The Effect of Packaging Factors on Customer Purchase Intention with Cognitive - Perceptual Approach
(Case Study: Manufacturing - Commerce Firms at Industrial City Of Abbas Abad of Tehran)

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Abstract
-Packaging is an important tool for marketing and can play an important role in creating a sustainable competitive advantage and thereby causes sustainable competition through the use of appropriate competitive strategies and benefit from the impact of such strategies on how cargoes, creates better performance on the market. This research is descriptive - analytical in term of nature and applied research in term of purpose. Also data collection methods are field and survey (using questionnaires) the type of hypothesis testing.
-In this study, the model introduced by Deng (2009) in a sample of 113 manufacturing-business companies units at industrial city of abbas abbad of tehran was reviewed using structural equation modeling through partial least squares method.
The findings suggest Packaging and its factors affect willingness to buy the product. (β=0.290). Packaging Factors and its dimensions is effective on cognitive - perceptual Approach. (β=0.346). Cognitive - perceptual approach affect the desire to buy the product. (β=0.327). The desire to buy a product on product affects selection. (β=0.330). The results also show that willingness to buy the product is not effective based on word of mouth advertising.

Keywords: Packaging Factors, Cognitive-Perceptual Approach, Shopping Intention, Mouth-To-Mouth Advertising, Product Selection.
Introduction

In an environment where the bombardment of ads, promotions and discounts are done weekly or even daily, and the quality of output from production lines experienced a surprising convergence, the importance and necessity of the topic of the packaging reveals more and more and rethinking of the mechanisms it introduces an undeniable necessity. (Mohammad Nejad, 2014)

Nowadays, the packaging is an integral part of modern life. Whatever a country is more industrialized and more modern, the importance and extent of packaging goods is also higher. (Rezaei, 2014) The packaging in industry is an important tool of marketing and competition in the international community for executive officers and owners of industry production and commercial firms and the need to investigate about it is highlighted. (Sahhaf Zadeh, 2014) Packaging is one of the sensitive and important characteristics that has an influence on the consumer and also play a supporting role, task notification, to encourage consumers to buy the product. (Rezaei, 2014)

Also, packaging is one of the most important factors affecting consumer purchase decisions and plays an important role in marketing communications, especially at the point of sale, that nowadays due to market saturation and increased competition as well as changes in taste consumers have strategic value for the company. So, packing features are more concerned by marketers and play important role in decisions in relation to the development of increasingly profitable company. (Saghaeian, 2013)

Introduction of self-service systems in stores caused packing as a seller to attract customers and transmission of product information to consumers. (Haji Rezaei, 2011). Therefore necessary for better exploitation of the benefits of packaging industry to the important and influential elements and criteria identified in packaging and based on consumer opinion to be prioritized in the planning and organization of marketing activities to be considered. (Sahhaf Zadeh, 2014)

It is important to note that due to changing customer attitudes and behavior dynamics, good quality products with modern design and flexible, proportionate and consistent with consumer perceptions and also provided. Expansion a new package requires the development of packaging in completely different angles. (Mohammad Nejad, 2014) Most previous studies have pointed out to the factors, features and specifications of packaging on consumers' purchase intentions in different approaches.

With previous studies and the lack of understanding of cognitive-perceptual approach in this area prompted we to evaluate the effect of packaging based on customer purchase intention with perceptual and cognitive business in manufacturing companies of Abbas Abad industrial town.

Theoretical Foundations

Studies show that traditional analysis only focused based in-product features that it does not meet the requirements of the current highly competitive markets. This is while the external characteristics of the product also have an impact on consumers. A recent study suggests that physical appearances, such as product packaging affect buyer attention to a product, try it out and finally purchased it. (Foxall and Pallister, 1998)

A successful packaging design has an appropriate and consistent design or images can be more successful than other competitors in the target market. When different organoleptic characteristics of a product or its packaging or in an environment where products are
purchased should be consistent with customer perceptions about the quality of the product packaging and can have a positive impact on consumer behavior and sales. (Mohammad Nejad, 2014)

Examples of this can be traced in international corporate approaches. The reality in our society are involved in the packaging and shows that all activities carried out on the packaging based on the beliefs and certain traditional beliefs, and field studies has the smallest role. (Sahhaf Zadeh, 2014) packaging is one of the most effective marketing tool in selling a lot of products, especially consumer products.

