

# The Role of Packaging in Consumer's Perception of Product Quality at the Point of Purchase

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## Abstract

This study aims to investigate the role of packaging in Jordanian consumer's perception of product quality at the point of purchase. The study comprises four independent variables: Protection of products and consumer, Promotion of products, facilitation of storage, use, and convenience of products, facilitation of recycling and reducing environmental damage and the dependent variable is Jordanian consumer's perceptions of product quality at the Point of purchase. The researcher tries to develop and test a model to achieve the research objectives. Data were collected from a convenience sample of 547 respondents using a questionnaire. Questionnaire consists of 26 items measured on five point likert scale. The data are analyzed using several statistical techniques to test the stated hypotheses. Descriptive statistical measures are used to describe the study's sample characteristics. Multiple regression analysis is used to find the effect of the independent variables on the dependent variable. It was found that all the independent variables had a significant effect on Jordanian consumer's perception of product quality at the point of purchase. Recommendations for future research, marketing implications, and limitations of this study are proposed.

**Keyword:** packaging, Consumer's Perception, Product Quality, Jordan

## 1.1 Introduction

In the ever increasing competition of today's global market the need for effective product promotion is crucial, and the product packaging has come to play a more important role as a brand communication vehicle. Today, virtually all goods that are manufactured or processed require some packaging in some phase of their production or distribution; Packaging decisions are to be considered in early marketing plans as an integral part of the total marketing strategy (Panwar, 2004). Packaging is an important integrative aspect of the product and often a critical factor in the success or failure of a given product (Schoell, 1985). The packaging component of a product refers to any container in which it is offered for sale and on which information is communicated (Berkowitz et al, 1989). Packaging of consumer products is extremely important at the point of sale. It plays a major role when products are purchased. After all, it is the first thing seen before making purchase choices and it is widely recognized that over 50% of purchasing decisions are made at the shelf, or point of purchase (Ferrell, 1987; Frontiers, 1996).

Innovative packaging can give a company an advantage over competitors. Packaging must be consistent with the product's advertising, pricing and distribution. Companies usually consider several different package designs for a new product. To select the best package, companies usually test various designs to find the one that stands up best under normal use, easiest for dealers to handle and receives the most favorable consumer's response (Lu et al, 2007).

The four most important functions of packaging are to contain and protect products, promote products, and facilitate the storage, use, and convenience of products. A fourth function of packaging that is becoming increasingly important is to facilitate recycling and reduce environmental damage (Lamb et al, 2004). This research focuses on the functions (role) of packaging in Jordanian consumer's perception of product quality at the point of purchase.

## 2. Literature Review

### 2.1 Packaging

Packaging now is regarded as an essential component of our modern lifestyle and the way business is organized. Packaging is the enclosing of a physical object, typically a product that will be offered for sale. It is the process of preparing items of equipment for transportation and storage and which embraces preservation, identification and **packaging of products**. According to Panwar(2004) **Packaging is the act of containing, protecting and presenting the contents through the long chain of production, handling and transportation to their destinations in as good a state, as they were, at the time of production** Packaging is an important part of the branding process as it plays a role in communicating the image and identity of a company. Due to increasing self-service and changing consumers' lifestyle the interest in package as a tool of sales promotion and stimulator of impulsive buying behavior is growing increasingly. So packaging has an important role in marketing communications, especially from the point of sales and could be treated as one of the most important factors influencing Consumer's purchase decision. Consequently the role of package in marketing communications increases: it must attract consumer's attention and transmit adequate value of product to consumer in the short period right in the place of sale. Therefore there is a necessity to explore package and its elements in more detail, in order to understand which of these elements are the most important for consumer's purchase decision. On the other hand Lamb et al, (2004), argue that there are four important functions for packaging, and the current study focuses on these functions, to study the role of packaging in Jordanian consumer's perception of product quality at the point of purchase. These four dimensions include all kolters' dimensions but in other names, these dimensions are: **Protection of products and consumer, Promotion of products, Facilitation of storage, use, and convenience of products and Facilitation of recycling and reducing environmental damage.**

## 2.2 Protection of products and consumer

A package protects the contents as the product moves through its marketing channel and while it is in use. A packaging also prolongs the shelf life of a product, which is important to producers, middlemen, and final buyers. Increasing attention focused recently on package safety, especially for drugs, household cleaners, and other products that are potentially dangerous, particularly to children (Schoell, 1985). Product safety is an underlying dimension of perceived product quality, is composed of such a vast number of components that it would verge on vagueness to consider it only in general terms. Indeed, a product can be perceived as being need satisfying, hence fulfilling part of the notion of "product quality", for example, a food product may be very delicious (generally accepted as constituting quality), but may be thought to contain artificial additives that are harmful to the consumer (Tse, 1999). Protection of the product should be effective in reducing damage that could influence its usefulness and increase costs.

Packages protects from breakage, evaporation, spillage, spoilage, light, heat, cold, and many other conditions Packaging often plays an important functional role, such as protection, or storage of product. Consumer protection is becoming a growing role of packaging .Packaging that fails to fully protect the product has the potential to result in excess damage and waste, diminished shelf life, and loss of flavor or efficacy. Problems associated with insufficient protection are likely to lead to customer dissatisfaction (Bix et al, 2002).The protection accorded to the contents by the package must be available at the following stages during the life span of the product At the end of the product line inside the plant .During storage and handling, During transportation, During storage at the distribution or retailer's warehouse and During the consumption process in the consumer's home.

