

## Role of packaging in consumer buying behavior

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### CHRONICLE

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### ABSTRACT

Every year about 95% of new products fail for a simple reason that most customers do not have the time or energy to think about the advantages or disadvantages of the products they place in their shopping carts, so they rely on shortcuts to make a purchase decision such as quality, beauty and excellence of product packaging. Packaging becomes part and parcel of our contemporary life especially in the continuous development for the conception of marketing. It becomes one of the basic dimensions for the concept of production because it plays big role to emphasize the mental image of the product on the consumer's side. The importance of packaging leads several of marketing thinkers to consider it as enclosed marketing mix elements and one of corner stone in which goods depend on its success process. Therefore, the current study aims to study the concept and the importance of packaging and its role in attracting the consumer's attention, and to determine the difficulties that the companies undergo in the field of packaging. The study depends on assembling the primary data on questionnaire designed especially for this purpose, and distributed to 600 consumers in Riyadh city. In addition to that secondary data is collected from resources related to the study subject. Simple statistical analysis is used to analyze the data. The results of research confirm the big role for the packaging in consumer attraction in study sample with all dimensions (design, color, size, and shape). The most important recommendation of the study is that to adopt a clear policy for packing in industrial organizations that cope with high technological development and the fast changing in consumer's tastes. It must be taken into the consideration the modern marketing orientations in product's packaging including the green marketing that depends on using material that has a little environmental effect at packaging process compared with traditional methods.

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## 1. Introduction

In the light of the openness of the market and the convergence among the markets, the markets are crowded with the different commodities, as one can see the one commodity comes in shapes and different substitutes, consequently, it becomes necessary for the organization to recognize its commodities among other existed ones in the market in order for the customer to find the commodity very easily (Grönroos, 1982; Klimchuk & Krasovec, 2013). Therefore, the organization relies on the strategy of packaging in recognizing its commodities from other commodities to attract consumer's attention to some particular commodity. In other words, the packaging or cover may become the main reason behind the consumer's demand on one commodity among others. The specialized and theoretical references refer that the covers and the packaging are not the newly born thing of the modern age, but they were used since the ancient time, whereas Leather, baskets, pottery and glassware for packaging, and in the period of the post-World War packaging have become increasingly important in various countries of the world. The prevalence of self-service stores and automated sales through machines, the spread of modern materials in the field of packaging such as plastic, paper, aluminum, wood, glass, carton, iron and other materials, and in recent years the development of the concept of packaging is no longer limited to the purpose of protecting goods from damage, but has also become a marketing tool to influence consumer trends in the purchase of goods. Packaging is of great importance for the consumer and the organization together, so the research started from the question:

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Is there any important role for the packaging in attracting the consumer's attention to any particular commodity? To answer this question, a research is conducted to examine the changes in the packaging and its role in attracting the attention of the customers.

Packaging has been under tremendous investigation by different researchers. Azad and Masoumi (2012) determined important factors influencing competitive advantage associated with packaging and determined eight independent variables including packaging endurance, easy distribution, customer promotion through packaging, packaging structure, packaging as silent advertiser, diversity of packaging, clean and healthy packaging and innovation in packaging. The results confirm that all mentioned factors influence competitiveness, effectively. Azad and Mohammadi (2013) attempted to determine essential factors impacting on packaging dairy products. The study implemented factor analysis to determine important factors based on a questionnaire distributed among some employees of Pegah dairy producer and determined five factors including infrastructure, awareness, design and communication as important factors influencing consumers. Benachenhou et al. (2018) investigated on the effect of marketing innovation and the visual and verbal elements of packaging on customers purchase intentions. They demonstrated that marketing innovation and the visual and verbal elements of packaging influenced on the purchase intentions of the customers of this brand. Arora et al. (2017) identified and analyzed the effect of critical success factors (CSFs) influencing technology implementation in Consumer Packaged Goods (CPG) supply chain. The study revealed "Inter-Organizational", "Organizational", "CPG Sector Specific", "Human" and "Program Management" CSFs influence successful technology implementation in CPG supply chain. Muslim et al. (2020) examined the effect of social media experiences on attitudes and behavioral intentions towards Umrah package among generation X and Y in Malaysia. The study confirmed that sharing of contents of social media experiences could maintain a significant and positive effect on behavioral intentions. Rundh (2009) described how packaging design could contribute to product development through investigating on the design process of a package from external and internal factors. According to Lee and Lye (2003), packaging expenses including material and direct labor are major part of a product's manufactured expenditure and it is important to reduce such costs as much as possible. Thus, it is important to manage packaging costs to reduce the unnecessary costs without losing customer's demand. Svanes et al. (2017) discussed on how to plan and implement a sustainable packaging to promote business development. Clement (2007) performed an empirical investigation to determine the visual effect of in-store buying decisions. The study focused on an eye-track experiment on the visual effect of packaging design.