Since many purchases, especially in large and chains stores is done without prior planning, the packaging is very important in attracting buyers. (Keyhan Nejad, 2012) packaging is to protect the safety of goods from production to consumption. The most important aim of packaging is to provide the healthiest and most economical way is to deliver the goods from point of production to the final consumer. (Haji Rezaei, 2011) From Kotler perspective, packaging is design and production activity of a container for and is responsible for three main tasks: Protect the contents of the package, providing information and distinguish the product from other standards for consumer attention (Kotler et al., 2009; Polonsky et al., 1998)

Companies founded that considered attractive and visually packaged goods, observing that most of them have not used scientific methods in this regard. (Fatehi, 2007) Package includes visual elements of color, image, size and shape and packaging data elements and information technology, all of which affect consumers' purchasing decisions. (Haji Rezaei, 2011) Consumer intention to buy, depends on the customer's perception of the fulfillment of expectations through the use of the product, but this applies to the products that the consumer buys them out quickly, depends on the amount of communication at point of sale. Packaging is one of the most important factors influencing the decision to buy at the point of sale. (Zomorrodi, 2014) Meanwhile dimensions of the various features for packaging in different studies presented in the table (1) the number of these aspects are mentioned:

<table>
<thead>
<tr>
<th>Packing dimension</th>
<th>Researcher</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labels, environmental factors, design and appearance, applicability, date, gender and diversity packaging</td>
<td>Fatehi(2007)</td>
</tr>
<tr>
<td>Information, color, fabric, size, image and form</td>
<td>Haji Rezaei (2011)</td>
</tr>
<tr>
<td>factors brand, quality packaging, taste and materials used in packaging</td>
<td>Hagh Gooyandeh (2012)</td>
</tr>
<tr>
<td>Information, social and environmental sustainability perspective</td>
<td>Saghaeian (2013)</td>
</tr>
<tr>
<td>Color, charm, shaped and users, product information listed on the packaging, sex, size and health issues</td>
<td>Sahhaf Zadeh (2014)</td>
</tr>
<tr>
<td>Form, shape, size, color, graphics, raw materials and taste</td>
<td>Smith and Riethmuller (2000)</td>
</tr>
<tr>
<td>Verbal and nonverbal elements of packaging, such as color, form and shape, size, images, graphic elements and components of matter and odors and verbal and verbal such as name, brand, country of manufacture and information.</td>
<td>Rettie and Brewer (2000)</td>
</tr>
<tr>
<td>Structural components, including forms, sizes, shapes and materials and graphical elements, including colors, shapes and images</td>
<td>Ampuero and Vila (2006)</td>
</tr>
</tbody>
</table>
Underlying factors, personal factors, factors related to product design, product appearance, packaging evaluation, administration and other senses: Deng (2009)

Name, logo, graphics and special characteristics of mobile personal: Keller et al (2011)

Size, form, shape, material, color and brand name: Kotler (2012)

Other studies show that there are two elements of packaging that influence consumer purchase such as:

- **Visual elements (cognitive approach)** including dimensions such as color, size, shape and images on packaging and affect decision-making. (Underwood, 2003) Perceptions are based on cognitive and emotional characteristics of packaging are formed based on feelings and emotions perceived by consumers to the packaging of a product. (Bergkvist and Bech Larsen, 2010) The sum of these elements together forms the conceptual approach.

- **Data elements (cognitive approach)** which contains information about the product and the technology used in packaging and is more effective decision-making on cognitive dimension. (Underwood, 2003) Cognitive dimension is based on cognitive characteristics of consumer packaging and creative thinking. In fact cognitive dimension is based on curiosity, thinking and problem solving consumer packaged. (Bergkvist and Bech Larsen, 2010) The sum of these elements together forms the cognitive approach.