## 2.3 Promotion of products

The promotional role of a packaging should be considered. It can be used to attract customers' attention and encourage them to examine the product. Packaging design is critical in supermarket products, where its most important function is to help differentiation the products and consumer spend less time planning the shopping trip and reading than ever, visual images are crucial to attracting them .Promoting the contents is an important packaging objective, especially in self-service retailing. Package must serve as a silent salesperson and attract the shopper's attention. Packaging is becoming an increasingly aspect of marketing strategy. Companies are seeing packaging as a way to attract customers to new and existing brands .Packages use design, colors, shapes, pictures, and materials to try to influence consumer's perceptions and buying behavior (Lamb et al, 2004)

## 2.4 Facilitation of storage, use, and convenience of products

A major benefit of packaging is the information on it conveyed to the consumer, such as directions on how to use

the product and the composition of the product, which is needed to satisfy legal requirements of product disclosure. Packaging convenience is defined by how consumers use the package. Simply put convenience in packaging starts with a package that is easy to open as well as easy to close (Hogan, 2007). Consumers' requirements for storage, use, and convenience cover, Consumers are constantly seeking items that are easy to handle, open, and reclose, although some consumers want packages that are tamperproof or childproof, also want reusable and disposable packages. Surveys conducted by sales & marketing management magazine revealed that consumers dislike-and avoid buying-leaky ice cream boxes, overly heavy or fat vinegar bottles, immovable pry-up lids on glass bottles, key-opener sardine cans, and hard-to-pour cereal boxes. Attractiveness, convenience, and economy are some aspects of a product's utility to final buyers. Reuse packaging means the package can serve other purposes after the contents have been consumed. A major goal of reuse packaging is to stimulate repurchases. Convenience is another function of packaging that consumers often look for at the point of purchase, the size or shape of a package may relate to the product's storage, convenience of use, or replacement rate. Defining convenience in flexible packaging is essential to fully leveraging all of its benefits and ensuring long-lasting consumer-brand relationships. Flexible packaging offers many advantages to consumer, product, and to companies. Flexible packaging can be effective in helping brand owners build a close relationship with consumers. For consumers, convenience is even more critical – serving that draws an initial sale and retains consumer brand loyalty (Hogan, 2007). Packaging may enhance consumer's convenience in several ways:

1. From convenience: by offering the product in various forms convenient for use by different users.
2. Convenience of quantity: by offering the product in various pack sizes.
3. Convenience of time: provided to the consumer through extended availability of goods.

#### **2.4 Facilitation of recycling and reducing environmental damage**

The topic of consumer use of environmental product information (EPI) is considered in various disciplines. Whereas much available literature takes the type of information system or product group as a starting point, few studies combine the context and other relevant factors such as consumer attitudes and understanding, which all determine consumer's uptake of environmental product information. Yet other studies describe consumer's characteristics, mainly in so called consumer's segmentation models developed to analyze environmental loyalty and preference of consumers, and their use of EPI (Szatek, 2003; Hansen et al, 2001). The proliferation of "green products" and "green advertising" suggests that at least some firms believe that consumers are willing to pay a price premium for environmentally friendly products. There are also examples of companies whose sales dropped precipitously as a result of being labeled environmentally unfriendly. Kadlec's study (1991), indicated that 78% of consumers in the United States have showed their willingness to pay higher prices for access to environmentally-friendly goods, and stressed the importance of focusing on advertising for the promotion of these products. But this finding contradicts with Neff and Halliday's study (2000), who found that consumers in the United States are not willing to pay a higher price for access to green products (environmentally friendly). According to Stevenson (2007), recycling is an important consideration for designers. Recycling means recovering materials for future use, companies recycle for a variety of reasons: Cost saving, Environmental concerns and environmental regulations.

### **3. Previous studies**

Hari Govind & Deepak Jain (2012) "Impact of Packaging in Consumer Decision Making Process of Namkeen Products": stated that packaging has an important role in marketing communications, especially from the point of sales and could be treated as one of the most important factors influencing consumer's purchase decision. The research, aims to find out the effect of packaging in buying decision for a namkeen product. And compare the packaging styles of various brands. Also the research investigate that what factors are of great importance in packaging of namkeen products. Using descriptive research and a questionnaire as a mean of data collection and the study conclude that the style of packaging do affects the sales of the namkeen and the factors taken in consideration are price, content, ingredients. Patrick & Thaddeus (2011), "The Multiple Roles of Packaging in the Entire Marketing Process Channel of Distribution and Consumer Perspective in this study aims to presents the multiple roles of packaging in the perspective of the middlemen and consumers. The results of the study are: For the middlemen, it has become an effective tool in achieving optimum use of space efficient use of shelf-space in preventing inventory losses and pilferage. For the consumers, packaging has attempted to serve their informational, promotional and convenience needs.

