



**UNIVERSITY OF NAIROBI
FACULTY OF BUILT ENVIRONMENT & DESIGN
DEPARTMENT OF ART AND DESIGN**

**THE INFLUENCE OF SURFACE DESIGN ELEMENTS ON MILLENNIAL
CONSUMERS' PREFERENCE AND PURCHASE INTENTIONS OF NEW TUZO
YOGHURT IN NAIROBI.**

**BY
KEVIN MAROKKO
B51/37722/2020**

**SUPERVISORS:
DR. BETTY MWITI
DR. FRANCISCA ODUNDO**

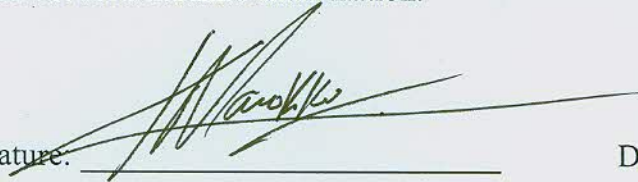
**A PROJECT SUBMITTED IN PARTIAL FULLFILMENT OF THE
REQUIREMENTS OF THE DEGREE OF MASTER OF ART (DESIGN)
UNIVERSITY OF NAIROBI**

JUNE, 2022

STUDENT'S DECLARATION

I hereby declare that this is my original work and to the best of my knowledge has not been submitted to any other college, institution or university other than the University of Nairobi for academic examination.

Signature: _____



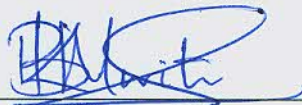
Date: _____

05/09/2022

Kevin Owino Marokko (B51/37722/2020)

This project has been presented for examination with our approval as the appointed supervisors.

Signed _____



Dr. Betty Mwit

Date: _____

08/09/2022

Signed _____



Dr. Francisca Odundo

Date: _____

7th September 2022

COPYRIGHT
Kevin Marokko © 2022

ACKNOWLEDGEMENT

My first thanks must go to my supervisors Dr. Betty Mwiti and Dr. Francisca Odundo. Both provided an exceptional degree of guidance, support and inspiration. I am also grateful to Dr Lilac Osanjo, Dr. Samuel Maina and Dr. Collins Makunda who, as external advisors, offered useful feedback.

I am grateful to my research assistants and many thanks to those respondents who took time to give their feedback.

Finally, I wish to thank my family for their unwavering support throughout my pursuit of my degree in Master of Art in Design.

ABSTRACT

The millennial purchasing behavior has been scrutinized by researchers, both in academic and in practice. However, little studies have been done on the subject of how packaging surface design influence millennials perception and purchase intentions. The ambition of this research was to determine how packaging surface design influence millennial consumer's perception and purchase intention of the new Tuzo yoghurt within Nairobi estates. More particularly, the study was led by three main objectives: 1) To determine how the new Tuzo yoghurt packaging surface design layout had influenced millennials perception and purchase intention, 2) To explore the influence of the new Tuzo yoghurt surface design color combination had on millennials preference and purchase intention, and 3) To determine how the use of fruit image on the new Tuzo yoghurt packaging surface design had influenced millennials preference and purchase intention.

The study utilized a descriptive research design and used the randomization technique to ensure that samples were determined in a way that they represented the residents. For this particular study, probability sampling was most preferred. The respondents were chosen within the three wards. The target population consisted of people from within Nairobi. A sample size of 100 millennial respondents of 50 males and 50 females within the ages of 22 – 40 years living in estates within the identified wards were selected, whom upon request of email or WhatsApp number were furnished with google form questionnaires link.

Connections were made on how different elements of surface design influenced millennials. These particulars were analyzed to understand the relationship between the surface design elements and their effects on millennials preference and purchase intent of Tuzo yoghurt. Data analysis was done using descriptive statistics utilizing percentage, frequency, with tables including figures providing pictorial representation of the data.

From the study, packaging elements; color, image and layout design had a great influence on millennial consumer purchase intent of Tuzo yoghurt. The study concluded that the new packaging had the most appeal in terms of surface design preference, purchase consideration and the fruit image appeal. In addition, it was concluded that the millennials were first attracted by the packaging surface design color combination, then they were drawn in by the image and finally they validated the product by the name. This meant that a good color combination and

the use of imagery on surface design of packaging is key to attracting the attention of millennials.

The study concluded that the change of Tuzo packaging surface design color combination had a positive influence on millennials preference and purchase intentions. The findings also explained that realistic photo image on the packaging surface was most preferred by millennials since they are a realistic representation of the product flavor.

A prominent recommendation originating from this paper is that the use of photo imagery plays a key role in influencing millennial consumers and therefore should be prioritized and used on the packaging surface, in addition the selection of color should be decided according to the the nature of the product being contained, and any other additional colors should be complimentary. The study also recommended further academic research into how surface design increases value perception of products.

Table of content

CHAPTER ONE	4
1. Introduction	4
1.1 Background to the Problem	6
1.1.1 TUZO Brand	7
1.1.2 Recent development	7
1.2 Statement of the problem	8
1.3 Objective	9
1.4 Development of Hypothesis	9
1.5 Significance of the study	10
1.6 Justification of the study	10
1.7 Scope of the study	11
1.8 Limitations of the study	11
Definition of Terms	12
CHAPTER TWO	13
2. Literature Review	13
2.1 Introduction	13
2.2 Product Packaging	13
2.3 Yoghurt container supply in Kenya	14
2.4 Principle Display Panel.....	15
2.5 Packaging Surface design	16
2.6 Elements of surface design	17
2.7 Product image in surface design	18
2.8 Packaging surface design as a quality measurement	20
2.9 The Millennial	21
2.10 Consumer Buying Behavior	22
2.11 The Perceptual Process	24
2.12 Conceptual Research Framework	26
CHAPTER THREE	28
3. Methodology	28
3.1 Introduction	28
3.2 Research design	28
3.3 Population and Sampling Design	29
3.3.1 Population	29
3.3.2 Sample Design.....	29
3.3.2.1 Sample Frame.....	29
3.3.2.2 Sample Technique.....	30
3.3.2.3 Sample Size.....	30
3.4 Data collection	31
3.5 Tools of Research	31
3.6 Data Analysis	33

CHAPTER FOUR	34
4. Result and Findings	34
4.1 Introduction	34
4.2 TUZO	35
4.2.1 Background Information	35
4.2.2 Gender and Age of Respondents	35
4.2.3 Main surface design images of the questionnaire	35
4.2.4 Elements that caught Millennial attention	36
4.2.5 Yoghurt product recognition	37
4.2.6 Surface design rating	38
4.2.7 Color combination	39
4.2.8 Image style	41
4.2.9 Package surface design preference	43
4.2.10 Purchase consideration	43
4.2.11 Image style appeal	44
4.2.12 Most appealing packaging	44
4.3 Comparative findings - Wheat Flour	45
4.3.1 Background Information	45
4.3.2 Gender and Age of Respondents	45
4.3.3 Main surface design images of the questionnaire	45
4.3.4 Pack that caught Millennial attention	46
4.3.5 Elements that caught Millennial attention	47
4.3.6 Wheat flour product recognition	47
4.3.7 Color combination	48
4.3.8 Image on pack	49
4.3 Comparative findings – Bathing Soap	51
4.4.1 Main surface design images of the questionnaire	51
4.4.2 Pack that caught Millennial attention	51
4.4.3 Elements that caught Millennial attention	52
4.4.4 Bathing Soap product recognition	53
4.4.5 Color combination	53
4.4.6 Image on pack	54
CHAPTER FIVE	56
5. Summary, Conclusion and Recommendations	56
5.1 Introduction	56
5.2 Summary of findings	56
5.3 Conclusions	59
5.4 Recommendations	60
6. Reference	61
7. Appendices	64

LIST OF TABLES

Table 3.1:	Population Distribution in wards
Table 3.2:	Sample Size distribution
Table 4.1:	Sex and age frequency
Table 4.2:	Summary of design elements and Millennial attention
Table 4.3:	Yoghurt product recognition
Table 4.4:	Sex and age frequency
Table 4.5:	Summary of wheat flour packaging that attracted millennial attention
Table 4.6:	Element that caught attention
Table 4.7:	Wheat flour product recognition
Table 4.8:	Summary of bathing soap packaging that attracted millennial attention
Table 4.9:	Element that caught attention
Table 4.10:	Bathing Soap product recognition

LIST OF FIGURES

- Figure 1.1: Tuzo pack Family
- Figure 1.2: New Tuzo Yoghurt Pack design
- Figure 2.1: Primary Display Panel (PDP)
- Figure 2.2: Four types of consumer buying behavior
- Figure 2.3 Perception process
- Figure 2.4: Perceptual process
- Figure 2.5: Packaging colors' functions at the point of purchase
- Figure 2.6: Theoretical Framework
- Figure 4.1: The old and new Tuzo yoghurt packaging
- Figure 4.2: Wheat flour packaging
- Figure 4.3: Bathing soap packaging

LIST OF CHARTS

- Chart 4.1: Design elements attention
- Chart 4.2: Yoghurt product recognition
- Chart 4.3: Packaging surface design rating
- Chart 4.4: Old Tuzo Packaging surface design color combination.
- Chart 4.5: New Tuzo Packaging surface design color combination.
- Chart 4.6: Old Tuzo Packaging surface design image style.
- Chart 4.7: New Tuzo Packaging surface design image style.
- Chart 4.8: Packaging surface design preference.
- Chart 4.9: Purchase consideration
- Chart 4.10: Image type
- Chart 4.11: Appealing Packaging
- Chart 4.12: Wheat flour pack that caught attention
- Chart 4.13: Element that caught attention
- Chart 4.14: Wheat flour product recognition
- Chart 4.15: Wheat flour Packaging surface design color combination
- Chart 4.16: Wheat flour Packaging surface design image
- Chart 4.17: Bathing soap pack that caught attention
- Chart 4.18: Element that caught attention
- Chart 4.19: Wheat flour product recognition
- Chart 4.20: Bathing soap Packaging surface design color combination
- Chart 4.21: Bathing soap packaging surface design image.

LIST OF ABBREVIATIONS

FMCG	Fast-Moving Consumer Goods
PDP	Principal Display Panel

CHAPTER ONE

1. Introduction

Positive consumer attitudes and preferences toward a brand can be attained by changing packaging elements, including surface design layout, color, typography and imagery.

In the retail industry, products are competing for the attention of buyers as consumers interact with thousands of brands in a single visit. Packaging has many know functions including being a container to hold content, a means of creating awareness of the product. According to Hendrik N.J. (2022), commercial packages may carry many different messages

Product packaging entails designing, creating and filling of a container or wrapper in a way that it effectively protects, stores, identifies and successful markets the product (Kent & Omar 2003) as quoted by J. J. Maende (2011). There are many purposes that a packaging serve, the primary purpose is to keep the product safe, and it can also be used as a medium for boosting their marketing. According to R. K. Singh (2018). A good product packaging presents the product in an attractive container and helps to identify and differentiate the product from other products in the same category.

Superior brands know the importance of packaging as a necessary component in their branding and marketing strategies. Packaging is what consumers interact with when they first see your brand, and it has the potential of influencing millennials. Packaging is what brings out the brand at its best according to D. Marinac, (2015) and its aesthetic appearance is of great value to brands.

According to W. Pensasitorn (2015), the attractiveness of packaging surface design graphics can be achieved in three ways: the first is text used for product description, easy to read, and interesting. The second way is using images to convey imagination relating to the product functionality. Finally, color as a stimulus that triggers emotional responses dependent of experiences of consumers.

Beautiful packaging in terms of its shape, material used and quality of finishing will definitely cost a lot more. Therefore, for most dairy producers the solution is to select the best option in packaging from packaging manufacturers like Tetra park. This packs come with pre-determined panels for surface design, that follow prescribed application requirement for surface design.

Surface design is very important to packaging, it involves creating visual harmony using the main elements of graphics, color and text. These elements represent content that influence the consumer's emotions. A good package surface design must be captivating, clearly represent the product and finally sell the product (Kotler, 2008).

Kenyan dairy industry has been steadily growing, from packaged fresh milk to packaged yogurt. In early years (1970 – 1990) in Kenya, yoghurt was considered as an embellishment product by local dairy companies. The yoghurt of the 1990s was sold in composite packaging that included aseptic box package, aseptic brick, Tetra Pak crown packaging and sachets. According to Tetra Pack all the three packages have good oxygen blocking, light protection, corrosion resistance, and low-temperature resistance that can prevent the deterioration of the product they contain. In Kenya, there are few companies that are specialized in package design, particularly for dairy products. In the case of Tuzo yoghurt, Tetra Pak Ltd. is their main supplier.

Tetra Pak is the leading supplier of packaging and processing solutions in the dairy industry. The package design produced by Tetra Pak have a modern and attractive appearance, this packs come with pre-determined display panels for surface design, that follow recommended application requirements while providing surface designers with enough surface area (Principle Display Panel) to develop artistic and attractive designs. Surface design involves creating visual harmony using visual elements such as graphics, color and text.

Researchers have reported that at least 70% of purchasing is done while looking at the product and, in their arguments, they noted that the product is part of the “Seven P’s” in marketing mix of product, price, place, promotion, packaging, positioning and people (Mou Saha (2020))

Most consumers tend not to differentiate the product and the packaging when on the retail store shelves. At the point of making purchase decision, the package surface design influences the consumers perception which in turn assist the consumer in evaluating and making right product choices.

Like every other generation, the millennials - those born between 1980 and 2000, exhibit certain unique qualities that make them different from the preceding generations (Fromm & Garton, 2013). Some of the core characteristics, millennials share is that they are value driven and prefer smart consumption and consider packaging as part of the shopping experience (Stora Enso Packaging Solutions, 2015).

Package surface design is mainly aimed towards influencing shopper's emotions, this paper will focus on surface design elements as a stimulus to influencing decision-making process of consumers.

1.1 Background to the Problem

According to R.K Sign (2018) consumers nowadays are exposed to different marketing stimuli and clues, in support of this argument, Keller (2008) stated that shoppers are exposed to at least 20,000 product options within a 30-minute shopping period. Keller further adds that brands should understand what drives consumers to purchase a product. Yoghurt products have seen a rise demand locally. In a competitive market product differentiation becomes of great value to brands. It is significant to have packaging that is both functional and attractive in the case of yoghurt. In addition, manufacturers must also understand those factors that may influence purchase decision and how the pack surface design influences decision making process of consumers during their purchase journey.

1.1.1 TUZO Brand

The Tuzo brand was initially owned by Spin Knit Dairy Ltd. They began operations in 1996. They started as a mini dairy processing factory in Nakuru and it grew rapidly over a span of ten years to be one of the top three players in the dairy industry in Kenya according to Superbrand 2014.

Tuzo brand is part of the Brookside family of brands and has withstood competitive pressure over the years to remain a dominant player in the dairy sector. The Tuzo product range comes in different pack types and pack sizes as well as differing variants targeted to different market segments. Tuzo yoghurt is prepared from Tuzo whole milk which is processed with Bio-cultures together with Natural, Tropical fruit flavors. The yoghurt has been sold in 500ml Tetra Rex packs with convenient user-friendly screw cap.

1.1.2 Recent development

Tuzo brand underwent changes in the design of its packaging, initially the brand had a disjointed outlook with the milk brand looking different from the rest of the products within Tuzo portfolio as shown in figure 1.1 below.



Figure 1.1 Tuzo pack Family, Source: Brookside image library, 2022

Tuzo undertook a project to harmonize the Tuzo brand across its portfolio in order to tap into the success of their white milk category. As part of the project, Tuzo yoghurt underwent a redesigning of its surface design to give it a harmonized look & feel, clearly depicting the flavor, product type and more importantly enhancing product appetite appeal.

In 2021, they launched the new look yoghurt packaging in the market that is aligned to their whole milk product portfolio, and they also introduced the plastic cup design as part of their on-the-go yoghurt category. At the moment Tuzo yoghurt is only available in two flavors; Strawberry and Vanilla.



Figure 1.2 New Tuzo Yoghurt Pack design, Source: Brookside image library, 2022

There was no study done to establish to what extent the new Tuzo packaging surface design launched in the market had influenced the purchase decision of the millennial consumer. The study surveyed millennials in Nairobi who purchase yoghurt for the purpose of establishing if and how the new Tuzo yoghurt pack surface design had influenced their preference and purchase intention.

