

Impact of Processed Milk Packaging on Consumer Buying Behavior



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Abstract

This study seeks to examine the impact of the packaging of processed milk on consumer buying behavior. In order to ascertain the relation between packaging and consumer buying behavior, six visual elements of packaging of processed milk were chosen which include packaging design, color, material, size, shape and graphics and printed information. The packaging elements have been taken as independent variables and consumer buying behavior as dependent variable. Primary research was undertaken and the results of the survey questionnaire have been graphically represented and analyzed. Findings of the research reveal that consumers prefer the package design with a carton on top, they prefer an attractive color such as red, blue and green and they prefer Tetra Pack as packing material. It has also been revealed through this research that consumers prefer 1 litre and 250 ml packs of processed milk, and prefer rectangular flat topped containers. Last but not least the research has revealed that for the consumers the printed information such as manufacturing and expiry dates and nutritional facts are very important determiners of the buying decisions.

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Chapter 1

1.Introduction

Packaging by definition is the designing and production of containers and/or wrappers for a product. According to Kotler and Keller (2009), packaging has acquired so much importance in today's highly competitive world that marketers are of the opinion that it is the fifth P of marketing along with Product, Price, Place and promotion. Over the years firms have started perceiving packaging as a highly useful tool of sales promotion and marketing communication. Packaging is also considered as a means of creating positive brand associations. In the present day and age when companies are engaging in cut throat competition in order to grab as much market share, revenues and profits packaging also serves the purpose of creating a point of differentiation and a unique selling proposition through its aesthetic elements such as packaging size, shape, text, color, material and graphics (Rundh, 2013).

Packaging has evolved over time and owed to the rapidly changing preferences and lifestyles of consumers owed to technological development, demographic changes and rapid transitions that have occurred pertaining to storage and transportation. Packaging is a means of engaging customers' attention at the point of purchase and helps persuade the consumers in making the ultimate decision. In a way packaging is more effective in convincing the consumers to purchase a product compared to other means of marketing because consumers come across packaging at the very point where they make their purchase decision. It helps put across the branding message and research shows that consumers positively appraise a product' s packaging if it persistently and clearly imparts the meaning of the product (Luomala, 2010).

Packaging in general impacts the purchase of all products , however, this thesis (report) seeks to highlight the importance of packaging elements in influencing the buying behavior of processed milk in Lahore, Pakistan.

1.1 Objectives of the study

The objectives of this study are as under:

- To determine the influence of various packaging elements of processed milk on the consumer buying behavior.
- To know the most important packaging element of processed milk that influences consumer behavior.

1.2 Scope of the study

This study covers and focuses on the consumers of processed milk within Lahore only.

1.3 Significance of the study

The significance of the report is that it would provide a detailed insight into the packaging elements which actually influence the buying behavior of the consumers of processed milk in Lahore , to marketers who need to formulate effective marketing communication strategies (with respect to packaging) for this most populous city of Punjab. Since the findings of this study would be graphically analyzed, the marketers as well as package designers would effectively be able to gauge which of the various packaging elements need to be given more weight age so that they can channelize their financial resources in developing and perfecting

those elements. The marketers of processed milk would be able to clearly understand the customer preferences and requirements regarding the packaging elements.

1.4 Limitations of the study

Limitation of the research study is the reduced sample size because of shortage of time and resources constraints. The scope of geographical sample was also restricted only covering Lahore region.

1.5 Future Research directions

The geographical scope of the research can be increased to get a wider and better understanding of the research. The packaging elements/variables can be segregated into visual and verbal elements and then their impact in consumer buying behavior can be gauged for more focused and thorough understanding.

1.6 Problem Statement

The problem being studied in this research is to know which visual elements of packaging of packaged milk influence consumer buying behavior, which is an important question to be answered for firms and marketers as well as packaging designers.

Chapter 2

2.Literature Review

2.1 Elements of Packaging

Literature analysis on the question under investigation reveals that from time to time numerous researchers have undertaken research on various dimensions of this topic. Some researchers sought to examine all possible elements of packaging and their influence on overall consumers' purchase decision such as Speece, 2004, some investigated individual elements and their impact on the purchase decision such as Underwood et al, 2001, whilst others have tried to explore the influence of packaging elements on each stage of the decision making process such as Butkeviciene et al, 2008. Nevertheless, all of the fore mentioned researches yield a diversity of results and conclusions owed to the varied methods/ models and research contexts. Hence, lack of unanimous conclusions presents an opportunity for this topic to be probed further and this report seeks to investigate a few packaging elements individually and then to ascertain which of them impacts the consumers' ultimate buying decision, as enunciated in the Problem Statement.

Elements (particularly visual) have an impact on the consumers' emotion through the way they communicate the information (Speece, 2007). Visual elements are taken into account when consumers seek to make quick decisions and to minimize product search time (Speece, 2004).

2.1.1 Packaging Size

When the product is available in larger sizes the frequency of usage or consumption increases (Kotler& Keller, 2008).The packaging size of a product is dependent on the nature and features of the product as well as the target market (Sony, 2008). It is purported by (Keller, 2009) that a larger package size helps convey the message of better quality and encourages impulsive buying.

A study undertaken by Rundh 2013 regarding the consumer need/ requirement for packaging size reveals that the size of the household determines the size of the product required by the consumer. A study by Agariya et al, 2012 shows that size attribute of a package can be used in order to extend a product in a new market. Yet another investigation by Speece, 2004 shows that smaller packing size is preferred for small families and larger packaging is deemed wasteful by such families. Another study concludes that the consumers are more willing to buy a product which have smaller packaging and for products with shorter shelf life, consumers do not prefer buying larger sizes (Ahmadi et al, 2013).

2.1.2 Packaging Graphics

Packaging graphics according to Rita Kuvykaite (2009), helps in making a brand appear unique, highlights the brand name and makes a product noticeable on a shelf. Graphics help enhance the visual appeal of a product and can be a feature that adds value to a product. In addition, graphics help grab the consumers attention and can also act as mood lifters or else conform with the consumers' aspirations (Wells, Farley & Armstrong, 2007).

Otterbing et al, 2009, undertook a qualitative study on textual and pictorial elements of packaging reveals that textual elements have the greatest impact if they are to be found on the left side whilst pictorial elements make the most impact if put across on the right side. This implies that pleasant appearance of the package should be combined with proper placement of the pictorial and textual elements in order to make an impact on the consumer's buying decision. Graphics enable the customers to spot and locate a product amongst the muddle of products in the retail stores and in case they don't have and strong brand associations and preferences,

graphics can at least help capture their attention and make them consider that product for purchase (Rex et al, 2003).

Another study on the relationship between packaging elements and consumer purchase behavior shows that product image and consumer buying behavior are strongly related (Kuvykaite, 2009, Taylor , 2004). Visual elements in turn contribute to the image of the product and graphics emerged as one of the prime influencers of consumer buying decision (Speece, 2004).

Graphics are considered important for high as well as low involvement products and when consumers do not want to deliberate with respect to their purchases, graphics are likely to prompt their decision, (Rex et al, 2013). According to Hollywood et al, (2013) images on packaging of milk products can trigger the curiosity and interest in a consumer.

Moreover , consumers can also be induced to try a product through packaging graphics if different materials used in graphics and holograms i.e. lamination with aluminum foil or some catchy printing or font can attract the consumer enough to lay a hand on the product thereby making him/her want to try the product (Rundh, 2009).

2.1.3 Color

Keller (2009), postulates that color is such an integral component of packaging that some package designers are of the opinion that every consumer has a color vocabulary which in turn implies that the consumer forms certain expectations for colors of specific products. Color can help develop brand associations and also become a competitive advantage which would be difficult for anyone else to emulate (Ampuero& Vila, 2006).Color is also a very important aspect of package design and the brand message and information put across by the color of packaging

should be in tandem with the other aspects of marketing communications (Broadbridge& Morgan).

Beliefs and perceptions related to colors are diverse depending the culture and religion one is referring to whereby colors are often associated with particular occasions, colors are considered as reflection of specific moods, emotions etc. Hence the customers' perceptions about colors are generally dependent upon the cultural and social setting. Moreover, changes in demography also have an impact on the color vocabulary and priorities of consumers (Singh, 2006).

According to Marumbwa, 2013, color of the package has the potential to impact the buying behavior of the customer. However, the color of the package should be in harmony with the genre and category of the product.

Research undertaken by Hollywood et al, 2013, concludes that if the basic/generic colors i.e. green or blue are used for the packaging of milk, the consumers are able to distinguish the milk as whole, skimmed or semi skimmed. Usually products that are available in colors which are commonly used in that product category are bought more frequently (Luomola, 2010). Sweeping changes in colors of particular products can leave the consumer befuddled since those colors would not conform to their expectations.