The followings are some related studies that have been found. Staniewska et al (2008), "Consumer opinions on the informational and promotional function of unit packaging of dairy products": the aim of this study is to determine the impact of packaging information and the promotional role of dairy product packaging on the consumers' decisions to purchase dairy products. The survey was carried out in the second half of 2005 and it involved a group of 500 clients of selected retail outlets within chains of supermarkets in Olsztyn. The survey was conducted based on a direct questionnaire comprising two parts. In the first part, the respondents were asked to evaluate the impact of packaging information and the promotional role of dairy product packaging on their decisions to buy dairy products. The second part featured questions on the respondents' sex, age, occupation, place of residence and monthly income per person in the household. The main findings of the study were: consumers focused mostly on the product's shelf-life / minimum durability period, the producer's trademark which is often identified with the specific brand as well as information on the product's ingredients and nutritive value. The consumers' propensity to make impulse purchases was confirmed by an observation that the buyers' attention is frequently drawn to packaging design which is often identified with product quality. Pires (2008), "Consumer Behavior: Product Characteristics and Quality Perception": the aim of this study is an experiment designed to evaluate how consumers assess quality perception in terms of specific product's characteristics, namely colors and shapes in product labels. This study used data gathered from a survey given to high school students in Spain to assess semantic differentials, for examining the communication values of not only colors, but more specifically of shapes, and their interaction with colors as well. The main findings of the study: Colors and shapes combinations which are consistent are expected to enhance consumers' product quality perception, while other combinations that are inconsistent will decrease it. Silayoi and Speece (2007), "The importance of packaging attributes: a conjoint analysis approach": the aim of this study was to investigate the role of packaging as a vehicle for consumer communication. This study was using a conjoint study among consumers for packaged food products in Thailand, which is a very competitive packaged food products market. The results showed that perceptions about packaging technology play the most important role overall in consumer likelihood to buy. Ampuero and Vila (2006), "Consumer perceptions of product packaging": This study seeks to discuss the need to understand consumer's perceptions in order to correctly design product packing and to achieve the desired position in the minds of consumers. Data collection was divided into two phases. The first, (based on designers' opinions), to determine the key graphic variables in the design of packaging. The second, (based on consumers' opinions), to associate each packaging with a positioning strategy. The results showed that the consumers have exhibited harmonious perceptions towards products-packaging strategies. Nilsson and Ostrom (2005), "Packaging as a communication vehicle": the purpose of this study is to provide a better understanding of how the product packaging is used as a brand communication vehicle. The points of focus are how the elements of the package design affect consumer's perception of brand and what benefits they associate with the brand's packaging. Further this study indicates that the elements of the package design affect consumer's perception differently depending on how they are combined. The results showed that consumers associate different benefits to different packaging depending on both internal and external variables. Also there is no apparent evidence that the elements of package design affect consumer perception differently depending on how they are combined. Retie and Brewer (2000), "The verbal and visual components of package design": the objective of this study is to relate the concept of brain laterality to pack design; explore the relationship between the positioning of copy and pictures on different sides of a pack, and the recall of those elements. The research was carried out among Kingston university students. The sample consisted of 150 students. The sample was split equally between women and men. The results showed that 73% of purchase decisions are made at point of sale. In scanning packs at point of sale, perception is rapid, and quick recognition is important for inclusion in the decision process. The results confirm the asymmetry of perception of elements of packaging. (Asymmetry of perception implies that to maximize recall, words should be on the right.

#### **4. The Problem Statement**

When given the choice between two products, equal in price and function, targeted consumers buy the one they consider to be more attractive (Kotler and Rath 1984;).Packaging is gradually becoming a way to gain consumer's notice and attention, Today, virtually all goods that are manufactured or processed require some packaging in some phase of their production or distribution; Packaging decisions are to be considered in early marketing plans as an integral part of the total marketing strategy (Panwar, 2004).Packaging is an important integrative aspect of the product and often a critical factor in the success or failure of a given product .

Accordingly, the major problem that the research tries to explore can be expressed in the following question: What is

the role of packaging in consumer's perception of product quality at the point of purchase? Therefore this study seeks to answer the following questions:

1. Does the role of packaging in protecting the product and consumer influence the Jordanian consumer's perception of product quality at the Point of purchase?
2. Does the role of packaging in promoting the product influence the Jordanian consumer's perception of product quality at the Point of purchase?
3. Does the role of packaging in facilitating the storage, use, and convenience of product influence the Jordanian consumer's perception of product quality at the Point of purchase?
4. Does the role of packaging in recycling and reducing environmental damage influence the Jordanian consumer's perception of product quality at the Point of purchase?

### **5. The objectives of the Study**

The main purpose of this study is to evaluate the role of packaging in Jordanian consumer's perception of product quality at the point of purchase. In order to meet this objective, the following objectives taken up under our consideration.(Gaafar,2012)

1- Investigating the influence of the following factors (Protection of products and consumer, Promotion of products, Facilitation of storage, use, and convenience of products, Facilitation of recycling and reduce environmental damage) on Jordanian consumer's perception of product quality at the point of purchase.

2 - To increase awareness about the important of packaging. As a way to gain consumer's notice and attention,

3- To propose useful direction for future researches.

### **5. Importance of the Study**

The importance of this study stems from the following reasons:

1- The scarcity of studies and scientific research dealing with the role of packaging in Jordanian consumer's perception of product quality at the point of purchase. According to the researcher's limited knowledge and after a comprehensive survey on the packaging literature in Jordan, this study is the first in packaging field especially for juice products.

2- It investigates the role of packaging in consumer's perception of product quality at the point of purchase.

3- The result of this study will be useful for companies that export their products to Jordan, companies that work in Jordan, and help Jordanian companies in designing their products' packages in a most appropriate way that helps to create a better awareness for their products.

4- The results of this study will be useful for academicians; they can gain insights and suggestions for future research.

### **6. Research hypotheses**

In order to achieve the objectives designed for this study, the following research hypotheses are stated based on the revelation in the review of literature.

