's, Stuart's & Bell (2006)	The role packaging colours play in the selection of products among the school going children across the product groups; biscuits, drinks and cereals.	A high correlation existed between the children favourite colour and choice of product. Young aged children mostly selected colours that were in line with their preference.	Focus of this study was on product preference/selection using colour by pre-schoolers	The target population of this study were shoppers aged 18 to 40 years. The study also focused on both visual and verbal attributes of packaging.

Mizutani et al. (2010)	Package image modulate flavour perception for orange Juice.	Pleasant and congruent package image has a positive effect on consumer's perception of the product.	For this study, package image was the only attribute that was examined in relation to quality perception was examined.	Both visual and verbal attributes of packaging were analysed in this study. The attributes were correlated to consumer buying behaviour
Otterbing (2013)	Placement of pictorial and textual package elements	The pictorial textual elements of the package are more noticeable if placed on the left-hand side and the pictorial elements are more noticeable if placed on the right-hand side.	Focus for this study was on textual elements and its placement on packaging only. The study did not focus on a specific product	The study looked into how both verbal and visual elements of packaging affect consumer behaviour of packaged foods.
Parissa (2013)	The relationship between packaging elements and purchase behaviour of consumer food, cosmetics and health products in India	A significant relationship exists between the product image and the consumer purchase behaviour.	This study focused on different product lines, that is food, cosmetics and health products. The study also focused on India and hence the findings cannot be generalized to Kenya	The focus of this study was on packaged food products only, giving a more in-depth look at that product line. The study also focused on Kenya and hence provides data that can be used by local manufactures.
Prathiraja and Ariyawardana (2003)	Impact of nutritional labelling on consumer buying behaviour in India	Consumers did not mind paying more to get the nutritional information that was part of the package.	The study focused on availability of nutritional food information and its effect on buying behaviour. The study was also based on India and hence cannot be generalised to apply to Kenya	This study not only focused on product information on the packaging but also on the graphics and colour, dimensions and packaging material of packaged foods. The study was also based on Kenyan consumers.
Spink et al. (2011)	Review of package warning labels and their effect on consumer behaviour with insights to future anti-counterfeit strategy of label and communication systems	Product information may change consumer behaviour and the purchase of the product.	This study focused on product information specifically warning labels.	Product information investigated was not constrained to warning labels rather it examined general to the product information as well as nutritional information.

Wells (2007)	Packaging Design for Own-Label food brands'	Package graphic/ image is an indication of product quality	Study only focused on own-label food brands	Focuses on both own- label and brand label.
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Source: Literature review (2018)

For this study, the independent variable is packaging attributes comprising of six variables; graphics, colour, shape, size, package material and product information. Each attribute is represented by the alternative hypotheses H_1 to H_6 . The dependent variable is Consumer buying behaviour. The study examined the six packaging attributes in order to understand the relationship each attribute had to the dependent variable. Each of the attributes was examined to see how it communicated to the consumer about the product, weakening or strengthening their purchase decision. In the study, it was concluded that packaging attributes have an impact on consumer buying behaviour of packaged foods in Kenya.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

The chapter provides the methodology that was used to undertake the research. It provides the design of research, the target population, the sample size, sampling procedure and the data collection methods

3.2 Research design

This study adopted descriptive and explanatory research techniques. According to Marczyk, DeMatteo, and Festinger (2005), descriptive research aims at describing, explaining and interpreting conditions that are happening in the present. Descriptive research is designed to give additional insight on the previous research problem by giving a description of the variable characteristics on the research topic (Hair et al., 2007). This technique is important in answering investigative questions and making clear hypothesis. With descriptive research, the research concentrated on the nature, existence or distribution of the variables under study by answering questions on what, where, when or how much. Measures of central tendency such as mean, percentage and correlation of variables were used to categorize data collected. Other descriptive statistics utilized included measures of dispersion and frequency distributions, used to make conclusions and recommendations on the data.

Explanatory design is referred to by Malhatra (1999) as the research design where the major emphasis is on understanding a cause and effect relationship. It tries to determine if the manipulation of one variable; independent variable, affects another variable; dependent variable. This technique focuses on analysis of situations or specific problems to explain the patterns of relationships between variables. Explanatory research design was utilized in this study by use of

regression method which was used to determine the relationship between packaging attributes and consumer buying decision.

3.3 Target Population

As Ngechu (2004) points out, a population can be defined as a set of elements, people, events, services, households or group of things. Studies that are population based are more representative as everyone who is part of the population has an equal chance of being part of the sample chosen (Mugenda and Mugenda 2003).

The target population of this study comprised shoppers at Tumaini (Embakasi), Uchumi (Aga Khan Walk) and Tuskys (T-Mall) supermarkets in Nairobi. At each supermarket, a third of the sample size was issued with questionnaires ensuring that equal opportunity to participate was given to participants at each supermarket. The target population consisted of 385 male and female shoppers across all age groups above eighteen years. The target population was diverse in terms of social status, cultural backgrounds, age, income levels, marital status and religion among other features hence was a represent of the general population of Kenya. The three supermarkets were purposefully selected while simple random sampling technique was used to choose the required sample size from each supermarket to ensure representativeness. This guaranteed that every member of the three-supermarket had an equal chance of being selected into the sample (Saunders, 2007).

3.4 Sample Size and Sampling Technique

The procedure used to gather the things, people or place to study is termed as the sampling procedure. The process involves selection objects and individuals from the population of study so that the selected sample is a representative of the characteristics of the total population. A

sample thus is finite part of the entire population whose properties are studied to get information on the entire population (Orodho and Kombo, 2002).

In the selection of sampling units (supermarkets), judgmental sampling was used. This sampling method was utilized due to limitation of time and resources to enable selection and access to more supermarkets in various locations. Judgemental sampling can be defined as a type of non-probability sampling technique where the researcher selects units to be sampled based on their knowledge and experience. For this study, Tumaini supermarket (Embakassi), Tusky's T-Mall and Uchumi (Aga Khan walk) were selected due to their accessibility and location. Tumaini Supermarket (Embakasi) is located at one of the highly populated estates in Nairobi, Uchumi Supermarket (Aga Khan Walk) is situated at the Nairobi's central Business district (CBD) while Tuskys (T-Mall) is situated along Langata road and is central to a number of residential estates. This ensured that the chances of selection of a diverse sample were high and hence the data collected could be generalized to the general population. The three supermarkets also attracted a large number of clientele from different backgrounds. Due to the size of these retail outlets, there was more room to indulge the shoppers' one-on-one and get them to fill the questionnaires with ease.

Due to unknown population of shoppers in Nairobi, the sample for the study was computed using the formula by Cochran (1963).

$$n = \frac{z^2 pq}{d^2}$$

In the formula;

n = Sample size

z = the standard normal deviation at 95% confidence level =1.96

p = the proportion in the target population estimated to have a certain characteristic.

Since there is no estimate, 50 percent will be used in the study (0.50) as the maximum variability as recommended by Mugenda and Mugenda (2003).

$$q = 1.0 - p$$

d = margin of error 5%

$$n = \frac{1.96^2 \times 0.5 \times (1 - 0.5)}{0.05^2} = 385$$

= 385 Shoppers

For the purpose of this study, simple random sampling was used in the selection of a sample. This sampling method refers to a practice where elements to form the sample are selected at random. Using this method every shopper at the selected supermarkets had an equal chance of being chosen as part of the sample. With this method, the level of bias was reduced. It also enhanced ease during the selection.