Grossman and Wisenblit, 1999, undertook a study on associative learning form of color whereby they concluded that the consumers formulate color based associations on the basis of their pat experience and they prefer some specific colors in specific categories. They suggested that those color based associations should be used by the marketers when they design the packages instead of relying upon random customer preferences with respect to color.

2.1.4 Design and shape

A study carried out by Bloch, 1995, postulates that the image of the product that is formed in the customers mind actually depends largely upon the packaging and the novel package designs actually play a pivotal role in making the product stand out among all other products on a shelf. In addition innovative packaging shapes can also help a product carve a special niche in the customer's mind.

A study performed by Liang Lu, 2008 puts forth that an attractive package design of a food item fuels the appetite of a consumer and makes him/ her buy that product. Silayoi and Speece, 2004, conducted a qualitative research which concluded that consumers associate ease of use, storage and transportation with the shape of the package.

An investigation done by Metcalf et al, 2012, related to packaging shape, states that visual elements of packaging appeal to a customer and convince him/her to buy that product but at the same time if the aesthetic elements of packaging are found to be unattractive, they can deter the consumers from buying that product.

Hollywood et al, 2013, conducted a study related to packaging of milk and findings of that study show that if a milk processing company has to survive in this sector in the long run then the key to survival is investment in package design and shape.

A descriptive study undertaken by Wang & S.T., 2013, on visual packaging shows that the attitude or perception of the consumers toward visual packaging determines the perception of consumers related to the quality of food items.

2.1.5 Material

Smith and Taylor, 2004, conducted research that concludes that along with other elements of packaging, packaging materials also help create brand image and association. Moreover, the perceived quality of a particular product in a consumer's mind is also determined by the quality of materials used. Some products are manufactured with specific materials that are designed to sustain certain temperatures (high or low), Goncalves & Ricardo, 2008.

Vegara et al, 2008, conducted comprehensive study on packaging of processed milk whereby three packaging materials i.e. pouch, plastic and cardboard were considered. . The research unearthed various perceptions of consumers regarding the fore mentioned materials. The research concluded that pouch packs are not a viable option for packaging milk because they are difficult to handle and store..With respect to plastic containers the research results showed that the screw top cap of the bottle helps prevent leakage and wastage but under high temperatures plastic bottles tend to render the milk smelly. With respect to the cardboard packaging some respondents of the research expressed reservations regarding the freshness of the milk in cardboard packaging while others were of the view that they associate the cardboard packaged milk with UHT treated and hygienic milk.

Chapter 3

3. Research Methodology

3.1 Research Design

3.1.1 Research Philosophy

Positivistic Research philosophy has been used in this study. The reason being that the research relies on quantitative research methods and depends upon the primary data in order to determine the relationship between dependent and independent variables by formulating hypothesis. Hypothesis in turn is based on observed facts.

3.1.2 Research Approach

In order to graphically analyze the hypothesis deductive approach has been deployed whereby the variables have been operationalized to accord proper meaning to them and quantify them. In addition sufficiently large sample size has been chosen on order to validate and generalize the findings.

3.1.3 Data Sources for market research:

Secondary Sources : Sources such as websites, blogs online magazines and journals have been used. Primary Sources: In order to obtain first hand information from customers Survey Questionnaire has been used.

3.1.4 Research Method ,Instrument and Time frame

Survey method has been used in this study and the research tool which has been used is survey questionnaire which is a cross sectional study owed to the time constraint (usually academic researches are cross sectional studies). The qualitative data has been analyzed by using Microsoft

Excel, and graphical representation has been used to find out the relationship between the dependent and independent variables.

3.1.5 Sampling method and plan

Sampling population has been chosen from the population of Lahore. The sampling procedure that was used is Probability Sampling and the sampling technique used is Simple Random Sampling. Five localities within Lahore were chosen i.e. Gulberg, Defence, Iqbal Town, Johar Town and Wapda Town. The target population of the study includes frequent as well as occasional users of package milk and includes males as well as females aged 16 or above. The shop owners who buy processed milk solely for commercial purposes have been excluded because their aim is only to maximize profits and their reason for buying processed milk is entirely different from that of the household customers. They would be interested in buying packaged milk that is least costly so as to maximize their profit margin hence their opinion about the influence of the packaging element could be biased.

The sample size for the consumers was 250 people out of a population of 10 million of Lahore.

3.2 Research Structure

3.2.1 Problem Statement

The problem being studied in this research is to know which visual elements of packaging of packaged milk influence consumer buying behavior.

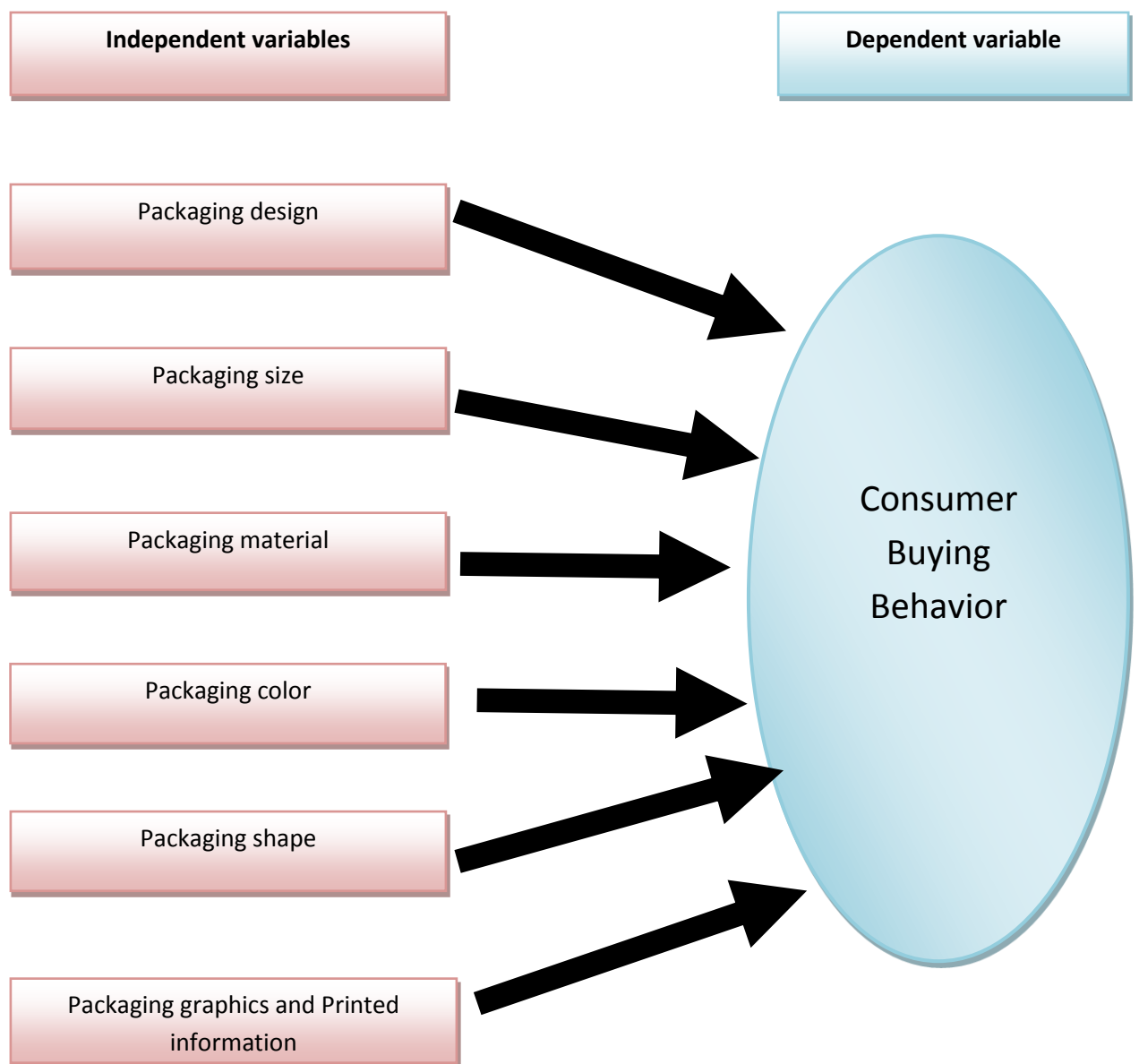
3.2.2 Research objectives

The objectives of this study are as under:

- To determine the influence of various packaging elements of processed milk on the consumer buying behavior.
- To know the most important packaging element of processed milk that influences consumer behavior

3.3 Theoretical Framework

The conceptual framework has been designed on the basis of previous research done on this topic, which was done by (Deliya&Pramar, 2012) on the role of packaging of processed milk on consumer buying behavior in Patan district of India.