**H01:** There is no significant statistical effect of "the role of packaging in protecting the products and consumer" on Jordanian consumer's perception of product quality at the Point of purchase

**H02:** There is no significant statistical effect of "the role of packaging in promoting the products" on Jordanian consumer's perception of product quality at the Point of purchase.

**H03:** There is no significant statistical effect of "the role of packaging in facilitating the storage, use, and convenience of product" on Jordanian consumer's perception of product quality at the Point of purchase.

**H04:** There is no significant statistical effect of "the role of packaging in recycling and reducing environmental damage" on Jordanian consumer's perception of product quality at the Point of purchase.

#### **6.1 The Study framework**

According to Lamb et al, (2004), there are four important functions or roles for packaging. These roles are:

Protection of products and consumer, Promotion of products, Facilitation of storage, use, and convenience of products. And Facilitation of recycling and reducing environmental damage.

This thesis attempts to study the role of packaging in Jordanian consumer's perception of product quality at the point of purchase. According to what mentioned above and based on the previous review of literature and related studies, the researcher suggests the following model.

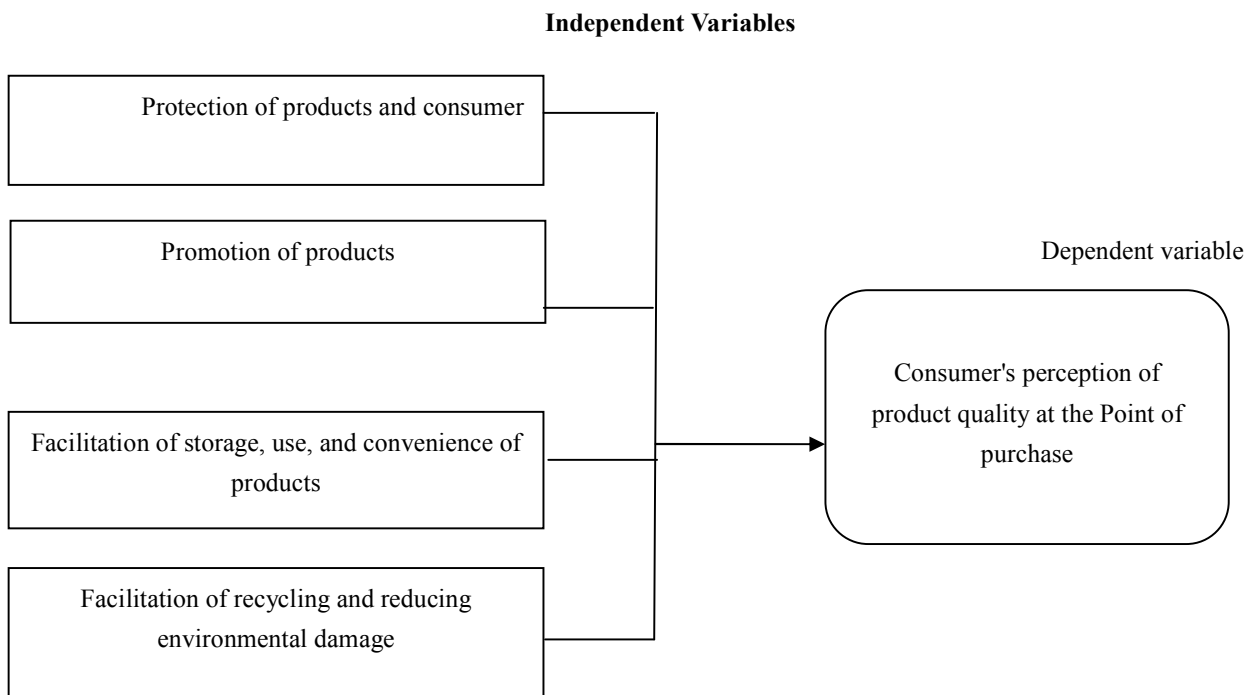


Figure 1: Research model

## 6.2 Research Design

A deductive approach was designed for the purpose of this study, where data are collected using questionnaire. These data was used to test the research hypotheses and to answer the research questions and to identify the factors that have a significant effect on the consumer's perception of product quality at the point of purchase in the Jordanian context.

## 6.3 Population and Sample

Population can be defined as the entire group of people, event, or things that the researcher desire to investigate (Sekaran, 2004). Therefore the population of this study consists of Jordanian consumers. A convenience sample of Jordanian consumers was selected from Jordanian consumers in three different locations distributed in the North of Jordan (Irbid), Middle (Amman), and South (Al-Karak) to generate a high level of representation to the study population. 600 questionnaires were distributed, 200 ones for each location. The total number of usable responses resulting from this process was 547(181 from Irbid, 192 from Amman, 174 from AL-karak) with a response rate up to 91%. This study was conducted on different types of juice as an example of consumer products.

## 6.4 Data Collection methods

Primary data were collected by using a questionnaire, while secondary data were obtained from previous researches and literature. The questionnaires were distributed directly to the participants selected as a study sample. The distribution and collection process took about four weeks period. The questionnaire consisted of two major parts, the first part was designed to collect demographic data (gender, age, education level), and the second part contains 26 items distributed along five sections to measure the study variables. The questionnaire was prepared in English, and

then translated into Arabic language by using the back translation method; it is composed of 26 items measuring the independent variables and dependent variable of the study. The respondents indicated the frequency of encountering the situation described by each item using a five-point likert scale which ranges from strongly disagree (1) to strongly agree (5).

