

Effective Packaging: A Stimulation to Buying Behavior with Respect to Food & Beverages

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Abstract

Packaging is the container for a product, encompassing the physical appearance of the container and including the design, colour, shape, labelling and materials used". Packaging has a huge role to play in the positioning of products. Package design shapes consumer perceptions and can be the determining factor in point-of-purchase decisions which characterize the majority of shopping occasions. The purpose of this study is to determine the elements which define packaging of food and beverage products along with their interrelationships amongst themselves. It also analyzes the relationship between demographics and select elements of Food and Beverage packaging. It is a descriptive research conducted by distributing a structured questionnaire designed on a five point likert scale. Data is collected using convenience sampling and analysed with the help of SPSS 20.0. It was observed that packaging as a combination of all the elements did not show any significant relationship with the demographic factors. Informational element was found to be most effective and important in case of packaging of food and beverages, this implied that consumers perception is influenced the most by the manufactured and expiry dates as well information printed on the label. While looking at interrelationships between four elements, it showed moderate levels of association amongst each other. This research can be an effective input to many companies to reconsider their packaging approach and better understand their consumer behaviour in relation to their packaging efforts.

Keywords: packaging, consumer behaviour, brand, functional, informational, visual elements

Introduction

In recent years the marketing environment has become increasingly complex and competitive. A product's packaging is something which all buyers experience and which has strong potential to engage the majority of the target market. This makes it an extremely powerful and unique tool in the modern marketing environment.

During the last decades, food consumption has observed several trends that have to do with changes in social and economic environment as well as in lifestyle. Urbanization has resulted in increased consumption of packaged and processed food;

consumers are now seeking their food in packages on the shelves of food stores. Packaged foods have the largest market share of food in developed countries and there is a trend for big increase in their market share in developing countries as the income of consumer is increasing.

Packaged food sector is presently the fifth largest sector in India and has grown rapidly over the past few years. Indian packaged food industry has escalated remarkably at a CAGR of 15.6% from FY'2007-FY'2013. The packaged food industry in India has been characterized by low rural penetration coupled with a strong prevalence of the unorganized sector for years. Attributing to factors such as, low affordability, lack of awareness and preference towards home cooked food, penetration of packaged foods has remained low among rural households. Rural areas therefore establish a huge untapped market for the transactions of wrapped foods in India.

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Marketers of food companies are asked to overcome this competition using every possible marketing tool and trying to create the best possible marketing mix. Among other means to communicate this message is the food package itself. Packing is a communication device providing details about the product, including price, contents, ingredients and nutritional value as well as cooking instructions and recommended use by dates. The role of packaging as a means of communication with the consumer and choosing trademarks is growing constantly. In order to fulfill the communication goals, it is necessary for the producers to acquire adequate information regarding the customer's psychology. In this study, packaging of food products is divided into four major elements. The first is **Brand Elements**. Kotler suggests that a brand is one of the most valuable intangible assets of the company and is at the heart of the firm's products or services. Whilst most brand practitioners argue that the package design is an important component of the brand strategy, literature on packaging information tends to view the brand elements as a key ingredient of the product informational package elements. In food packaging, the brand strategy plays a pivotal role in reducing time spent on consumer search as it facilitates brand identification (Bassin, 1988). A well-coordinated branding strategy with a good brand name, slogan, logo, symbols, and character can be influential in the purchase of breakfast cereals. The next is a **functional element** that is a correspondence of packaging to its practical purpose. The roles the package fulfills are related to psychological function, where the package interacts with the consumer and to physical property of a package on a stage of production and product preservation. The three prime functions of packaging are 'To contain, To protect and To identify'. The third element is **informational element**. Communication of information is one of the core functions of the packaging. This helps customers to make the right decisions in the purchasing process. Food labeling is used to inform consumers of the properties of pre-packaged food. The most important rule of labeling is that the consumer should not be misled. In order to safe guard the interest of the consumer, The Food Safety and Standards (Packaging and Labeling) Regulations,