1.2 Statement of the problem

The process of making purchase decision for consumer's stems from a complex interchange of cultural, social, personal and psychological influences according to (P. Kotler et al, 2018). Although packaging surface design by itself cannot have a direct impact over these influences, it can be of use in determining millennial consumers brand perception and purchase intentions.

It is therefore important to understand how the new Tuzo yoghurt packaging surface design influenced the millennial consumers' preference and purchase intentions.

1.3 Objective

The main objective of this research was to investigate the influence of the new Tuzo yoghurt pack surface design graphics on millennial consumer preference and purchase intention around Nairobi. The specific objective of this paper was;

1. To determine how the new Tuzo yoghurt packaging surface design layout had influenced millennials perception and purchase intention.
2. To explore the influence of the new Tuzo yoghurt surface design color combination on millennials preference and purchase intention.

3. To determine how the use of fruit image on the new Tuzo yoghurt packaging surface design influenced millennials preference and purchase intention.

1.4 Development of Hypothesis

Product packaging is of great importance for brands, as for the extent to which its surface design elements influence the purchasing decision of the millennials more depth is needed in order to understand how the different elements of packaging influence consumers preference and purchase intentions. There are several studies conducted to measure the effect of packaging and surface design on consumer brand perception, many of these studies have been done outside Kenya and none have covered the yoghurt sector. J. J. Maende (2011) studied the effect of product packaging on consumer choices of Food & beverage products in Nairobi county, Kenya and found that various elements of packaging such as visual, informational text and functionality were important in package design, therefore should be considered as they influenced consumer perception on buying trends and patterns.

Several elements of packaging are at play, these include the material used in packaging, the choice of color, the graphics on the label and overall design of the packaging. As was discussed in the literature review, many factors are at play and one cannot pinpoint to what extent these factors contribute to influence millennial consumers purchasing decisions.

1.5 Significance of the study

The research investigated the association between a product's pack surface design and the millennial consumer's preference and purchase intention based on the overall surface design. The conclusions from this study will benefit the following;

a) Product Manufacturers

It will benefit manufacturers who are keen on information with regards to product packaging surface design trends and consumer choice, which may inform their strategies.

b) Researchers and Academicians

This study would be of benefit to researchers seeking information on packaging surface design trends. It will highlight on packaging surface design that the millennial consumers consider enticing. In addition, the study will add onto previous studies done on millennial buying habits in the Kenyan market, specifically the yoghurt category.

1.6 Justification of the study

In a competitive environment, consumer face thousands of brands in a single visit to the market. In this competitive environment, packaging becomes an effective tool to capture the consumer attention.

Surface design is one of the most important components of the packaging that increase the visual stimuli, it is also considered important for creating and sustaining the brand in the consumer mind. Empirical evidence has supported the claim that several factors affect consumer perception and purchase intention. Packaging color, size, design and packaging graphics are some of the elements that influence the consumer perceived preference and purchase intentions.

This research aimed to increase our understanding of why surface design elements are an important stimulus that affects the millennial consumers perceived preference and purchase intentions. Three key contributions are expected as a result of conducting this research: (1) a better understanding of what motivates consumers in their consumer buying journey, (2) a more comprehensive examination of what factors influences the buying behavior, and (3) to what extent the pack surface design elements influences decision making process of consumers during their purchase journey.

1.7 Scope of the Research

The objective of this research was to establish the effect of surface design on millennial consumer preference and purchase intent of the new Tuzo yoghurt. The

sample population for this research comprised of millennial shoppers between ages 25 – 40-year-old male and female in Nairobi.

The Research was conducted over a period of 2 week and seeked to determine 1) how surface design layout influence perception and purchase intention, 2) how surface design color combination affect preference and purchase intention, and 3) how the use of fruit image in surface design influence purchase intention of millennials around Nairobi.

1.8 Limitation of the study

This research was limited by three factors: (1) sample size; (2) Questionnaire distribution; and (3) the recruitment site.

All of these factors limit the generalizability of this study to the millennial generation. The sample size (100 respondents) is a small sample size. Further the sample was drawn from three wards within Nairobi through random personal recruitment. Questionnaires were distributed as a google sheet link on whatsapp and email as most millennials are familiar with and use this platform, on the down side convincing participants to share contact information presented a challenge. Because many Millennials are currently in colleges and some seeking employment, this sample cannot represent the entire millennial generation. All of these factors may skew the attitudes and knowledge of the yoghurt consumers in this study.

Definition of Terms

Consumer Behavior

Consumer behavior is attributed to the buying behavior of individuals, families, or groups. There are four factors that are known to affect consumer behavior. These factors include; culture, social factors, personal factors, and psychological factors (Prasad, 2009).

Millennial Consumers

A category of consumers born between 1980 and 2000 (Tetra Pak, 2015).

Packaging

The entire process of designing and producing the container for a product (Kotler & Keller, 2012).

Principal Display Panel

The part of the packaging that is intended to be displayed or examined by the customer.

Surface Design

Surface design refers to the artwork (pattern, illustration, hand lettering, etc.) created by a designer that is intended to be applied on a surface to improve its aesthetic appeal.

Yoghurt

“Fermented milk that is acidified with viable and well-defined bacteria (Lactobacillus bulgaricus and Streptococcus thermophiles)” S. M Donovan & R. Shamir (2014) Flavors and fruits can be added to yoghurt to make it more desirable.

CHAPTER TWO

2. Literature Review

2.1 Introduction

This chapter lay out a theoretical background of the fundamental concepts that will be used in this study. This chapter begins by exploring the key theory related to packaging and its function in marketing. It looks at the packaging container supply in Kenya with a special emphasis on Tetra Pak. Subsequently it discusses technical aspects of the principle display panel with special focus on surface design and its elements. At the end of this chapter confines a detailed review of evidence pertaining to millennial consumer, buying behavior and perception process.

2.2 Product Packaging

A good product packaging presents the product in an attractive container and helps to identify and differentiate the product from other products in the same category. According to R. K. Singh (2018), the main purpose of packaging is to protect, however packaging can also be used as a medium for communicating their marketing their product benefits.

Top brands appreciate the role of packaging not only in keeping their protected, but also as a compliment to branding and marketing efforts. They acknowledge that their product packaging is what represents their brand, and it has the potential of attracting customers. According to D. Marinac, (2015) packaging is what presents the product, gives it perceived value and communicates its benefits. Ding, M. (2022) defines packaging as the external decoration of a product, and that a well-designed packaging can enhance the appeal of products.

Today's leading brands consider packaging as a miniature billboard that can attract shoppers right at the point of sale as they make purchase decisions. With this in mind companies are starting to work closely with pack surface designers to get the very best designs and finishing that best represent their product.

In an aggressive market being experienced by businesses today, the role of packaging surface design is an important contributor to their success. According to Rita et al, (2009) as cited by Dr. Hannah W.W. (2014), “the ever-changing consumers’ lifestyle and increasing self-service at the point of sale has greatly contributed to this, and as a result, companies are using packaging as a tool for stimulating impulse buying behavior at the point of sale, increasing market share and reducing promotional costs”. In her argument Dr. Hannah claims that, during shopping, most buyers pay attention to product packaging surface design than to the product itself.

Aesthetically appealing and attractive products are preferred by shoppers, Karin et al, (2010) stated that packaging surface design must be attractive. Underwood & Klein, (2002) also argued that a good packaging should induce buyer interest, if the packaging fails to attract the buyer they do not pay attention, subsequently no purchase takes place. Therefore, package surface design elements should be arranged in a way that, it is aesthetically appealing and stands out in display in order for it to effectively differentiate one product from competitor product offerings.

2.3 Yoghurt container supply in Kenya

Yoghurt products have seen a rise demand locally. In an aggressive market with stiff competition, it is key to have product differentiation. In case of yoghurt package, it is important to have a functional and attractive packaging.

In Kenya, there are few companies that are specialized in package design, particularly for dairy products. In the case of Tuzo yoghurt, Tetra Pak Ltd. is their main supplier. Tetra Pak is in the business of food and beverage packaging, it has mainly specialized in packaging solutions for the dairy industry.

Tetra Pak has many packaging solutions for products, for the dairy industry they have produced different customized designs available in diverse shapes and stock keeping unit. Locally, Tetra Pak produces chilled packaging, referred to as Tetra Rex. The Tetra Rex is made from material that is ideal for dairy product containment. The Tetra Rex has a wider closure giving it a good pouring angle that makes pouring easy. Another important aspect of Tetra Rex packaging, is that it can keep the dairy products fresh for longer that’s why it’s the most preferred in the dairy sector.

Surface designers also have an advantage of working on the Tetra Rex package because it provides designers with enough surface area (Principle Display Panel) to develop artistic and attractive designs.

2.4 Principle Display Panel

According to the Food Safety and Standards (Packaging and Labelling) Regulations, 2011, “Principal Display Panel (PDP) means that part of the container/package which is intended or likely to be displayed or presented or shown or examined by the customer. It means that part of the container or package that the customers will first read if it is on display in a shop or which they will pick up to read and examine. The principal display is what the salesperson will show to the customer.”

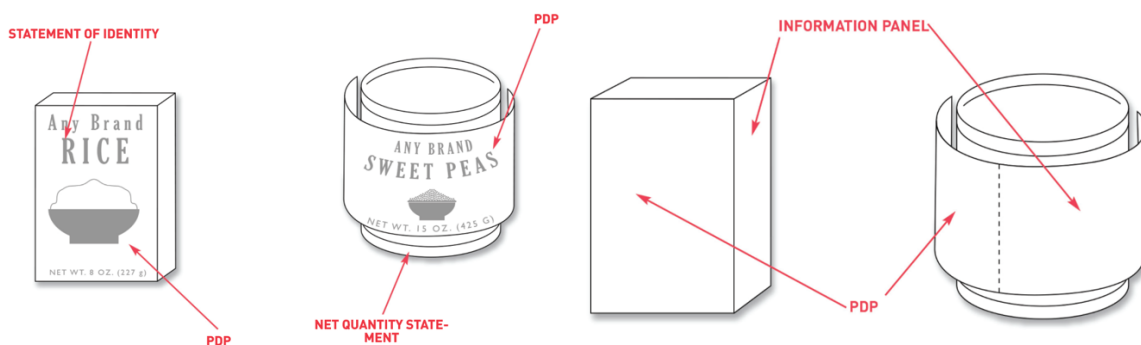


Figure 2.1 Primary Display Panel (PDP) represents as a two-dimensional structure shows a portion of a package label that is most likely to be seen by the consumers at the time of purchase.

Source: Food labelling guide 2013, p. 5 retrieved from <https://www.fda.gov/media/81606/download>

According to the regulations on the size recommendation for a principal display panel, the size should be determined considering the shape of the packaging. For example, for a Rectangular Package the PDP includes the whole customer facing side while for a Cylindrical Package the PDP takes up to 40% of the total side-area of the package (circumference multiplied by height). It is recommended that for customized Packaging Shapes, the PDP should take up 40% of the surface area of the packaging according to the regulations.

Packaging that is aesthetically appealing from its design, material used and finishing quality is quite expensive. Therefore, for most dairy producers the solution is to choose from innovative packaging solutions available in the market. This packs come with pre-

determined panels for surface design, that follow prescribed application requirement for the principle display panel that graphic designers use to design the packaging surface.

2.5 Packaging Surface design

Packaging surface design is a very important part of a package, it involves creating visual harmony using the main elements of graphics, color and text. According to W. Pensator (2015) the surface design serves to give identity to the product or brand and display information about the product such as how to use it. In addition, the surface design also serves as a medium for communicating about the product.

Packaging design incorporates two main parts: the shape of the package and the visual elements. In this study, when we discuss surface design, we are mainly referring to the content on the principle display panel that pictures the product. According to W. Pensator (2015), Graphic designers apply design elements; images, color, and text in order to create labels that are appealing, and creates a personality for the product. This view is supported by R. K. Singh (2018), who claims that the most important part of product packaging is the label and is an important factor in determining the product success or failure.

In surface design of packaging, the visual elements are important in establishing packaging aesthetics. According to Ding, M. (2022) the final packaging design needs to be attractive and enticing, while representing the product. According to Becker et al., (2011) surface design elements, namely the packaging's graphics, color and typography act as stimulus that trigger perceptions, which affect consumers' assessment of product. The packaging graphic is made up of graphics on the packaging that shows the product description, and the aesthetically graphics on the packaging that presents the product. According to W. Pensator (2015), the first part of aesthetically graphics consists of the text elements that show product description, the second part include the images that influence imagination and inform the outlook. The third part is color that stimulate emotional reaction.

The common phrase 'a picture is worth a thousand words' literally means that one image is a powerful element that can be used to convey a complex message than text,

because it can communicate multiple attributes and details at the same time. According to Hendrik N.J. et.al. (2022), presenting information in a single image is more pleasing than presenting it as text.

2.6 Elements of surface design

When developing package surface design, key point for designers to note is that at the point of sale consumers judge packaging differently. Their attitudes and perception towards a product packaging depend on the attachment of an individual and package. According to R. K. Singh (2018), there are several elements that influence consumers perception of product packaging surface design, the following elements are considered to be most important in packaging surface design.

a) Graphics

Graphics include image layout, color combination, typography, and product photography. The combination of all these components communicates an image. Graphics on the package are telling detailed information about the product. It becomes a product branding or identity, followed by the information. According to Herrington & Capella (1995), when the consumers examine packages in the supermarket, the differential perception and the positioning of the graphics can be the difference between identifying and missing the product (Silayoi et al. 2007, p. 1498). However, eye-catching graphics make the product stand out on the shelf and attract the consumers.

b) Color

The use of color when you are creating packaging has a big impact on the product and how it is perceived by the consumer. There are broad messages to be found in color perception, and we all know that colors play a big role in branding and purchases. R. K. Singh (2018), stated that research has been done that demonstrated that around 90% of snap judgments about products can be made based on color alone.

Cheskin (1957) in his paper he argued that color combinations and selection is an important process for creating a good package surface design. One important attribute of color is the fact that it is usually vivid and memorable. It has been established that the choice of color in a package can have a significant effect product

recognition. According to Ding, M. (2022) during shopping for products, the color will be the first to enter the scope of observation, and a great color combination can attract the attention of the shopper. Therefore, when designing packaging, the main color should be decided depending on the content of the product, and then the other colors can be matched to complement the main color.

c) Text: Choosing a font can be a daunting task, surface designers must consider a font that suits the product and is particularly visual and visible.

2.7 Product image in surface design

Use of product image is an important element in packaging surface design. Given the availability of state-of-the-art print technology in packaging surface printing, manufactures are now able to achieve high resolution prints on their product packaging surface. This has made it possible to print high quality photographs and graphics that play an influential role in attracting and guiding the purchase decisions of consumers according to Francesca Di Cicco et. al. (2021).

Food images in packaging surface is consumed by our sense of sight, the images also trigger in us hidden desires. The term ‘food porn’ is used to describe the act of styling and capturing food, the term can refer to food object – including its presentation that elicit an enticement to gaze and indirectly consume. Food porn can be expressed as a set of visual aesthetics that highlights the pleasurable, sensual dimensions of food.

Just by looking at the product packaging elements consumers try to anticipate how the product tastes according to Francesca Di Cicco et. al. (2021). Francesca further points out that the design of food product packages has a major effect on how its content is appreciated when it being consumed. Francesca noted how imagery is an extrinsic cue that contributes in building expectations and sensory experiences, and any sensual experience is an aesthetic experience.

Both natural or artistically created stimuli can elicit aesthetic reactions (Carritt, 1931), The Concept “Aesthetics” originates from a Greek notion *aisthtikos*, and is sometimes used to describe a sense of the pleasant or the beautiful (Webster’s Seventh New Collegiate Dictionary)

Surface design serves to promote and strengthen the aesthetics of a product packaging. The images displayed are meant to communicate information and meaning clearly while drawing the attention and interest of the consumers. According to Watcharatorn P. (2015), images can be split into 2 categories: Photos and Illustrations that are generally used. The photos make the food look realistic.