### **6.5 Instrument Validation and Reliability**

Validity determines whether the researcher truly measures what was intended to measure or how truthful the research results are (Joppe, 2000). The questionnaire was reviewed by three experts to make sure that each item is measuring what is intended to be measured. Furthermore, a pilot study has been run on 30 questionnaires for the three different locations to test the research instrument before distributing it to the whole sample. This pilot study enabled the researcher to modify any vague item and to ensure the full understanding of each one; also difficult words have been changed to easier ones in order to facilitate answering the questions. Reliability coefficients were calculated by using Cronbach's alpha test. Cronbach's alpha measures the average of measurable items and their correlations, and if the result is generally above 0.60 (Bagozzi and Yi, 1988), it is considered to be reliable. According to table (1) Cronbach's alpha varied from 0.60 to 0.75, and the total value was 0.836, which means that the reliability results of the current study are acceptable.

### **6.6 Data Analysis Technique**

Different statistical techniques were used to test the study's hypotheses and to answer the study's questions by using SPSS software, these techniques are:

- 1-Cronbach's alpha ( $\alpha$ ): used to test the reliability of the scale.
- 2-Descriptive statistical measures: used to describe the study sample characteristics.
- 3-Variance inflation factor (VIF) and the Tolerance to make sure there is no Multicollinearity among the independent variables.
- 4- Skewness Test to measure the normality of the data.
- 5- Multiple regression analysis: used to find the effect of the independent variables on the dependent variable.

## **7. Data analysis**

### **7.1 Respondent profile**

As shown in table 2. 45.7% of respondents (250 respondents) were males, and 54.3% (297 respondents) were females, as it is obvious that the largest percentages of respondents were females. According to the age, the age category of "less than 20" are (26.3%) of the whole respondents, and the age category of "40 to 49" are (13%) of the whole respondents, the largest percentage was those respondents between "20 to 39" years old (56.5), and the lowest percentage was those respondents between "60 to more than" years old (4.2%).(21.6%) of the respondents are "high school to less than", (19.4%) are diploma degree, (8.4%) are MA degree, and (1.4%) are PhD degree, but the largest percent can be seen in BA degree (49.2%).

### **7.2 Descriptive Statistics**

In order to explore the existence and importance of every variable according to the sample of the study, means and standard deviations for the independent variables (protection, promotion, facilitation, and recycling) were calculated. The instrument of the study was scaled as follows:

Table (0): Views of the sample examined, according to the Likert scale and corresponding degrees

Opinion	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
Degrees	5	4	3	2	1

Based on this scale, the means are explained as follows:

1 – 2.49	2.5 – 3.49	3.5 and above
Low	Medium	High

If the mean value of the statement is more than or equal to 3.5, then the level of agreement with the statement measuring a certain variable is high, if the mean value ranges between (2.5 – 3.49), then the level of agreement is medium and when the mean value of the statement is equal to or less than (2.49), then the level of agreement with the statement is low. Table (3), represent the means and standard deviations for independent variables.

### Hypotheses Testing

To test the hypothesis it was deemed appropriate to use multiple regression estimations for testing the proposed hypotheses (Hair et al, 1998). To test multiple regression models it is necessary to assess whether the collected data violate some key assumptions of regression models because any assumption violations can result in distorted and biased research results. These assumptions include multicollinearity, linearity, and normality. Multivariate normality is the assumption that all variables and all combinations of the variables are normally distributed. When the assumption is met, the residuals are normally distributed and independent, the differences between predicated and obtained scores (errors) are symmetrically distributed around a mean of zero and there is no pattern to the errors. From the table (4), we can see that the variables are normally distributed, having skewness value between (-1 to 1). From the table we can see the all of these variables have skewness ranged from (-0.248) to (-0.752), which means that the variable are normal distribution. Multicollinearity can be controlled by two ways: tolerance values and values of variance inflation factor (VIF). Multicollinearity high degrees could result in both regression coefficients being inaccurately estimated, and difficulties in separating the impact of the independent variables on the dependent variable. Any variable with a tolerance value below (0.10) or with a value above (10.0) of (VIF) would have a correlation of more than 0.90 with other variables, indicative of the multicollinearity problem. Result in table below (4-), shows that tolerance for all independent variables is more than (0.10) and VIP for independent variables is less than the limited valued (10.0), so the conclusion will be as there is no multicollinearity between the independent variables. The linear regression analysis of the original model reveals that the R-square of the model is (32.1%). This mean the model explains (32.1%) of the variance in the dependent variable (5). The model is statistically significant either, as the P-value for the model is (0.00). This means the fitness of model in explaining the customers' perception of product quality at the point of purchase is high.

The following hypotheses were tested using Multiple Regression analysis, to know if there is an impact of independent variables on the dependent variable. According to the decision rule: accept null hypothesis (H0) if the significance level ( $\alpha$ ) of the variable is greater than (0.05) significance level, and reject (H0) if the significance ( $\alpha$ ) level equal or less than (0.05) (Sekaran, 2004). According to the previous decision rule, the researcher has tested the proposed hypotheses and found the following results: Results showed that there is a statistically significant impact for all independent variables (protection, promotion, facilitation, recycling) on the dependent variable (Jordanian Consumer's perception of product quality at the Point of purchase). According to Beta values we can say that (facilitation of storage, use, and convenience of product) comes first on the most powerful variable in explaining the variance in dependent variable (perception of product quality), then it followed by protection of product, recycling and reducing environmental damage, and promotion of product.