3.3.1 Research dimensions:

In order to analyze the significance of the independent and dependent variables the research dimensions are stated as follows:

1:Packaging Design

The first dimension is to see whether there is a relationship between various aspects of the independent variable packaging design and dependent variable consumer buying behavior.

Four aspects of packaging design are included in the research, these include packaging cap, easy-to-tear packaging, jug like packaging design and convenience in handling the packaged milk.

2:Packaging Material

The second dimension is to determine whether there is a relationship between various aspects of the independent variable packaging material and dependent variable consumer buying behavior.

Questions regarding different packaging material are included in the research. This research includes Tetrapak, pouch pack bottles and plastic bottles as packaging materials.

3: Packaging Color

The third dimension seeks to determine whether there is a relationship between various aspects of the independent variable packaging color and dependent variable consumer buying behavior.

Different aspects of packaging color are included in the research. These aspects include brand recognition through color and association of green, blue and red colors with packaged milk

which are the colors of famous brands in the market. The latter aspect assesses if consumers carry color vocabulary in this product category.

4:Packaging Size

The fourth dimension is regarding the relationship between various aspects of the independent variable packaging size and dependent variable consumer buying behavior.

Questions are included in the research regarding their preferable size of packaged milk and if they want that packaged milk should be available in all sizes.

5:Packaging Shape

The fifth dimension seeks to ascertain whether there is a relationship between various aspects of the independent variable packaging shape and dependent variable consumer buying behavior.

The three types of shapes considered in the study are rectangular containers with gable top, rectangular container with flat top and tetrahedral shape.

6:Packaging Graphics and Printed information

The sixth aspect is regarding the relationship between various aspects of the independent variable packaging graphics and printed information and dependent variable consumer buying behavior.

Two of the sub aspects of packaging graphics are included. One is the effect of font style, another is the image of company logo. Aspects of printed information include description of the nutritional facts, expiry and manufacturing dates, brand slogan.

Chapter 4

4.Data presentation, interpretation and analysis

Demographic Profile of respondents

Gender

Gender	Frequency	Percent
Male	80	32%
Female	170	68%
Total	250	100%

80 respondents in this study were males and 170 were females hence the total respondents were 250. An adequately large sample size was taken to ensure the generalizability of the findings to the population of Lahore.

Age

Age	Frequency	Percent
16-24	60	24%
25-40	122	49%
Above 40	68	27%
Total	250	100%

60 respondents in the study were from age group 16-24, 122 from the age group 25-40 and 68 were aged more than 40.

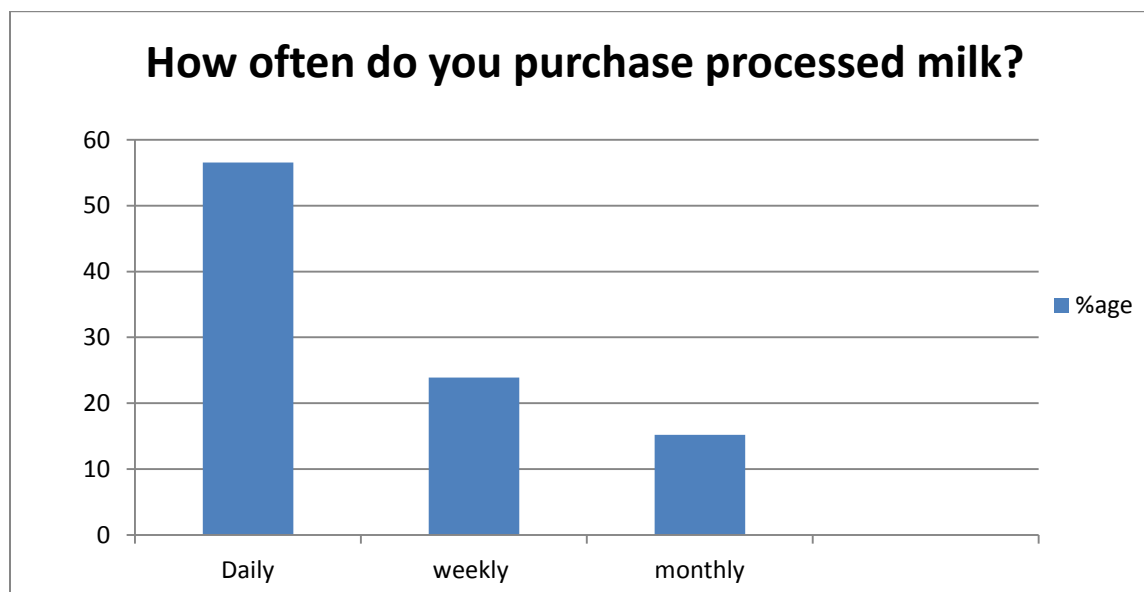
However, out of the 250 respondents who filled the questionnaires 230 were frequent users of packaged milk while 20 were non users of packaged milk as was revealed by the qualification question which was intended to determine the inclusion and exclusion criteria for respondents. Hence, this study include 230 respondents since questioning those who have never used processed milk would be an exercise in futility.

4.1 Buying Behavior:

Table 4.1 Buying Behavior

Options	Frequency
daily	130
weekly	55
monthly	35
Total	230

Graph 4.1 Buying Behavior



Graph 4.1 shows that out of the 230 respondents who are users of processed milk, 56% are daily users, 24% are weekly users and 15% use processed milk on a monthly basis. Since a majority of the respondents are daily users this implies that the results of the study would be adequately authentic and generalisable to a larger population.

In order to analyze the significance of the independent and dependent variables the result dimensions are stated as follows:

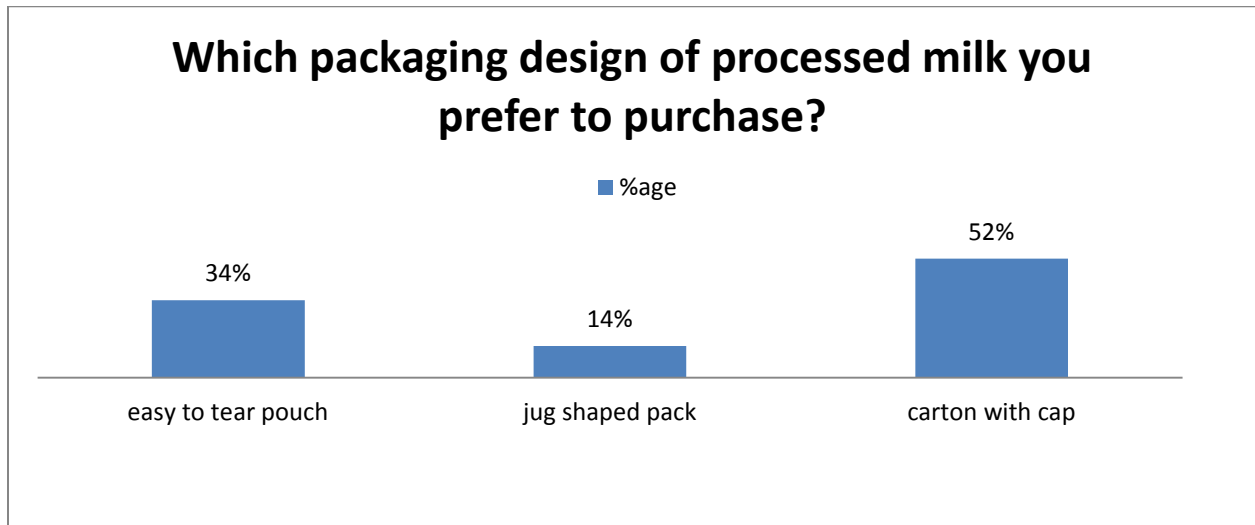
4.2 Packaging Design

The first dimension is to see whether there is a relationship between independent variable packaging design and dependent variable consumer buying behavior.

Table 4.2 Packaging design

Option	Frequency
easy to tear pouch	78
jug shaped pack	32
carton with cap	120
Total	230

Graph 4.2 Packaging design



Packaging Design was further explored with respect to its various dimensions such as convenience in design, jug-like design, easy to tear pouch pack and pack with a carton on top so that through the findings related to these sub elements of packaging design of packaged milk will help the marketers and package designers know whether package design positively influences consumer buying behavior and they should also know which aspect of package design will positively or negatively influence consumer buying behavior.