## 2. Theoretical framework

### 2.1 The Research Problem

The companies encounter many problems in the process of packaging their products, among them is the difficulty to choose covers and packaging that attract the consumer's attention, In addition, they ignore the role played by the choice of packaging in attracting consumer attention to the commodity, as well as the lack of proper and orderly selection of packaging. Accordingly, the problem of research can be crystallized in the following question:

Does packaging have a role in attracting consumer attention to the commodity?

This main question the following questions arises from

- Does the design of the casing and packaging have any role in attracting the attention of the consumer towards the commodity?
- Does the size of the package and the packaging play an important role in attracting consumer attention to the commodity?
- Does the shape of the package and the packaging play an essential role in attracting consumer attention to the commodity?
- Does the color of the packaging and packaging have any impact attracting consumer attention to the commodity?

### 2.2 Research Hypothesis

In order to address the problem and to achieve the objectives of the research, a hypothesis scheme is designed which reflects the relationship of research variables, including packaging and attract the attention of the consumer towards the commodity and shown in Fig. 1.

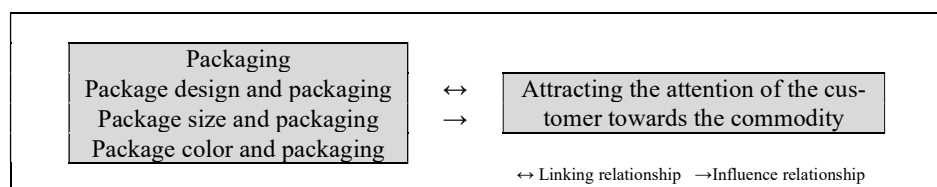


Fig. 1. The proposed study

2.3 Research Hypotheses

The Main Hypothesis

There is a significant correlation between packaging and attracting the consumer’s attention towards the commodity, and from this relationship the subdivided hypotheses have been branched as follows

*The First sub-hypothesis:* There is an important linking between the packaging and attracting customer’s attention towards a commodity.

*The Second Sub-hypothesis:* There is a significant correlation between the size of the package and the packaging in attracting consumer’s attention towards the commodity.

*The Third Sub-hypothesis:* There is a significant correlation between the shape of the package and the packaging in attracting consumer’s attention towards the commodity.

*The Fourth hypothesis:* There is a significant correlation between the color of the package and the packaging in attracting consumer attention towards the commodity.

3. Research Methodology

In order to achieve the objectives and hypotheses of the research and to address the problem of research, a descriptive and analytical approach was adopted using the questionnaire. The sample of the research includes 600 consumers in the city of Riyadh, randomly and the number of questionnaires received and valid for analysis was 480 questionnaires. The collection of the secondary data was conducted through depending on the available sources and references related to the research variables. As for the primary data, the questionnaire was adopted as a main tool for collecting this data; where questions were prepared that clarify the role of packaging in attracting the attention of the consumer. The questionnaire included 26 items distributed on the research variables. After finishing the preparation of the initial formula of the standards of the study it was presented in the form of a questionnaire to five arbitrators and experts in the field of marketing and business administration. The experts were asked to mention their views about the study tool and the validity of the items to represent the its variables, and they were also asked to edit, delete to what they see as appropriate for the purpose of measuring the credibility of the tool of the study, and after the questionnaire is returned from the all experts their responses were analyzed and their notes were taken into consideration, and these items that obtained less than(80%) were deleted. In the light of all that the necessary amendments for the questionnaire and it was finalized. To ensure the extent of the stability of the standards Cronbach Alpha is calculated using the following (Anastasi, 1982).

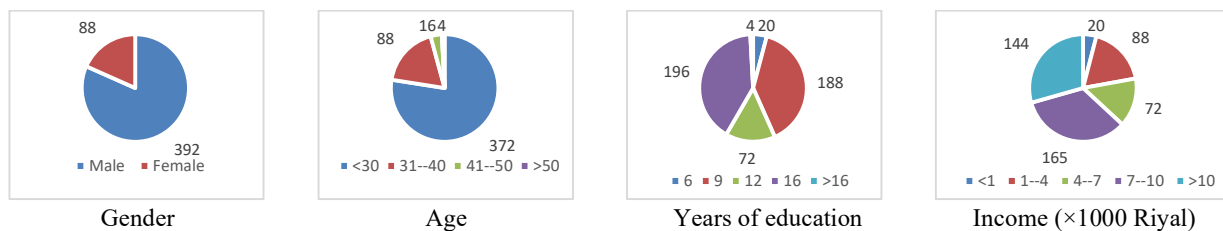
$$r_{tt} = \left( \frac{n}{n - 1} \right) \frac{SD_t^2 - \sum (SD_i)^2}{SD_t^2}$$

Applying the above equation, it was found that the coefficient of stability of the research scale was 0.79, and that percentage can be considered acceptable in the researches of administration and humanity from a scientific and statistical point of view. The researcher has relied on a number of statistical methods in order to examine the hypotheses of the research like frequencies, percentages, Linking Analysis, Inclination analysis. Table 1 shows the results of the data collected.