These images can be created using different techniques. The main style used are categorized into 4 types

- 1) Photography
- 2) Illustrated imagery
- 3) Combination of photography and illustration
- 4) Typography

According to Watcharatorn P. (2015) There are 11 ways to present images on the packaging surface:

- 1) Showing the Product only
- 2) Showing the product Benefits
- 3) Showing Product usage
- 4) Showing Emotive Appeal
- 5) Showing Result of using the product
- 6) Showing Brand Persona
- 7) Showing trademarks
- 8) Using a Presenter
- 9) Using Images of celebrities
- 10) Using a Decorative Pattern
- 11) Creating a window to Show Product Inside

2.8 Packaging surface design as a measure of quality

Perceived quality of a product packaging surface design jointly with the actual product quality play a key role in influencing purchasing decision making. Millennials are conscious about their choice for brands and always look out for reasonably priced quality brands. Millennials judge packaging based on the label design, font styles, color, and overall appearance. According to Celia Henley, et.al (2010) millennial consumer attention is drawn in by innovative package design and labels that help to establish the

overall image of the brand. When millennials form a perception towards a packaging design, the design variables become very important in establishing attachment. Quality rating by consumers are mostly based on the overall package surface design. According to Grunert & Beck-Larson & Bredahl (2000), at the point of purchase consumers usually make a quality appraisal of the product through their encounter with product packaging (Holmes et al. 2012, p. 110).

A well-designed front label will elicit consumer's interest while the back label blurb set out relevant information Rocchi and Stefani, 2005 as cited by Celia Henley, et.al (2010). When the packaging surface design convey quality, then the consumer will believe that the product being sold is of matching quality and vice versa. Underwood, Klein and Burke (2001) noted that consumers can instinctively imagine how the product looks like, how it tastes, feels, smells, and sounds while looking at the visuals and images displayed on the surface. (Silayoi et al. 2004; Silayoi et al. 2007, p. 1497.) The Colors on packaging can also be associated with quality traits, such as flavor and nutrition. The perceived product quality and price greatly influence the purchase intention of millennials.

2.9 The Millennial

The millennials are a generational cohort born between 1980 and 2000. They are considered a new generation of consumers who will impact the future of product markets (Deloitte, 2016). It is therefore, important to study how packaging surface design impacts the millennial consumers' perception and purchase intent.

Like every other generation, the millennials exhibit certain unique qualities that make them different from the preceding generations (Fromm & Garton, 2013) as quoted by A.N. Agata (2017). Some of the core characteristics that millennials share is that they are value driven and prefer smart consumption and consider packaging as part of the shopping experience (Stora Enso Packaging Solutions, 2015).

Packaging is used as a cue by the millennial consumers to make decision on alternative products choices, and they will go for products that are aligned with their values Lockshin, 2003, as cited by Statia Elliot (2010). They choose products the same way they choose their close friends.

Package surface design is the most important element in influencing consumer choice and enticing product trial. To get the attention of a shopper browsing through the shelves in a retail store, package surface design must be attractive enough to differentiate the product from the clutter of products within the same category competing for attention. Statia Elliot (2010) further noted that millennials are liberal in how they perceive the product image, product name, color choice and the general label design.

According to (Deloitte, 2021). Millennials have come of age at the time when internet and digital media became a powerful tool that they use to share their point of view and can influence people and institutions and even challenge authority. As consumers, they often put their money where there is perceived values.

2.10 Buying Behavior of Consumer

Consumer buying behavior is a chain process that involves individuals or groups of people choosing, buying, utilizing or discarding of products, services, ideas or experiences to satisfy their needs and desires (Solomon & Bamossy & Askegaard & Hogg 2010, pp. 6 - 7.). According to Solomon, et.al, there are different people involved in this process: The buyer and consumer of a product and service in some cases is not the same person. A parent “buys shoes for son or daughter; and the social media influencer sharing information crediting or discrediting a product or service without purchasing or utilizing it. In simpler teams in some cases the millennial is the purchaser and the end user for those above 30 years and may be the user but not the purchaser for those below 30 in some cases.

In 2008 The Economist published the results of a survey that revealed, 12 per cent of buyers spend approximately 90 seconds reading the label on product packaging before purchasing. There are several factors at play when consumers are making a choice, the factors stem up from an interplay of psychological, cultural, personal and social influence according to (P. Kotler et al, 2018). Although packaging alone does not influence most of these factors, it does attract new buyers and creates perception of the product. Kotler noted that decision making process of individual consumers varies with

the type of buying decision. Those decisions that involve more buyers and more buyer deliberation are considered to be complex.

According to P. Kotler et al, (2018). based on the level of buyer involvement and the extent of differentiation among brands, we can derive four types of consumer buying habits.

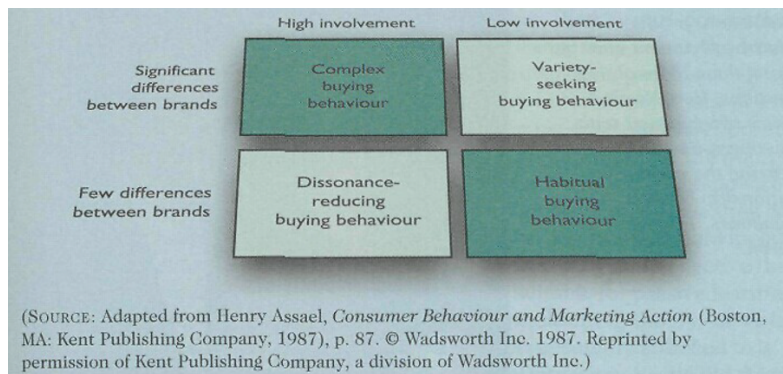


Figure 2.2: The 4 types of consumer buying habits Source: *Principles of Marketing* P. Kotler et al., 2018, p. 251

Complex buying behavior occurs when consumers are extremely involved in making product purchase and the brands have a perceived significant differences, or when the product purchased is considered to be lavish, risky, one off purchase and highly individualistic.

According to P. Kotler et al, 2018, dissonance-reducing buying behavior takes place when consumers are extremely involved with a lavish, one off or risky purchase, but they cannot differentiate brands. In this case, the perceived product differentiation is not obvious, buyers shop around to discover what is available in the market.

Under conditions of low consumer involvement habitual buying behavior occurs, in this case the packaging design has no influence on purchasing behavior because there is repeat purchase out of habit. This is true for products that consumers have brand loyalty leading to repeated purchase and their experience with the product is to their expectations.

Variety-seeking buying behavior is undertaken by consumers when there is a low consumer involvement as product packaging plays an important role in product

differentiation (P. Kotler et al, 2018). In these cases, consumers switch brand more often as they seek variety rather than being dissatisfied with a product.

In the minds of a consumer the product and its package are the same thing when seen at the supermarket shelf. The packaging helps consumers to create perceptions about the product as they first evaluate it and then make a choice during purchase.

2.11 The Process Creating Perception

Perception is simply how people interpret what is presented to them and process it in their mind. There must exist a stimulus to trigger how the different senses react - sight, hearing, touch, smell, and taste.

According to Andrea Niosi Perception is how individuals sorting, categorizing, and process information. This involves how stimuli pass through our individual perceptual filters, as they are classified in our individual structures and patterns, and then translated based on our experiences. Generally, each one of us reacts in a unique way to object or people that we favor than we do to something we find unfavorable.

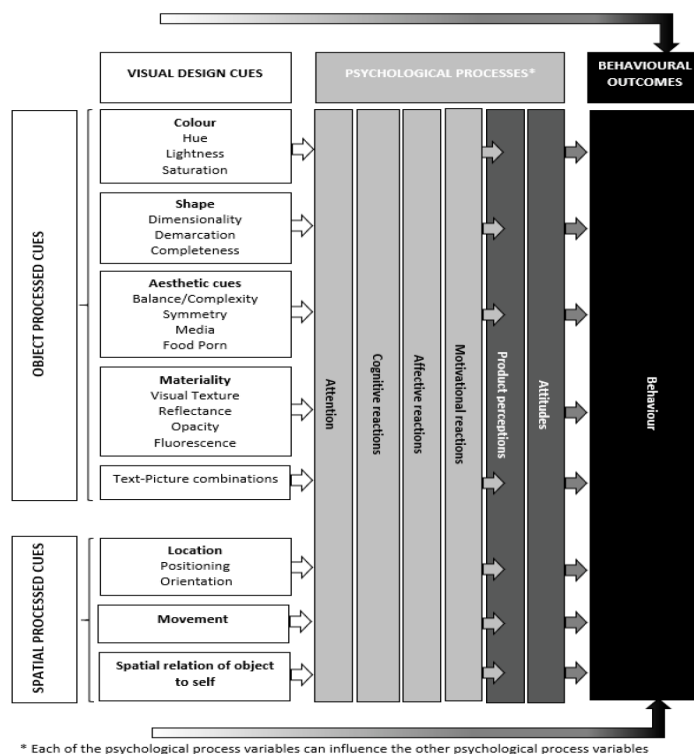


Figure 2.3 Perception process, extracted from: *Components of visual perception in marketing contexts: a conceptual framework and review* by Kevin L. Sample, Henrik Hagtvedt & S. Adam Brasel

People have emotions and senses by which they can experience the environment. Having individual perceptions helps a person in appreciating his or her surroundings. Solomon et al. (2006), defines perception as the process by which the sense of sight, sound, and smell are selected, organized, and interpreted. People are exposed to a lot of information which they filter and select, this information is received spontaneously and reacted upon depending on the needs, desire or experience.

According to Solomon et al. (2006), people take notice to a small number of stimuli and interpret them according to his needs and experiences.

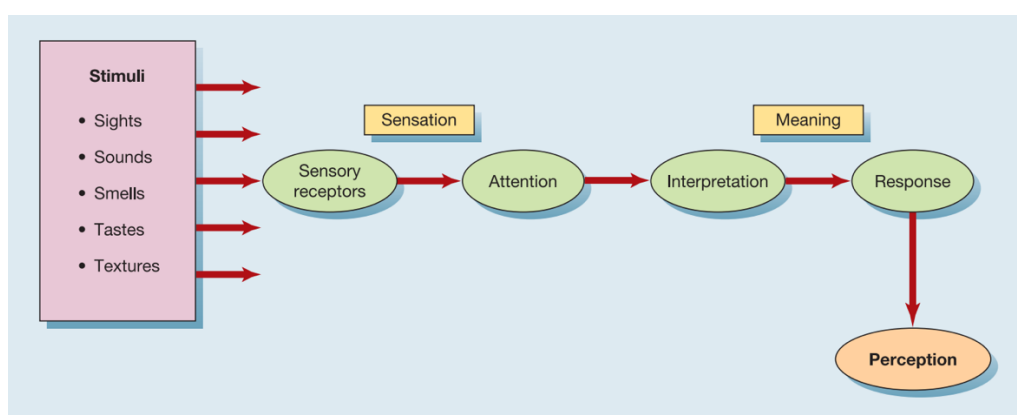


Figure 2.4: An overview of the perceptual process, Michael Solomon, Gary Bamossy, Søren Askegaard, Margaret K. Hogg, 2006, p. 37

2.11.1 Stimuli

Sights/Colors: According to Solomon et al., colors can provide different meanings but can also be used to evoke positive or negative feelings. Before introducing color and color combinations, marketers need an understanding of how it is perceived in each part of the world and consider the fact that the popularity of colors is depending on the culture. Colors are rich in symbolic value and cultural meanings for instance, the color red is associated with blood, wine-making, activity and heat in many countries but is poorly received in some African countries.

2.11.2 Sensation

The introduction to stimulus is the first step in the processing the information. The sensory organs are activated and are ready to process and evaluate the

information. Here, consumers filter and select necessary information and adapt it to their needs and desires.

2.11.3 Attention

Attention is the degree to which consumers focus on stimuli within their range of exposure (Solomon et al. 2006, p. 48). Nowadays consumers are exposed to a lot of advertising and design stimuli forcing marketers to become creative and original in order to appeal to the consumers. When many stimuli are competing to be noticed, one will receive the attention to the extent that it is different from others. Here, size and color can catch the attention and can be a way to achieve contrast.

2.11.4 Interpretation

Interpretation is the process through which individuals and groups give a meaning to sensory stimulus (Solomon et al. 2006, p. 50). People differ in terms of the stimuli they perceive and interpretations they can make. Here, the interpretation can also vary from cultural and individual differences.

2.12 Conceptual Research Framework

Graphics and color are key elements in influencing consumers' purchase decision According to Behzad Mohebbi (2014) visual stimuli attract attention and lead consumers to develop perceptions towards products; these perceptions significantly influence on consumers' buying decision (Venter et al., 2011). External product elements like color influence buying decision, particularly for consumers in a rush. Millennials who have a hectic life style rely on packaging color and design in making quick purchase decisions (Kauppinen-Räsänen, 2014).

Behzad Mohebbi (2014) further argues that good graphics combined with eye catching color can result in lasting effect on consumers. Attractiveness, is obtained through having good graphics and color combination (Silayoi & Speece, 2007).

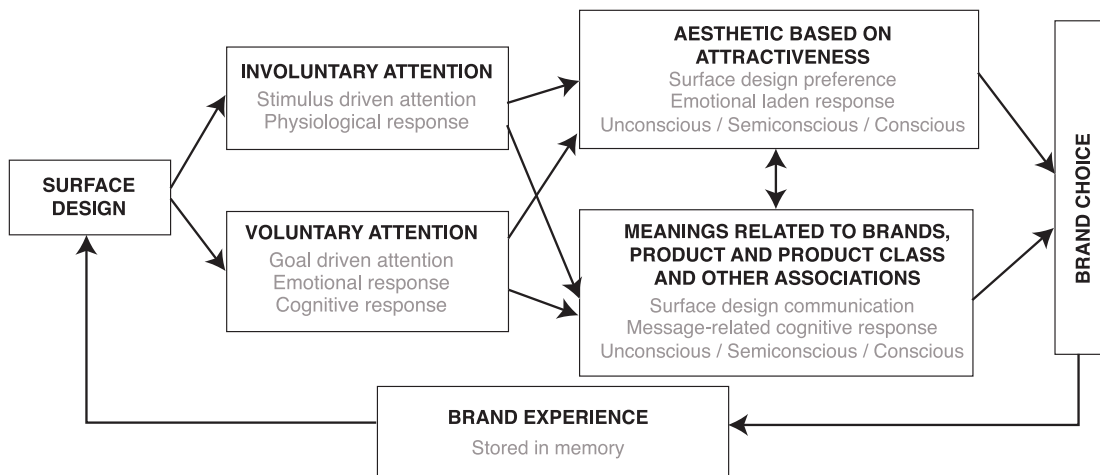


Figure 2.5: Packaging surface design functions at the point of purchase (Adapted from Kauppinen-Räsänen, 2014).

As Figure 2.5, The framework considers the three main functions of packaging surface design, including voluntary or involuntary attention, aesthetics, and product communication. (Kauppinen-Räsänen, 2014).

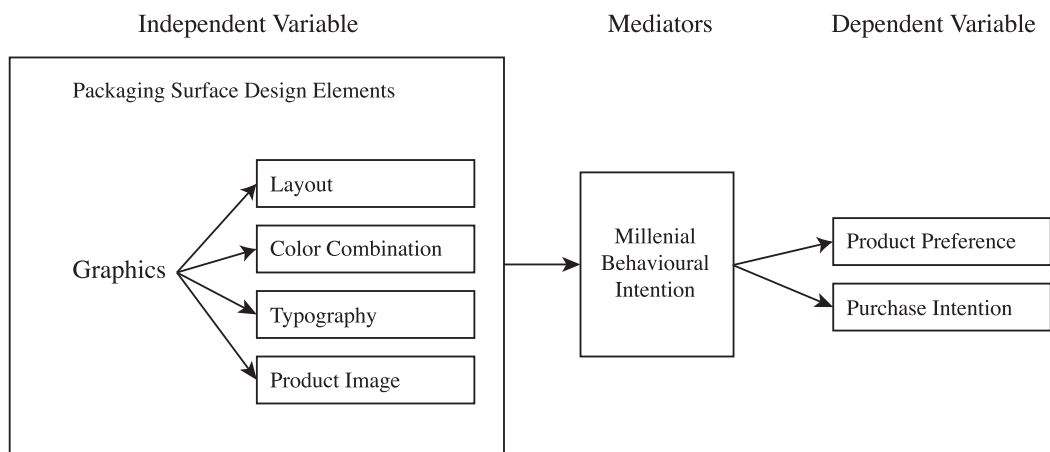


Figure 2.6: Relationship of packaging surface design elements and the millennial consumer purchase behavior

As Figure 1.4 indicates, in developing the hypothesis, products surface design elements namely Graphic; layout, color, typography and product image, are being treated as independent variables and millennial product preference and purchase intention as the dependent variable.

Following hypothesis is developed based on the literature reviews.

Hypothesis:

The surface design elements of Tuzo yoghurt packaging positively influences the Millennial consumer brand preference and purchase intention of the product.