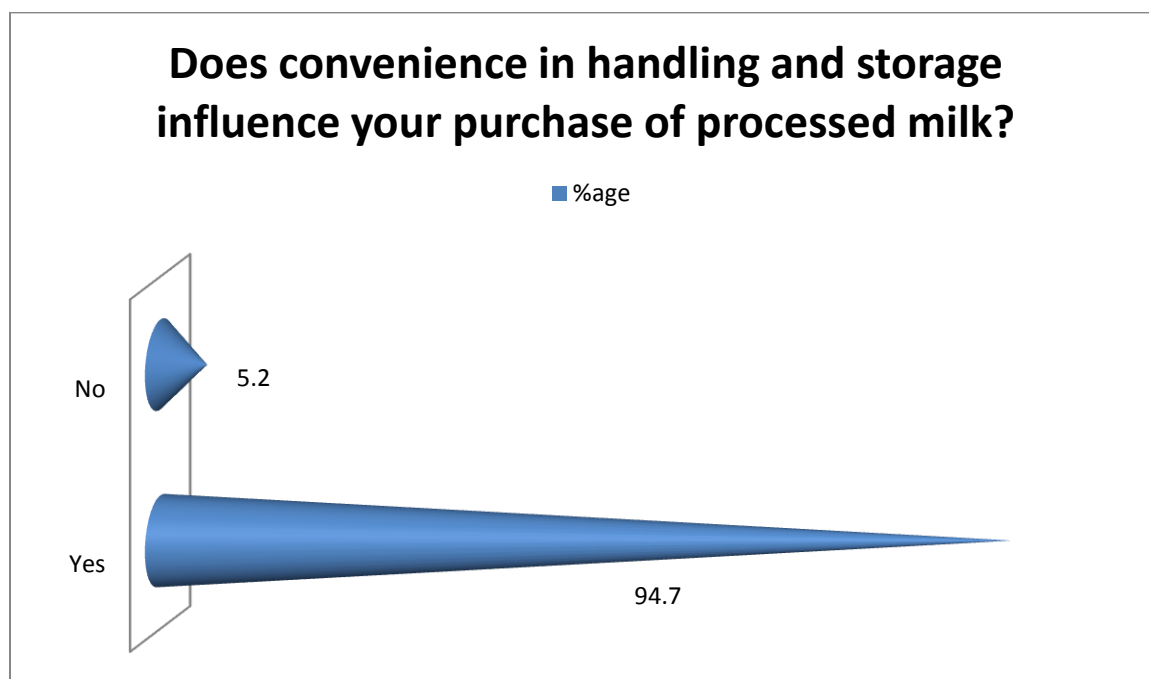
The graph 4.2 shows that 34% of the respondents prefer the easy to tear pouch pack, 14% prefer jug shaped packing while the majority i.e. 53% prefer pack with a cap on top. This implies that if packaging design i.e. improves or changes it would have a positive impact on the consumer buying behavior and they will be inclined to buy packaged milk.

4.2.1 Impact of Package Design that facilitates handling and storage:

Table 4.3 Handling and Storage

Options	Frequency
yes	218
no	12
Total	230

Graph 4.3 Handling and Storage



The graph 4.3 shows a positive relation between consumer buying behavior and convenience in handling the pack of processed milk since 94% respondents said that convenience of package design with respect to handling and storage has an impact on their buying behavior of packaged

milk. This implies that if the package design will fulfill the convenience criteria of convenience in the mind of the consumer it would have a positive impact on consumer buying behavior.

4.3 Packaging Material

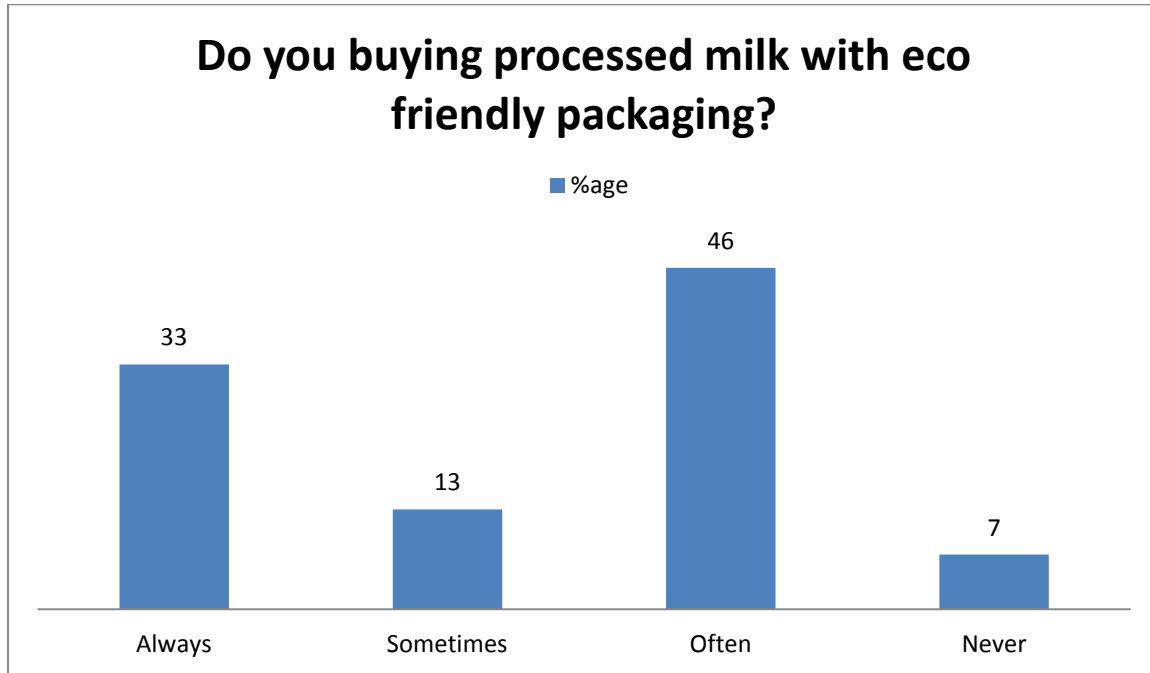
The second dimension is to determine whether there is a relationship between independent variable packaging material and dependent variable consumer buying behavior.

Moreover, the Packaging Material was further explored with respect to its various dimensions such as Tetra Pack, Pouch pack and plastic bottle, this study also includes the questions related to these sub elements of packaging material of packaged milk so that the marketers and package designers should not only know that package material positively influences consumer buying behavior, they should also know which type of package material will positively or negatively influence consumer buying behavior.

Table 4.4 Eco- friendly Packaging Material

Options	Frequency
Always	76
Sometimes	31
Often	106
Never	17

Graph 4.4 Eco- Friendly Packaging Material

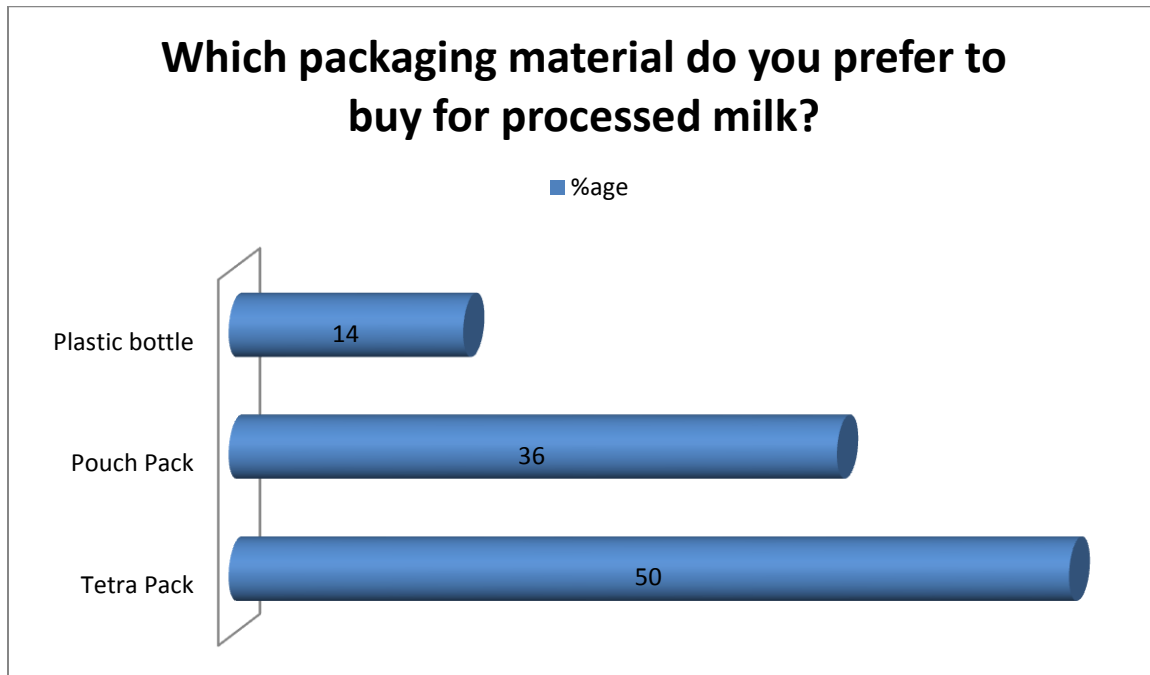


The graph 4.4 shows that 46% of the respondents are often in favor of buying processed milk with an eco friendly packaging, followed by 33% who always opt for an eco friendly packing material.