2011, provides that every packaged food article has to be labeled and it shall provide the required information. Last but not the least is **Visual Elements**. Grossman & Wisenblit (1999) say that the decision making for low involvement products includes the evaluation of packaging design attributes which is less important, while the graphics and color become more valuable and noticeable. They suggest that the consumer behaviour towards the low involvement products can be influenced by the development of marketing communications which includes image building. Graphics include image layout, colour combination, typography, and product photography. The combination of all these components communicates an image. Graphics on the package tells about 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. However, eye-catching graphics make the product stand out on the shelf and attract the consumers. All these four elements and the behaviour of the consumer towards them have been a major issue of interest for the marketing researchers during the last decades. Variation of consumer behaviour is because of the effect of different factors influencing the behaviour and motivation of the person enabling purchases. The existence of different groups of consumers for the markets of a single product indicates wide differences. The consumer is considered today as the major key to the success or the failure of a company. Identification of these relations and examination of the role of different packaging components in the behaviour of the consumer will undoubtedly identify the strengths and the weaknesses of the companies for entering into competitive markets. Therefore the essential question of the present research is how the different aspects of product packaging influence the purchasing behaviour of the consumer. In other words how the individual aspects of product packaging, i.e. colour, design, functionality etc of packaging influences the purchasing behaviour of the consumer?

Literature Review

According to **Rita Kuvykaite (2009)** package attracts consumer's attention to particular brand, enhances its image, and influences consumer's perceptions about product. Also package imparts unique value to products, works as a tool for differentiation, i.e. helps consumers to choose the product from wide range of similar products, and stimulates customers buying behavior. At the same time, **Ulrich R. Orth (2009)** worked on packaging design as resource for the construction of Brand Identity. A thorough review of the literature on packaging design reveals that there are no meaningful guidelines for developing holistic packaging design, Shapes, Finishes, Sizes, Images, Typography, Colors, Impressions, Purchase Intention, and Brand. This research aimed at generating guidelines for managing strategic brand impressions, namely brand identity created by the wine packaging design. **Kriti Bardhan Gupta (2009)** has also conducted a study on consumer behaviour for Food Products in India. The relative importance of various food purchasing criteria was estimated for four different food categories, food and vegetables; milk and milk products; food grains and pulses; and processed foods on 1-5 scale, The present study explored the consumer behaviour for food products in India from different perspectives. People accepted the fact that their food habits get affected while shifting to a new region but many basic buying and consumption behaviour do not change. Some of the changes in buying and consumption behaviour of relocated people, which were observed after their settlement to a new region, were not significantly different from the level of changes in behaviour of non-moving people. From an economical and environmental perspective it is very costly to apply sales packaging (with additional material use and transport volume) to products that do not need them, or to apply them in an ineffective way. Economical costs and environmental impact can be expressed in a single score, indicating the packs performance. To allow proper management of the pack design the sales performance should be expressed in as simple way as possible, preferably also a single score. As calculating the sales performance is impossible a test will need to be used. The pressure from time-to-market in the CE

industry, demands that the test be relatively simple. According to **Héroux et al. (1988)**, marketers spend considerable time and money on packaging products in a manner that will attract consumer attention and promote its consumption. **PiresGon, Calves, Ricardo (2008)** worked on Product Characteristics and Quality Perception, and suggested that consumers are faced with quality and product performance uncertainty; hence, they rely on cues as extrinsic attributes, for instance brand, price, package and warranty, as signals of perceived quality. Little research has been done on packages as extrinsic attributes used by consumers as signs of perceived quality, thus this study is a small contribution to that lack of scholarly research on packages. The model proposed in this study builds on previous models of consumer quality perception and signals of quality from product cues. In this research, colors and shapes combinations in labels are considered as the extrinsic attributes used as signals of quality by consumers.

Liang Lu (2008) suggested that packaging is an important part of the product that not only serves a functional purpose, but also acts as a mean of communicative information for the products and brand character. Packaging must be functional; it must protect the products in good storage, in shipment and often in use. Besides, it has also the function that can give customers the ease of access and use on the purpose of convenience. Previous to this, **Silayoi and Speece (2007)** performed a conjoint analysis in order to investigate what is the importance of different packing design attributes for consumers. Results showed strong segmentation in response to packaging. The three segments, convenience oriented, information seeking, and image seeking, follow patterns common worldwide. To some extent, this suggests that on a broad level, middle class urban consumer behavior in Thailand is becoming similar to other developed countries. In other words, these consumers view the package as a coherent whole, stressing one aspect or another, but not completely ignoring any element. There may not be a single ideal design for the whole market, but the most effective single package would probably need to have a technology image which clearly conveys convenience and ease of use; list clear product information, and