3.5 Data Sources and Collection

The research used primary data. This is information that is obtained from the field. Structured questionnaires were used to collect the primary data. A questionnaire comprises a list of written questions whose answers are recorded by the respondents (Kumar, 1996). A questionnaire is used as a tool to collect data that is accurate, valid and reliable and for getting the information that is relevant with the study's objectives (Cooper and Schindler, 1998). Brink and Woods (1998) state the advantages of using questionnaire in comparison to other data collection methods is that it saves on time compared to personal interviews since the participants enters his/her responses on the questionnaire. It is also less expensive, it is standard and independent

of the researchers/interviewer's mood. Finally, it makes the respondents feel more confident to express themselves without fear of identification (Brink and Woods, 1998).

The questionnaire consisted of 15 questions divided into three sections; the first section collected demographic information which includes the gender, age, and marital status of the respondents. The second section focused on consumer buying behaviour. In addition to these questions, the third section had various statements offered to the respondents regarding their attitudes toward product attributes and asked to rate them on a Likert five-point scale from 1= strongly disagree and 5= strongly agree. The Likert scale is ideal for this study as it effectively measures the respondent's attitude towards the used attribute. As (Myers, 1999) explains, the Likert scale reduces misunderstanding, confusion and uncertainty and it is user friendly.

3.6 Validity and Reliability of Research Instrument

3.6.1 Pilot Study

A pilot study is a small version of the full-scale study or can it be said to be the trial run as the researcher prepares to conduct the full-scale study (Polit, Beck and Hungler, 2001). It is also used to pre-test the instruments of research such as interview schedules and questionnaires (Teijlingen & Hundley, 2001). For this study, a pilot study was carried out to pre- test the tool of collecting data that is the questionnaire as well as the as the methods and techniques.

According to Connelly (2008), research shows that the right pilot study sample should be 10% of the sample projected for the large-scale study. While Hill (1998) and suggested 10 – 30 respondents for a pilot survey research. For this study, a pilot test was conducted on 20 shoppers at Tuskys (T-Mall). The study aimed to spot any flaws if any in the procedures used for measuring and in the time limits and instructions, it was also used to point out any ambiguous

and unclear items in the questionnaire and also determine if the proposed instruments and items are complicated or appropriate for the research. The pilot test was also used to pre-test the validity and reliability of the instrument of research. The questionnaire used in the pilot study is the same that was used in the main study. However, the collected data in the pilot study was not be analysed or be part of the main study. Based on the pilot test findings necessary changes were made before the main study.

3.6.2 Validity

Uys and Basson (1991) define validity as the degree that the instrument of research measures what it is intended to measure. This research study focused on, construct and face validity. Mora (2011) defines content validity as the ability to come up with questions that are a representation of the topic under study and making sure that related subjects are also part of the study. This ensures that the instrument is covering what it is intended to cover (Mbwesa, 2006). Content validity of the data collection instrument was evaluated by the academic supervisor of this study. Construct validity is defined by MacKenzie (2003) as the degree to which an instrument measures the concept or theory that it is intended to measure. For this study, construct validity was established by administering theoretical and conceptual reviews in the preparation of questionnaire, that is the questions designed for the survey were considered carefully and selected in relation to the theories presented. Face validity is defined as the degree to which the test "looks valid" to the examinees who take it and other technically untrained observers in terms of its stated aim (Anastasi, 1988). For this study, face validity was also ensured through the review of the questionnaire to the academic supervisor of this study.

3.6.3 Reliability

Research instrument reliability is the degree to which the instrument comes up with data and results that are consistent after several trials (Mugenda and Mugenda, 1999). Reliability addresses the general consistency of a research study's measure. If a research instrument produces similar results under consistently applied conditions, it reduces the chance that the findings are due to randomly occurring factors and measurement error (Marczyk, 2005). For this research, internal consistency method using the Cronbach's alpha was used. This method measures the internal consistency by correlating the score for each item with the total score for each observation, and compares that to the variance for all individual item scores (Tavakol & Dennick, 2011). Statistical Package for Social Science (SPSS) was used to calculate Cronbach's alpha. Nunnally (1978) recommends 0.7 as the minimum level however the values on Cronbach alpha depend on the item numbers on the scale. For this study, the number of items on scale were five item scale and hence a minimum level of 0.7 (internal consistency) was required. The results of the Cronbach Alpha of the result instrument are as shown on Table 3.1 below

Table 3.1: Reliability Analysis

Scale	Cronbach's Alpha	Number of Items
Package Graphics	0.833	4
Package Colour	0.820	4
Package Size	0.817	3
Package Shape	0.819	3
Product Information	0.814	4
Packaging material	0.813	4

Source: Survey (2018)

The findings indicate that package graphics was most reliable as shown by an alpha of 0.833, followed by package colour by an alpha of 0.820, which was followed by packaging shape shown by an alpha of 0.817, package size had an alpha of 0.817, then product information as

shown by an alpha of 0.814 and lastly packaging material as shown by an alpha of 0.813. All the variables were above the threshold suggestion that the variables had a strong internal consistency.

3.7 Data collection procedure

Before the data was collected, authorization from Kenyatta University and NACOSTI (National Commission of Science, Technology and Innovation) was requested. Upon authorization to carry out the research, three trained individuals were recruited as field workers to assist in administering questionnaires. All the field workers were trained on matters relating to the questionnaire to enable them to tackle any questions that might arise during the exercise. Distribution of the questionnaires was self-administered to shoppers. The questionnaires were administered and collected on the same day.

3.8 Data Analysis and Presentation

Data analysis as a process brings structure, order and meaning to the information that is collected from the research. It involves the examination of the collected information and the making of inferences and deductions (Kombo & Tromp, 2006). There are three steps involved in analysing data: organizing, interpreting and summarizing data (Ary, Jacobs and Razavieh, 2002).

This study employed descriptive statistics, inferential statistics, correlation and multiple regression analysis as methods of data analysis. Descriptive statistics utilized mean and frequencies to summarize the data. The study also used multiple regressions to make suitable conclusions on the data collected. The multiple regression models were computed on SPSS using the formula:

$$Y = a + b_1 * X_1 + b_2 * X_2 + b_3 * X_3 + b_4 * X_4 + b_5 * X_5 + b_6 * X_6 + b_7 * X_7$$

where:

Y = Consumer Buying behaviour

X₃= Package Size

a = y intercept

X₄= Package Shape

b= slope of the line

X₅= Package Material

X₁= Package Graphics

X₆= Product information

X₂= Package colour

The study measured correlation using Pearson's correlation to find a correlation between the variables. Pearson's correlation aided in predicting and finding a linear relationship between each of the packaging attributes to consumer behaviour. The results of the data analysed were presented in the form of tables, charts and graphs. Data interpretation was done through interpretation of quantitative data and statistical tests as well as comparing the data from the study with existing literature.

3.9 Diagnostic Tests

3.9.1 Multicollinearity Test

Multicollinearity is where many independent variables correlate with the dependent variable affecting the decision as to whether the null-hypothesis should be accepted or rejected. This leads to the conclusions of the study being misled. Multicollinearity test is then used to ensure that the acceptable levels of correlation of variables have been met. According to Hair (1995), Variance Inflation Factor (VIF) should be used to confirm multicollinearity. For acceptable levels, the VIF should range between 1 and 10. In this study, VIF was used out to ascertain the possibility of a collinearity problem of the independent variables having some explanatory power over each other (Menard, 1995).

3.9.2 Homoscedacity Test

As stated by Kahuthu (2016) heteroscedasticity is the violation of homoscedasticity. Homoscedasticity is an assumption stating that the error terms have constant variance and hence they cannot influence each other; and that the dependent variable(s) exhibit an equal level of variance across the range of predictor variable(s). Homoscedasticity is one of the assumptions required for multivariate analysis. Although the violation of homoscedasticity might reduce the accuracy of the analysis, the effect on ungrouped data is not fatal (Tabachnick and Fidell, 2007). Levene test was employed in this study to assess the equality of variances for the variables calculated (Graphics and colour, Packaging size and shape, Product information and Packaging material).