**Research History**

Mohammad Nejad (2014) examined the effect of packaging compliance form factors and colors based customer decision making drinks and points out that conformity factors geometric shapes and colors with each drink product packaging and even the product itself can be adapted with color and taste to attract customer attention and change the customer purchase decision.

Zomorrodi (2014) examined the effect of Islamic religious symbol on product packaging based consumer purchasing intention and concludes that there is an Islamic symbol on food packaging has significant positive impact based purchase intent of Muslim consumers. Of course, this influence on people with high religious commitment has been confirmed. Also, other results of this study show that religious symbol on food packaging, symbolic value perceived by the consumer increases high religious commitment.

Emadeddin (2014) examined the role of packaging in electronic advertising based purchase intent by adolescents electronic equipment and show that E-commerce affect plans to buy the teenagers, but the packaging does not affect this relationship. Of course results show that packaging has an impact on intention to purchase the product.

Mohammadi (2013) examined the relationship between brand and customer buying behavior of Food packaging with regard to the sensory properties and concludes that packaging, are associated both directly and indirectly, by interfering with the sensory characteristics of consumer behavior.

Gooyandeh Hagh (2012) tried to identify and rank the factors influencing customers’ purchasing behavior of Food packaging and shows that the factors brand, quality packaging, taste and raw materials used in food packaging and customer buying behavior has a direct
relationship.

Mehdi Zadeh (2012) explores the aesthetic impact of packaging based making customers cosmetics and concludes that aesthetic dimensions of packaging affect product selection and purchase decisions customers and also, of beautifully packaged under time pressure and also low level of involvement of people to see affect the selection and purchase decision of customers.

Kobayashi and Benassi (2015) examined the effects on packing on the willingness of consumers' purchasing of coffee and show that picture, shape, glass and low price will increase consumer desire to buy coffee.

Olavepo and Ibojo (2015) examined effect of packaging on perceived quality, perceived utility and pleasure and customers willing to buy. Results of this research also suggest that the perceived utility and fun packaging will affect on the perceived quality, but the willingness of customers purchase only the affected by perceived desirability of the package and not influenced by on the perception of packaging.

Budhiasri (2015) also explores the impact of packaging on the willingness of customers purchase and shows that image quality packaging, color combinations and tag significant positive impact on customers' willingness to buy.

Tse Shih Wang (2015) in different research examined the impact of health warnings on cigarette packaging on consumers' attitudes and bias. Results of this research showed no significant relationship between health warnings on cigarette packaging with attitude and propensity of consumers shopping.

**Research Conceptual Model**
Achieve more effectively the goals of product packaging requires analysis factors packaging and its impact on customer purchase intention and cognitive-perceptual, based on the concepts discussed in this research:

![A conceptual model derived from the study Deng (2009)](image)
The research hypothesis is as follows:
H1: packaging and size factors that affect willingness to buy the product.
H2: cognitive-perceptual affect product packaging and its dimensions.
H3: cognitive-perceptual approach affect desire to buy the product.
H4: the desire to buy the product affect on word of mouth advertising.
H5: the desire to buy a product affects the product selection.

Research methodology
In this study, partial least squares (PLS) were used to analyze the data. First, this method is not relied on defaults to a normal distribution and a high volume of. Second, this method is used for the purposes of forecasting and explores possible relationships. (Houshangi, 2016)
In this study, a simple random sampling was used. In addition population of this research includes managers of manufacturing companies of Commerce Industrial of Tehran abbas abad is that this society is 140 active companies.
Population size and sample size were 103 using Morgan table. But given that a lot of people have filled out the questionnaire avoidant, questionnaire via email, fax or in person population was distributed to all the 115 questionnaires were collected, but the two questionnaires with inconsistent and unreliable data caused, finally 113 questionnaires were evaluated and analyzed.
The main part of the whole package 5-point Likert questionnaire composed of 30 questions with already in research Deng (2009) is used. The questionnaire contains 18 questions for packaging factors, 4 questions for cognitive-perceptual, 3 questions for willingness to buy; 3 questions for product selection and the second question of advertising is word of mouth. Although the standard questionnaire, however the reliability and validity using different tests to examine the structure and introduced separately located that the findings have been fully explained.