have more classic, traditional graphic design, colors, and shape. The conjoint results indicate that packaging technology (which conveys a message of convenience and ease of use in this study) plays the most important role in consumer likelihood to buy. Looking at a different objective of a **Marshall's, Stuart's & Bell's study (2006)**, it was to determine the role of packaging color in product selection among preschoolers, by age and gender, across three product categories: cereals, biscuits and drinks. The results showcased a high correlation between favourite colour and choice of product across the total sample, with lower correlations for individuals. **Mitul M. Deliya & Bhavesh J. Parmar (2012)** in their paper discussed the role of packaging on consumer buying behaviour. They researched the relationship between independent variable and dependent variables and concluded that consumer buying behavior is dependent on the packaging and on its features. Due to increasing self-service and changing consumers' lifestyle the interest in package as a tool of sales promotion and stimulator of impulsive buying behaviour is growing progressively. So package performs an important role in marketing communications, especially in the point of sale and could be treated as one of the most important factors influencing consumer's purchase decision. Following this, **Rashid Saeed, Rab Nawaz Lodhi, Abdul Rauf, Muhammad IqbalRana, Zahid Mahmood and Moeed Ahmad (2013)** determined the impact of labeling on consumer buying behaviour. The data analyzed through descriptive statistics, correlation and linear regression techniques showed that advertisement has positive relationship with consumer buying behaviour. The results of regression analysis showed that labeling positively influences consumer buying behaviour. Consumers purchase more quantity of the products after looking at a well labeled product. Therefore labeling influences the consumer buying behaviour. But there are some other factors also which influence the consumer buying behavior. **Rangsan Nochai and Titida Nochai (2011)** in their paper aim to investigate the sales promotion factors that impact on consumers' purchasing decision on Portable PCs or notebooks in Thailand. They suggested that the sales promotion factors "Offer member card for discount", "Extend warranty period", "Bundled with scanner", "Billboard, radio, leaflet, and

magazine", and "Able to pay by installments" are the important factors that impact on consumers' purchasing decision on Portable PCs. Furthermore, the marketer can enhance more effectiveness of customers need, increase customer base and increase market shares in this segmentation by using sale promotion strategies of developing member card for discount, increasing the number of advertising media, warranty period conditions, setting the special premiums, and pay by installments. Also, **Mahdia FarrukhSial (2011)** measured the impact of packaging and labeling on consumer buying behaviour. He also investigates the mediation of brand image for the relationship of packaging and labeling with consumer buying behaviour. Results revealed that packaging is positively associated with consumer buying behavior. Further it is found that brand image mediates the relationship of packaging and consumer buying behaviour only.

Objectives of Research

1. To identify the elements which affect Food and Beverage packaging.
2. To analyse the relationship between select elements of Food and Beverage packaging.
3. To analyse the relationship between demographics and select elements of Food and Beverage packaging

Research Methodology

A structured questionnaire is used as the research instrument for the study. Questionnaire for the survey is divided into two parts. The first part is aimed at demographic profile of the respondents and second part covers the questions on various aspects and elements of packaging. The questionnaire is developed on five point likert scale. Cronbach's alpha is used as a measure of internal consistency or reliability of a psychometric instrument. The value of Cronbach's Alpha is greater than .8, which indicates a good level of internal consistency and reliability of the questionnaire.

Sampling and Data Collection

The study was conducted in Delhi and NCR region. The questionnaire was distributed to 120 respondents

Data Analysis & Interpretation

Table-1: Demographic Profile

Category	Frequency	Percentage
Age Group <ul style="list-style-type: none"> ● 18 -25 ● 26 – 30 ● 31 – 35 ● 35 and Above 	72 13 7 2	76.6 13.8 7.4 2.1
Gender <ul style="list-style-type: none"> ● Male ● Female 	55 39	58.5 41.5
Marital Status <ul style="list-style-type: none"> ● Married ● Unmarried 	12 82	12.8 87.2
Occupation <ul style="list-style-type: none"> ● Working ● Student 	26 68	27.7 72.3
Educational Qualification <ul style="list-style-type: none"> ● Under Graduate ● Graduate ● Post Graduate 	2 39 53	2.1 41.5 56.4
Monthly Salary <ul style="list-style-type: none"> ● Less than 15000 ● 15000 – 25000 ● 25000 – 35000 ● 35000 and above 	57 14 13 10	60.6 14.9 13.8 10.6
Amount spent on packaged food products per month <ul style="list-style-type: none"> ● Less than 2500 ● 2500 – 5000 ● 5000 – 7500 ● 7500 and above 	50 29 10 5	53.2 30.9 10.6 5.3