3.9.3 Normality Test

Normality test is a statistical procedure that examines whether data has been drawn from a normally distributed population. For this study, normality of the variables was examined statistically using the skewness and kurtosis. Skewness refers to the measure of distribution symmetry of a real-valued random variable while kurtosis refers to the measure the height and sharpness of the frequency distribution curve.

3.10 Ethical Considerations

Breakwell (2006) notes that ethics are the norms that govern the human behaviour and which impacts the welfare of people, it involves decision making regarding what behaviour is right or wrong. Bryman (2007) explains that the researcher has a responsibility to ensure that respondents are not harmed during the research. The researcher is expected to take precautions to

ensure that respondents are not harmed or affected in any adverse way due to their participation in the research.

To ensure that this study observed ethics, request to conduct the study was sought from Kenyatta University school of Business prior to commencement of the study. The school shared a letter of consent allowing the research to be carried out and giving permission to collect data. Copies of the letter were attached to the questionnaires that were distributed to the respondents to affirm that the study is academic and approved by Kenyatta University. A research permit was also obtained from the National commission of science, technology and innovation (NACOSTI) to permit the collection of data.

During the collection of data, respondents were informed of the objectives, goals and purpose of study verbally and through an introduction letter. It was also made clear that participation in the study is voluntary. The confidentiality and anonymity of the respondent's information was ensured by restricting access to respondent identification and restricting access to the questionnaires where respondents had been identified. The questionnaires were collected on the same day after completion for analysis.

After the collection of data, the content received from sources was presented honestly and were not distorted. All sources of data have been acknowledged and included in the list of sources, which was verified by the supervisor who examined this study for inconsistencies and inaccuracies.

CHAPTER FOUR: DATA ANALYSIS, INTERPRETATION AND DISCUSSIONS

4.1 Introduction

This chapter presents the data findings, interpretation and discussions focused on addressing the objective of the study which was to determine the effect of packaging attributes on consumer's buying behaviour of packaged foods in Kenya. Descriptive and inferential statistics have been used to discuss the findings of the study.

4.2 Response Rate

The study targeted a sample size of 385 respondents from which 370 filled in and returned the questionnaires making a response rate of 96.1%. This response rate was satisfactory to make conclusions for the study. According to Mugenda and Mugenda (1999), a response rate of 50% is adequate for analysis and reporting; a rate of 60% is good and a response rate of 70% and over is excellent. Based on the assertion, the response rate was considered to excellent and representative to the population.

4.3 Respondents Demographic Information

The demographic factors analysed included gender, age, marital status and consumer's buying behaviour of packaged foods in Kenya.

4.3.1 Gender and Age of Respondents

The research sought to establish the gender and age of the respondents. The results are shown in Table 4.1

Table 4.1: Respondents Gender and Age

		Age				Percent	Total
		20 years and below	21 to 30 years	31 to 40 years	Above 40 years		
Gender	Male	28	43	58	24	41	153
	Female	27	57	68	65	59	217
Total		55	100	126	89	100	370

Source: Survey (2018)

From the findings presented in Table 4.1, the study had a sample size N of 370 participants, out of whom; male respondents constituted 41% while the female respondents comprised of 59% of the total hence the distribution of respondent was almost equal however the majority of the respondents were female. This implies that women shop more in comparison to men. The findings also indicate that one hundred and twenty-six (126) respondents were between 31 – 40 years of age. A hundred (100) respondents were aged between 21 years to 30 years of age while eighty-nine (89) respondents were above 40 years. This implies that majority of the respondents were middle-aged, which can be attributed to general population in the country. This also shows that middle aged individuals have high purchasing power and hence they make up majority of shoppers at local supermarkets in Kenya. Furthermore, the findings show that in the age group with the highest respondents that is 31-40 years, sixty-eight (68) shoppers, which makes the majority of the respondents, were female. This implies that middle aged women make up the highest number of shoppers at local supermarkets. This could be attributed to the societal view that women are the caregivers and household caretakers to their families hence it is part of their household chore to do food shopping. This shows that marketers should consider preferences of female shoppers when developing strategies on packaged foods.

4.3.2 Marital Status and Buying of Packaged Foods

This research also sought to establish the respondent marital status of the respondents against their buying of packaged foods. The study classified the respondent's marital status into three categories, which comprised of single, married and others. This was mapped against buying of packaged foods, which focused on the rarely, frequently, very frequently and never. The results are presented in Table 4.2

Table 4.2: Marital Status and Buying of packaged foods

		Buying of packaged foods				Percent	Total
		Rarely	Frequently	Very Frequently	Never		
Marital Status	Single	18	36	28	10	25	92
	Married	37	63	48	11	43	159
	Others	33	58	22	6	32	119
Total		88	157	98	27	100	370

Source: Survey (2018)

From the findings presented in Table 4.2, one hundred and fifty-nine (159) respondents reported to be married, one hundred and nineteen (119) reported others and ninety-two (92) respondents reported single. This suggests that majority of shoppers who purchase packaged foods are married. Out of the three hundred and seventy (370) respondents, one hundred and fifty-seven (157) respondents buy packaged foods frequently, ninety-eight (98) respondents very frequently, eighty-eight (88) buy rarely while twenty-seven (27) buy packaged foods rarely. This implies that packaged foods are frequently bought by married couples which suggests that manufactures and marketers should consider Married couple as their target consumers as they come with strategies of packaging or advertising packaged foods.

4.3.3 Factors Influencing Buying of Packaged Foods

The respondents were asked to indicate what they look at first when buying packaged foods.

Results are as shown in Table 4.3

Table 4.3: Factors influencing buying of packaged foods

Category	Frequency	Percent
Price	116	31
Packaging	88	24
Brand	81	22
Ingredients	85	23
Total	370	100

Source: Survey (2018)

From the findings, 31% of the respondents indicated that they look at price first when buying packaged foods, 24% indicated that they look at packaging first when buying packaged foods, 23% indicated that they look at ingredients first when buying packaged foods and 22% indicated that they look at brand first when buying packaged foods. This shows that majority of consumers look at price first when buying packaged foods. This implies that consumers use price to determine whether or not to purchase a product. Consistent with Etgar and Malhotra's study (1981) that found that 61% of the overall product evaluation done by consumers is due to the price evaluation. This finding is also supported by Brunso and Grunert (1998) who in their study concluded that price was the most important criteria in food shopping in four European countries.

Findings from Steenkamp and Trijp (1989) showed that consumers' price judgements are relative and depending on the quality consciousness of the consumer, their willingness to pay higher or lower prices for food products varies. This was supported by research findings by Kadlec (1991), who in his study showed that seventy-eight percent of shoppers are willing to pay higher costs for access to environmentally-friendly product. This then implies that packaging should be designed to provide a positive impression of the product's quality to justify the price of the product and provoke intent to purchase.

4.3.4 Prejudgment towards a food product before an actual consumption

The respondents were asked to indicate whether they have prejudgement (positive/negative) towards a food product before an actual consumption. The results were as shown in Table 4.4

Table 4.4: Prejudgement towards a food product before an actual consumption

Category	Frequency	Percent
Always	118	32
Sometimes	110	30
Rarely	100	27
Never	42	11
Total	370	100

Source: Survey (2018)

From the Table 4.5 , 32% of the respondents indicated that they always have a prejudgement (positive/negative) towards a food product before an actual consumption, 30% indicated that they sometimes have a prejudgement (positive/negative) towards a food product before an actual consumption, 27% indicated that they rarely have a prejudgement (positive/negative) towards a food product before an actual consumption and 11% indicated that they never have a prejudgement (positive/negative) towards a food product before an actual consumption. This implies that most consumers always have a prejudgement (positive/negative) towards a food product based on its appearance before actual consumption. This implies that most of the respondents felt like product's package represented its characteristics and communicated the product quality to them. To the respondents, the product and the package are one and the same when they see a product on the supermarket shelves hence when purchasing decision, the package assists the consumer to create the overall product perception which helps in evaluation and selection. This suggests that packaging should be a strategic tool in attractive quality creation (Olsmats, 2002). This is supported by a study conducted by Abbas (2015) that concluded that packaging is a tool designed to attract consumer's attention and communicate a message that will motivate consumption and satisfaction.