Table 4.5 Type of Packing Material

Options	Frequency
tetra pack	115
pouch pack	83
plastic bottle	32
Total	230

Graph 4.5 Types of Packing Material



The graph 4.5 elucidates that a majority of the respondents i.e. 50% prefer Tetra Pack as a packaging material whilst 36% prefer pouch pack. On the other hand only 14% opted for plastic bottles, this implies that using plastic bottles for processed milk will deter consumers from buying processed milk.

4.4 Packaging Color

The third dimension seeks to determine whether there is a relationship between independent variable packaging color and dependent variable consumer buying behavior.

Moreover, the Packaging Color was further explored with respect to the most commonly used brands' colors (as pointed out by the consumers in the research questionnaires where they were

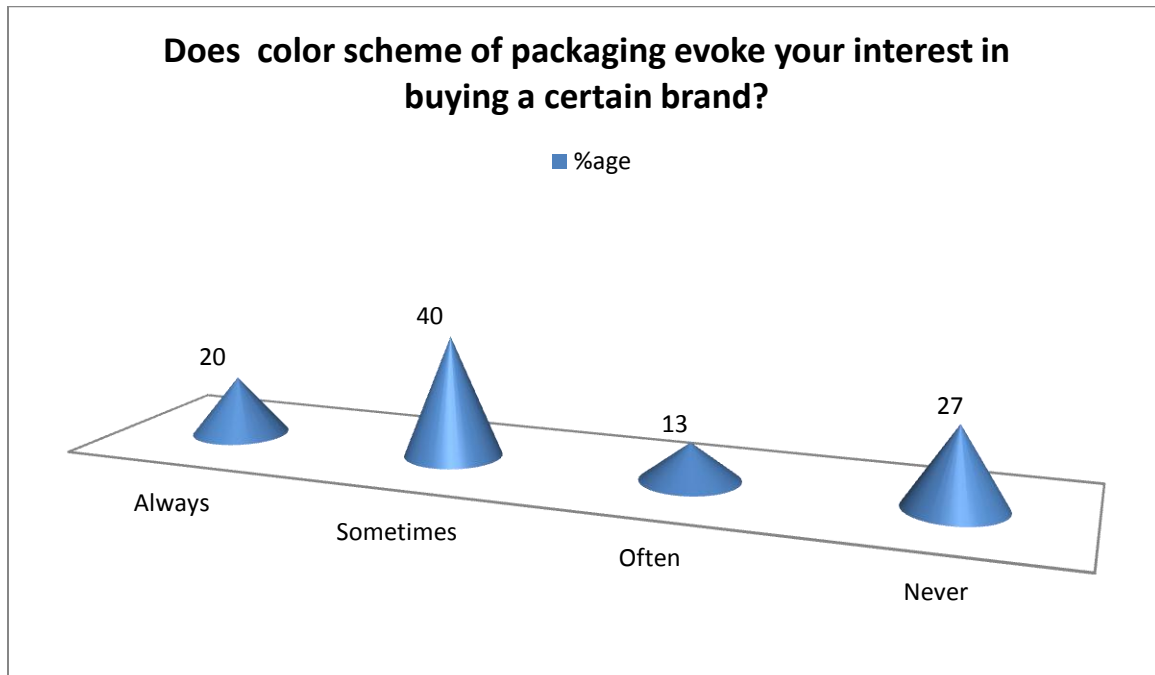
asked to indicate which brand do they associate with a particular color) such as Red, Blue and Green, this study also includes the findings related to these sub elements of packaging color of packaged milk with consumer buying behavior so that the marketers and package designers should not only know that package color positively influences consumer buying behavior, they should also know which type of package color will positively or negatively influence consumer buying behavior.

4.4.1 Impact of color in evoking interest in buying a brand of processed milk

Table 4.6Buying Behavior and Packaging Color

Options	Frequency
Always	46
Sometimes	94
Often	29
Never	61
Total	230

Graph 4.6 Buying Behavior and Packaging Color



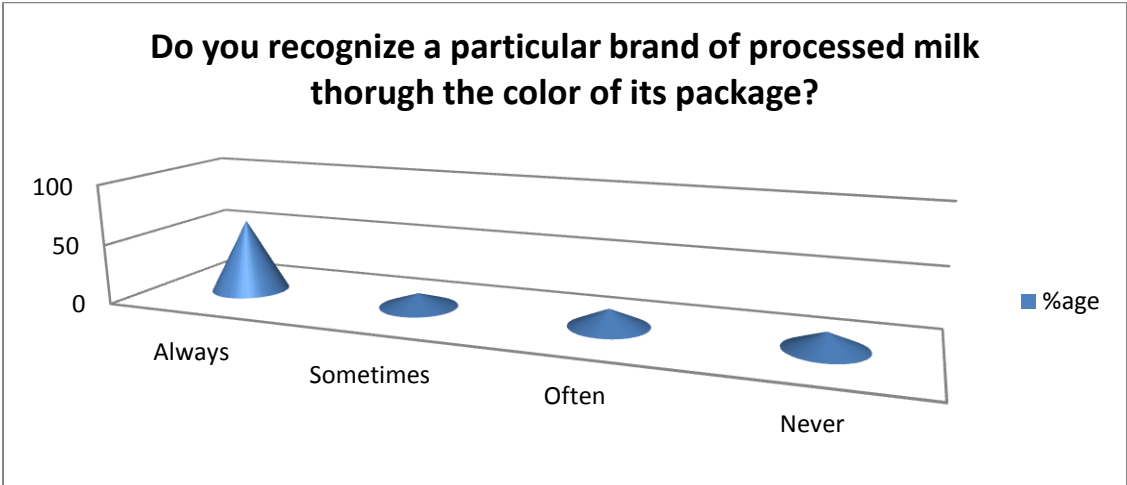
The graph 4.6 shows that 20% of the respondents say that color scheme of packaging always evokes their interest in buying a certain brand whereas 40% say that sometimes their interest is evoked by the color scheme of the packaging.

4.4.2 Brand Recognition through color

Table 4.7 Brand Recognition through Color

Options	Frequency
Always	140
Sometimes	26
Often	33
Never	31
Total	230

Graph 4.7 Brand Recognition through Color



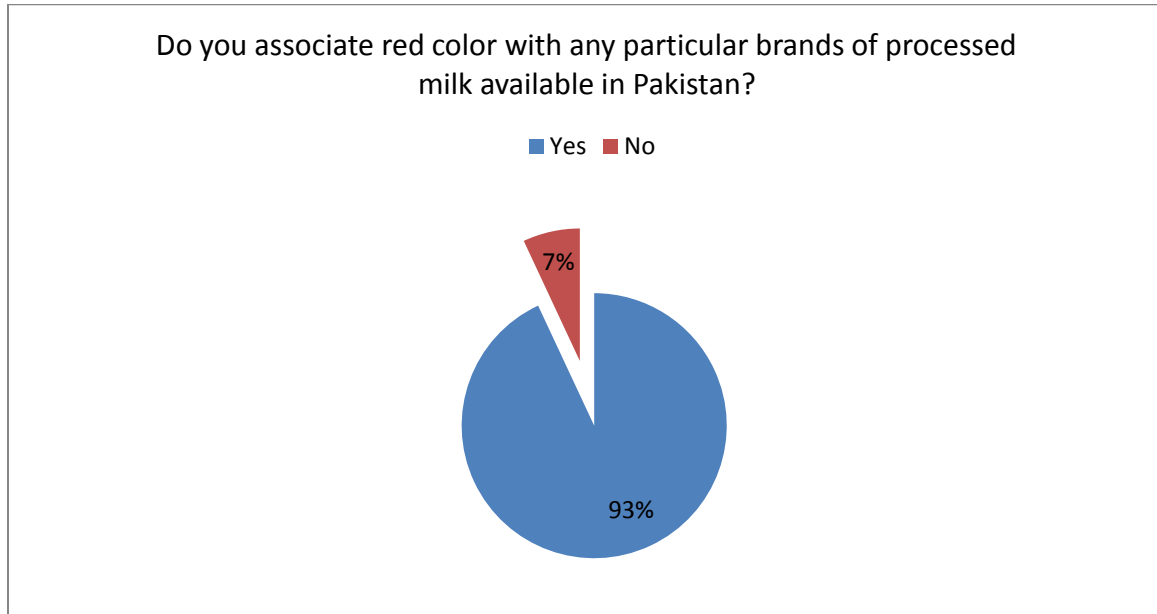
The graph 4.7 shows that a majority i.e. 61% of respondents have strong brand recognition tied to the color of the particular brand.