but completely filled in questionnaire received were 94. The scale used to answer the questions in the following study is very Influential, Influential, Neutral, Rarely influential, Not at all influential with 1 as very influential and 5 as not at all influential. So according to the scale the factor having lower mean value have more significance than the factors it is compared with. Convenience sampling technique was used since the subjects are selected because of their convenient accessibility and proximity to the researcher.

Methodology Used for Data Analysis

Mean analysis has been used to study the comparative importance of four elements of packaging i.e. brand elements, functional elements, informational elements and visual elements. Also, correlation analysis is carried out to determine the strength of association between these four select elements. For testing of Hypothesis, Independent t test and ANOVA analysis has been used, where dependent variable is Consumer perception of importance of food packaging and independent

variables are the demographic factors i.e. Age, Gender, Marital Status, Occupation, Educational Qualification, Monthly salary, Amount spent per month on food product. This data has been analyzed by using SPSS 20.0.

Research Hypothesis

H₀₁ : There does not exist significant difference between age and consumer perception towards packaging of food products and beverages.

H₀₂ : There does not exist significant difference between gender and consumer perception towards packaging of food products and beverages.

H₀₃ : There does not exist significant difference between monthly salary and consumer perception towards packaging of food products and beverages.

H₀₄ : There does not exist significant difference between education and consumer perception towards packaging of food products and beverages.

H₀₅ : There does not exist significant difference between marital status and consumer perception towards packaging of food products and beverages.

H₀₆ : There does not exist significant difference between occupation and consumer perception towards packaging of food products and beverages.

H₀₇ : There does not exist significant difference between average amount spent per month and consumer perception towards packaging of food products and beverages.

According to the above table-1, the demographic profile of the sample size indicates that 77% of the respondents lie in the age group 18–25 along with more percentage of males. 60% people have their salary less than 15000, 15% have it between 15000 – 25000, 14% have it between 25000 – 35000 and 11% have their monthly salary above 35000. The profile constituted more of unmarried respondents with maximum percentage of Postgraduate and least percentage of Undergraduate. According to the sample size in the occupation category 72% are student and 28% are working. Maximum respondents spend less than 2500 per month and only 5% spend more than 7500 per month on packaged food products and beverages.

Table-2: Mean analysis used to analyze the factors affecting Food and Beverage Packaging

Factors	N	Mean	Standard deviation
Brand Elements	94	1.9	0.53
Functional Elements	94	2.00	0.52
Informational Elements	94	1.75	0.58
Visual Elements	94	2.95	0.81

According to Table 2, out of the four main select factors affecting food packaging, Informational elements with a mean value of 1.75 is the most important component of packaging element which affects consumer behaviour while making a purchase whereas Visual elements with a mean value of 2.95 affects the least.

Hypothesis Analysis

H₀₁: There does not exist significant difference between gender and consumer perception towards packaging of food products and beverages.

H₀₂ : There does not exist significant difference between marital status and consumer perception

towards packaging of food products and beverages.

H₀₃: There does not exist significant difference between occupation and consumer perception towards packaging of food products and beverages.

Observing Table-3, it is evident that in all the cases significance value is greater than 0.05 that signifies that null hypotheses is accepted. That means there is no significant relationship between gender, marital status, occupation and consumer perception towards packaging of food products and beverages.

H₀₄ : There does not exist significant difference between age and consumer perception towards packaging of food products and beverages.

Table-3: Relationship between gender, marital status, occupation and consumer perception towards packaging of food products and beverages.

Total_fpack_score	Levene's Test For Equality of Variances		T test for Equality of means	
	F value	Sig.	Df	Sig.
Gender	0.441	0.508	92	0.53
Marital Status	0.182	0.671	92	0.89
Occupation	0.767	0.384	92	0.28

H₀₅ : There does not exist significant difference between education and consumer perception towards packaging of food products and beverages.

H₀₆ : There does not exist significant difference between monthly salary and consumer perception

towards packaging of food products and beverages.