CHAPTER THREE

3. Methodology

3.1 Introduction

The aim of the study is to investigate the influence of surface design elements on millennial consumers' preference and purchase intentions of Tuzo yoghurt in Nairobi. This chapter analyses the research methodology that will be used in the study. The first part of the chapter will cover the research design, the second part will cover the population and sampling design, the third part will cover the data collection methods, the fourth part will cover the research tools and procedures, and the fifth part of the chapter will cover the data analysis methods that will be used.

3.2 Research design

The study adopted a descriptive research design in determining the influence of yoghurt packaging design on millennial consumers. Descriptive design was used because it helps provide information of the current situation of a problem in relation to the variables at hand. This research is predominantly a quantitative study, as it will involve identifying possible associations among two or more variables according to P. Leedy, J Ormrod (2015).

Descriptive research was employed in this study because it was ideal due to its ability to acquire information about the studies' respondents, their characteristic, opinions, attitudes, and previous experiences. The respondents were asked questions in a questionnaire and their responses tabulated in percentages, frequencies and counts; and then inferences drawn. By doing so the ultimate goal of learning about the population by a sample survey of the population at hand, was achieved P. Leedy (2015).

Products packaging surface design attributes graphics, color and text were treated as independent variables and millennial preference and purchase intention as the dependent variable.

3.3 Population and Sampling Design

3.3.1 Population

Descriptive study was set out to determine how the respondents perceived surface design on Yoghurt packaging. Further in conducting survey research, we can determine to what extent the elements of surface design influenced the Yoghurt purchasing and consuming population. P. Leedy, J Ormrod (2015).

Sample population of the study consisted of millennial between ages 22 – 40-year-old in Nairobi county. The survey targeted three wards because they represent a wider demography in Nairobi. We have the low-income area of Laini Saba, the mid-income area of Buruburu and the high-income area of Kileleshwa.

Nairobi Millennial age distribution

According to 2019 Population and Housing census Nairobi has a total of 4,396,828 people. Among them 1,962,510 are within the millennial age bracket (22-42) making up 44.6% of Nairobi population.

Ward	Population	Percentage
Kileleshwa Approx 9 Sq. Km	27,202	31%
Harambee Approx 2.6 Sq. Km	32,238	37%
Laini Saba Approx 0.4 Sq. Km	28,182	32%
Total	87,622	100%

Table 3.1: Population Distribution in wards

Source: <https://www.knbs.or.ke/download/population-distribution-by-sex-number-of-households-area-and-density-by-county-and-district/>

3.3.2 Sampling Design

3.3.2.1 Sampling Frame

According to Burt, Barber, & Rigby, 2009, a sampling frame or a population frame is a list of individuals in a population. In our case the sampling frame was obtained from 2019 Kenya Population and Housing Census, Volume II: Distribution of Population by Administrative Units.

The most reliable source of information regarding Nairobi population and can be obtained from their website. <http://housingfinanceafrica.org/> The choice to use the population in Nairobi as respondent is mainly because of convenience. Selection of the target population is based on three classifications namely; high income residential, middle income residential areas and low-income residential area within county wards in Nairobi.

3.3.2.2 Sampling Technique

The study adopted randomization technique to ensure that a sample were selected in such a way that they represented the study population as stated by R. Kumar (2019). According to Kumar, the advantage is that it saves time as well as financial and human resources.

For this particular study, probability sampling was used. The sample was chosen from the overall population within the three wards by random selection, they were selected in such a way that each member of the population had an equal chance of being chosen as expressed by P. Leedy, J Ormrod (2015). In our case the target population consisted of people from three county wards in Nairobi namely Kileleshwa, Harambee and Laini Saba because they represent a divers demography and were randomly selected from estates in the wards.

3.3.2.3 Sample Size

According to Cooper and Schindler (2014) a sample size is a small representation of the entire population. The study had a sample size of 100 millennial respondents of 40 males and 60 females within the ages of 22 – 40 years living in estates within the identified wards.

The formula used to get the required sample size was the Yamane's formula.

$$n = N/(1+Ne^2)$$

Where; n = sample size, N = Population Size, e = Margin of error (0.05)

Stratified sampling method was used to obtain the representative proportion of samples from every level of study

$$n_i = (N_i/N) * n$$

Where: n_i = number of respondents selected from every level of study,

N_i = Population size,

N = Overall population size, n = Desired sample size

Area	Millennial Population	Sample Size	Percent
Kileleshwa	1,348	20 (10male 10female)	1.4%
Buruburu	5,530	40 (15male 25female)	0.7%
Kibera	5,027	40 (15male 25female)	0.8%
Total	11,905	100 (40male 60female)	0.8%

Table 3.2: Sample Size distribution

3.4 Data collection

Structured questionnaire was utilized to collect primary data. Close ended questions submitted in digital format. Since time and expense involved are prohibitive google form questionnaire was an appropriate tool for data collection in this instance.

The study used two sets of structured questionnaires to collect primary data for comparison. One set of questionnaires was specific to Tuzo and the second set for comparison was for two FMCG products in this case wheat flour and bathing soap. The Tuzo questionnaire was in four parts. The first part of the questionnaire contained the demographic information (sex and age). The second part was a comparison of the old packaging and the new packaging with a focus on surface design elements and how they influence millennial consumer perception. The third part of the questionnaire is based on general question about preference between the old and new packaging. The second set for comparison, the FMCG questionnaire was in three parts. The first part contained the demographic information (sex and age). The second part is a comparison of the wheat flour packaging with a focus on surface design elements and how they influence millennial consumer perception. The third part was for the bathing soap packaging with a focus on surface design elements.

The questionnaire was close-ended and included a five-point Likert scale to know the extent to which respondents felt about a particular question. The scale ratings was as follows: 1= Strongly Disagree, 2= Disagree, 3= Neither Agree nor Disagree, 4=Agree and 5=Strongly Agree.

I had two assistant who ahelped in identifying the 100 respondents (40 male 60 female) and also forwarding the google form link to either their whatsapp numbers or emails as long as we can persuade the interviewees to share their contact address.

3.5 Tools of Research

The tools to be used for this study will include;

a) The Library and its resources

The library is known to be the place to assemble and store collective knowledge. Libraries of today store information in a compact form and have proven to be an efficient in locating and accessing information. According to P. Leedy, most of the libraries have catalogs online extending far from their local physical boundaries.

b) Computer technology

The personal computer is considered a basic tool a portable laptop is most ideal and more recently as iPad, Tablet computers, and smart phones.in addition we have access to computer software packages and applications that are user friendly. With internet connection it is easy to access more references and tools online

c) Statistics

According to P. Leedy, J Ormrod (2015). Statistics have two principle functions a) make a description of quantitative data and b) draw inferences from the collected data. Descriptive data is used to summarize the general nature of the data collected and Inferential statistics is used to draw conclusions about the data. Statistics will be instrumental in tabulating the findings and analyzing the data

d) Language

Simple language will be used to represent the data more clearly about a topic using specific words and phrases According to P. Leedy, J Ormrod (2015). In our case English will be the preferred language for the survey report.

3.6 Data Analysis

Our data analytics will utilize descriptive and inferential statistics. Descriptive data will be used to describe the characteristics of our population based on the collected dataset while the inferential statistics focused on generalizing about the collected dataset from our sample population.

After receiving the questionnaires, they are checked for consistency. The raw data is then entered and a range of statistical analysis tools such as weighted mean, mode and median will be used. Other data analysis tools to be used will include percentages and frequency of distribution to arrive at findings, conclusions and recommendation.

CHAPTER FOUR

4.0 Results and Findings

4.1 Introduction

This chapter includes the research findings and outcome by analyzing raw data from millennial respondents in Kileleshwa, Laini Saba and buruburu wards in Nairobi. The feedback about the variables of the study was useful in guiding the specific objectives set out in the study.

In order to have a comparative analysis in support the findings of this research, in addition to the new Tuzo yoghurt packaging, the study included two fast moving consumer goods (FMCG) products in the wheat flour and bathing soap category.

The research had two sets of questionnaires targeted at different millennial respondents, one had the new Tuzo yoghurt and another for comparison had wheat flour and bathing soap products. The first questionnaire on Tuzo was in three parts, the first part touched on demographic sex and age. The second part was in two parts comprised similar set of questions on the old pack surface design and the new pack surface design. The last part of the questionnaire was general questions touching on packaging surface design preference, purchase consideration and image style appeal. The second questionnaire was about wheat flour and bathing soap and had two parts, the first part touched on demographic information sex and age. The second part was in two parts comprised similar set of questions on wheat flour pack surface design and bathing soap pack surface design.

In this study 60 new Tuzo questionnaires were issued to randomly selected respondents from the wards, out of this only 45 responded within the given cut off time and were analyzed to arrive at the findings presented. There was a positive response rate at 75% which is representative enough to make suitable conclusion for the study. As for the comparative study of wheat flour and bathing soap surface design, 25 questionnaires were issued to randomly selected respondents from the wards, out of this only 17 responded and were analyzed to arrive at the findings presented. There was a positive response rate at 68% which is representative enough to make suitable comparative analysis of the findings.

4.2 New Tuzo

4.2.1 Background information

The respondent sex and age were sufficient background information to establish whether they fall under the millennial age bracket, and also guide in giving some indication of who millennials who purchase yoghurt.

4.2.2 Gender and Age of Respondents

Respondents sex was both male and female and this had an implication on the research findings in that more female are known to purchase yoghurt. We asked the respondents to mark their age-bracket within a given set of age range and there were more females than male population. The respondents sampled were between age 25 – 40 years, table 4.1 shows gender and age bracket of the respondents.

Measure	Item	Frequency	Percentage %
Sex	Female	31	68.9
	Male	14	31.1
Age	25 - 30	33	73.3
	31 - 35	8	17.8
	36 - 40	4	8.9

Table 4.1: Sex and age frequency

In the above table 4.1 there are 45 respondent's response in which 68.9% are female and 31.1% are male respondents. The above table show the age range of the participants, in the age of 25 to 30 year represent 73.3% of the respondents. While 17.8% of the respondents are in the range of 31 to 35 years and 8.9% are 36 to 40-year range.

4.2.3 Surface design image

The main objective is to examine consumer perception and purchase intent for the new Tuzo yoghurt based on the new surface design. In order to investigate it, the old and the new packaging surface design were included in the questionnaire as presented in figure 4.1 below. Here, the new Tuzo yoghurt surface design is treated as the element of this research.



Figure 4.1: The old and new Tuzo yoghurt packaging

4.2.4 Elements that caught Millennial attention

Under this question respondents were asked to indicate by way of first looking at pictures of the old and new pack and then choosing the best alternative answer by way of ticking from a set of surface design elements list that caught their attention.

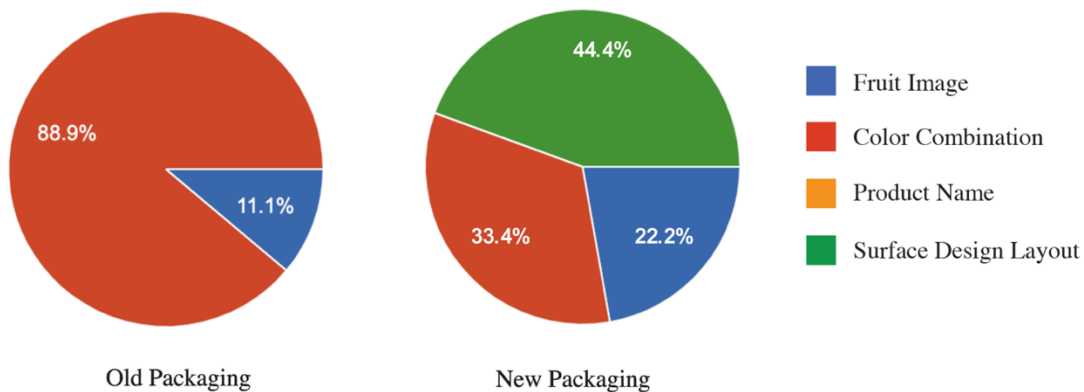


Chart 4.1: Design elements attention

Measure	Design Element	Percentage %
OLD PACK	Fruit Illustration	11.1%
	Color Combination	88.9%
	Product Name	0%
	Surface Design Layout	0%
NEW PACK	Fruit Illustration	22.2%
	Color Combination	33.3%
	Product Name	0%
	Surface Design Layout	44.5

Table 4.2: Summary of design elements and Millennial attention

According to the results represented above in Table 4.2 and chart 4.1 on what element caught the attention of the Millennial consumers most, it is evident that on the old pack a majority at 88.9 % claimed that the color combination caught their attention, with the remaining 11.1 claiming that the fruit illustration was the element that caught their attention. Meanwhile on the new pack 44.4% claimed that the layout of the principle display panel attracted their attention, with 33.3 % claiming that they were attracted by the color combination and 22.2 % claimed that it was the fruit image that attracted them.

There were elements that respondents paid attention to, and one element (Product name) can be identified to have not been considered from the results of both packs.

4.2.5 Yoghurt product recognition

Under the second part (2), the respondents were asked to indicate by way of ticking one choice from a set of surface design elements that they would use to identify the product as a yoghurt. The findings are presented under chart 4.2 and table 4.3 below.

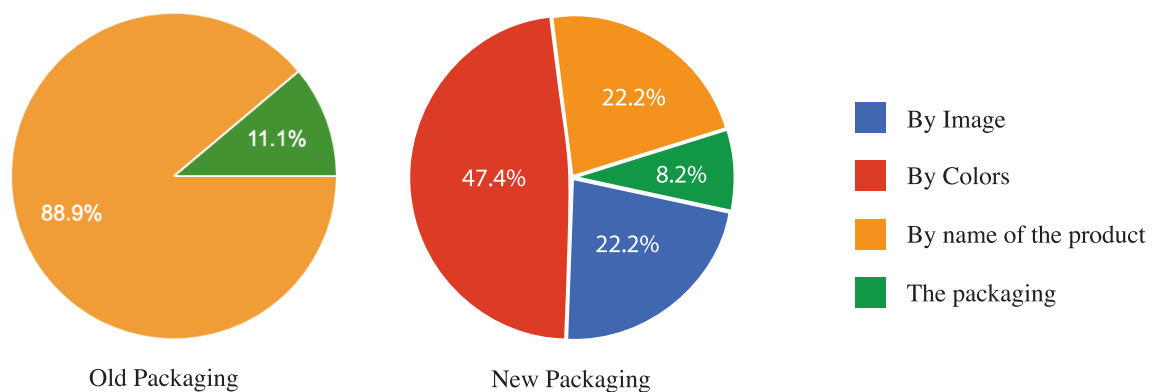


Chart 4.2: Yoghurt product recognition

Measure	Element	Percentage %
OLD PACK	Image	0%
	Color	0%
	Product Name	88.9%
	Packaging	11.1%
NEW PACK	Image	22.2%
	Color	47.4%
	Product Name	22.2%
	Packaging	8.2%

Table 4.3: Yoghurt product recognition

According to the results of the old park, majority of the respondents 88.9% identified the product as a yoghurt by the product name, with 11.1% noting that they identified the product from the packaging. None of the respondents identified the product was yoghurt from the image and color on the old packaging. For the new park, the results showed that color was the predominant element in identifying the product as a yoghurt at 47.4% with image and product name tied at 22.2% and 8% of the respondents listed the packaging as the product identifier.

Comparing the two packages, it can be noted that they show different results. Package (1) majority of the respondents recognized it as a yoghurt product by product name, whereas package (2) Color was the predominant element followed by image and product name helped to identify the product as yoghurt.

4.2.6 Surface design rating

Under the second part (3) of the questionnaire, the respondents rated the overall design attractiveness by way of ticking one choice from: excellent, good, fair, and poor. The findings are presented under Chart 4.1 below.