### 8.1 Discussion of the Findings

Based on table (6) the impact of the selected factors (Protection of products and consumer, Promotion of products, Facilitation of storage, use, and convenience of products, Facilitation of recycling and reducing environmental damage) on Jordanian consumer's perception of product quality at the point of purchase can be concluded and the impact of these factors is discussed accordingly:

It was found that there is a significant statistical effect of "The role of packaging in protecting the products and consumer" on Jordanian consumer's perception of product quality at the Point of purchase. Studies show that protecting the products and consumer is a key and important role or function for the packaging. Increasing attention is drawn to focus on package safety especially for drugs, household cleaners, and other products that are potentially dangerous, particularly to children. This finding is consisted with (Bix, 2002), who found that Packaging that fails to fully protect the product, has the potential to result in excess damage and waste, diminished shelf life, and loss of flavor or efficacy. Problems associated with insufficient protection are likely to lead to customer's dissatisfaction; this means there is a connection between the package's ability to protect the product and consumer's satisfaction or his perception of product quality. And also this finding is consisted with (Boyce et al, 2008), who found that the main features are considered desirable in take-out food (delivery food) packages these were: the ability to insulate food, to contain product without spillage, and to keep individual foods separate within the same package; this means that the ability of package to protect and contain the product is one of the desirable features by consumer in take-out food package which determine the consumer's willingness. This finding contradicts with (Tse, 1999), who found that the perceived product safety was significantly affected by: price, brand name, store name, promotion channels, source credibility, country of origin, nature of product testing authority and warranty. We can say that packaging is not mentioned as one of the factors that affect consumer perception for product safety; this indicates that there is no connection between product safety and consumer's perception.

There is a significant statistical effect of "the role of packaging in promoting the products" on Jordanian consumer's perception of product quality at the Point of purchase. This result is supported by (Pires, 2008), who found the Colors and shapes combinations which are consistent are expected to enhance consumers' product quality perception, and also this finding is supported by (EL-Omari, 1998), who found that there is a strong positive correlation between promotional role of packaging and consumers' attraction to good packaging.

There is a significant statistical effect of "the role of packaging in facilitating the storage, use, and convenience of products" on Jordanian consumer's perception of product quality at the Point of purchase. This result is supported by (Ferrell, 1987), who found that the convenience is another function of packaging that consumers often look for at the point of purchase, the size or shape of a package may relate to the product's storage, convenience of use, or replacement rate, and by (Silayoi and Speece, 2004), who found that the Package size, shape effects customer judgments and decisions toward product quality, and also this finding is supported by (Lofgren, 2006), who found that the packaging design can Contribute in the display of quality through facilitating the storage, usage and consumption.

There is a significant statistical effect of "the role of packaging in recycling and reducing environmental damage" on Jordanian consumer's perception of product quality at the Point of purchase. This result supported by (Baker, 1991), who found that 59% of the respondents said they would be more likely to buy a particular brand of a product whose packaging is less likely to damage the environment, against 20% who said they would not. Also this result is supported by (Kadlecek, 1991), who found that 78% of consumers in the United States have showed their willingness to pay higher prices for access to environmentally-friendly goods, and stressed the importance of focusing on advertising for the promotion of these products. But this finding contradicts with Neff and Halliday's study (2000), who found that consumers in the United States are not willing to pay a higher price for access to green products (environmentally friendly), and also contradicts the study of (D'Souza et al, 2006), which found that only positive contribution to customers' perception was their past experience with the product and not by the perception of the following factors: green products, product labels, packaging, and product ingredients

### 9. Recommendations

Based on the research findings, the following recommendations can be presented for this study:

1- Juices Companies should adopt the factors that have great influence on consumer's perception of product quality

as an incentive to consumers to choose their product. This will lead to enhance the competitive advantage for the company and increase its market share.

2-It is important that juices companies and marketers learn more about the green products in order to develop a package that has no trouble on environment (friendly packages to environment).In order to build consumers' awareness toward environment and to build consumers' responsibility toward it.

3-It is important that juices companies and marketers learn more about the attributes that consumers seeks to get in their products through regular polls of consumers, consumers' compliments or suggestions.

4-Great attention should be paid to promotional role of packaging to be more attractive because it plays critical role to attract more consumers, it is very important to put into consideration using variety of media to enhance this role, because consumers have different viewpoints toward product. (By designing and implementing the promotional plans timely).

5- Juices Companies and marketers should keep up with the continuous improvement to establish a distinctive and competitive position. This may require a clear understanding of their consumers' recreational attitudes and preferences, through product innovation, development and redesign.

6- The package design has a very strong impact on consumers' perception. According to previous analysis, results had proved that different elements of package design played very important roles, such as picture, size, color, and shape. Consumers are willing to have easy instructions on the package, an easy handled/opened/closed package. All these elements contribute to attract consumers' attention and interest. The combination of these elements gives the product more attraction.

7-For future research different consideration may be recommended:

- A. Future studies could focus on other factors that may affect consumers' perception of product quality.
- B. Future studies could focus on other dimension to measure these factors.
- C. Future studies could be applied these factors on other samples.
- D. Future studies could also reflect more demographic details of respondents

#### **10-Marketing implication**

1-This study gives juices companies management better understanding of the factors influencing the consumer's perception of product quality. This study highlights how package affects consumer's perception of product at the Pointe of purchase.

2-An important implication of this research for managers is that managers should adopt packaging strategies to maximize consumers' perception toward their products and create a competitive advantage.

3- Intrinsic features of the product (e.g., nutritional content) and extrinsic features of the product (e.g., brand name, packaging), have a potential importance in distinguishing the product. So, the integration of these two factors into the product's marketing mix could enhance image differentiation.