4.4.3 Association of Red Color with a particular brand

Table 4.8 Association of Red Color with a particular brand

Options	Frequency
yes	214
No	16
Total	230

Graph 4.8 Association of Red Color with a particular brand



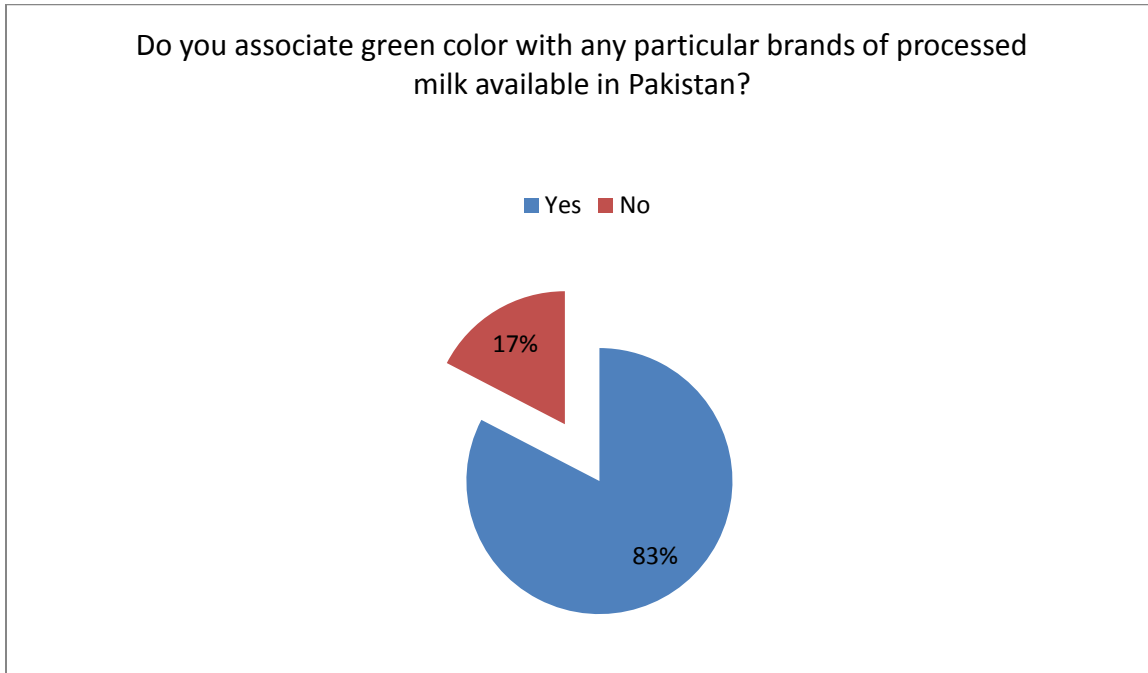
The pie chart shows that a sweeping majority of respondents i.e. 93% associate Red color with the brands of processed milk available in Pakistan. In addition, the particular brands which they mentioned included Olpers and Good Milk.

4.4.4 Association of Green Color with a particular brand

Table 4.9 Association of Green Color with a particular brand

Options	Frequency
yes	190
no	40
Total	230

Graph 4.9 Association of Green Color with a particular brand



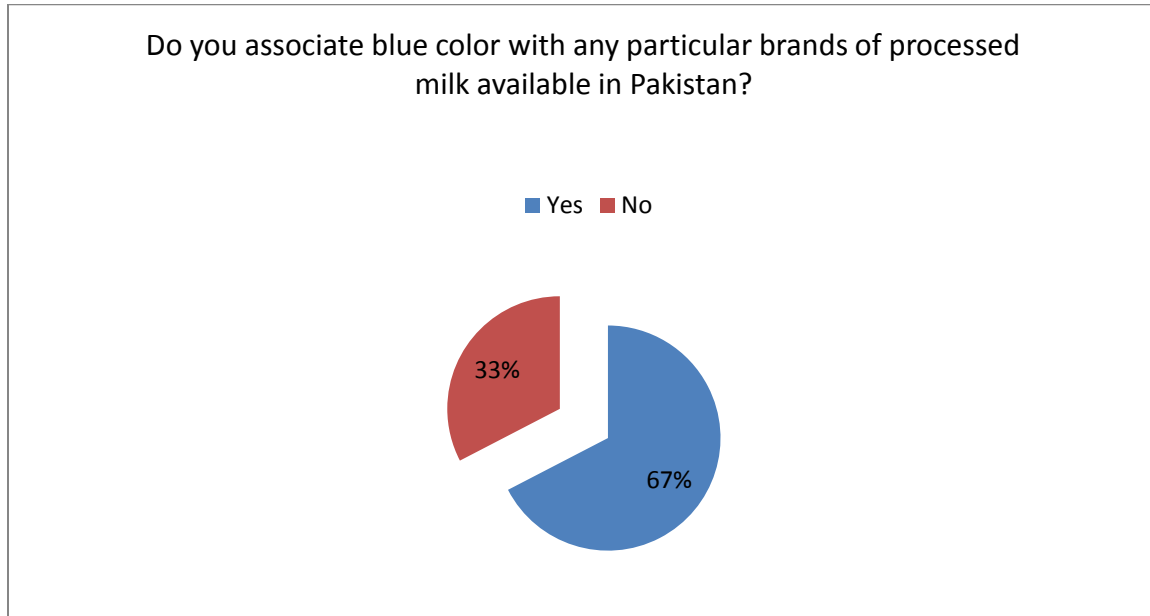
The pie chart shows that a sweeping majority of respondents i.e. 83% associate Green color with the brands of processed milk available in Pakistan. In addition, the particular brands which they mentioned included Milk Pak.

4.4.5 Association of Blue Color with a particular brand

Table 4.10 Association of Blue Color with a particular brand

Options	Frequency
yes	155
no	75
Total	230

Graph 4.10 Association of Blue Color with a particular brand



The pie chart shows that majority of respondents i.e. 67% associate Blue color with the brands of processed milk available in Pakistan. In addition, the particular brands which they mentioned included Prema, Haleeb and Anhaar.

4.5: Packaging Size

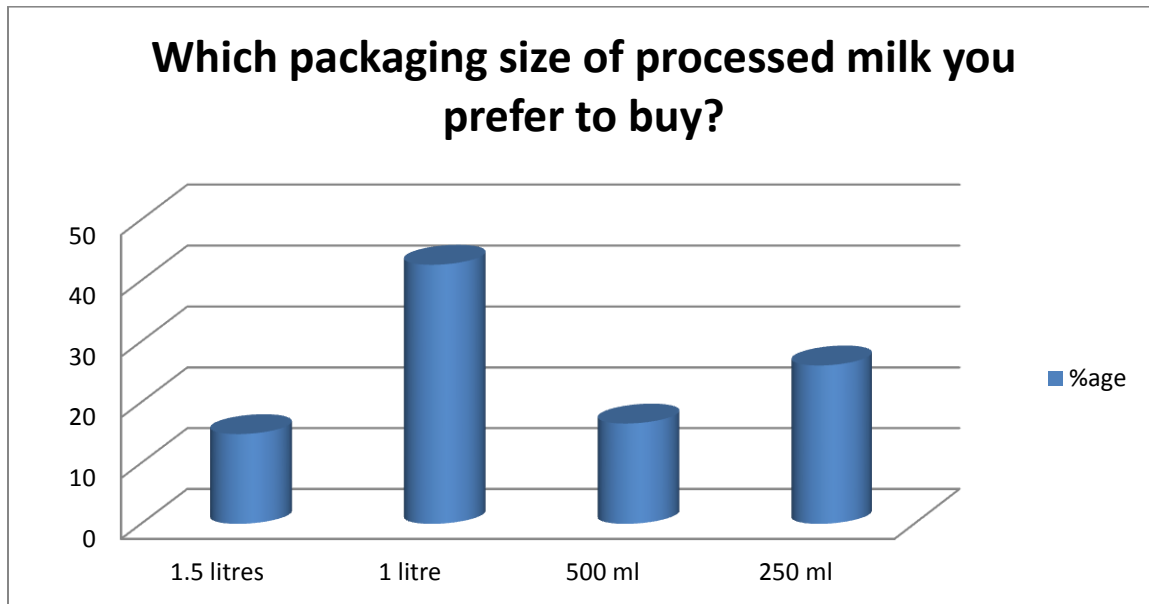
The fourth dimension is regarding the relationship between independent variable packaging size and dependant variable consumer buying behavior.