Research findings
Findings of this research are divided into two general categories. First category is dedicated to reliability, validity and introduced structures for the purpose of measuring the validity of the test pattern (internal consistency) and validity (divergent validity). To examine the validity of the three criteria proposed by Fresnel and Locker which contains:
1) Combined credit
2) The average variance extracted
3) The validity of each of the items are used. (Fornell and Larcker, 1981)
To validate the combination of structures Dillon - Goldstein coefficient (pc) and Cronbach's alpha was used. Table (3) shows a combination of credit values, and average variance extraction by Cronbach's alpha (AVE) for each construct. Cronbach's alpha coefficient for all structures Dylvn- Goldstein was 0.754 and 0.701, higher than the minimum amount required is more than 0.7. Also average values of between 0.626 and 0.809 are extracted variance is greater than the minimum amount required of 0.5, which means that at least 50 percent of the structures explaining variances have your markers.
### Table 3: variables validation results

<table>
<thead>
<tr>
<th>AVE</th>
<th>Cronbach alpha</th>
<th>Combined coefficient</th>
<th>Symbol</th>
<th>Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.658021</td>
<td>0.749391</td>
<td>0.851978</td>
<td>CHO</td>
<td>Product Selector</td>
</tr>
<tr>
<td>0.752564</td>
<td>0.835576</td>
<td>0.901185</td>
<td>CO</td>
<td>consumption instruction</td>
</tr>
<tr>
<td>0.809802</td>
<td>0.921870</td>
<td>0.944534</td>
<td>CP</td>
<td>Cognitive approach - understanding of the product</td>
</tr>
<tr>
<td>0.654908</td>
<td>0.741148</td>
<td>0.850401</td>
<td>CS</td>
<td>Other senses</td>
</tr>
<tr>
<td>0.807736</td>
<td>0.881302</td>
<td>0.926479</td>
<td>INT</td>
<td>Willingness to buy the product</td>
</tr>
<tr>
<td>0.758253</td>
<td>0.840675</td>
<td>0.903931</td>
<td>IV</td>
<td>Individual factors</td>
</tr>
<tr>
<td>0.771741</td>
<td>0.851850</td>
<td>0.910135</td>
<td>PE</td>
<td>Evaluation packaging</td>
</tr>
<tr>
<td>0.766379</td>
<td>0.847894</td>
<td>0.907751</td>
<td>PV</td>
<td>Factors related to the product</td>
</tr>
<tr>
<td>0.626224</td>
<td>0.701391</td>
<td>0.833972</td>
<td>VPD</td>
<td>Product design</td>
</tr>
<tr>
<td>0.627877</td>
<td>0.774161</td>
<td>0.754901</td>
<td>WOM</td>
<td>Mouth advertising</td>
</tr>
</tbody>
</table>

Loading the items is shown in the table (4). Partial Least Squares Method for reliability reagents, load factor for each reagent shall be greater than 0.6. (Fazli et al., 2013) Of course, if the load factor is less than 0.6, but the average variance extracted is higher than 0.5 and can be introduced and maintained in accordance with the rules of Bido. The majority of factor loadings is greater than 0.6. Only one of the reagents (WOM 1) has a low operating load and due to the average variance extracted of 0.627 for the representative structures can be maintained.