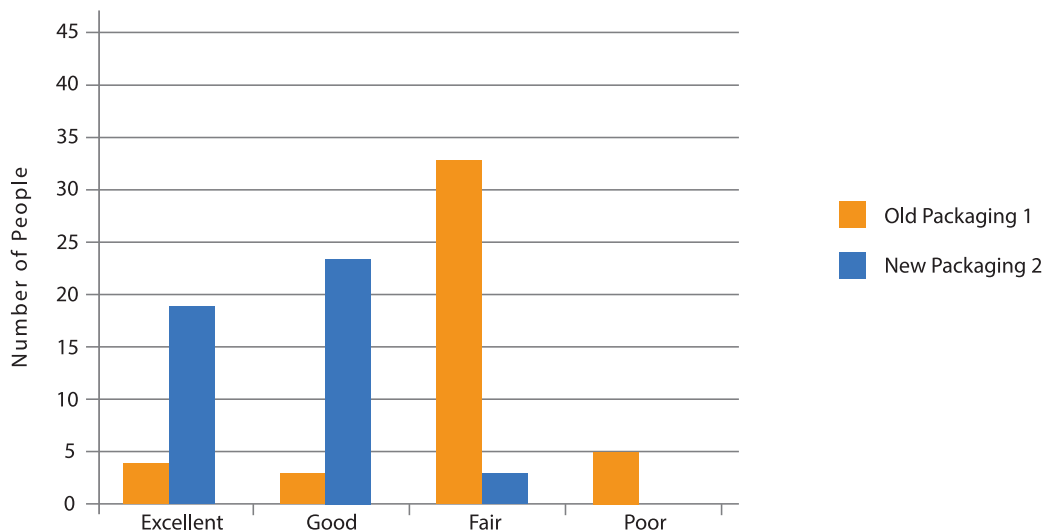


Chart 4.3: Packaging surface design rating

Nineteen (19) respondents noted that the surface design of package-2 is excellent, while according to four (4) old package-1 was excellent. Twenty-three (23) respondents rated design-2 as Good and the old package design-1 had three (3) claiming it had Good design. Thirty-three (33) claimed the old package design-2 had a Fair design, while the new package design-2 only

three (3) persons said it had a fair design. Five (5) people noted that the old package design was poor, with none perceiving the new package design being of poor design.

4.2.7 Color combination

Under the second part Question (4) in the questionnaire was presented in a form of a five (5) point Likert scale of 1-5 where 1= Strongly Disagree, 2= Disagree, 3= Neither Agree nor Disagree, 4=Agree and 5=Strongly Agree. There were three (3) statements with which the respondent rated from a complete disagreement to a complete agreement. The questions were about statements on packaging surface design color combination. The findings are presented under Chart 4.2 and 4.3 below.

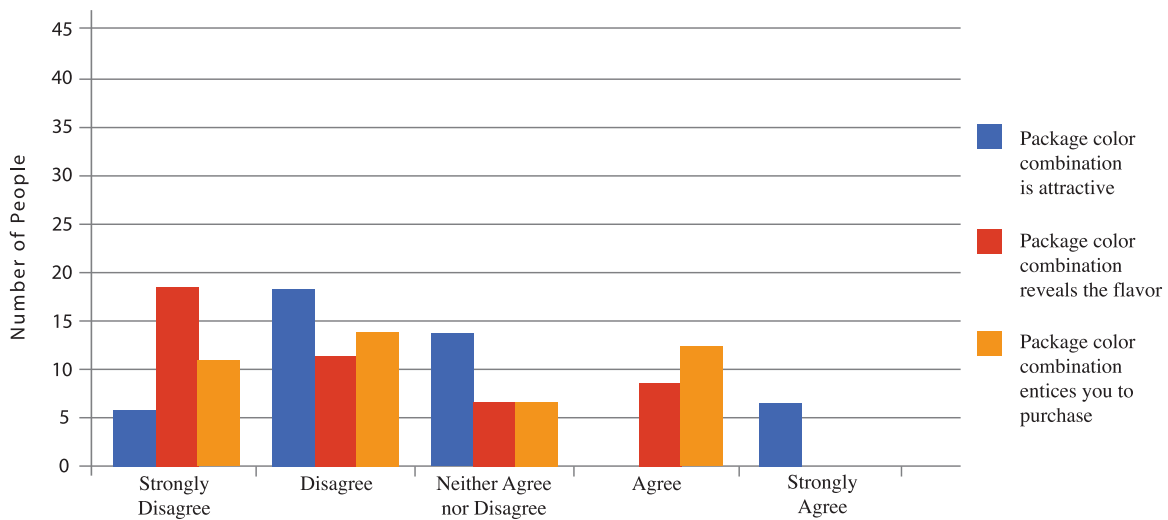


Chart 4.4: Old Tuzo Packaging surface design color combination.

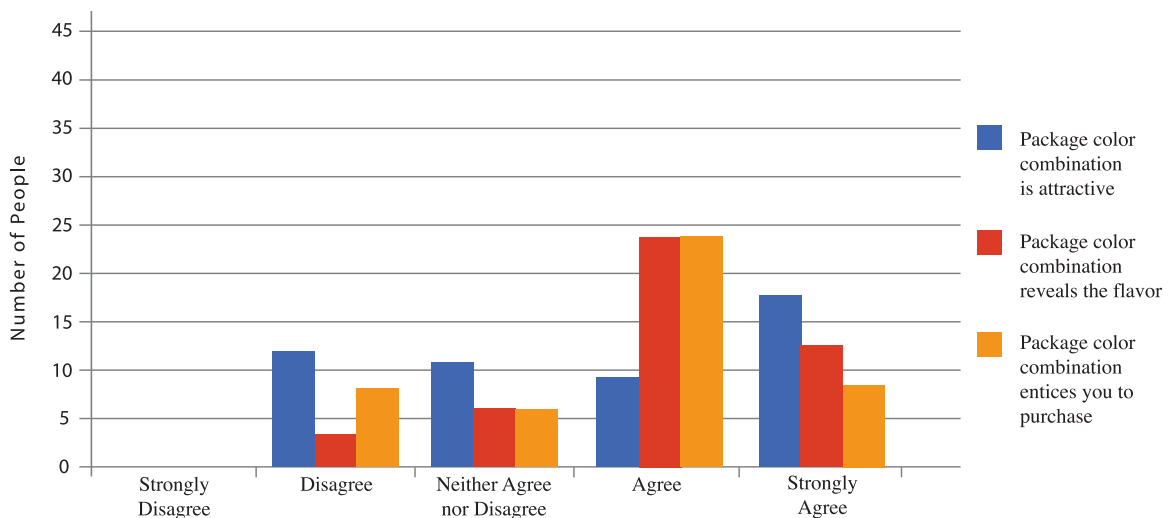


Chart 4.5: New Tuzo Packaging surface design color combination.

The findings from the old pack, on first statement about “Package color combination attracting you”. Here, six (6) respondent strongly disagreed. eighteen (18) people answered “disagree” and fourteen (14) of participants neither agree nor disagree about color combination attracting you. None of respondents agreed with the statement with seven (7) strongly agreeing.

From the new pack, on first statement about “Package color combination attracting you”. Here, none (0) of the respondent strongly disagreed. Twelve (12) people answered “disagree” and another eleven (11) of participants neither agree nor disagree about color combination attracting you. Nine (9) respondents agreed with the statement with thirteen (13) strongly agreed.

The findings from the old pack, on second statement about “Package color combination revealing flavor”. Here, eighteen (18) respondent strongly disagreed. Twelve (12) answered “disagree” while seven (7) of participants neither agree nor disagree. Eight (8) respondents agreed with the statement and none strongly agreed.

From the new pack, on second statement about “Package color combination revealing flavor”. Here, none (0) of the respondent strongly disagreed. Three (3) answered “disagree” and six (6) of participants neither agree nor disagree that package color combination reveals the flavor. Twenty-four (24) respondents agreed with the statement while twelve (12) strongly agreed

The findings from the old pack, on third statement about “Package color combination enticing you to purchase”. Here, eleven (11) respondent strongly disagreed. Fourteen (14) answered “disagree” while seven (7) of participants neither agree nor disagree while thirteen (13) agreed with the statement. none strongly agreed.

From the new pack, on third statement about “Package color combination enticing you to purchase”. Here, none (0) of the respondent strongly disagreed. Eight (8) answered “disagree” and six (6) of participants neither agree nor disagree. Twenty-four (24) respondents agreed with the statement while seven (7) strongly agreed.

4.2.8 Image style

The findings are summarized in two type of images used in the old and new surface design and the display of images on the surface. On the old packaging the image type is illustration while on the new packaging it is a photo image of the fruit flavour.

Under this part the question in the questionnaire was presented in a form of a five (5) point Likert scale of 1-5 where 1= Strongly Disagree, 2= Disagree, 3= Neither Agree nor Disagree,4=Agree and 5=Strongly Agree. There were three (3) statements with which the respondent rated from a complete disagreement to a complete agreement. The questions were about statements on image type used on the package. The findings are presented under Chart 4.6 and 4.7 below.

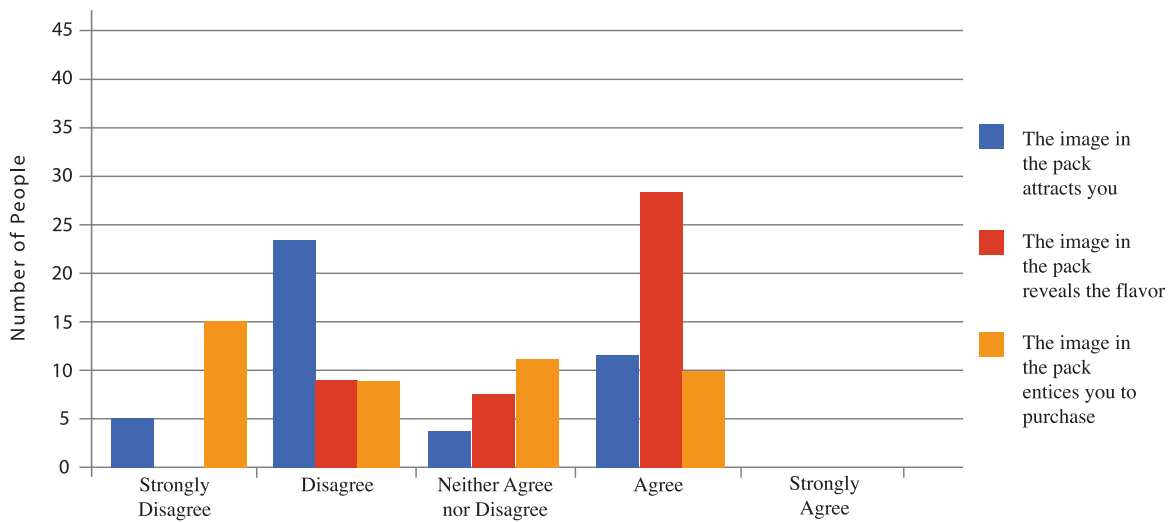


Chart 4.6: Old Tuzo Packaging surface design image style.

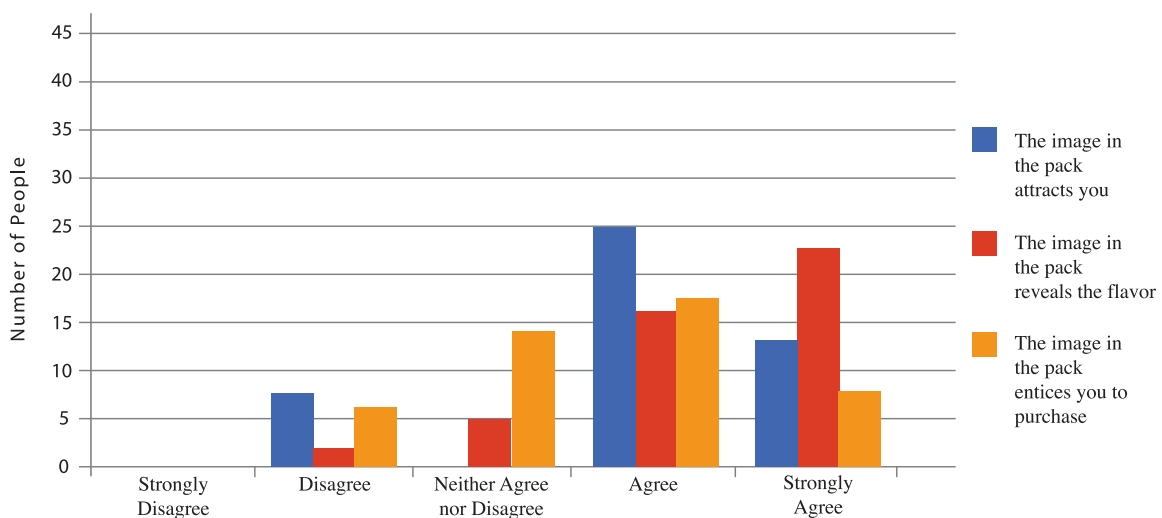


Chart 4.7: New Tuzo Packaging surface design image style.

The findings from the old pack, on first statement about “image style being attractive”. Here, out of the forty-five (45) respondents, five (5) strongly disagreed. Twenty-four (24) people answered “disagree” and four (4) of participants neither agree nor disagree about color combination attracting you. Twelve (12) respondents agreed with the statement and none strongly agreed.

From the new pack, first statement on “Image style being attractive”. Here, none (0) of the respondent strongly disagreed. Seven (7) people answered “disagree” and none (0) of participants neither agree nor disagree about color combination attracting you. Twenty-five (25) respondents agreed with the statement while thirteen (13) strongly agreed.

The findings from the old pack, on second statement about “image in the pack revealing flavor”. Here, none (0) of the respondent strongly disagreed. Nine (9) people answered “disagree” and another eight (8) neither agreed nor disagreed. Twenty-eight (28) respondents agreed and none strongly agreed.

From the new pack, on second statement on “image in the pack revealing flavor”. Here, none (0) of the respondent strongly disagreed. Two (2) people answered “disagree” and five (5) of participants neither agree nor disagree. Sixteen (16) respondents agreed with the statement with Twenty-two (22) strongly agreeing.

The findings from the old pack, on Third statement about “image on the pack enticing you to purchase”. Here, fifteen (15) strongly disagreed. Nine (9) people answered “disagree” and eleven (11) of participants neither agree nor disagree. Ten (10) respondents agreed with the statement and none strongly agreed.

From the new pack, on Third statement on “image on the pack enticing you to purchase”. Here, none (0) strongly disagreed. Only six (6) respondents disagreed with fourteen (14) neither agree nor disagree. Seventeen (17) respondents agreed with eight (8) strongly agreeing.

As per the results, all statements had positive response regarding the second pack surface design. In the first statement “Image style being attractive” – Twenty-five (25) respondents agreed while thirteen (13) strongly agreed; second statement “image in the pack revealing flavor” – fifteen (16) people agreed as twenty (22) strongly agreed; third statement “image on

the pack enticing you to purchase”– seventeen (17) persons agreed as eight (8) respondents strongly agreed.

According to the results for the old pack in statement number one (1) had twenty-four (24) respondents disagreeing and statement number three (3) had fifteen (15) “strongly disagree” answers and nine (9) disagree.

4.2.9 Package surface design preference

Under the third part, the question about preferred surface design. A general question was framed. According to the results, it is seen that all forty-five (45) respondent preferred the new pack option 2.

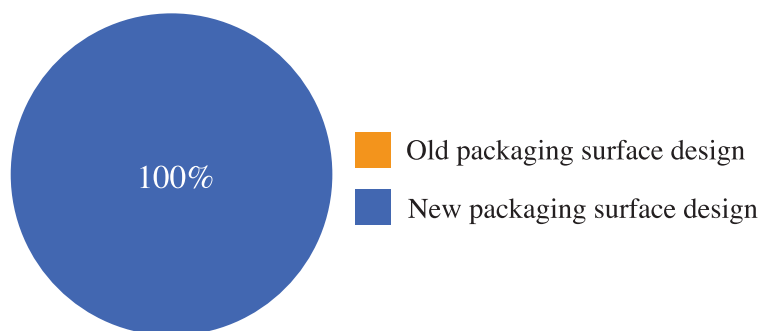


Chart 4.8: Packaging surface design preference.

4.2.10 Purchase consideration

Under the third part, about the question of purchase consideration. In order to have a general view on purchase consideration, this question was also framed as a general one. According to the results, it is seen that all forty-five (45) respondent answered they would consider purchasing yoghurt packaged in the new pack option 2.

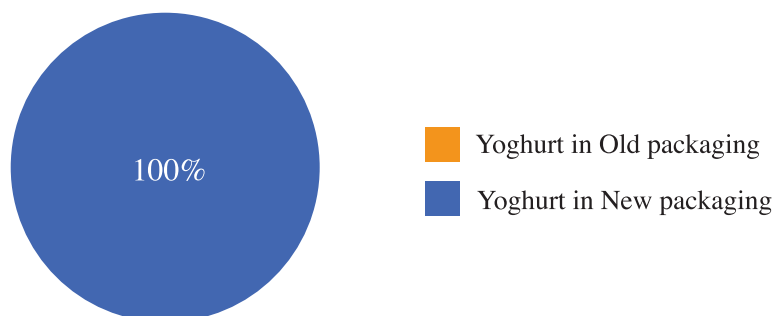


Chart 4.9: Purchase consideration

4.2.11 Image style appeal

Under the third part, on the question of image type appeal. A general question was framed and according to the results, it is seen that all forty-five (45) respondent answered they found the photo image in the new pack option 2 appealing.