Moreover, the Packaging size was further explored with respect to the most commonly available sizes, this study also includes the findings of these sub elements of packaging size of packaged milk with consumer buying behavior so that the marketers and package designers should not only know that package size positively influences consumer buying behavior, they should also know which type of package size will positively or negatively influence consumer buying behavior.

Table 4.11 Packaging Size

Options	Frequency
1.5 litres	34
1 litre	98
500 ml	38
250 ml	60
Total	230

Graph 4.11 Packaging Size



The graph shows that the most commonly purchased packaging size of processed milk is 1 litre i.e. 43% followed by 250ml i.e. 26%. Packages of 500 ml and 1.5 litres are relatively less preferred as depicted by the graph.

4.6 Packaging Shape

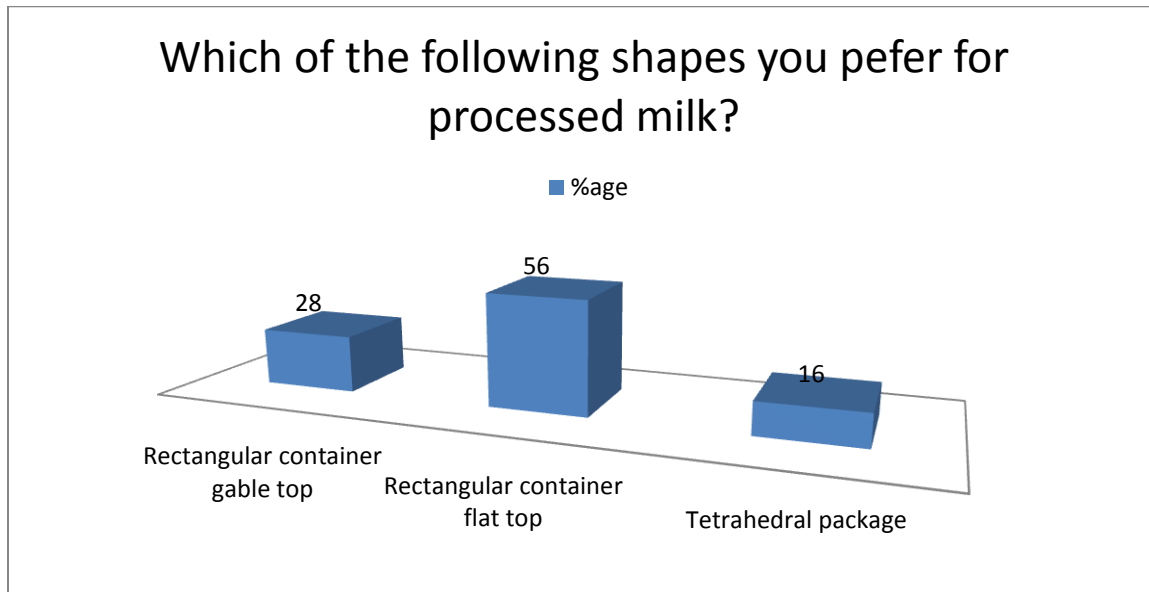
The fourth dimension is regarding the relationship between independent variable packaging shape and dependent variable consumer buying behavior.

Moreover, since the Packaging shape was further explored with respect to the most commonly available shapes ,this study also includes the findings of these sub elements of packaging shape of packaged milk with consumer buying behavior so that the marketers and package designers should not only know that package shape positively influences consumer buying behavior, they should also know which type of package shape will positively or negatively influence consumer buying behavior.

Table 4.12 Packaging Shape

Options	Frequency
rectangular container gable top	65
rectangular container flat top	128
tetrahedral package	37
Total	230

Graph 4.12 Packaging Shape



The graph 4.12 shows that the majority of the respondents i.e. 56% prefer the rectangular container with a flat top while their second priority with respect to shape is rectangular container with gable top i.e. 28% whereas tetrahedral pack got the lowest percentage.

4.7 Packaging Graphics and Printed information

The sixth aspect is regarding the relationship between independent variable packaging graphics and printed information and dependent variable consumer buying behavior.

The Packaging graphics was combined with printed information, the latter was further explored with respect to three important aspects i.e. the brand slogan such as Nestle Milk pack's brand slogan is 'Doodhkakhalismaza', information pertaining to manufacturing and expiry date and information related to nutritional facts. Therefore this study also includes the correlations of these sub elements of printed information on packaged milk with consumer buying behavior so

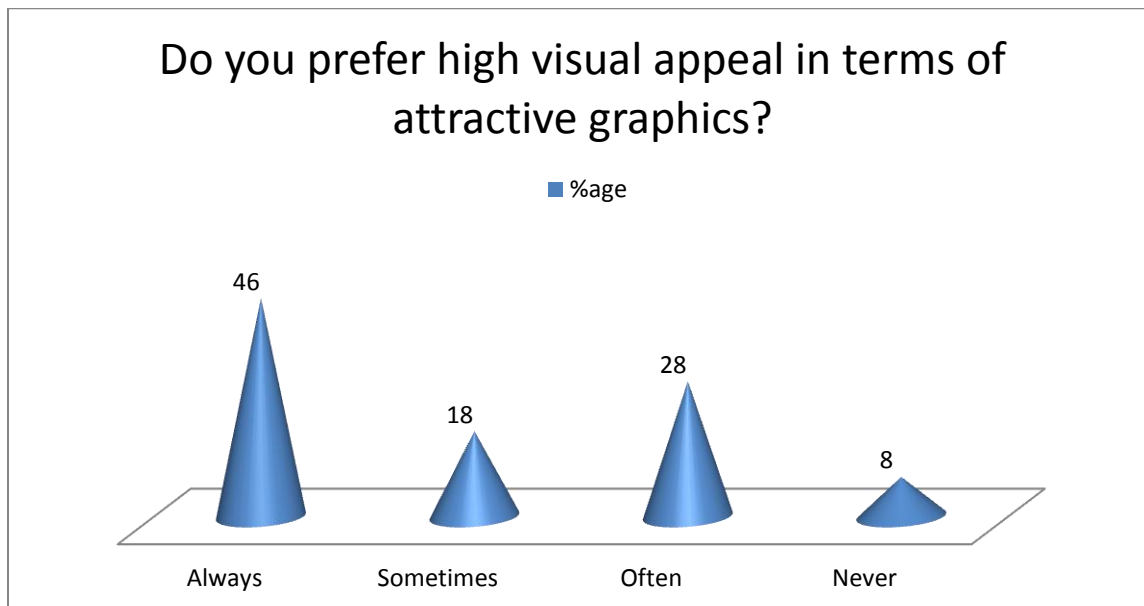
that the marketers and package designers should not only know that package graphics and information positively influences consumer buying behavior, they should also know which type of printed information will positively or negatively influence consumer buying behavior.

