

**ANALYSIS OF PACKAGING DESIGN ON CONSUMER PREFERENCE OF FRUIT
JUICE MANUFACTURING COMPANIES IN NAIROBI COUNTY, KENYA**

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ABSTRACT

The study investigated packaging design on consumer preference of fruit juice manufacturing companies in Nairobi City County, Kenya. The study used descriptive research design. Descriptive research design is suitable to utilize in light of the fact that the exploration searches out to build up the genuine circumstance in regards to packaging designs and consumer preference among fruit juice firms. The study was completed in retail outlets situated in Nairobi City County. The populace for this research established all the retail outlets in Nairobi County completely enrolled and in operational. The objective populace and unit of analysis for this investigation were all the 804 representatives working in the retail outlet segment in Nairobi County. The unit of inquiry was the sales managers, accountants and merchandisers of retail outlets in Nairobi County, Kenya with a sample size of 267. From the information gathered on packaging material most of the participants of this research announced that the plastic packaging material is identified with the juice dinking shelf life. Also packaging material is related with consumer preference. In view of the discoveries, the participants of this research emphatically concurred that the vast majority of fruit juice package is easy to carry. Further the study found (R²) of 0.763 and which inferred that 76.3% is well and fits in the data. The study found positive correlation in packaging material, packaging functionality, packaging shape and consumer preference. In view of the research study it is recommended that juice manufacturing companies should consistently grasp packaging designs either from plastic packaging designs and can packaging designs; that are cylindrical shape, rectangular shape or oval shape designs; and are easier to carry and are re-usable after consumption. This study suggested study to be done on the elements of packaging designs in the Juice manufacturing companies in Kenya as whole. This will help to gain more knowledge on consumer Preference of packaging designs by juice manufacturing companies in the region where there is a larger population.

Key words: Packaging design, Consumer Preference.

1.1 Introduction

Many organizations understand that packaging is not just done to protect products or to keep them fresh or to simply enable their safe transport from one point to the other. Packaging is one strategy that brands use in marketing (Marinac, 2015). Marketing has been defined by the American Marketing Association as an important function in an organization. It is a fixed of procedures that are designed to communicate, create and deliver value to purchasers and also accomplish buyer relationship in a way that is useful to an organization and all its stakeholders. Marketing does not only include what happens in the marketing department, it involves more than what is done by the marketing team. It is not just about selling products and services but it is a process that makes sure that value and ultimate benefit to the consumers is maintained. Marketing is all about establishing long-term mutually beneficial relationships keeping in mind that business firms have many stakeholders such as employees, suppliers, customers, the government, the public, etc. (Marinac, 2015).

Design of a packaging product affect consumers' later product experiences and post purchase behaviors. There are some product packages that are even displayed at homes. Distinctive packaging is a crucial element of a brand's equity and therefore most organizations treat packaging and labelling as an element of product strategy (Kotler and Keller, 2012). There have been various studies done on the impacts of packaging has and its influence on consumers' choice of product.

A century ago, packaging was only seen as a delivery device to facilitate the movement of a product from one point to another. Packaging was done in bulk in order to be individually distributed to every customer as they specified different needs. Today's society is consumption driven. Some psychologists have carried out research studies that have demonstrated that cutting cost manufacturing is a significant aspect of many industries and how the plan of bundles influences buyer decisions (Jansson-Boyd, 2010). Because of progress in innovation and materials, organizations currently have wide prospects with how they can bundle their items when contrasted. During the most recent decades a few patterns in food utilization have been watched.

Juices can be of various types. Juice, nectar and still drinks are some of the types of beverages that juices can take the form of. Consumers choose the category they prefer according to their age, income level, tastes and preferences. All these categories of juices are made up of different degrees

of natural juices, fruit extract, vegetables or herbs. In every country, the ready beverages are regulated by the national and regional food legislation. In 1999 a company named Kevian Kenya Limited was the first company in Kenya to provide juices that are 100% juice content (Pick N Peel). The company later invested in state-of-the-art equipment that allowed it to improve its product processes as well as the product packaging and this allowed them to increase their market growth (Kevian, 2015).