**Table 1**  
The summary of the collected data

Non-refundable forms		Retrieved forms	
%	F	%	F
%20	120	%80	480

Based on the statistics achieved, the characteristics of the research sample are described is Fig. 2 as follows,



**Fig. 2.** Personal characteristics of the participants

According to Fig. 1, it can be explained that there were more respondents were male, namely 392 people with a percentage of 81.6%, while 88 respondents were female with a percentage of 18.4%. Also, it was found that respondents with age  $\leq 30$  years amounted to 372 people with a percentage of 77.5%, respondents with ages 31-40 years totaling 88 people with a percentage of 18.3%, respondents with ages 41-50 years totaling 16 people with a percentage of 3.3%, and respondents with age  $\geq 50$  years amounted to 4 people with a percentage of less than one percent. In addition, nearly 41% of the participants in our survey hold university education. Finally, the majority of the people who participated in our survey earned more than 7000 Saudi Riyal.

#### 4. The results, discussion and conclusion

In this section, we present the results of testing the hypotheses of the survey.

##### 4.1. The hypotheses of the linkage

###### *The Main Hypothesis*

This hypothesis has stipulated that there is a positive and significant relationship between the independent variable (Packaging) and the dependent variable (attracting the attention of the Consumer towards the commodity). The implementation of Kolmogorov Smirnov test has indicated that the data were normally distributed and use Pearson correlation to test the hypotheses. Table 2 shows the results of testing the components of the main hypothesis.

**Table 2**

The summary of testing the hypothesis using Pearson correlation test

Variable	Independent variable				
	Design of the Package	Size of the Package	Shape of the Package	Color of the Package	Packaging
Correlation	0.48	0.23	0.46	0.30	0.69
Sig. value	0.000	0.000	0.000	0.000	0.000

As we can observe from the results of correlation test, all independent variables have positive correlation with dependent variable when the level of significance is one percent. The highest correlation is between packaging and customer attention followed by design, shape, color and size of packaging. Next, we have implemented a regression test to verify the relationship and Table 3 shows the results of some basic statistics such as t-student, f-value.

**Table 3**

The results of some basic statistics for measuring the effect of packaging on consumer attention to a commodity

The Independent Variable	The Defendant Variable	Coefficient B	T Value	Coefficient of Determination R <sup>2</sup>	F Value	Level of Significance
Packaging	Attracting the Attention of the consumer to the Commodity	0.69	6.385	0.47	54.03	0.000

According to the results of Table 3, the coefficient of R-Square is equal to 0.47 which means the independent variables can describe approximately 47% of the changes of the dependent variable. T-value is meaningful when the level of significant is one percent and F-value is also meaningful which means there is a linear relationship between the variables. Table 4 also shows the results of the regression analysis.

**Table 4**

The summary of the regression analysis

The Independent Variable	The Defendant Variable	Impact Factor $\beta$	T Value	Determination Factor	F Value	Sig.
The Design of Package	Attracting consumer attention to the commodity	0.38	4.057	%52	15.70	0,000
The Size of Package		0.23	3.709			0,000
The Shape of Package		0.46	4.592			0,000
The Color of Package		0.30	3.957			0,000

According to the results of Table 4, the following results can be achieved:

- The first sub-hypothesis: This hypothesis reports that there is a significant relationship between the design of the packaging in attracting consumer's attention to the commodity, and according to the results we understand that the design of the packaging affects the attention of the consumer towards the commodity by (0.38, p-value=0.000) and the hypothesis is confirmed.

-The Second sub-Hypothesis: This hypothesis reports that there is a significant relationship between the size of the packaging in attracting consumer's attention to the commodity. The results show that the size of the packaging affects the attention of the consumer towards the commodity by (0.23, p-value=0.000) accordingly the hypothesis is accepted.

-The Third Sub-hypothesis: This hypothesis reports that there is a significant relationship between the shape of the packaging in attracting consumer's attention to the commodity. According to the results the shape of the packaging affects the attention of the consumer towards the commodity by (0.46, p-value=0.000) which confirms the hypothesis.