4.7.1 Buying behavior in relation to attractive packaging

Table 4.13 Buying behavior and Attractive Packaging

Options	Frequency
Always	105
Sometimes	41
Often	65
Never	19
Total	230

Graph 4.13 Buying Behavior and Attractive Packaging



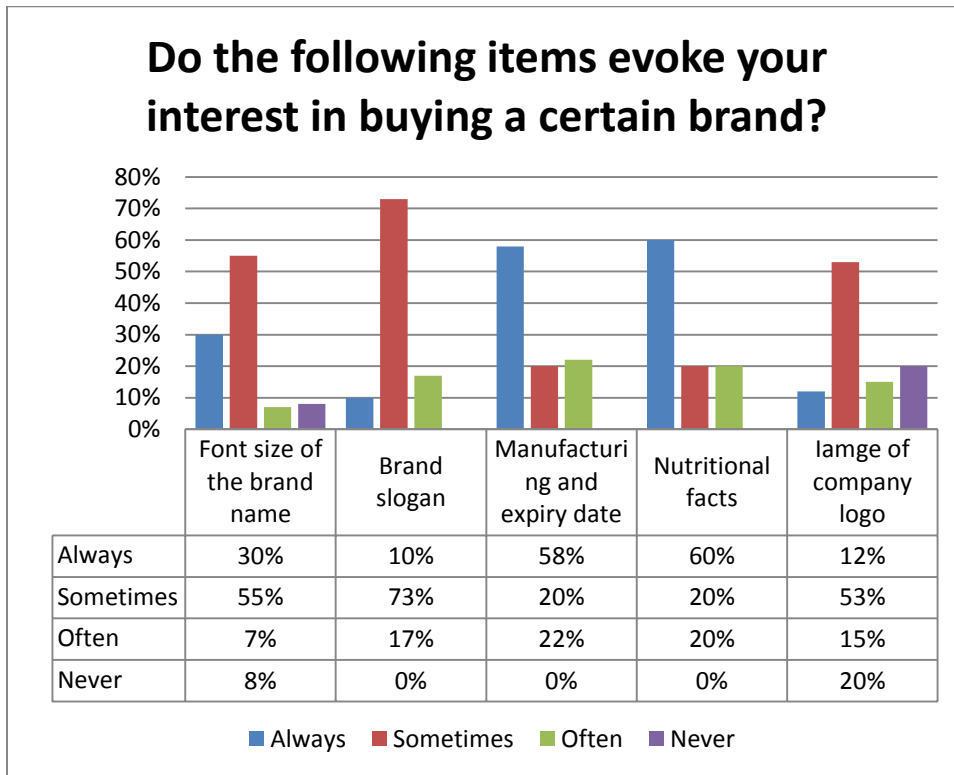
The results clearly indicate that the majority of the respondents tend to prefer high visual appeal of packaging in terms of attractive graphics i.e. 48% say they always prefer it followed by those who say that they prefer it quite often i.e. 28%.

4.7.2 Consumer behavior with respect to printed information and graphics

Table 4.14 Buying Behavior and Printed Information and Graphics

	Font size of the brand name	Expiry & Manufacturing dates	Nutritional facts	Brand slogan	Image of the company logo
Options	Frequency	Frequency	Frequency	Frequency	Frequency
Always	68	133	139	23	12
Sometimes	126	45	44	167	161
Often	16	52	47	40	35
Never	20	0	0	0	22
Total	230	230	230	230	230

Graph 4.14 Buying Behavior and Printed Information and Graphics



The graph indicates that 55% of the respondents are of the opinion that sometimes their interest is evoked by the font size of the brand name while 30% say that their interest is always evoked by the font size of the brand name. 73% of the respondents say that sometimes their interest is aroused by the brand slogan, 17% say that they are often interested in the brand slogan. 58% of the respondents are always interested in the information such as manufacturing and expiry information. 60% respondents are always interested in the nutritional facts mentioned on the package of processed milk. Lastly, 53% are sometimes interested in the image of the company logo on the package of processed milk.

Chapter 5

5. Conclusions and Recommendations

In order to analyze the significance of the independent and dependent variables six research dimensions were chosen and the conclusions and recommendations based on the survey results as enunciated by the graphical analysis are as follow:

5.1: Packaging Design

The first dimension is to see whether there is a relationship between various aspects of the independent variable packaging design and dependant variable consumer buying behavior.

Four aspects of packaging design have included in the research, these include packaging cap, easy-to-tear packaging, jug shaped packaging design and convenience in handling the packaged milk.

It was unearthed through the research that majority of the frequent users of processed milk i.e. 52% prefer the packaging design wherein there is a cap on the carton/ container , 34% prefer easy to tear pouch pack while only 14% prefer jug shaped packaging. Secondly, an overwhelming majority of the respondents i.e. 94% say that the design that allows convenience in handling and storage impacts their buying behavior of processed milk.

Hence, it can be concluded that if a jug shaped package design is introduced that might have a negative impact on the consumer buying behavior, introducing easy to tear pouch pack might not negatively impact the consumer buying behavior however the positive impact would not be as significant as it would be if carton with a cap on top is used. The reason being that the easy to tear pouch does not allow convenience in handling and is difficult to be stored in the refrigerator

due to the fear that it might spill over however a carton with cap on top can be easily handled and stored.

Therefore it is advisable in the light of the research to introduce packages with a cap on top.

5. 2:Packaging Material

The second dimension is to determine whether there is a relationship between independent variable packaging material and dependent variable consumer buying behavior.

Questions regarding different packaging material are included in the research. This research includes Tetrapak, pouch pack and plastic bottles as packaging materials.

It was revealed through the research that more than 46% respondents prefer eco friendly packing and further 50% prefer Tetra pack followed by pouch pack. The results indicate the fact that owed to increased awareness regarding environment protection and eco friendly products, consumers usually prefer Tetra Pack as packaging material. As far as plastic bottles are concerned, the research reveals that consumers do not prefer plastic bottles as packing material. The reason might be that plastic bottles tend to have a certain type of bad odor which according to some respondents seems to seep into the milk as well.

Hence, it is recommended in the light of the research to use Tetra pack as packing material since it has a positive influence on consumer buying behavior.

5.3: Packaging Color

The third dimension seeks to determine whether there is a relationship between independent variable packaging color and dependent variable consumer buying behavior.

Different aspects of packaging color are included in the research. These aspects include brand recognition through color and association of green, blue and red colors with packaged milk which are the colors of famous brands in the market. The latter aspect assesses if consumers carry color vocabulary in this product category.

With respect to color it was discovered through this study that 40% of the respondents said that their attention is grabbed by the attractive colors of a package of processed milk. In addition, it was discovered that 61% of the respondents recognize a particular brand of processed milk through its color. This implies that consumers have a strong color vocabulary which is further proven by the fact that 93% of the respondents were able to associate Red color with Olpers and Good Milk, 83% could associate Green color with Milkpak, while 67% linked Blue with Prema, Haleeb and Anhaar. This leads to another important conclusion that Olpers' marketing objectives are being fulfilled quite effectively since they have carved a niche for themselves in the consumers' mind since a majority of them could relate to the Red color of its package.

Thus, it is recommended that the color of the package of processed should be chosen very carefully and after a lot of deliberation since it is also one of the integral packaging elements that influence buying behavior of the consumers and builds brand recognition and association which can translate into consumer loyalty and generate high volumes and profits.

5.4: Packaging Size

The fourth dimension is regarding the relationship between independent variable packaging size and dependent variable consumer buying behavior.

Questions are included in the research regarding their preferable size of packaged milk and if they want that packaged milk should be available in all sizes.

The research results indicate that majority of the consumers prefer buying either the 1 litre pack or else 250 ml pack of processed milk i.e. 43% and 23% respectively.

In the light of the research it is therefore recommended that more of the 1 litre and 250 ml packs should be manufactured as opposed to 500 ml or 1.5 litres.

5.5:Packaging Shape

The fifth dimension seeks to ascertain whether there is a relationship between independent variable packaging shape and dependent variable consumer buying behavior.

The three types of shapes considered in the study are rectangular containers with gable top, rectangular container with flat top and tetrahedral shape.

The results of this study indicate that 56% of the users of the packaged milk prefer container with a flat top followed by 28% who prefer gable topped containers while only 16% opted for tetrahedral package.

It is therefore recommended that more of the flat topped packages should be introduced compared to gable topped and tetrahedral packaging of processed milk should not be used as it likely to deter consumers from buying that brand of processed milk.

5.6:Packaging Graphics and Printed information

The sixth aspect is regarding the relationship between independent variable packaging graphics and printed information and dependent variable consumer buying behavior.

Two of the sub aspects of packaging graphics are included. One is the effect of font style, another is the image of company logo. Aspects of printed information include description of the nutritional facts, expiry and manufacturing dates, brand slogan.

The research results indicate that 46% of the consumers prefer packages with high visual appeal in terms of graphics, 30% are always attracted by the font size of the brand name mentioned on the package, 73% sometimes get attracted by the brand slogan, 58% always are interested in the manufacturing and expiry date information and 60% are always interested in the nutritional facts. Lastly, 53% are attracted by the image of the company logo on the package.

It can therefore be recommended that since the consumers have become increasingly health conscious thus nutritional facts and manufacturing and expiry dates should be given special attention when designing then package of processed of processed milk since it is likely to have a positive impact on the consumer behavior.

The problem being studied in this research was to know which visual elements of packaging of packaged milk influence consumer buying behavior, which is an important question to be answered for firms and marketers as well as packaging designers. Hence all the dimensions of the research and the problem statement have been duly probed and analyzed and it has been seen that all six elements and their sub dimensions (independent variables) are important determiners and have an impact on consumer buying behavior of processed milk(dependent variable).

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