1.2 Statement of the Problem

Packaging is factor that is important as it stimulates impulse in purchasers buying behavior (Kuvykaite, 2014). The essence and nature of robust relationships and their business fee are encapsulated in the idea of packaging designs. A solid consumer base is a core business asset. Surveys display that recruiting new customers is up to 6 times costly even as in comparison to preserving the existing clients” (Rosenberg & Cecile, 2014).

Many studies have been done around the world in the field of packaging. In India (Suraj and Raveendran, 2013) posit that currently packaging designs are designed depending on the demand from different social groups, matching of different occasions and in differentiating a brand from different brands. If these factors are not considered, there will be no consensus on how packaging influences consumer buying behavior for juice and other convenience products. In Africa according to (Goyat, 2011) postulates that there are different market segments, organizations use product differentiation strategies to target the different segments and have the consumers perceive that their product is better than other products in the market. In their study in Kenya specifically Nairobi on the soft drink consumers and their influences on key factors (Kirwa, Chandrasekeran, Odera and Ogutu, 2013; Long, 2016) revealed that packaging design, customer satisfaction, promotion, cultural background, brand name, promotion, and brand quality were the strongest influencing factors among consumers. These studies have not adequately responded to how packaging designs influence consumer preference decisions. In that respect, the researcher intended to focus on the influence of packaging designs on consumer preference of fruit juice manufacturing companies in Nairobi City County, Kenya.

1.3 Objective of the Study

The general objective of this study was to investigate packaging design on consumer preference of fruit Juice manufacturing companies in Nairobi County, Kenya.

2.2 Literature Review

2.2.1 Packaging Designs

A study carried out in Nigeria on the food and beverage categories sought to determine the functions of product in influencing a purchaser's interest in a product and the effect labelling and package design has on the consumer purchase decision (Dirisu, Ogunnake, Onochie and Taiye, 2015). In regards to technology, the plastic packaging manufacturing sector in Kenya can be said to be the most developed in the region. It is a very competitive sector. This is because the demand for plastic packaging keeps on increasing due to the growth of the economy. This is according to the International Trade Centre 2008. As at 2008, there were around 173 industries that were dealing with plastic and rubber. Kenya also has the most sophisticated and advanced steel industry in the region and neighboring countries come to Kenya for their packaging needs (Owuor, 2012).

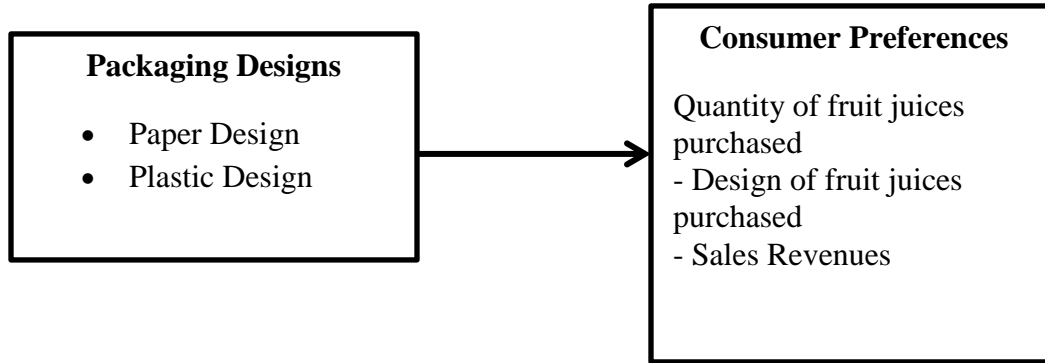
2.2.2 Packaging Designs and Consumer Preference

Study carried out in the Laurea University of Technology in Sweden examined the influence product packaging has on brand images as well as purchase decision. The study revealed that packaging influences consumers' perception to some extent and also the purchase decision (Kok and Nguyen, 2014). The way in different packaging designs are combined communicate symbolic brand meanings to the consumer. It is clear that a package has the capability to attract customers, from its functionality aspect like convenience in using the package to that is communicated by the package (Ahmad and Ahmad, 2015).