4-Consumers' characteristics should be carefully considered. It is very important to target and identify the needs and wants of each segment of consumers in order to gain more loyal patrons and achieve differentiation.

#### **11--Research limitations**

Despite of these encouraged result, this research still have un avoidable limitation, the most obvious limitation of the present study is that It was conducted on different types of juice as an example of consumer products. Future research could include other consumer products. Also, the research did not examine all demographic variables like geographic location, marital status. Future research could include these demographic variables .Moreover, It did not examine all demographic variables like geographic location, marital status. Future research could include these demographic variables.

## Reference

- Ampuero, Olga., Vila, Natalia., (2006), "Consumer Perceptions of Product Packaging", Journal of Consumer Marketing , Volume: 23 Issue: 2.
- Bagozzi, Richard, P., and Yi., (1988), "On the Evaluation of Structural Equation Models", journal of the academy of marketing science, vol. 16, pp.74-94.
- Baker, Michael, J., (1991), "Marketing: An Introductory Text", 5<sup>th</sup>, Macmillan Education Ltd.
- Bech-Larsen, T., (1996), "Danish Consumers' Attitudes to the Functional and Environmental Characteristics of Food Packaging", Aarhus: MAPP Center.
- Berkowitz, Eric. N., Kerin, Roger. A., Rudelius, William., (1989), "Marketing", 2<sup>th</sup> edition, Irwin, Boston.
- Bix, Laura., Rifon, Nora., Lockhart, Hugh., Fuente, Javier de la., (2002), " The Packaging Matrix: Linking Package Design Criteria to the Marketing Mix", available ON: [http://www.idspackaging.com/Common/Paper/Paper\\_47/PdfImge.pdf](http://www.idspackaging.com/Common/Paper/Paper_47/PdfImge.pdf).
- Boyce, Janice. Broz, Charles. C., Binkley, Margaret., (2008), "Consumer Perspectives: Take-out Packaging and Food Safety", British Food Journal, Volume: 110, Issue: 8, Page: 819 – 828.
- Cairncross, F., (1992), "Costing the Earth: The Challenge for Governments, the Opportunities for Business", on Published MA Thesis, Harvard Business School Press, Boston.
- Danger, E. P., (1987), "The Color Handbook: How to Use Color in Commerce and Industry", Vermont: Gower Publishing Company.
- D'Souza, Clare., Taghian, Mehdi., Lamb, Peter., Peretiatkos, Roman., (2006), "Green Products and Corporate Strategy: an Empirical Investigation", Journal: Society and Business Review, Vol: 1, Issue: 2, PP: 144 – 157.
- EL-Omari, Hussein., (1998), "The Promotional Role of Packaging in Attracting Jordanian Consumers' Attention to local Products", available on HTML: <http://digital.library.ksu.edu.sa/V10M121R1923.pdf>.
- Evans, M.J., Dean, James W., (2003), "Total Quality: Management, Organization, and Strategy" 3th edition, Thomson, south-western, USA.
- Ferrell, O. G., (1987), "Marketing: Basic Concepts and Decision", 5<sup>th</sup> edition, Houghton Mifflin Company, United States of American.
- Frontiers., (1996), "Planning for Consumer Change in Europe 1996/1997," Henley center, cited in Connolly and Davison (1996) "How Does Design Affect Decisions at Point of Sale?," Journal of Brand Management, vol. 4, No.(2), pp: 1-100.
- Gaafar, Momamed, Abdalkrim,(2012). The Impact of Human Resource management Practices on Organizational Performance in Saudi Banking Sector. European Journal of Business and Management,vol,4.No21.p.188-196.
- Goldberg, M. E., Liefeld, J., Madill J., & Vredenburg, H., (1999), "The Effect of Plain Packaging on Response to Health Warnings", American Journal of Public Health, 89 (9), PP: 1434-1435.
- Gordon, A., Finlay, K., & Watts T., (1994), "The Psychological Effects of Color in Consumer Product Packaging", Canadian Journal of Marketing Research, Vol. 13, PP: 3-11.
- Hair, J., Anderson, R., Tatham, R., Black, W., (1998), "Multivariate Data Analysis", Upper Saddle River, NJ: Prentice-Hall.
- Hansen, P. J., Knudsen, P. E., Holm, A., (2001), "A Pan-Nordic study of Consumer Behavior and Attitudes Towards Food Labeling", Tema Nord 2001: 573, Nordic Council of Ministers
- Hari Govind and Jain Deepak,(2012).the impact of packaging in consumer decision making of Namkeen product, journal of marketing & communication, vol.7,issue 3, p.48-63.
- Hogan, Robert., (2007), "Convenience: Strengthening the Consumer-BrandRelationship",availableon:[http://www.flexpackmag.com/CDA/Articles/Special\\_Reports/BNP\\_GUID\\_9-5-2006\\_A\\_1000000000000258744](http://www.flexpackmag.com/CDA/Articles/Special_Reports/BNP_GUID_9-5-2006_A_1000000000000258744).
- Joppe, M.,(2000),"The Research Process", Retried February 25, 1998, Available on:

<http://www.ryerson.ca/~mjoppe/rp.htm>.