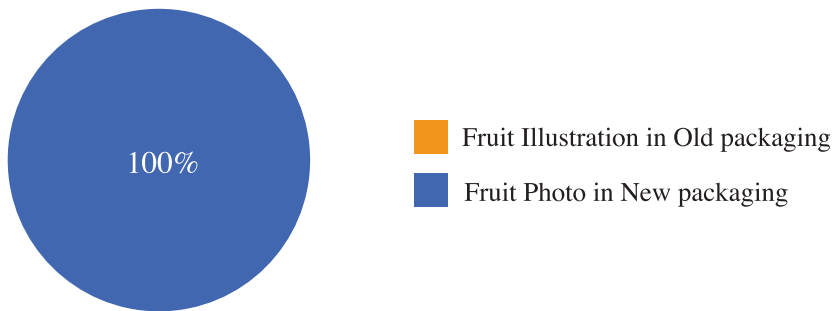


Chart 4.10: Image type

4.2.12 Most appealing packaging

The last question was to get a general view of the respondents on the most appealing packaging from the two choices presented. According to the results, all forty-five (45) respondent answered they found the new pack option 2 most appealing.

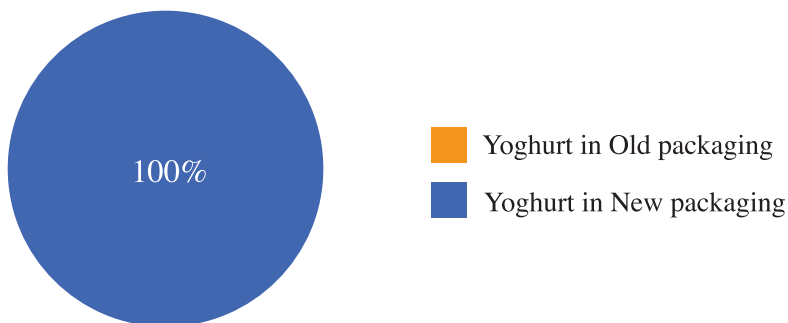


Chart 4.11: Appealing Packaging

4.3 Comparative findings – Wheat Flour

4.3.1 Background information

The respondent sex and age were sufficient background information to establish whether they fall under the millennial age bracket.

4.3.2 Gender and Age of Respondents

Respondents sex was male and female. We asked the respondents to mark their age-bracket within a given set of age ranges. In the study the respondents sampled were between age 25 – 40 years, table 4.4 shows gender and age bracket of the respondents.

Measure	Item	Frequency	Percentage %
Sex	Female	11	64.7
	Male	6	35.3
Age	25 - 30	7	41.2
	31 - 35	3	17.6
	36 - 40	7	41.2

Table 4.4: Sex and age frequency

In the above table 4.4 there were 17 respondent's response in which 64.7% were female and 35.3% were male. In the table above we have the age range of the respondents, in the age bracket of 25 to 30 years represent 41.2% of the respondents. While 17.6% of the respondents are in the range of 31 to 35 years and 41.2% are 36 to 40-year range.

4.3.3 Surface design images

The objective of the study was to determine consumer perception and purchase intent of wheat flour based on their surface design elements. In order to investigate, the selected wheat flour packaging surface design were included in the questionnaire as presented in figure 4.1. Here, wheat flour surface design was treated as the element of this comparative research.



Figure 4.2: Wheat flour packaging

4.3.4 Pack that caught Millennial attention

Under this question respondents were asked to indicate by way of first looking at pictures of the wheat flour packaging and then choosing the best alternative answer by way of ticking from a set of four wheat flour packaging that caught their attention.

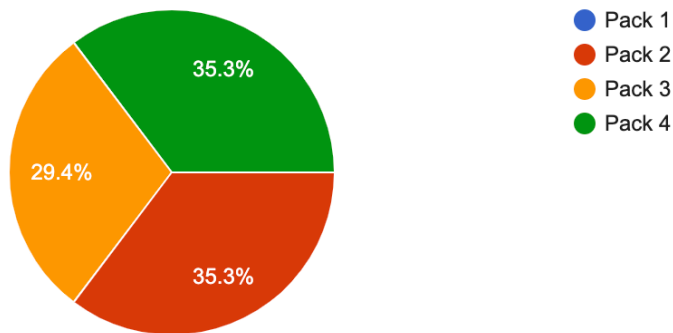


Chart 4.12: Wheat flour pack that caught attention

Measure	Design Element	Percentage %
Wheat flour Packaging	Pack 1	0%
	Pack 2	35.3%
	Pack 3	29.4%
	Pack 4	35.3%

Table 4.5: Summary of wheat flour packaging that attracted millennial attention

According to the results in Table 4.5 and chart 4.12 above on what element caught the attention of the Millennial consumers most, it is evident that pack-2 at 35.3% and pack 4 at 35.3%

attracted the most attention. 29.4% % of the respondents claimed that pack-3 caught their attention, while none of the respondents choose pack-1.

4.3.5 Element that caught millennial attention from selected pack

Under this question, the respondents were asked to indicate by way of ticking one choice from a set of surface design elements that caught their attention. The findings are presented under chart 4.13 and table 4.6 below.

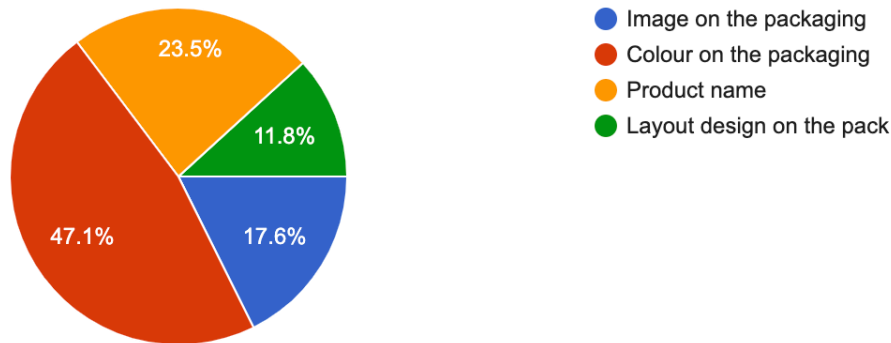


Chart 4.13: Element that caught attention

Measure	Element	Percentage %
WHEAT FLOUR PACKAGING	Image on the packaging	17.6%
	Color on the packaging	47.1%
	Product Name	23.5%
	Layout design on pack	11.8%

Table 4.6: Element that caught attention

According to the results, it was established in the finding that 47.1% of the respondents claimed it was the color of the packaging that attracted their attention. This was followed by product name at 23.5%, and image at 17.6%. Only 11.6% chose Layout design has what caught their attention.

4.3.6 Wheat flour product recognition

Under this question, the respondents were asked to indicate by way of ticking one choice from a set of surface design elements that they used to identify the product as a wheat flour. The findings are presented under chart 4.14 and table 4.7.

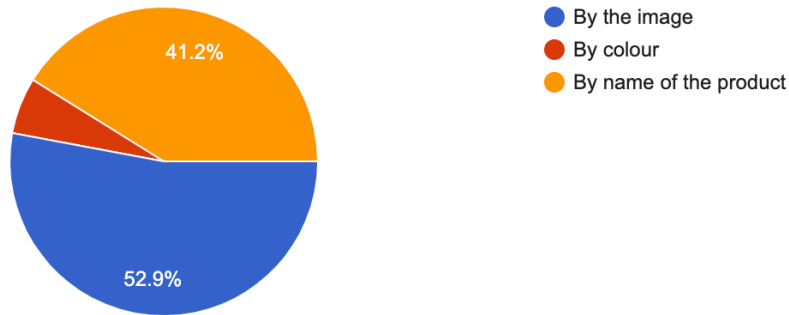


Chart 4.14: Wheat flour product recognition

Measure	Element	Percentage %
WHEAT FLOUR PACKAGING	Image	52.9%
	Color	5.9%
	Product Name	41.2%

Table 4.7: Wheat flour product recognition

According to the results, 52.9% of the respondents identified the product as a wheat by the image on the pack, with 41.2% noting that they identified the product by the product name and 5.9% of the respondents listed the packaging color as the product identifier.

4.3.7 Color combination

Under the second part Question (4) in the questionnaire was presented in a form of a five (5) point Likert scale of 1-5 where 1= Strongly Disagree, 2= Disagree, 3= Neither Agree nor Disagree, 4= Agree and 5= Strongly Agree. There were three (3) statements with which the respondent rated from a complete disagreement to a complete agreement. The questions were about statements on packaging surface design color combination. The findings are presented under Chart 4.2 and 4.3 below.

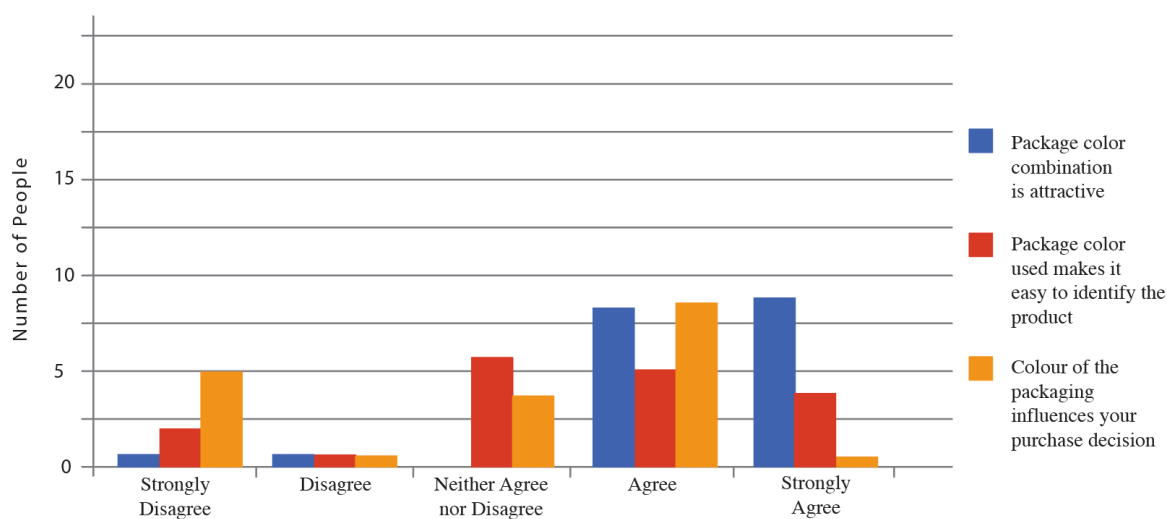


Chart 4.15: Wheat flour Packaging surface design color combination.

The findings from the first statement about “Package color combination attracting you”. Here, only one (1) strongly disagreed. one (1) respondent disagreed with none neither agreeing nor disagreeing about color combination attracting you. Seven (7) respondents agreed with the statement and eight (8) strongly agreed.

The findings from the second statement about “Color used making it easy to identify the product”. Here, only two (2) respondent strongly disagreed. One (1) answered “disagree” while six (6) of participants neither agree nor disagree. Five (5) respondents agreed with the statement was while three (3) strongly agreed.

The findings on third statement about “Color of the packaging influencing purchase decision”. Here, five (5) respondent strongly disagreed. One (1) answered “disagree” while three (3) of participants neither agree nor disagree while seven (7) respondents agreed with the statement with only one (1) strongly agreed.

4.3.8 Image on the packaging

The findings on the presentation of the images on the packaging surface. In all four packaging there was a photo image of chapati presentation. Under this part the question in the questionnaire was presented in a form of a five (5) point Likert scale of 1-5 where 1= Strongly Disagree, 2= Disagree, 3= Neither Agree nor Disagree,4=Agree and 5=Strongly Agree. There were three (3) statements with which the respondent rated from a complete disagreement to a

complete agreement. The questions were about statements on image type used on the package. The findings are presented under Chart 4.6 and 4.7 below.

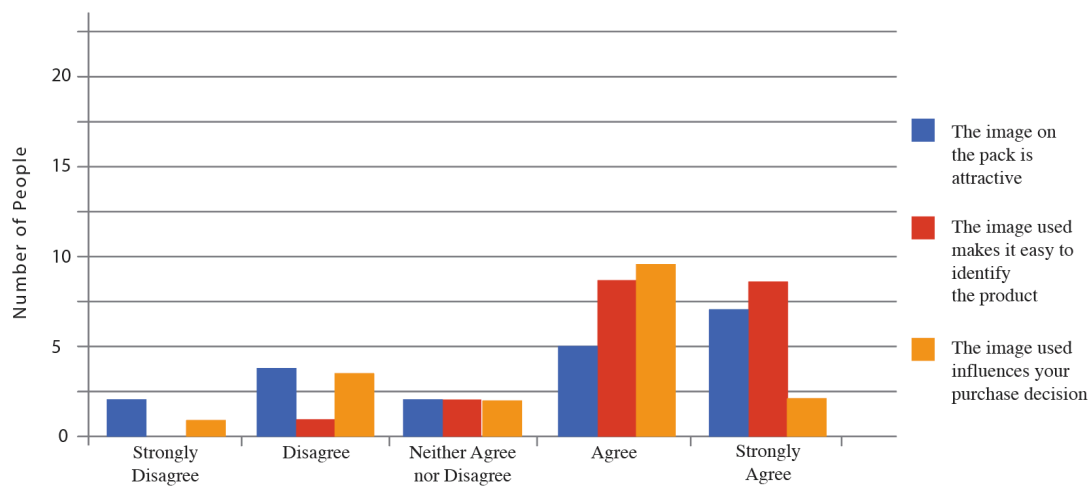


Chart 4.16: Wheat flour Packaging surface design image.

The findings from the first statement about “The image on the pack being attractive”. Here, out of the seventeen (17) respondents, two (2) strongly disagreed. One (1) respondent answered “disagree” and two (2) of participants neither agree nor disagree about color combination attracting you. Five (5) respondents agreed with the statement and seven (7) strongly agreed.

The findings from the second statement about “The image used making it easy to identify the product”. Here, none (0) of the respondent strongly disagreed. One (1) person answered “disagree” and two (2) of participants neither agree nor disagree. Seven (7) respondents agreed with the statement while those who strongly agreed was also seven (7).

The findings from the third statement about “The image used influencing purchase decision”. One (1) strongly disagreed. Three (3) people disagreed and two (2) neither agree nor disagree. Nine (9) respondents agreed with the statement and two (2) strongly agreed.

4.4 Comparative findings – Bathing Soap

4.4.1 Main surface design of the bathing soap questionnaire

The objective is to examine consumer perception and purchase intent for bathing soap based on their surface design elements. In order to investigate it, the selected bathing soap packaging surface design were included in the questionnaire as presented in figure 4.1 below. Here, bathing soap surface design are treated as the element for this comparative study.



Figure 4.3: Bathing soap packaging

4.4.2 Pack that caught Millennial attention

Under this question respondents were asked to indicate by way of first looking at pictures of four selected bathing soap packaging and then choosing the best alternative answer by way of ticking the option that caught their attention.

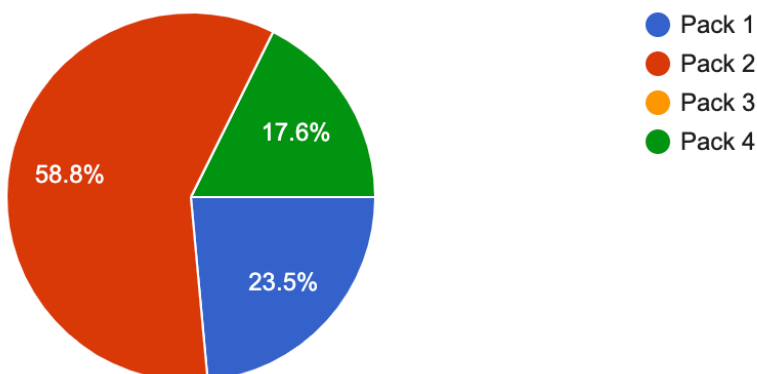


Chart 4.17: Bathing soap pack that caught attention

Measure	Design Element	Percentage %
Wheat flour Packaging	Pack 1	23.5%
	Pack 2	58.8%
	Pack 3	0%
	Pack 4	17.6%

Table 4.8: Summary of bathing soap packaging that attracted millennial attention

According to the results in Table 4.8 and chart 4.17 above on what element caught the attention of the Millennial consumers most, it is evident that pack-2 at 58.8% and pack-1 at 23.5% attracted the most attention. 17.6% % of the respondents selected pack-4 as having caught their attention, while none of the respondents choose pack-3.