2.2.3 Conceptual Framework

Independent Variable

Dependent Variable



Source: (Researcher, 2020)

3.0 Research Methodology

The study used a descriptive research design because of its appropriateness in establishing the actual situations regarding packaging designs and consumer preferences among fruit juice manufacturing companies (Soeters & Rietjens, 2014). Descriptive approach shows the relationships between variables in a research study and borrows it awareness when the sample of the study are many (Kothari, 2010). In addition, descriptive is more flexible and it saves time and money. The study comprised of three independent variables namely packaging material designs, packaging functional designs and packaging shape of packaging designs. The dependent variable in the research was consumer preference.

3.1 Target Population

In accordance to (Ngechu, 2010) posits that, population is collaboration of number of units that a researcher intends to get a sample from, it always involves individuals to be used in the research study. Hence the target populace was 134 retail outlets within Nairobi County that were fully registered and running as at 2019 (NCC, 2019), while the unit of inquiry was one sales manager, one accountant and four merchandisers based at the juice fruit shelves only in each supermarket. This is because they hold more information that is related to the study topic; hence they are vital and important for this research.

3.2 Sample Size

With respect to the idea of the research being explored and in view of the little populace of the subject, the scientist utilized enumeration testing in light of the fact that the retail outlets populace was grouped by business movement (items and administrations). Purposive sampling was utilized to choose explicit respondent to take an interest in the investigation. The motivation behind this sort of test was utilized on the grounds that the populace is made out of a few subgroups that are limitlessly extraordinary in number. The quantity of members from every subgroup is controlled by their number comparative with the whole populace.

To decide the example size, Yamane Taro's recipe was utilized. Yamane taros equation originated from Yamane in 1967. It expresses that the ideal example size is a component of the objective populace and the maximum acceptable margin of error and it shown numerically us:

$$n = \frac{N}{1 + N(e)^2}$$

Where;

n= Corrected Sample Size, N= Populations Size, e= 0.05 based on the research condition

N= 804

e= 0.05

$$n = \frac{804}{1 + 804(0.05)^2}$$

$$n = \frac{804}{3.01}$$

n=267.11

The sample size in this study was 267 that are 33.2% of the target population.

3.3 Sampling Procedure and Techniques

According to Orodho (2012) describes sampling as a technique of selecting individual members or a subset of the population to make statistical inferences from them and estimate characteristics of the whole population. The sampling techniques and procedure in this research work was drawn from the sales managers, accountants and merchandisers in the retail outlets since they have great understanding in this research study. According to Orodho (2012) argued that 10% of the populace is commonly adequate of sample size for the results of the study as long as the sample is determined scientifically.

3.4 Research Instruments

The investigation utilized structured questionnaires as the principle in research instruments, structured questionnaires empowered the specialist accomplish consistency in reactions. The questionnaires had two areas, segment A; assembled data on general data of the participants of this research, segment B; had information that answers the research questions. A five point Likert scale was utilized as indicated by Cooper and Schindler (2011), the purpose of the Likert scale is that it gives various attitudes of the respondents. The information for this investigation was produced from both secondary and primary sources. This is to catch both the quantitative and qualitative part of packaging designs and consumer preference of juice manufacturing. From that point, the instrument was changed in places that were not obvious to the participants of this research.

3.5 Data Analysis Techniques and Procedures

Data analysis is the process presenting and interpreting information collected for the survey findings and bringing up of a report and inferences. The information gathered was dissected utilizing descriptive statistics. Mean and average overall standard deviation was utilized to accomplish the destinations of the investigation (Mugenda and Mugenda, 2013). The procedure of information examination included checked for errors and exclusions. The exploration is relied upon to yield both qualitative and quantitative information. The subjective information gathered by the questionnaires was dissected through where thematic structure was created (Cooper and Schindler, 2011). Tabulation was accomplished for every questionnaires upon the reactions evoked by the participants of this research. The examined information was then introduced by utilizing

frequencies, percentage rates and tables. Inferential insights, for example, Pearson correlation and multiple regression examination were utilized to set up the relationship between the independent and the dependent variables.

3.6 Ethical Considerations

The researcher received clearance letter from ERC in MKU, additionally got a letter from the school of the postgraduate examinations which was introduced to NACOSTI so as to be given a permit to gather information. The participants of this research were made mindful of deliberate participation of the research. The researcher guaranteed privacy of the data that the participants of this research gave by guaranteeing their names are not referenced. No dangers or exploitations was utilized if the participants of this research declined to take an interest or pulled back from the study. The exploration made it his duty to recognize all the writers of books, diaries and articles that were utilized in the examination.