- Kadlecek, M. (1991), "National Standards Sought for Environmental Advertising", *Conservationist*, Vol. 46, Issue 2, PP: 54-57.
- Konsumentverket., (1995/96), 'Konsumenten Och Miljön – Resultat från en Undersökning av Svensk Konsumenters Miljömedvetenhet', Rapport 1995/96:13. Stockholm, Sweden.
- Kotler, ph., (2004), "Marketing an Introduction", 4th edition, upper saddle river, New Jersey.
- Kotler, Ph., Rath., (1984), "Design-A Powerful but Neglected Strategic Tool", *Journal of Business Strategy*, Vol. 5 (Fall), pp: 16-21.
- Lamb, Charles. W., Hair, Joseph. F., and Carl, Mcdaniel., (2004), "Marketing", 7<sup>th</sup> edition, Thomson, south-western, Canada.
- Lofgren, (2006), "The leader of pack: a Service Perspective on Packaging and Customer Satisfaction", Doctoral Thesis, Karlsted University.
- Lu, Liang., Gargallo, Susana., Munar, Maria., (2007), "Backaging As A Strategic Tool", Master Thesis, Halmsted University. PP: 57–58.
- Neff, J., Halliday, J., (2000), "It's Not Trendy Being Green", *Advertising Age*, Vol. 71, Issue. 15, PP: 16.
- Nussbaum, Bruce., (1988), "Smart Design", *Business Week*, (April11), pp: 17-102.
- Panwar, J.S., (2004), "Beyond Consumer Marketing: Sectoral Marketing and Emerging Trends", Tejeshwar singh for response books, typeset in 10 pt, New Delhi.
- Patrick.k.ladipo.Thaddeus.o.ohufayo,(20011).the multiple of packaging in the entire marketing process channel of distribution and consumer perspective, *international journal of business administration* ,vol.2,4,p.181-189.
- Pires, (2008), "Consumer Behavior: Product Characteristics and Quality Perception", online on: <http://mpra.ub.uni-muenchen.de/11142/>, MPRA Paper No. 11142, posted 16, October 2008 / 10:45.
- Retie, Ruth., Brewer, Carol., (2000), "The Verbal and Visual Components of Package Design", *Journal of product and brand management*, vol. 9, issue. 1, PP: 56-70.
- Schoell, William. F., (1985), "Marketing: Contemporary Concepts and Practices", 2th edition, Allyn and Bacon, United State of America.
- Sekaran, U., (2004), "Research Methods for Business: A Skill Building Approach", 4th , New Jersay Wiley Student Editions
- Silayoi, P., Speece, M., (2007), "The Importance of Packaging Attributes: A Conjoint Analysis Approach", *European Journal of Marketing*, Vol. 41, PP: 1495-1517.
- Silayoi, P. Speece, M., (2004), "Packaging and Purchase Decisions: An Exploratory Study on the Impact of Involvement level and Time Pressure", *British Food Journal*, Vol. 106, No. 8, pp: 607-628.
- Staniewska et al, (2008), "Consumer Opinions on The Informational and Promotional Function of Unit Packaging of Dairy Products", *polish journal of natural sciences*, Vol. 23, PP: 506-520.
- Tse, A.,(1999), "Factors Affecting Consumer Perception on Product Safety", *European Journal of marketing*, Vol.33, No.9-10, PP: 911-925.
- Research, Leigh McAlister and Michael L, Rothschild (eds.). Provo, UT:Association for Consumer Research, PP: 224-229.

**Table (1 ) Cronbach's Alpha ( $\alpha$ ) for the Scales**

<b>Variables</b>	<b>A</b>
Protection of products and consumer	0.715
Promotion of products	0.729
Facilitation of storage, use, and convenience of products	0.606
Facilitation of recycling and reducing environmental damage	0.635
Perception of products quality	0.758
Over all $\alpha$ coefficient	0.836

**Table 2. Demographic Characteristics of the Respondent**

<i>Characteristics</i>	<i>frequency</i>	<i>Percentage</i>
<b>Sex</b>		
Male	250	45.7%
Female	297	54.3%
<b>Level of education</b>		
Higher school –less	224	41%
Diploma	269	49.2%
B.sc	46	8.4%
M.sc	8	1.4%
Phd	00	00%
<b>Age</b>		
Less than 20	144	26.3%
20-39 years	309	56.5%
40-59 years	71	13%
60 and more	23	4.20%

Source: field Survey

**Table (3).Descriptive statistics for independent variables**

Independent Variables	N	Mean	Standard deviations
Protection	547	3.86	.86
Promotion	547	3.92	.55
Facilitation	547	4.20	.54
Recycling	547	3.43	.86

**Table (4) .Multicollinearity, Tolerance, Variance Inflation Factor (VIF), And Skewness**

Independent Variables	Tolerance	VIF	Skewness
Protection	0.881	1.135	-0.626
Promotion	0.854	1.171	-0.248
Facilitation	0.794	1.260	-0.383
Recycling	0.867	1.154	-0.752

**Table (5) .Fitness of the Model for Regression Analysis**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	F	Sig
1	0.566	0.321	0.316	0.47341	63.960	0.00

- a. Predictors: (constant), protection, promotion, facilitation, recycling.
- b. Dependent variable: perception.

**Table (6) .Results of Multiple Regression Analysis**

Model	Un standardized coefficients		Standardized coefficients	t	Sig
	B	Std. Error	Beta		
1(constant)	1.041	.196		5.314	0.00
Protection	.219	.041	.204	5.398	0.00
Promotion	.126	.026	.188	4.912	0.00
Facilitation	.270	.041	.262	6.583	0.00
Recycling	.131	.025	.198	5.207	0.00

- a. Dependent variable: perception.