4.3.5 Influence of the packaging of food products on consumer purchase decision despite initial preference

The respondents were asked to indicate whether the packaging of food products displayed influences their decision to purchase the product despite their initial purchase preference. The results were as shown in Table 4.5

Table 4.5: Influence of the packaging of food products on decision to purchase the product despite initial preference

Category	Frequency	Percent
Always	96	26
Sometimes	121	33
Rarely	115	31
Never	38	10
Total	370	100

Source: Survey (2018)

According to the findings as represented on table 4.5, 33% of the respondents indicated that the packaging of food products displayed influences their decision to purchase the product despite their initial purchase preference sometimes, 31% indicated that the packaging of food products displayed influences their decision to purchase the product despite their initial purchase preference rarely, 26% indicated that the packaging of food products displayed influences their decision to purchase the product despite their initial purchase preference always and 10% indicated that the packaging of food products displayed never influences their decision to purchase the product despite their initial purchase preference. This shows that the packaging of food products displayed sometimes influences consumers decision to purchase the product despite their initial purchase preference. This suggests that for low involvement goods such as packaged foods, brand loyalty doesn't come from strong conviction that the brand is the best, but out of habit or routinized behavior hence it doesn't not represent deep-rooted loyalty

(McWilliam, 1997). Therefore, a product must meet consumers' standards if they are to buy it. If it does, then it enters their acceptable set, and they will buy it sometimes or even buy other acceptable brands sometimes. This shows that through management of the package design of packaged foods, manufacturers can influence purchase decisions of consumers.

4.3.6 Search for Information before Purchase of Packaged Foods

The respondents were asked to indicate whether they search for information before they purchase packaged foods. The results are as shown in Table 4.6

Table 4.6: Search for information before they purchase packaged foods

Category	Frequency	Percent
Always	50	14
Sometimes	110	30
Rarely	154	42
Never	56	15
Total	370	100

Source: Survey (2018)

According to the findings, 42% of the respondents indicated that they rarely search for information before they purchase packaged foods, 30% indicated that they sometimes search for information before they purchase packaged foods, 15% indicated that they never search for information before they purchase packaged foods and 14% indicated that they always search for information before they purchase packaged foods. This implies that consumers rarely search for information before they purchase packaged foods. This shows that packaged food can be considered to be a low involvement good. Kotler (1996) states that consumers do not search extensively for information on low involvement goods, they instead evaluate the characteristics of the product and make a decision on which brand to buy. Most consumers only consciously consider about two or three product attributes, when making a purchase decision of low

involvement goods (Speece and Nair, 2000). This implies that consumer rely on sensory cues from packaging to make a purchase decision and hence packaging should be attractive and unique to initiate a connection with the consumer and in-turn if the product inside the package delivers on what the package’s promises, packaging can produce a repeat purchase.

4.3.7 Decisions on what packaged food product to buy

The respondents were asked to indicate whether they make decisions on what packaged food product they will buy at the store. The results are as shown in Table 4.7

Table 4.7: Decisions on what packaged food product to buy

Category	Frequency	Percent
Always	134	36
Sometimes	98	26
Rarely	90	24
Never	48	13
Total	370	100

Source: Survey (2018)

From the findings, 36% of the respondents indicated that they always make decisions on what packaged food product they will buy at the store, 26% indicated that they sometimes make decisions on what packaged food product they will buy at the store, 24% indicated that they rarely make decisions on what packaged food product they will buy at the store and 13% indicated that they never make decisions on what packaged food product they will buy at the store. The results show that most consumers always make decisions on what packaged food product they will buy at the store. This implies that purchase decision for packaged foods is made in-store based on the consumer preference at the time. This suggests that packaging may attract the consumer’s attention to an extent that they consider purchasing a particular packaged food brand. This implies that packaging attributes have to stand out and be distinctive to attract the consumer. Nancarrow (1998) states that the design attributes of a package have bearing on

whether the package is noticed and how it is perceived, as it will often need to stand out in a display of many other offerings.

4.3.7 Influence of packaging of food products displayed on the decision to purchase

The respondents were asked to indicate whether the packaging of food products displayed influences the decision to purchase the product. The results are as shown in Table 4.8

Table 4.8: Influence of packaging of food products displayed on the decision to purchase

Category	Frequency	Percent
Always	99	27
Sometimes	104	28
Rarely	89	24
Never	78	21
Total	370	100

Source: Survey (2018)

According to the findings 28% of the respondents indicated that the packaging of food products displayed sometimes influences the decision to purchase the product, 27% indicated that the packaging of food products displayed always influences the decision to purchase the product, 24% indicated that the packaging of food products displayed rarely influences the decision to purchase the product and 21% indicated that the packaging of food products displayed never influences the decision to purchase the product. The results revealed that packaging of food products displayed sometimes influences the decision to purchase the product. This is supported by a study conducted by Silayoi and Speece (2002) that concluded that packages attract consumers on the first purchase, however after the first consumption experience, consumers tend to rely on product quality. Hence some respondents may find that packaging may not affect their purchase decision. This implies that manufacturers should ensure that packaging not only attracts

consumers but acts as a reminder of satisfaction with the product experience they have had wherever they see the package again.

4.4 Descriptive Statistics for the Research Variables

This section presents the findings based on the research objectives of this study. The study used descriptive statistics in the analysis and discussion. The results are shown in Figure 4.9

Table 4.9: Descriptive Statistics for the Research Variables

Category	Aggregate Mean	Standard Deviation
Influence of Graphics on Purchase Behaviour	3.565	0.617
Influence of Colour on Purchase Behaviour	3.554	0.610
Influence of Packaging Size on Purchase Behaviour	3.570	0.673
Influence of Packaging Shape on Purchase Behaviour	3.573	0.676
Influence of Product Information on Purchase Behaviour	3.657	0.703
Influence of Packaging Material on Purchase Behaviour	3.540	0.631

Source: Survey (2018)

From the results product information has the highest aggregate mean value 3.657 which implies that respondents were more concerned or influenced with product information. Packaging shape influenced consumer buying behaviour by a mean of 3.573. Package size influenced the respondents purchase decision by a mean of 3.570. Package material influenced purchase behaviour as shown by a mean of 3.540. Graphics influence purchase behaviour as shown by a mean of 3.565 and package colour influences purchase behaviour as show by a mean of 3.583. The mean scores are above 3.5, this implies that product information, package colour, package size, package shape, graphics and package material of packaged food influences the purchase behaviour of consumers. This implies that packaging attributes guide consumer purchasing hence they are importance.

The findings show that consumer's mostly check the product information on the packaging before purchasing. This shows that consumers are concerned with product quality and the information presented on the package contributes to their assessment of the product. Most of the respondents strongly agreed that good product information reflected healthiness of the product. This finding is consistent with Silayoi and Speece (2007), who conducted a study on the importance of packaging attributes and found out that precise product information has a positive influence on consumer buying behaviour. This shows that consumers value the product information and it also suggests that consumers evaluate product quality using information.