H₀₇: There does not exist significant difference between average amount spent per month and consumer perception towards packaging of food products and beverages.

Table-4: ANOVA used to analyze relationship between age, education, monthly salary, average amount spent per month and consumer perception towards packaging of food products and beverages.

Total_fpack_score	F value	Sig.
Age	0.961	0.41
Educational Qualification	0.398	0.67
Monthly Salary	0.530	0.66
Amount spent per month	1.827	0.14

According to the above table, the significance in all the cases is more than value of alpha i.e. 0.05 so null hypothesis is accepted. Again that signifies there is no relationship between age, education, monthly salary,

average amount spent per month and consumer perception towards packaging of food products and beverages.

Table-5: ANOVA is used to analyze the relationship of individual elements of packaging with demographics

Amount_spent	F value	Sig.
Functional element	2.75	.047
Informational element	3.24	.021

When considering individual factors it was observed that Functional element and Informational element shows a significant relationship with the amount spent per month on packaged food and beverage product. The above table depicts their significance since $\alpha < 0.05$.

From the table-6, it was observed that Brand elements showed a medium level association with functional element with Pearson correlation 0.386 (Cohn, 1988)

and a small level association with Informational elements with Pearson correlation 0.260 (Cohn, 1988). Functional elements showed a medium level association with Informational elements with Pearson correlation 0.367 (Cohn, 1988). Informational elements showed a low level association with visual elements Pearson correlation 0.278 (Cohn, 1988) and the relationship is also significant. But visual elements did not show any association with Brand elements and Functional elements.

Table-6: Correlation is used to determine the strength of association between the four select elements.

		Brand Elements	Functional Elements	Informational Elements	Visual Elements
Brand Elements	Pearson Correlation Sig. (2-tailed)	1	.386 .000	.260 .011	.130 .213
Functional Elements	Pearson Correlation Sig. (2-tailed)	.386 .000	1	.367 .000	.175 .091
Informational Elements	Pearson Correlation Sig. (2-tailed)	.260 .011	.367 .000	1	.278 .007
Visual Elements	Pearson Correlation Sig. (2-tailed)	.130 .213	.175 .091	.278 .007	1

Findings

Packaging has a better reach than advertising does, and can set a brand apart from its competitors. It promotes and reinforces the purchase decision not only at the point of purchase, but also every time the product is used. Packaging in different serving sizes can extend a product into new target markets or help to overcome cost barriers. (Mitul M. Deliya & Bhavesh J. Parmar, 2012). Demographic factors when compared with the consumer perceptions of importance of packaging for food and beverage products revealed that they did not show any significant relationship between them. The impact of package and its elements on consumer's purchase decision can be revealed by analyzing the importance of its separate elements. For this purpose main package's elements could be identified as: Brand elements, Functional elements, Informational elements and Visual elements. In Branding elements, brand name influences the most while shaping consumers perception towards food and beverage packaging. In functional elements it was observed that the packaging which keeps the product fresh was most preferred by the consumer. In case of Informational elements, expiry date printed on the label influenced consumer perceptions towards buying the product. In visual elements the packaging colour influenced the consumer's perception the most. Out of all the four elements of food and beverage packaging, informational element was considered the most important by the consumers. When association between these select elements was determined by carrying out correlation study, it was observed that

brand elements showed a significant association with functional and informational elements but did not show any association with visual elements. Functional elements also showed significant association with informational elements but did not show any association with visual elements. Informational element showed a significant association with visual elements.

Conclusion

In today's competitive commercial environment apart from growing concern towards functionality of the packaging i.e. the ability of the package to keep the product safe and easy to transport marketing trends are placing increasing emphasis on the look, sales appeal and quality of retail packaging. The continuously changing demands of consumers will require higher quality graphics and promotional links between graphics and advertising to support brand identities, plus the ability to reflect current consumer trends and images. All the marketing units must pay attention on good packaging. It is necessary to set the packaging standard and to implement accordingly for better protection and promotion of a product. Thus along with keeping a focus on its branding and visual appeal they should also pay attention on the functionality of the packaging so that the food and beverage products remain fresh for a longer time and do not get spoiled and are easy to open and reuse. With growing concern for health, people now a days focus more on the information printed on the labels therefore the marketers should not mislead the consumers and should give accurate information and abide by the Food Safety and Standards Regulations, 2011.

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