4.4 Research Findings and Discussions

4.1 Packaging Design on Consumer Preference

The research study examined the extent to which packaging design influences consumer preference of fruit Juice manufacturing companies in Nairobi County; Kenya. Using Likert scale of five points the participants were asked to indicate their level of agreements, however if the means score was 3.0 this represented neutral but if the means is 3.5 and above it represented agreed, though 1.0 was the lowest and 5.0 was the highest level of agreement. The findings were elaborated below:

Table 1: Responses Regarding Packaging Design on Consumer Preference

Packaging Material	N	Mean	S.D
a) The paper design depicts the quality of the fruit juice drinking.	198	4.001	1.987
b) The plastic design of packaging material is related to the fruit juice drinking shelf life.	198	4.997	1.896
c) The can design is the most preferred packaging design of fruit juice.	198	4.908	1.909
d) There is concern about the can design of material used to package a fruit juice.	198	4.197	1.785

- e) There is concern on the paper and plastic design used in 198 4.917 1.954
packaging.
-

Source: Research Findings (2020)

From the survey research findings the majority of the participants agreed that paper design depicts the quality of the fruit juice drinking, this was shown by an average overall means score of 4.001 and an average overall S.D of 1.987; participants of this research strongly agreed that plastic design of packaging material is related to the fruit juice drinking shelf life and was revealed by an average overall means score of 4.997 and an average overall S.D of 1.896. Other participants also strongly agreed that can design is the most preferred packaging design of fruit juice and was revealed by an average overall means score of 4.908 and an average overall S.D of 1.909. Based on the survey research findings the participants of this research agreed that there is concern about the can design of material used to package a fruit juice revealed by an average overall means score of 4.197 and an average overall S.D of 1.785, according to this research finding other participants of this research reported that there is also concern on the paper and plastic design used in packaging that was robustly agreed as was revealed by an average overall means score of 4.917 and an average overall S.D of 1.954. This shows that majority of the participants in this research strongly agreed that packaging material through paper design; plastic and can designs influences consumer preferences and is mostly used as advertising parameters in their retail outlets.

Based on the respondents own opinion on packaging material characteristics that have influenced consumer preference for juice fruits, the participants reported that to attract the purchasers/consumers to buy a particular product then the packaging material should show the attractiveness. This infers that the packaging material aids in advertising and marketing the products. Packaging material also impacts the purchaser/consumer preference therefore the customers might be informed in their merchandise which might be on sale.

5.1 Summary of the Findings

5.2 Packaging Design on Consumer Preference

As per the findings of the research study on packaging design and consumer preference, this research found that plastic design of packaging material is related to the fruit juice drinking shelf

life this was strongly agreed with means score of 4.997. This concurs with Kano (2013) they postulated that exploitation of plastic bottles and argued that package material was greater to cardboard and glass packaging in fact the screw top kept product fresh and more contrasting to infringement. Consequently this study found that the can design is the most preferred packaging design of fruit juice revealed by means score of 4.908. Based on the findings the majority agreed that there is concern about the can design of material used to package a fruit juice with a means score of 4.197. This disagrees with Lal, Yambrach & McProud (2015) who argued that companies concentrated more on creating an attractive package designs. The packaging material has a strong influence on the consumers' choice. The design preference however depends on the group being targeted and this may vary from culture to culture.

5.3 Conclusion

The research study established a positive relationship between packaging design and consumer preference hence the juice companies should focus on quality packaging material manufacturing mostly in plastic designs and can designs since they revealed a great impact to consumer preference.

The research study further concludes that plastic packaging designs and can packaging designs is related to shelf life of the fruit juice hence concern is required on the mentioned designs since they are the most preferred packaging design of fruit juice. The packaging material has a strong influence on the consumers' choice. The design preference however depends on the group being targeted and this may vary from culture to culture.

5.4 Suggestion for Future Studies

The study was limited to analyzing packaging design on consumer preference of fruit juice manufacturing companies within Nairobi County Kenya; on the other hand it is suggested that, there should be a focus on the elements of packaging designs in the Juice manufacturing companies in Kenya as whole. This will help to gain more knowledge on more packaging designs in juice manufacturing companies in the region where there is a larger population.

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