Package shape and size were second and third respectively in the degree of influence they have on consumer buying behaviour. Respondents stated that shape and size of products help them make volume judgments which influences their purchasing choice when the quality of the product is hard to determine. Therefore, the elongated shape and appropriate size causes the consumer to think of the package as having better product volume and cost efficiency. This is supported by a study conducted by Raghubir and Krishna (1999) which showed that more elongated shapes result in greater perceived volume, such that elongated containers are preferred and tend to be chosen by consumers. Consumers perceive such packages as better value. The respondents also strongly agreed that the package needed to perform its appropriate functions and hence it is important that the package be convenient to use. Package material was the fourth most influential attribute on consumer buying behaviour. The respondents stated that environmental concerns are key to them when purchasing a product hence they prefer packaging that had the ability to be recycled. Consistent with the study by Clem (2008) which showed that consumers are engaging in green purchasing because they have become more social conscious and want to protect the environmental resources. This implies that environmental marketing

should be a strategy to convince consumers that a product is environmental friendly compared to the competitors' products.

The findings also showed that respondents equated quality of packaging material with quality of the product. These results are supported by Silayoi and Speece (2007) who stated package material is a symbol of quality when purchasing products such as food and beverages. Package graphics and colour were considered least influential in comparison to the other attributes. The notion of Ares (2010) that package colour and graphics are variables with the highest relative importance, regardless of consumer's involvement with the product was not supported by respondents in this study. The finding is consistent with a recent study by Sevilla (2012), that showed that consumers preferred food products with transparent or colours packaging with minimal graphics to multi coloured packaging. This implies that consumers prefer less coloured products as it is a sign of trustworthiness from the manufacturer.

4.5 Inferential Statistics

4.5.1 Correlation Analysis

The study used the Pearson Moment Correlation analysis to determine the association between; graphics and colour, packaging size and shape, product information and packaging material on the consumer's buying behaviour of packaged foods in Kenya. The results were as shown in Table 4.10

Table 4.10: Correlations Coefficient

		Consumer Buying Behaviour	Package Graphic	Package Colour	Package Size	Package shape	Product Information	Packaging Material
Consumer Buying Behaviour	Pearson Correlation	1						
	Sig. (2-tailed)							
	N	370						
Package Graphics	Pearson Correlation	.732**	1					
	Sig. (2-tailed)	.005						
	N	370	370					
Package Colour	Pearson Correlation	.740**	.400	1				
	Sig. (2-tailed)	.002	.052					
	N	370	370	370				
Package Size	Pearson Correlation	.744**	.403	.490	1			
	Sig. (2-tailed)	.003	.059	.054				
	N	370	370	370	370			
Package Shape	Pearson Correlation	.720**	.392	.486	.451	1		
	Sig. (2-tailed)	.007	.080	.046	.036			
	N	370	370	370	370	370		
Product Information	Pearson Correlation	.784**	.524	.570	.533	.562	1	
	Sig. (2-tailed)	.001	.051	.064	.068	0.56		
	N	370	370	370	370	370	370	
Packaging Material	Pearson Correlation	.718**	.386	.463	.496	.316	.365	1
	Sig. (2-tailed)	.008	.075	.030	.038	.046	.173	
	N	370	370	370	370	370	370	370

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

Source: Survey (2018)

The results as shown in table 4.10 revealed that there was a strong positive correlation between graphics and consumer's buying behaviour as shown by $r= 0.732$, statistically significant $p = 0.005 < 0.05$; there is a strong positive correlation between colour and consumer behaviour as shown by $r = 0.740$, statistically significant $P= 0.002 < 0.05$; there was a positive correlation between packaging size and consumer's buying behaviour as shown by $r = 0.744$, statistically significant $P = 0.003 < 0.05$; there was a positive correlation between product shape and consumer's buying behaviour as shown by $r = 0.720$, statistically significant $P = 0.007 < 0.05$:

there was a positive correlation between product information and consumer's buying behaviour as shown by $r = 0.784$, statistically significant $P = 0.001 < 0.05$ and there was a positive correlation between packaging material and consumer's buying behaviour as shown by $r = 0.718$, statistically significant $P = 0.008 < 0.05$. This implies that graphics and colour, packaging size and shape, product information and packaging material with consumer's buying behaviour are related. The Pearson correlation for graphics, colour, packaging size, shape, product information and packaging material are above 0.5 with product information having the highest value. This implies that there is a strong positive relationship between packaging attributes and consumer's buying behaviour. This implies that packaging attributes; graphics, colour, size, shape, package information and material influence consumer behaviour of packaged foods. This suggests that the respondents considered these factors prior to making a purchase decision. Product information is mostly considered by consumers in making a decision when purchasing packed food products.

4.5.2 Diagnostic Test for Regression Analysis

Multi Collinearity Test

The study also carried out a multi collinearity test; the results are as shown in Table 4.11.

Table 4.11: Summary of Collinearity Statistics

Model	Collinearity Statistics	
	Tolerance	VIF
Package graphics	0.924	2.728
Package colour	0.754	1.326
Packaging size	0.786	1.423
Package shape	0.969	1.031
Product information	0.634	1.352
Packaging material	0.780	3.427

Source: Survey (2018)

According to Sekaran and Bougie (2009) a VIF greater than 10 is a cause of concern as that would mean presence of multicollinearity among independent variables. From the test, all Variance inflation factor (VIF) values ranged from 1 to 4 hence the data collected does not indicate any extreme correlations between the independent variables that is, the assumption of multicollinearity among the independent variables in the study is satisfied. This indicates that the data, results and conclusions reported in this study are not biased by the influence of multicollinearity.

Homoscedasticity

Homoscedasticity was tested using Levine test which assessed the equality of variances for the variables calculated. The results are as shown in table 4.12

Table 4.12: Test of Homogeneity of Variances

Levene Statistic	df1	df2	Sig.
1.626	5	369	.043

Source: Survey (2018)

P-value of Levene's test is less than the conventional 0.05 critical value, indicating that the obtained differences in sample variances are likely not to have occurred based on random sampling from a population with equal variances. Thus, there is significant difference between the variances in the population.

Normality Test

Normality of the variables was examined using the skewness and kurtosis. The findings are as shown in Table 4.13

Table 4.13: Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Package graphics	0.127	224	0.239	0.887	224	0.212
Package Colour	0.123	224	0.134	0.853	224	0.364
Package size	0.153	224	0.104	0.834	224	0.501
Package shape	0.121	224	0.130	0.810	224	0.210
Product information	0.126	224	0.141	0.924	224	0.397
Packaging material	0.153	224	0.204	0.808	224	0.695

a. Lilliefors Significance Correction

Source: Survey (2018)

According to Sekaran and Bougie (2009), if the significance value of the Shapiro-Wilk Test is greater than 0.05 then the data generated is from a normally distributed population, if it is below 0.05 then the data is not normally distributed. From Table 4.13, results show the Shapiro-Wilk test of package graphic is 0.212, package colour is 0.364, packaging size is 0.501, Package shape is 0.210, product information is 0.397 and packaging material is 0.695. From the results the significance level of graphics, colour, packaging size, shape, product information and packaging material are above 0.05. This also implies that data tested was from a normally distributed population.

4.5.3 Regression Analysis

Linear Regression Model Summary

The study analysed the variations of consumer's buying behaviour due to that graphics and colour, packaging size and shape, product information and packaging material. The findings are shown in Table 4.14

Table 4.14: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.806 ^a	0.670	0.635	0.00012

Source: Survey (2018)

According to the model summary output, the variables were significantly correlated where R (coefficient of correlation) was a positive correlation of 0.806 indicating that the packaging attributes were highly related to consumer's buying behaviour. The identified independent variables (package graphics and colour, package shape and size, package information and package material), explains only 67% variation in the dependent variable (consumer's buying behaviour).