4.4.3 Element that caught millennial attention from selected packs

Under this question, the respondents were asked to indicate by way of ticking one choice from a set of surface design elements that caught their attention. The findings are presented under chart 4.18 and table 4.9 below.

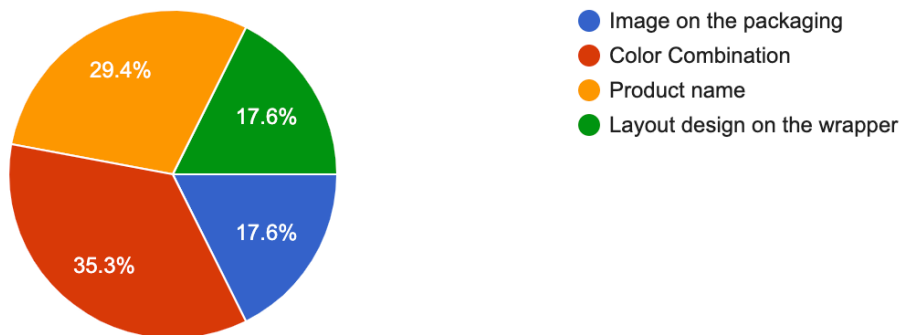


Chart 4.18: Element that caught attention

Measure	Element	Percentage %
BATHING SOAP PACKAGING	Image on the packaging	17.6%
	Color on the packaging	35.3%
	Product Name	29.4%
	Layout design on pack	17.6%

Table 4.9: Element that caught attention

According to the results, 35.3% of the respondents claimed it was the color on the packaging that attracted their attention. This was followed by product name at 29.4%, and image and the layout of the surface design at 17.6%.

4.4.4 Bathing soap product recognition

Under this question, the respondents were asked to indicate by way of ticking one choice from a set of surface design elements that they used to identify the product as a bathing soap. The findings are presented under chart 4.19 and table 4.10 below.

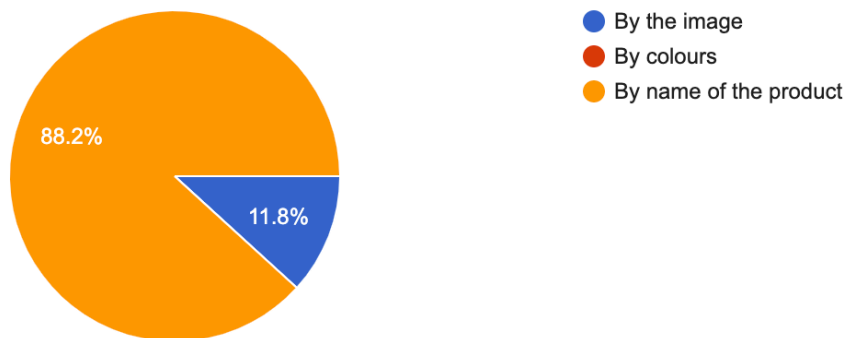


Chart 4.19: Wheat flour product recognition

Measure	Element	Percentage %
BATHING SOAP PACKAGING	Image	11.8%
	Color	0%
	Product Name	88.2%

Table 4.10: Bathing Soap product recognition

According to the results, 88.2% identified the product as a bathing soap by the product name, with 11.8% noting that they identified the product by the image. No respondents listed packaging color as the identifier.

4.4.5 Color combination

This part of the questionnaire was presented in a form of a five (5) point Likert scale of 1-5 where 1= Strongly Disagree, 2= Disagree, 3= Neither Agree nor Disagree, 4=Agree and 5=Strongly Agree. There were three (3) statements with which the respondent rated from a complete disagreement to a complete agreement. The questions were about statements on packaging surface design color combination. The findings are presented under Chart 4.10 below.

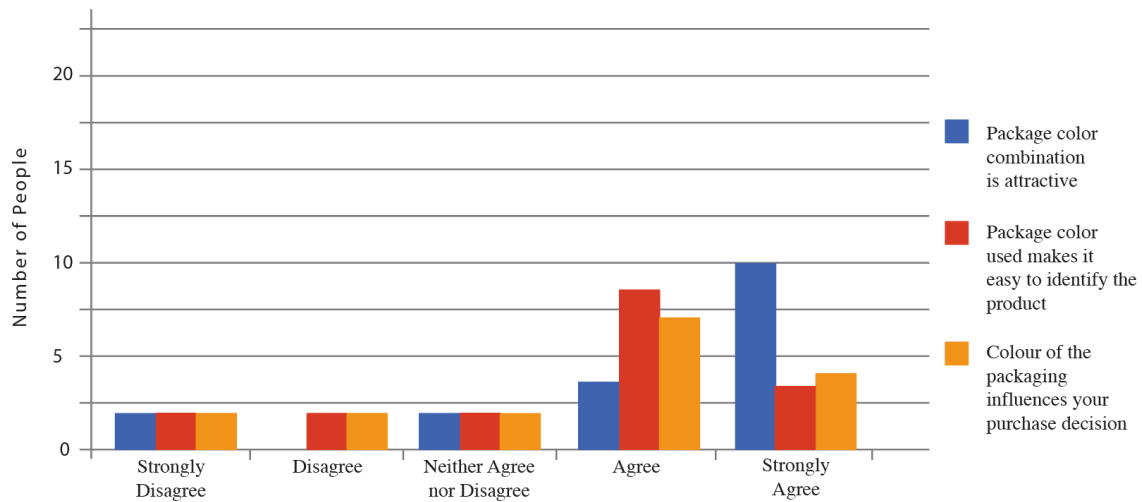


Chart 4.20: Bathing soap Packaging surface design color combination.

The findings from the first statement about “Package color combination attracting you”. Here, two (2) respondents strongly disagreed. None of the respondent answered “disagree” and two (2) of participants neither agree nor disagree. Three respondents agreed with the statement with ten (10) strongly agreeing.

The findings from the second statement about “Color used makes it easy to identify the product”. Here, two (2) respondent strongly disagreed. Two (2) answered “disagree” and two (2) of participants neither agree nor disagree. Eight respondents agreed with the statement while three (3) strongly agreed.

The findings on third statement about “Color of the packaging influences purchase decision”. Here, two (2) respondent strongly disagreed. Two (2) answered “disagree” while another two (2) participants neither agree nor disagree. those who agreed with the statement was seven (7) and four (4) strongly agreed.

4.4.6 Image on the packaging

The findings on the presentation of packaging surface images. In all four packaging there was a graphic abstract flower image. Under this part the question in the questionnaire was presented in a form of a five (5) point Likert scale of 1-5 where 1= Strongly Disagree, 2= Disagree, 3= Neither Agree nor Disagree, 4= Agree and 5= Strongly Agree. There were three (3) statements with which the respondent rated from a complete disagreement to a complete agreement. The

questions were about statements on image type used on the package. The findings are presented under Chart 4.6 and 4.7 below.

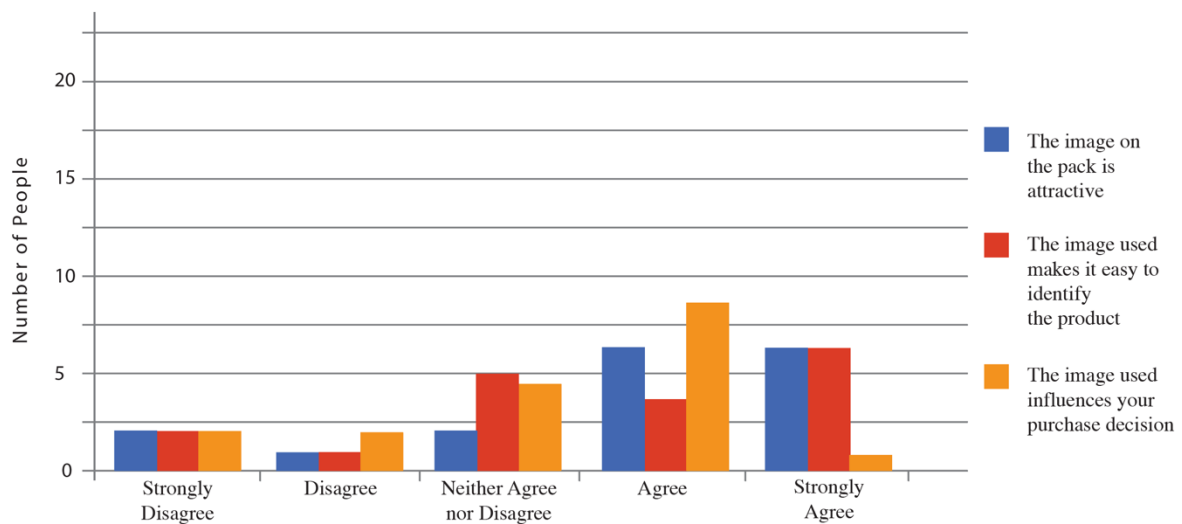


Chart 4.21: Bathing soap packaging surface design image.

The findings from the first statement about “The image in the pack is attractive”. Here, out of the seventeen (17) respondents, two (2) strongly disagreed. One (1) respondent answered “disagree” and two (2) of participants neither agree nor disagree about color combination attracting you. Six (6) respondents agreed with the statement with another six (6) strongly agreed.

The findings from the second statement about “The image used makes it easy to identify the product”. Here, two (2) of the respondent strongly disagreed. One (1) person answered “disagree” and five (5) of participants neither agree nor disagree. Three (3) respondents who agreed with the statement with six (6) strongly agreed.

The findings from the third statement about “The image used influencing purchase decision”. Here, two (2) strongly disagreed. Two (2) people answered “disagree” and four (4) of participants neither agree nor disagree. Eight (8) respondents agreed with one (1) strongly agreeing

CHAPTER FIVE

5.0 Summary, Conclusion and Recommendations

5.1 Introduction

This chapter has three parts namely the summary of findings, conclusions and recommendations of the study. The first part provides summary of the components of the research touching on the hypothesis, objective, research method and findings. Second part is a discussion of the conclusions drawn from specific objectives whilst highlighting the findings and results in chapter four. The third section layout surface design suggestions from the findings as well as useful insight for improvements of packaging surface design and suggestions for further studies.

5.2 Summary of findings

The aim of the study was to establish the influence of surface design elements on millennial consumers' preference and purchase intentions of new Tuzo yoghurt in Nairobi. The study also included a comparative analysis of the influence of surface design elements on millennial consumers' preference and purchase intentions of wheat flour and bathing soap in Nairobi. This study was guided by the hypothesis: The surface design elements of the new Tuzo yoghurt packaging positively influences the Millennial consumer brand preference and purchase intent.

The main objective of the research was to investigate the influence the new Tuzo yoghurt pack surface design graphics has on millennial consumer preference and purchase intention around Nairobi with a focus on three specific objectives;

1. To determine how the new Tuzo yoghurt packaging surface design layout has influenced millennials perception and purchase intention.
2. To explore the influence of the new Tuzo yoghurt surface design color combination on millennials preference and purchase intention.
3. To determine how the use of fruit image on the new Tuzo yoghurt packaging surface design has influenced millennials preference and purchase intent.

The study adopted a descriptive design in order to determine to what extent the new Tuzo yoghurt packaging surface design influence millennial consumers. Descriptive design was used because it helps provide information of the current situation of a problem in relation to the variables in order to achieve the intended results and draw useful conclusions. Structured questionnaire was used to collect primary data with close-ended questions that had choices and a five-point Likert scale. The questionnaires were accessed through a google sheet link shared with the respondents on either WhatsApp or their email address, two research assistants helped in distributing the digital forms as long as the respondents agreed to participate. From google form, raw data was recorded using tabulations, bar graphs and pie charts that clearly presented the results. The independent variables under the study were products surface design elements namely layout, color combination, product name and product image and millennial product preference and purchase intent were treated as the dependent variable.

The population of Tuzo yoghurt study was intended to have a sample population size of 100 millennial respondents of 40 males and 60 females within the ages of 25 – 40 years living in Nairobi county (Laini Saba, Buruburu & Kileleshwa). However, out of the 100 questionnaires intended only 60 were issued, out of this only 45 responded within the given cut off time and were analyzed to arrive at the findings presented. There was a positive response rate at 75% which is representative enough to make suitable conclusion for the study. As for the comparative study of wheat flour and bathing soap surface design, 25 questionnaires were issued to randomly selected respondents from the wards, out of this only 17 responded and were analyzed to arrive at the findings presented. There was a positive response rate at 68% which is representative enough to make suitable comparative analysis of the findings.

In summary, on the new Tuzo yoghurt it was determined that the elements that attracted attention from the millennials included fruit image, color combination and the surface design Layout. The findings showed that on the old packaging surface design color combination attracted the most attention, followed by the fruit illustration. On the new pack the product surface design layout attracted the most attention, followed by color combination and fruit illustration respectively.

In comparison to the wheat flour and bathing soap, the elements that attracted attention from the millennials was color of the packaging followed by product name, this result is replicated on the bathing soap as a most of the respondents noted that the color followed by product name attracted their attention.

With regards to product recognition, image, color and product name increased product recognition at varying levels. On the old packaging majority of the respondents indicated that product name increased product recognition, meanwhile on the new pack majority felt that product color increased product recognition followed by the image and name of product.

In comparison to the wheat flour and bathing soap, image had the highest number of respondents followed closely by product name as having increased product recognition of the wheat flour, while most of the respondents noted that they recognized the bathing soap by its brand name, only a few claimed it was the image.

The findings on whether color combination and image style influence preference were conclusive. On one hand, majority of the respondent disagreed that the pack color combination and illustration on the old pack positively influenced preference. While on the other hand, most of the respondent agreed that the color combination and image style on the new pack surface design was attractive therefore influencing preference. On whether color combination and image influence purchase intention, majority disagreed on the old pack, while on the new pack majority of respondents agreed that the color combination and image type does influence purchase intention. On the question of image on the pack enticing you to purchase. from the old pack majority disagreed and on the new pack a number agreed that image on the pack entices one to purchase the product. This confirms the research hypothesis that “The surface design elements of the new Tuzo yoghurt packaging positively influences the Millennial consumer brand preference and purchase intention”.

In comparison to the wheat flour and bathing soap, the findings on whether color combination and image style influence preference were conclusive. A majority of the respondent agreed that their choice of wheat flour packaging color combination was attractive, this is also evident with the bathing soap findings as a majority agreed that their preferred pack color combination was also attractive.

On whether color used makes it easy to identify the product, majority also agreed with the statement in both the wheat flour and bathing soap color being used as a product identifier cue. On the question of color of the packaging influences purchase decision, from both the wheat flour and bathing soap pack results, majority agreed that the packaging color entices one to

purchase the product. This confirms the research hypothesis that “The surface design elements of the new Tuzo yoghurt packaging positively influences the Millennial consumer brand preference and purchase intention”.

5.3 Conclusions

The study concluded that the new packaging had the most appeal in terms of surface design preference, purchase consideration and the fruit image appeal. Celia Henley, et.al (2010) stated that for millennials the most important factor to consider in brand packaging is that it must be attractive based on label design, font styles, color, and overall layout. We can conclude that the millennials were first attracted by the packaging surface design color combination, then they were drawn in by the image and finally they validated the product by the name. This means that a good color combination and the use of imagery on surface design of packaging is key to attracting the attention of millennials. In addition, having a good layout also adds to the attractiveness of the packaging therefore attracting the attention of millennials. This supports the argument by Karin et al, (2010), that consumers prefer products that are aesthetically appealing and attractive, and that packaging surface design must be attractive with regards to the design elements such as the color combination, graphics, shapes and textures, image style and typography.

The study also concluded that the change of Tuzo packaging surface design color combination had a positive influence on millennials preference and purchase intentions. Out of the 45 respondents a total of 22 confirmed that they had been positively influenced by the color combination while 31 confirmed that the new color combination influenced their purchase intentions. This finding supports the argument by Grunert & Beck-Larson & Bredahl (2000), that when consumers are viewing a new product on the shelf, they usually make a quality assesment of the product through interaction with the package surface design. In conclusion color combination does influence millennials preference and purchase intentions, this statement is backed by Statia Elliot (2010) who claimed that most products, surface design is an important consideration in stimulating consumer preference and purchase intent. This finding confirms previous writings, according to Cheskin (1957) in his paper he argued that the process of color and color combination is what creates an attractive packaging. In addition, R. K. Singh (2018), noted that 90% of snap decisions about product consideration is done based on color combination. Finally, according to Ding, M. (2022) the color of the packaging surface

is the first to enter the customers scope of observation, and with a excellent color combination it can attract attention of the buyer.