- The Fourth Sub-hypothesis: This hypothesis reports that there is a significant relationship between the color of the packaging in attracting consumer's attention to the commodity, and the results show that the color of the packaging affects the attention of the consumer towards the commodity by (0.30, p-value=0.000) and the hypothesis is accepted.

Based on the results of our survey, we suggest for the development of a clear policy for packaging in industrial organizations in line with the huge technological developments and rapid changes in consumer tastes. Moreover, there is a need to consider modern marketing trends in packaging products, including the concept of green marketing, which is based on the use of materials for packaging with a relatively lower environmental impact compared with traditional methods. Moreover, the Industrial Revolutions in particular need to be considered by looking at the consumers' opinions and impressions towards their products, services which are introduced to them in order to know the deficiencies in its productive and promotional activities. The institutions have to rely on the practical steps in introducing their products for the market and focus more on the knowledge for determining the factors of success or failure of the products, and the care of satisfying the desires and the requirements of the consumer, as it is the corner stone and the starting point and ending point as well in any productive or promotional process.

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### Appendix

#### Questionnaires

Dear Brother \_\_\_\_\_

Dear Sister \_\_\_\_\_

Peace be upon you:

The Researcher is conducting a research study under the title of

The Role of the Packaging in Attracting the Attention of the Consumer

\_ Analytical study for the sample of the opinions of consumers in the city of Riyadh-

For your impressions and opinions and answers that you would reply to enable the success of this research, and obtaining the best findings, and I hope that you would honor me to answer the questions of the questionnaire with perfect frankness, knowing that your answers would be confidential and gets the care and it is for the purposes of the scientific research only.

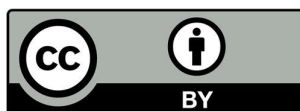
Thanking you for your Cooperation

Part 1: Personal characteristics

Gender: Male <input type="checkbox"/> Female <input type="checkbox"/>	Age: 20-30 <input type="checkbox"/> 30-40 <input type="checkbox"/> 40-50 <input type="checkbox"/> > 50 <input type="checkbox"/>	Educational background: Preparatory <input type="checkbox"/> Secondary <input type="checkbox"/> Diploma <input type="checkbox"/> University Degree <input type="checkbox"/> Post-Graduate <input type="checkbox"/>	The Average of the Monthly Income: Less than 1000 Riyal <input type="checkbox"/> 1000 less than 4000 Riyal <input type="checkbox"/> 4000 less than 7000 Riyal <input type="checkbox"/> > 7000 Riyal <input type="checkbox"/>
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Part 2: Detailed Questions about the Variables of the Research

S	Items	Level of The Scale				
		Intensively Agree	Agree	Agree to Some extent	Do not Agree	Completely disagree
1	The packaging design gives you enough information to identify the components of the product.					
2	The technical aspects of the packaging design attract your attention to the product.					
3	The design of the packaging is not important in attracting your attention to the product.					
4	The packaging design attracts your attention to varying degrees depending on the nature of the product.					
5	The packaging design gives you the information you care about quickly.					
6	The graphic on the cover draws your attention to the item.					
7	The design of the package or packaging is compatible with the nature of the item you are buying.					
8	Excellence in the design of the case of packaging attracting your attention to the product.					
9	The packaging design takes into account the customs and traditions of society.					
10	It attracts your attention to the size of the package that has saved you volume savings when consumed.					
11	The item is purchased based on the quantity of its contents listed in the package.					
12	Attracts your attention to the size of the package for the item that suits your purchasing power.					
13	Determines the nature of the product in the size of the package that attracted your attention to the commodity.					
14	Offering the item in different sizes and packages attracts your attention towards it.					
15	The free increase in the size of the packaging attracts your attention to the item.					
16	The size of the package or the packaging of the item draws you more towards the item.					
17	The outer shape of the casing or packaging draws you more towards the product.					
18	Distinguish the shape of the packaging or packaging of the commodity more than competing goods attracts your attention towards them.					
19	The shape or package that fits the nature of the commodity draws your attention.					
20	Draws your attention to the product the cover made of biodegradable materials in the environment quickly.					
21	The shape of the packaging, taking into account the possibility that you can benefit from the packaging in other uses.					
22	Attracts your attention to the commodity the fixed colors on the packaging that suit the nature of the commodity that you purchase.					
23	The color of the package or the cover of the commodity attracts your attention towards it.					
24	You have full readiness to buy commodities with the attractive colors even if they cost little higher than the traditional color goods.					
25	You think that the focus is done while offering the commodity on the color of the package to attract your attention.					
26	Changing colors of the packages is something essential and motivates you to buy.					



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