Analysis of variance was also carried out and the findings are presented in Table 4.15

Table 4.15: Analysis of variance

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	13.867	6	2.311	84.368	.008 ^b
Residual	9.944	363	0.027		
Total	23.811	369			

Source: Survey (2018)

The relationship was significant at critical value (0.05) since the reported p-value (0.008) was less than the critical value. This means that the consumer's buying behaviour were significant at 95% confidence level which contradicted previous findings from correlation analysis on the model summary, which reported that there was a significant correlation among the variables ($r = 0.806$). Thus, it was important to test the significance of each variable to determine its effect on consumer's buying behaviour.

To evaluate the effect of each variable on the dependent variable, regression coefficients were generated as shown in Table 4.16

Table 4.16: Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.054	0.156		6.756	0.001
Package graphics	0.466	0.105	0.354	4.438	0.004
Package colour	0.587	0.097	0.456	5.631	0.004
Packaging size	0.584	0.091	0.463	6.418	0.001
Package shape	0.453	0.103	0.354	4.328	0.006
Product information	0.536	0.090	0.444	5.956	0.004
Packaging material	0.434	0.102	0.385	4.255	0.006

Source: Survey (2018)

The results indicated that a unit increase in average graphics of packaged food products increases the average consumer's buying behaviour by 0.466 ($\beta=0.466$, $p= 0.004$). This implies that package graphic is a significant predictors of consumer's buying behavior ($p\text{-value} < 0.05$). This finding is consistent with a research conducted by clement (2007) who argues that packaging that contains a distinct graphics, orientation and contrast will attract consumers' visual attention and influence peoples' reaction and buying behaviour regardless of their specific brand preferences. This is supported by the study of Deliya and Parmar (2012) that concluded that a change in graphics can achieve better effect to consumers and hence using attractive graphics for package positively influences the consumers' buying behaviour.

The results showed that a unit increase in average colour of packaged food products increases the average consumer's buying behaviour by 0.587 ($\beta=0.587$, $p = 0.004$). this shows that package colour influence consumer's buying behaviour ($p\text{-value} < 0.05$). As such the respondents were attracted to products with colour. This can be attributed to the fact that colour attracts attention. Keillor (2007) confirms this by saying that marketers should strive to ensure the product package colour stands out when a product is on a shelf among many competing products. This also resonated with the study by Gofman (2010) that concluded that the right choice of colour is an

important factor in creating the impression needed to influence brand and product selection. This shows that there is a significant relationship between colour and consumer buying behaviour.

The findings as shown on the table show that a unit increase in average packaging size of packaged food products increases the average consumer's buying behaviour by 0.584 ($\beta = 0.584$, $p = 0.001$). This implies that package size has a positive influence on consumer's buying behaviour (p -value < 0.05). This is in line with the Silayoi's (2007) study that concluded that packaging size are significant factors in designing the packages because consumers interact with this elements in order to make volume judgments and depending on the size consumers determine which product has better product volume and cost efficiency hence influencing their purchase decision.

The relationship between package shape and consumer buying behaviour was positive by 0.453 ($\beta = 0.587$, $p = 0.004$). This shows that package shape is a significant predictors of consumer's buying behavior (p -value < 0.05). This implies that consumers' give attention to the shape of the package when they purchase packaged foods. This is in line with Sohier's research study (2009) that concluded that package shape can elicit emotions, attitudes and buying behaviors creating an advantage in comparison with the competitors (Sohier, 2009). According to Schoormans and Robben (1997), the more the shape gets complex and different than standard, the stronger attention is evoked. This is agreed on by Silayo and Speece's findings from their study on packaging and consumer behaviour that shows that package shapes help to make products more appealing (Silayo and Speece, 2004).

The findings also suggest that a unit increase in average of product information of packaged food products increases the average consumer's buying behaviour by 0.536 ($\beta = 0.536$, $p = 0.004$). This

indicates that product information has a positive influence on consumer buying behaviour. This is supported by the findings from a study conducted by Coulson (2000), which suggests that the purchase decision depends on the interconnection between information and choices. Package information gives the consumer the opportunity to consider alternative products and to make a purchase decision (Silayoi, 2007).

The findings also that a unit increase in average of package material increases the average consumer's buying behaviour by 0.434 ($\beta = 0.434$, $p = 0.006$). This implies that package material could influence the consumer choice of packaged foods as informed by the findings of this research (p -value < 0.05). This is supported by a study by Underwood (2001) that concluded that consumers transfer quality perception to the product, therefore if the package material appears to be high quality then the product is perceived to be high in quality and vice versa.

Thus, based on the correlation and regression analysis results, this study concluded that there is a significant relationship between package graphics, package colour, packaging size, package shape, product information and packaging material and consumer's buying behaviour.

The regression equation is in the form;

$$Y = 1.054 + 0.466 X_1 + 0.584X_2 + 0.584X_3 + 0.453X_4 + 0.536 X_5 + 0.434X_6$$

Y = Consumer's Buying Behaviour

X₁ = Package Graphics

X₂ = Package Colour

X₃ = Package Size

X₄ = Package Shape

X₅ = Product Information

X₆ = Packaging Material

The equation above reveals that holding graphics, colour, packaging size, shape, product information and packaging material constant the variables will significantly influence consumer's buying behaviour by a constant of 1.054 as shown in the Table 4.16

Overall the results suggest that packaging attributes influence consumer buying behavior. Silayoi and Speece (2004) concluded that the package representation of a product with respect to color schemes, size, shapes, material and the overall messages on a product are critical in influencing consumer choice.

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the discussion of key summary of findings, conclusion drawn from the findings highlighted and recommendation made there-to.

5.2 Summary

The general objective of the study was to determine the effect of packaging attributes on consumer's buying behaviour of packaged foods in Kenya. The study adopted descriptive and explanatory research techniques in order to achieve the results of the topic. Measures of central tendency were used to categorize data collected while measures of dispersion, percentages and frequency distributions were used for presenting data. Explanatory research using correlations tests was used to determine relationship between packaging and consumer choice. The coding and analysis was done using Microsoft excel and SPSS.

There variables under study were colour, graphics, size, shape, product information and material of packaging. The population under study were shoppers in Nairobi of which a sample of 385 respondents from different backgrounds participated. The primary data was collected using questionnaires, which was administered to randomly selected respondents at uchumi (Aga Khan walk), Tuskys T-mall and Tumaini (Embakasi) in February,2018.

The finding from the study showed that the packaging attributes, namely, graphics, colour, size, shape, product information and package material influence consumer behaviour in the selection and purchase of packaged foods in Kenya. Hence food manufactures can influence their consumers buying behaviour by developing strategies that consider packaging attributes of food products in their marketing plan.

The findings showed that colour of the package has a positive influence on consumer buying behaviour of packaged foods. The colour of the package positively correlated with consumers' purchase decision. The study showed that use of colours on the packaging can grasp the consumers' attention influencing their choice of product and initiate intent to purchase. The findings also showed that package graphics has a positive correlation on consumer choice of packaged foods, it can be concluded that it is an important aspect in a consumer's decision process and holds a significant bearing in the selection of food products. Food manufacturers should therefore regard package graphics an important element when designing a food packages as it could affect influence purchase negatively or positively.

Thirdly, the study findings showed that dimensional aspects of food package, with a focus on the item's shape and size play a measurable role in consumer buying behavior. The study showed that packaging size and shape had a significant positive correlation with consumer's buying behavior. This showed that manufactures should factor in consumer preference of size and shape in the formulation of food product packaging. This study also showed that product information had a higher correlation to consumer purchase behaviour than the other variables and hence it is key when considering packaging of packaged food. The findings show that consumers evaluate product quality using product information which in- turn influences their purchase decision.

Moreover, the study showed that packaging material of packaged food influences consumer buying behaviour positively. This implies that packaging material had significant positive relationship with consumer's buying behaviour. Consumer perceptions regarding materials quality could change the perceived quality of a product influencing the purchase decision of the consumer.