The findings explain that realistic photo image on packaging surface is most preferred by millennials since they are a realistic representation of the product flavor. This is supported by the writings of Francesca Di Cicco et. al. (2021), who claimed that imagery is an extrinsic cue that contributes in building expectations and sensory experiences. The images on pack are meant to represent information and content clearly while drawing the attention and interest of the consumers. indeed ‘a picture is worth a thousand words’ an image is a powerful element to use in conveying an intended message than text, as it can communicates features and details simultaneously. According to Hendrik N.J. et.al. (2022), images are more engaging than reading text.

5.4 Recommendations

Packaging surface design has to be taken seriously in today’s competitive market where every product is competing for a space on the shelf. This can only be achieved when their products have attractive surface designs that can attract the attention of consumers. The packaging color can be used to differentiate products, and images give a hint of the content in the package. Therefore, a good combination of color and photo images and other packaging elements can makes product packaging attractive, as well as making then uniquely stand out from competing products.

The research results can be used as a guide for designing the surface design of yoghurt as follows:

- 1) Real photo imagery should be considered for usage on the packaging surface.
- 2) The main color should insinuate the content characteristics, and secondary colors introduced to complement the main color.

One recommendation would be for future research to find out how surface design increases value perception of products.

Reference

Akhtar, Ahmed, Jafar, Rizwan & Nawaz (2016); The Impact of Packaging, Price and Brand Awareness on Brand Loyalty: A Reseller Perspective in Mobile Sector of Pakistan International Review of Management and Business Research Vol. 5 Issue.3

Andrea Niosi (nd); " Introduction to Consumer Behaviour, Retrieved from; <https://kpu.pressbooks.pub/introconsumerbehaviour/>

Antonina n. Agata (2017) MA paper. The influence of product packaging on the Millennial consumer's buying behaviour – a Case study of the juice, nectar and still Drinks category in Kenya

Behzad Mohebbi (2014); " The art of packaging: An investigation into the role of color in packaging, marketing, and branding “, International Journal of Organizational Leadership 3(2014) 92-102. Retrieved from; https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3329815

Brian Tracy (2004) ‘The 7 Ps of Marketing’, Retrieved from; <https://www.entrepreneur.com/article/70824>

Celia D. Henley, Deborah C. Fowler, Jingxue (Jessica) Yuan, Betty L. Stout and Ben K. Goh (2010); " Label design: impact on millennials' perceptions of wine", International Journal of Wine Business Research, Vol. 23 No. 1, pp. 7-20. <https://doi.org/10.1108/17511061111121371>

Deloitte (2016); The Deloitte Millennial Survey Report: Winning Over the next generation of leaders. Retrieved from www.deloitte.com/MillennialSurvey

Deloitte (2021); The Deloitte Millennial Survey Report: The Deloitte Global 2021 Millennial and Gen Z Survey. Retrieved from <https://www2.deloitte.com/global/en/pages/about-deloitte/articles/millennialsurvey.html>

Ding, M. (2022). Application of visual elements in product paper packaging design: An example of the “squirrel” pattern. Journal of Intelligent Systems, 31(1), 104-112. <https://doi.org/10.1515/jisys-2021-0195>

Dr. Hannah Wanjiku Wambugu (2014); “Customers’ Attitude towards Milk Packaging Designs in Kenya” European Journal of Business and Management; Vol.6, No.19, Retrieved from; <https://www.iiste.org/Journals/index.php/EJBM/article/view/13739>

Francesca Di Cicco *, Yuguang Zhao , Maarten W.A. Wijntjes , Sylvia C. Pont , Hendrik N. J. Schifferstein (2015); " A juicy orange makes for a tastier juice: The neglected role of visual material perception in packaging design ", Food Quality and Preference 88 (2021) 104086. Retrieved from; <https://www.sciencedirect.com/science/article/pii/S0950329320303554>

Gregor Franken. (2020). Packaging design and testing by eye tracking. <https://doi.org/10.24867/GRID-2020-p38>

H. Meyers and M. J. Lubliner, The Marketer's Guide to Successful Package Design, 1st ed., U.S.A.: Mcgraw-Hill, 1998.

Hendrik N.J. Schifferstein, Mailin Lemke , Alie de Boer (2022) " An exploratory study using graphic design to communicate consumer benefits on food packaging", Journal of Food Quality and Preference 97 (2022) 104458 Retrieved from; <https://www.sciencedirect.com/science/article/pii/S0950329321003402?via%3Dihub>

Javed, SA, Javed S. (2015). The impact of product's packaging color on customers' buying preferences under time pressure. *Journal of Industrial Management Institute Marketing and Branding Research* 2(2015). Retrieved from <https://www.researchgate.net/publication/283459596>

JohnsByrne (2019); ‘Packaging Matters: 3 Purchasing Behavior Statistics Everyone Should Care About’, Retrieved from; <https://www.johnsbyrne.com/blog/packaging-matters-3-purchasing-behavior-statistics/>

Josephat John Maende (2011), Effect of product packaging on consumer choices of Food & beverage products, nairobi county, Kenya

http://erepository.uonbi.ac.ke/bitstream/handle/11295/105309/Maende_Effect%20of%20Product%20Packaging%20on%20Consumer%20Choices%20of%20Food%20&%20Beverage%20Products.%20Nairobi%20County.%20Kenya.pdf?sequence=1

Kent, T & Omar, O. (2003). Retailing Newyork, NY: Mc Millan

Marinac, D. (2015, August 18). Packaging is Now Part of the Mix. Retrieved from: <https://www.linkedin.com/pulse/5ps-marketing-why-product-packaging-now-partmix-david-marinac>

McKinsey & Company, (2020) ‘Beyond COVID-19: The next normal for packaging design, Retrieved from; https://www.centro-abre.com/wp-content/uploads/2021/09/mckinsey_ppf-packaging-compendium_vf.pdf

Melissa Cortina-Mercado (2017) - *Global Journal of Business Research_ Vol. 11, No. 2, 2017*, pp. 11-26 Effect of packaging design in the purchase Decision process: a comparison of Generations

Melissa Cortina-Mercado (2017); Effect of packaging design in the purchase Decision process: a comparison of Generations; *Global Journal of Business Research Vol. 11, No. 2, 2017*, pp. 11-26

Menghan Ding (2022); "Application of visual elements in product paper packaging design: An example of the “squirrel” pattern", *Journal of Intelligent Systems* 2022; 31: 104–112. Retrieved from; <https://www.degruyter.com/document/doi/10.1515/jisys-2021-0195/html>

Miao Nie. (2019). The Demand Design in Packaging Design. *Advances in Social Science, Education and Humanities Research*, volume 378

Miremadi, M, Musso, C & Weihe, U (2012); ‘How much will consumers pay to go green?’,McKinsey & Company, Retrieved from; <https://www.mckinsey.com/business-functions/sustainability/our-insights/how-much-will-consumers-pay-to-go-green>

Mou Saha (2020); " Customer Engagement with 7 Ps of Marketing", *SSRN Electronic Journal*, Retrieved from; https://www.researchgate.net/publication/343913023_Customer_Engagement_with_7_Ps_of_Marketing

Muriuki, H.G. (2011), Dairy Development in Kenya, FAO, Rome. Retrieved from; <https://www.fao.org/3/al745e/al745e.pdf>

Nel, J & Sarwar, S, (2020), ‘Food packaging trends’, *Inside Retail*, Retrieved from; <https://insideretail.com.au/news/food-packaging-trends-202008>

Odoch, J. (1984), Packaging and Packaging Designs in Kenya, Unpublished Thesis, University of Nairobi, Kenya <http://erepository.uonbi.ac.ke/handle/11295/29785?show=full>

P. D. Leedy, J. E. Ormrod (2015) *Practical Research, Planning and Design*, Eleventh Edition. Pearson

Philip Kotler Gary Armstrong (2018); Principles of Marketing” 17 Edition pg 174 – 180

Planet Ark, (2020); ‘What is the ARL?’ Retrieved from;
<https://documents.packagingcovenant.org.au/public-documents/ARL%20Resource%20Tool%20Kit%20for%20Partners>

Polyakova Ksenia (2013); " Packaging design as a Marketing tool and Desire to purchase",
Unpublished Thesis

Rishi kumar singh (2018) International journal for innovative research in multidisciplinary field issn: 2455-0620 volume - 4, issue - 5, may – 2018

Watcharatorn Pensasitorn (2015) Journal of Economics, Business and Management, Vol. 3, No. 12, December 2015

Rishi kumar singh (2018) International journal for innovative research in multidisciplinary field issn: 2455-0620 volume - 4, issue - 5, may – 2018

R. Kumar (2019); Research Methodology; a step by step guide for beginners Fifth Edition.

Sadique Hussain, Saadat ali, Muhammad Ibrahim, Amna Noreen, Sayed Fayaz Ahmad, 2015; “Impact of Product Packaging on Consumer Perception and Purchase Intention”, Vol. 10.

Sidrah Waheed , Marium Mateen Khan, Nawaz ` (2018); " Product Packaging and Consumer Purchase Intentions ", Market Forces Volume 13, Issue 2. Retrieved from;
https://www.researchgate.net/publication/329736165_Product_Packaging_and_Consumer_Purchase_Intentions

Silayoi, P. & Speece, M (2004); "The importance of packaging attributes: a conjoint analysis approach ", European Journal of Marketing, 41 (11/12)

Statia Elliot and J.E. (Joe) Barth (2010); " Wine label design and personality preferences of millennials ", May 2012 Journal of Product & Brand Management 21(3):183-191.

Watcharatorn Pensasitorn (2015); " The Use of Images in Graphic Design on Packaging of Food and Beverages ", Journal of Economics, Business and Management, Vol. 3, No. 12. Retrieved from;
https://www.researchgate.net/publication/276606655_The_Use_of_Images_in_Graphic_Design_on_Packaging_of_Food_and_Beverages/link/61250ef51e95fe241af573da/download

5. Appendices

COVER LETTER

Dear sir/madam,

I am a student at the University of Nairobi Faculty of Built Environment & Design, Department of Art and Design and I am currently undertaking my Master's Thesis in Design. The topic of my thesis is on the influence of packaging surface design on millennial consumers' buying behavior in Nairobi.

I would appreciate if you took time to answer the attached questionnaire which consists of 14 questions. The overall results will help me have a clear picture about millennial perception about product packaging surface design. This is for academic purposes and your response will be anonymous.

Please note that none of your details will be shared with third parties and all the respondents remain anonymous.

Thank you in advance.

Yours faithfully

Kevin Marokko

Questionnaire 1

PART 1: Demographic information.

(Please tick the appropriate answer)

1. Sex:

Female [] Male []

2. Age Bracket:

25 – 30 years [] 31 – 35 years [] 36 – 40 years []

PART 2: Old verses new Packaging

2.1 Old Tuzo Packaging

Please, have a look at the pictures below.



Please, answer questions (select only one).

3. What first captured your attention?

- Fruit Illustration
- Color Combination
- Name of product
- Layout of the label

4. How did you know it was a yoghurt?

- The image
- The colors
- The product names

5. Rate the design of this package?

- Excellent
- Good
- Fair
- Poor

The following are statements about pack color combination. Please indicate your reaction to each statement by ticking your answer inside the box on a scale of 1-5 where 1= Strongly Disagree, 2= Disagree, 3= Neither Agree nor Disagree, 4=Agree and 5=Strongly Agree.

Statement	1	2	3	4	5
Package color combination is attractive					
Package color combination reveals the flavor					
Package color combination entices you to purchase					

The following are statements about image. Please indicate your reaction to each statement by ticking your answer inside the box on a scale of 1-5 where 1= Strongly Disagree, 2= Disagree, 3= Neither Agree nor Disagree, 4=Agree and 5=Strongly Agree.

Statement	1	2	3	4	5
The image in the pack is attractive					
The image in the pack reveals the flavor					
The image in the pack entices you to purchase					

2.2 New Tuzo Packaging

Please, have a look at the pictures below.



Please, answer questions (select only one)

3. What first captured your attention?

- Fruit Illustration
- Color Combination
- Name of product
- Layout of the label

4. How did you know it was a yoghurt?

- The image
- The colors
- The product names

5. Rate the design of this package?

- Excellent
- Good
- Fair
- Poor

The following are statements about pack color combination. Please indicate your reaction to each statement by ticking your answer inside the box on a scale

of 1-5 where 1= Strongly Disagree, 2= Disagree, 3= Neither Agree nor Disagree, 4=Agree and 5=Strongly Agree.

Statement	1	2	3	4	5
Package color combination attracts you					
Package color combination reveals the flavor					
Package color combination entices you to purchase					

The following are statements about image. Please indicate your reaction to each statement by ticking your answer inside the box on a scale

of 1-5 where 1= Strongly Disagree, 2= Disagree, 3= Neither Agree nor Disagree, 4=Agree and 5=Strongly Agree.

Statement	1	2	3	4	5
The image in the pack attracts you					
The image in the pack reveals the flavor					
The image in the pack entices you to purchase					

PART 3: General Questions

1. From the two-design option which one is most preferred
 - Old Packaging
 - New Packaging
2. From the two-design option which one would you consider to purchase
 - Old Packaging
 - New Packaging
3. From the two-design option which image style is appealing
 - Fruit vector Illustration in Old Packaging
 - Fruit photograph in New Packaging
4. Overall which packaging appealing?
 - Old Packaging
 - New Packaging

Questionnaire 2

PART 1: Demographic information.

(Please tick the appropriate answer)

1. Sex:

Female [] Male []

2. Age Bracket:

25 – 30 years [] 31 – 35 years [] 36 – 40 years []

PART 2: Flour Packaging

2.1 Packaging

Please, take a look at the following pictures.



Pack 1



Pack 2



Pack 3



Pack 4

Please, answer questions (select only one).

3. Which pack is attractive?

- Pack 1
- Pack 2
- Pack 3
- Pack 4

3. What first caught your attention about the pack chosen above?

- Image on the packaging
- Color on the packaging
- Product name
- Layout on the pack

4. How did you know the product is flour?

- The image
- The colors
- The name of the product

The following are statements about the **chosen pack color combination**. Please indicate your reaction to each statement by ticking your answer inside the box on a scale of 1-5 where 1= Strongly Disagree, 2= Disagree, 3= Neither Agree nor Disagree, 4=Agree and 5=Strongly Agree.

Statement	1	2	3	4	5
Color combination is attractive					
Color used makes it easy to identify the product					
Color of the packaging influences your purchase decision					

The following are statements about the **image used on the chosen pack**. Please indicate your reaction to each statement by ticking your answer inside the box on a scale of 1-5 where 1= Strongly Disagree, 2= Disagree, 3= Neither Agree nor Disagree, 4=Agree and 5=Strongly Agree.

Statement	1	2	3	4	5
The image in the pack is attractive					
The image used makes it easy to identify the product					
The image used influences your purchase decision					

PART 2: Soap flavored Packaging

2.1 Packaging

Please, take a look at the following pictures.



Pack 1



Pack 2



Pack 3



Pack 4

Please, answer questions by choosing the best alternative for you (only one).

3. Which pack is attractive?

- Pack 1
- Pack 2
- Pack 3
- Pack 4

3. What first caught your attention about the pack chosen above?

- Image on the packaging
- Color on the packaging
- Product name
- Layout on the pack

4. How did you know the product is flour?

- The image
- The colors
- The name of the product

The following are statements about the **chosen pack color combination**. Please indicate your reaction to each statement by ticking your answer inside the box on a scale of 1-5 where 1= Strongly Disagree, 2= Disagree, 3= Neither Agree nor Disagree, 4=Agree and 5=Strongly Agree.

Statement	1	2	3	4	5
Color combination is attractive					
Color used makes it easy to identify the product					
Color of the packaging influences your purchase decision					

The following are statements about the **image used on the chosen pack**. Please indicate your reaction to each statement by ticking your answer inside the box on a scale of 1-5 where 1= Strongly Disagree, 2= Disagree, 3= Neither Agree nor Disagree, 4=Agree and 5=Strongly Agree.

Statement	1	2	3	4	5
The image in the pack is attractive					
The image used makes it easy to identify the product					
The image used influences your purchase decision					