In addition to packaging attributes influencing to consumer buying behaviour, the findings of this study showed that consumers make purchase decisions on packaged food while in stores and hence they do not look for information prior to purchase. Consumers make their decision based on the perception of quality from the packaging. This implies that manufacturers need to ensure that their products are unique and sensitive to attract consumers to purchase their products.

Lastly, the study findings showed that packaging attributes explains only 67% variance in consumer buying behaviour of packaged foods and hence manufacturers should identify other key factors to enable them to achieve competitive advantage over their competitors.

The study therefore showed that packaging attributes have a positive influence on consumer behavior. The findings are consistent with a study by Silayoi and Speece (2004) that concluded that the package representation of a product with respect to graphics, color, size, shapes, material and the overall messages on a product are critical in influencing consumer choice.

5.4 Conclusions

Based on the findings the study concluded that packaging attributes that is package colour, package graphics, package size, package shape, product information and product material influence consumer buying behaviour. From the findings, packaging attributes have shown their importance both cumulatively and independently in communicating product features and quality in a manner that is competitive. Hence, manufacturers cannot rule out the importance of the marketing role played by a package in enhancing product awareness, visibility and attractiveness (Ampuero & Vila, 2006; Rundh, 2009; Jafari, Sharif, Salehi, & Zahmatkesh, 2013).

Moreover, the study also concluded that factors such as price influence consumer buying behaviour and hence as effort is placed on other packaging attributes other marketing functions

such as price should be considered. The study also concluded that shoppers make most of their purchase decision instore and hence attractive and unique could have an influence on consumer buying behaviour and prompt a consumer to impulse buy.

It is clear that packaging has proven as a feature; more important than simply serving as a delivery and protection role for the product in which it contains (Kotler & Armstrong, 2010), worth research, development and improvement with the changing trends of consumer behaviour and related market driven forces.

5.5 Recommendations

5.5.1 Recommendation to Packaged Food Manufacturers

In line with the findings and conclusions, this study recommends that food manufacturers understand the demographic of consumers who participate in the purchase of food product. This will aid in the development of packaging that appeals to the right target customers. Secondly, the study showed that consumers look at price first prior to packaging, the study recommends that the manufactures should research and understand the influence of price to consumer behavior. Only 67% of consumer behavior is explained by packaging attributes and hence, other factors that could influence consumer behavior like price should be analyzed in order to improve product uptake.

Thirdly, the study suggest that food manufacturers should understand consumer response to their packages, and integrate the inputs into designing the best packaging style. The findings of this study show that managers have to focus on both the interior elements of the products and the exterior features of the products. Fourthly, this study recommends that quality of information on packaging should be improved since consumers are more aware of the importance of knowing

the contents that make up the products. Consumers are becoming more vigilant and cautious in selecting food products.

This study also recommends manufactures to take into serious consideration packaging material in order to gain competitive advantage in the market over their competitors. With awareness on environmental issues such as environmental degradation, material quality is playing an important role in the choice of products by consumers. Most consumers are looking at products that can be reused or recycled. Hence, investors should invest heavily in research and development in the material quality of the product.

This study recommends that manufacturers use attractive and distinctive features in the packaging of food products to attract consumers over competitor products. The study shows that consumer make purchase decision in-store and rarely search for information prior to purchase hence heavily rely on the packaging of the product to make purchase decision. Lastly, the study recommends that manufactures take into consideration the implications of packaging attribute to consumer need and preferences and integrate the same in product development.

5.5.2 Recommendations to Marketing Agencies

Based on the findings and conclusions made, this study recommends to marketers to consider packaging as a vital instrument in modern marketing activities, especially in the competitive food industry. Packaging should be related to the strategic decisions of the marketing mix and in the positioning and differentiation decisions of packaged food. For packaging to suitably develop its functions, factors such as packaging attributes need to be emphasized.

The study also recommends marketers to use price as a competitive attribute in the food market. Marketing agencies should invest in research to understand price perception and ensure that

consumer acceptance of price is found as part of their competitive pricing strategy. Before launching of the new product, the targeted consumers should be willing to pay the allocated price for it if the product is to succeed in the market.

The study also recommends that marketing agency practice green marketing as consumer have become more vigilant on the impact products have on the environment especially on the packaging material. Marketers should be able to position their products as environment friendly through recycle or reuse of the product packaging.

Lastly, based on the findings and conclusions, marketing agencies should invest sufficient time when it comes to product packaging and company branding. They should ensure that selected packaging attributes reflect on the values of the company and the preference of their target audience. If a product has an attractive and unique package design it gets special attention from consumers and also helps consumers differentiate brands which then enhances the brand awareness and brand loyalty.

5.5.3 Recommendations to Retailers

Based on the findings of this study, Kenyan consumers make purchase decisions on packaged foods instore and hence the study recommends retailers to shelf food products with unique and attractive food products to attract the attention of customers and provoke interest to purchase the products. This will result to increase in sales and hence increase in revenue.

The study also recommends retailers to understand their target customer price preference to ensure that food items stocked meet their preference and that the target customers will be willing to pay the allocated cost. This can be done through a survey with their customers.

The study also recommends that retailers to invest on research to understand the package attributes that their consumers would be more interested in and invest on stocks to meet their preference. The study has shown that packaging attributes influences their buying behavior and hence can impact sales and revenue if not met.

5.5.4 Recommendations for Further Studies

This research provided just the backbone of packaging attribute and not an in-depth into the individual attributes and how they should be applied to packaging to influence consumer choice so further studies should be conducted on each attribute independently. More so, this study only focused on one category of product, that is, packaged foods. Therefore, the results may not be generalized to non-food items. Future studies could extend this research by considering the importance of packaging attributes on other product categories, or additionally, conduct a comparative study to possibly identify the different effects of packaging attributes on a variety of types of products.

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APPENDICES

Appendix 1: Letter of Introduction for the Administration of Questionnaires

Kenyatta University,

School of Business,

P.O. Box 43844-00100

NAIROBI

Dear Respondent,

RE: COLLECTION OF RESEARCH DATA

I am a postgraduate student in Kenyatta University undertaking a Management research project on “*Packaging Attributes and Consumer’s Buying Behavior Of Packaged Foods in Kenya*”

You are kindly requested to assist in data collection by responding to the questions in the accompanying questionnaire. The information provided will exclusively be used for academic purposes only and will be treated with utmost confidence.

You will also be provided with a copy of the final report upon your request.

Your support is highly appreciated.

Yours faithfully,

Betty Kosgei

Appendix II: Research Questionnaire

SECTION A: GENERAL INFORMATION

1. Please check the basic that indicates your age bracket.

20 or below () 21 – 30 ()
31 – 40 () Above 40 ()

2. Gender

Male () Female ()

3. Marital Status

Single () Married ()
Other ()

SECTION B: CONSUMER'S BUYING BEHAVIOR OF PACKAGED FOODS IN KENYA

4. How often do you buy packaged foods?

Rarely () Frequently ()
Very Frequently () Never ()

5. What do you look at first when you buy packaged foods?

Price () Packaging ()
Brand () Ingredients ()

6. Do you have prejudgement (positive/negative) towards a food product before an actual consumption?

Always () Sometimes ()
Rarely () Never ()

7. The packaging of food products displayed influences your decision to purchase the product despite your initial purchase preference?

Always () Sometimes ()
Rarely () Never ()

8. Do you search for information before you purchase packaged foods?

Always () Sometimes ()
Rarely () Never ()

9. Do you make decisions on what packaged food product you will buy at the store?

Always () Sometimes ()
Rarely () Never ()

10. The packaging of food products displayed influences your decision to purchase the product?

Always () Sometimes ()
Rarely () Never ()

**SECTION C: PACKAGING ATTRIBUTES AND CONSUMER'S BUYING
BEHAVIOR OF PACKAGED FOODS IN KENYA**

11. INFLUENCE OF GRAPHICS AND COLOR ON PURCHASE BEHAVIOR

Indicate to what extent you agree to the following statements.

1=strongly agree, 2=agree, 3= neither agree nor disagree,4 = disagree, 5=strongly disagree

	1	2	3	4	5
The color of food packaging influences my purchase decision					
The color combination that can be easily be remembered influences my purchase decision					
The color combination that makes the product stand out among other competitive products influences my purchase decision					
Attractive packaging influences my purchase decision					
The picture quality of the product packaging influences my purchase decision					
The appetizing standard of the picture quality of the product influences my purchase decision					
The picture of the product packaging that reflects the fact that it is high quality influences my purchase decision					

12. INFLUENCE OF PACKAGING SIZE AND SHAPE ON PURCHASE BEHAVIOR

Indicate to what extent you agree to the following statements.

1=strongly agree, 2=agree, 3= neither agree nor disagree,4 = disagree, 5=strongly disagree

	1	2	3	4	5
Type of opening of food packaging influences my purchase decision					
Shape of food packaging influences my purchase decision					
Size of food packaging (i.e. individual packages vs family size) influences my purchase decision					
Food Packaging of various sizes influences my purchase decision					
The packaging of the product in a refill format in conjunction with different affordable sizes influences my purchase decision					
Food products that are packaged in a unique manner that could aid storage and preservation influences my purchase decision					
Food packaging that shows that the products are enriched with quality					

influences my purchase decision					
Food packaging modification influences my purchase decision					

13. INFLUENCE OF PRODUCT INFORMATION ON PURCHASE BEHAVIOR

Indicate to what extent you agree to the following statements.

1=strongly agree, 2=agree, 3= neither agree nor disagree, 4 = disagree, 5=strongly disagree

	1	2	3	4	5
Food product packaging labels influence my purchase decision					
Too small to read food products labels influence my purchase decision					
The font used on the food product packaging is legible and can be understood by customers influences my purchase decision					
The font used on food products that attracts my attention from distance influences my purchase decision					
The font used in writing ingredient composition of food products that is legible and could be easily interpreted by customers influences my purchase decision					

14. INFLUENCE OF PACKAGING MATERIAL ON PURCHASE BEHAVIOR

Indicate to what extent you agree to the following statements.

1=strongly agree, 2=agree, 3= neither agree nor disagree, 4 = disagree, 5=strongly disagree

	1	2	3	4	5
Material quality of food product packaging influences my purchase decision					
Versatility of food product packaging (i.e. can reuse the package) influences my purchase decision					
Safety of food product packaging influences my purchase decision					
Ability to recycle food products packaging influences my purchase decision					
Food product packaging material influences my purchase decision					

Appendix III: Letter of Authorization to Conduct Research



KENYATTA UNIVERSITY
GRADUATE SCHOOL

E-mail: dean-graduate@ku.ac.ke

Website: www.ku.ac.ke

P.O. Box 43844, 00100
NAIROBI, KENYA
Tel. 810901 Ext. 4150

Internal Memo

FROM: Dean, Graduate School

DATE: 6th February, 2018

TO: Betty Jepchirchir Kosgei
C/o Business Administration Dept.

REF: D53/CTY/PT/28246/2014

SUBJECT: APPROVAL OF RESEARCH PROJECT PROPOSAL

This is to inform you that Graduate School Board at its meeting of 31st January, 2018 approved your Research Project Proposal for the M.B.A Degree Entitled, "Packaging Attributes and Consumer Buying Behaviour of Packaged Foods in Kenya".

You may now proceed with your Data Collection, Subject to Clearance with 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.

A handwritten signature in black ink, appearing to read "Elijah Mutua".

ELIJAH MUTUA
FOR: DEAN, GRADUATE SCHOOL

c.c. Chairman, Business Administration Department.

Supervisors:

1. Dr. Jane Wanjira
C/o Department of Business Administration
Kenyatta University

EM/itm

Appendix IV: Letter of Introduction from Kenyatta University



KENYATTA UNIVERSITY
GRADUATE SCHOOL

E-mail: dean-graduate@ku.ac.ke

Website: www.ku.ac.ke

P.O. Box 43844, 00100
NAIROBI, KENYA
Tel. 8710901 Ext. 57530

Our Ref: D53/CTY/PT/28246/2014

DATE: 6th February, 2018

Director General,
National Commission for Science, Technology
and Innovation
P.O. Box 30623-00100
NAIROBI

Dear Sir/Madam,

RE: RESEARCH AUTHORIZATION FOR BETTY JEPCHIRCHIR KOSGEI – REG. NO. D53/CTY/PT/28246/2014.

I write to introduce Ms. Betty Jepchirchir Kosgei who is a Postgraduate Student of this University. She is registered for M.B.A degree programme in the **Department of Business Administration**.

Ms. Betty Jepchirchir intends to conduct research for a M.B.A Project Proposal entitled, **“Packaging Attributes and Consumer Buying Behaviour of Packaged Foods in Kenya”**.

Any assistance given will be highly appreciated.

Yours faithfully,

A handwritten signature in black ink, appearing to be 'Lucy N. MBAABU', written over a printed name.

MRS. LUCY N. MBAABU
FOR: DEAN, GRADUATE SCHOOL

EM/Inn

Appendix V: NACOSTI 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

NACOSTI, Upper Kabete
Off Waiyaki Way
P.O. Box 30623-00100
NAIROBI-KENYA

Ref: No. **NACOSTI/P/18/51185/21527**

Date: **2nd March, 2018**

Betty Jepchirchir Kosgei
Kenyatta University
P.O. Box 43844-00100
NAIROBI.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on *“Packaging attributes and consumer buying behaviour of packaged foods in Kenya,”* I am pleased to inform you that you have been authorized to undertake research in **Nairobi County** for the period ending **2nd March, 2019.**

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

Kindly note that, as an applicant who has been licensed under the Science, Technology and Innovation Act, 2013 to conduct research in Kenya, you shall deposit a **copy** of the final research report to the Commission within **one year** of completion. The soft copy of the same should be submitted through the Online Research Information System.


GODFREY P. KALERWA MSc., MBA, MKIM
FOR: DIRECTOR-GENERAL/CEO

Copy to:

The County Commissioner
Nairobi County.

The County Director of Education
Nairobi County.

CONDITIONS

1. The License is valid for the proposed research, research site specified period.
2. Both the Licence and any rights thereunder are non-transferable.
3. Upon request of the Commission, the Licensee shall submit a progress report.
4. The Licensee shall report to the County Director of Education and County Governor in the area of research before commencement of the research.
5. Excavation, filming and collection of specimens are subject to further permissions from relevant Government agencies.
6. This Licence does not give authority to transfer research materials.
7. The Licensee shall submit two (2) hard copies and upload a soft copy of their final report.
8. The Commission reserves the right to modify the conditions of this Licence including its cancellation without prior notice.



REPUBLIC OF KENYA



National Commission for Science,
Technology and Innovation
**RESEARCH CLEARANCE
PERMIT**

Serial No.A 17721

CONDITIONS: see back page

THIS IS TO CERTIFY THAT:
MS. BETTY JEPCHIRCHIR KOSGEI
of KENYATTA UNIVERSITY, 152-30100
ELDORET, has been permitted to conduct
research in *Nairobi County*

on the topic: **PACKAGING ATTRIBUTES
AND CONSUMER BUYING BEHAVIOUR OF
PACKAGED FOODS IN KENYA**

for the period ending:
2nd March, 2019

Permit No : NACOSTI/P/18/51185/21527
Date Of Issue : 2nd March, 2018
Fee Received : Ksh 1000




.....
**Applicant's
Signature**


.....
**Director General
National Commission for Science,
Technology & Innovation**