### Table 4: Results of the reliability

<table>
<thead>
<tr>
<th>Factorial loading</th>
<th>Symbol</th>
<th>Factorial loading</th>
<th>Symbol</th>
<th>Factorial loading</th>
<th>Symbol</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.813</td>
<td>CHO 1</td>
<td>0.523</td>
<td>WOM 2</td>
<td>0.991</td>
<td>WOM 1</td>
</tr>
<tr>
<td>0.886</td>
<td>INT 1</td>
<td>0.862</td>
<td>CHO 3</td>
<td>0.755</td>
<td>CHO 2</td>
</tr>
<tr>
<td>0.903</td>
<td>CP 1</td>
<td>0.913</td>
<td>INT 3</td>
<td>0.897</td>
<td>INT 2</td>
</tr>
<tr>
<td>0.890</td>
<td>CP 4</td>
<td>0.913</td>
<td>CP 3</td>
<td>0.893</td>
<td>CP 2</td>
</tr>
<tr>
<td>0.844</td>
<td>CS 3</td>
<td>0.767</td>
<td>CS 2</td>
<td>0.815</td>
<td>CS 1</td>
</tr>
<tr>
<td>0.884</td>
<td>CO 3</td>
<td>0.840</td>
<td>CO 2</td>
<td>0.877</td>
<td>CO 1</td>
</tr>
<tr>
<td>0.861</td>
<td>PE 3</td>
<td>0.848</td>
<td>PE 2</td>
<td>0.925</td>
<td>PE 1</td>
</tr>
<tr>
<td>0.864</td>
<td>PV 3</td>
<td>0.875</td>
<td>PV 2</td>
<td>0.877</td>
<td>PV 1</td>
</tr>
<tr>
<td>0.879</td>
<td>IV 3</td>
<td>0.865</td>
<td>IV 2</td>
<td>0.868</td>
<td>IV 1</td>
</tr>
<tr>
<td>0.816</td>
<td>VPD 3</td>
<td>0.789</td>
<td>VPD 2</td>
<td>0.768</td>
<td>VPD 1</td>
</tr>
</tbody>
</table>

The second category findings of this research and hypotheses are allocated for this purpose the path coefficient and T test was used. Value path between the main structures and statistics in the form of T (2) and (3) there are GMT. To calculate the statistic T Estarp boot algorithm with 500 sub-samples is used. Value path and T statistics and indicators in the table with the results of the main hypotheses (5) is provided.
Figure 2: value path and the correlation coefficients between research structures

Figure 3: value statistic between research structures

Table 5: path coefficients, T statistics and hypothesis results

<table>
<thead>
<tr>
<th>Hypothesis test</th>
<th>Significant T</th>
<th>Path coefficient</th>
<th>Research hypotheses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approved</td>
<td>2.146</td>
<td>0.290</td>
<td>Vambl classify ← Willingness to buy the product</td>
</tr>
<tr>
<td>Approved</td>
<td>2.441</td>
<td>0.346</td>
<td>Cognitive-perceptual factors packaging ← approach to product</td>
</tr>
<tr>
<td>Approved</td>
<td>2.596</td>
<td>0.327</td>
<td>Perceptual-cognitive approach to product ← Willingness to buy the product</td>
</tr>
<tr>
<td>Rejected</td>
<td>0.613</td>
<td>0.110</td>
<td>Willingness to buy the product ← mouth advertising</td>
</tr>
<tr>
<td>Approved</td>
<td>3.967</td>
<td>0.330</td>
<td>Willingness to buy the product ← Select Product</td>
</tr>
</tbody>
</table>
Discussion and conclusion

The purpose of this study was to evaluate the effect of packaging on customer purchase intention with perceptual and cognitive approach. (Case Study: Commercial and manufacturing companies in Abbas Abad industrial town) For the purpose of packaging (including individual factors, factors related to product design, product appearance, packaging evaluation, administration and other senses) was used as the independent variable, cognitive-perceptual approach to the product as a mediator and the variables of willingness to buy the product, word of mouth advertising and product selection were used as dependent variables. In the following hypothesis test results will be discussed.

The first hypothesis of this study examined the effect of packaging and its dimensions on willingness to buy products. Referring to the results of research data in the table (5) and according to the path coefficient of 0.290 and t-statistic to 2.146 Value (greater than 1.96) it can be said factors packaging and its dimensions at 95 percent positive and meaningful impact on the willingness to buy the product and this hypothesis is confirmed. The second hypothesis of this study is that the effect of packaging and its dimensions on perceptual-cognitive approach to test the product.

Referring to the results of research data in the table (5) and according to the path coefficient of 0.346 and t-statistic to 2.441 values (greater than 1.96) it can be said factors packaging and its dimensions at 95 percent positive and meaningful impact on cognitive-perceptual approach to product and this hypothesis is confirmed. The third hypothesis of this study: the effects of cognitive-perceptual approach to test the product on the willingness to buy the product.

Referring to the results of research data in the table (5) and according to the path coefficient of 0.327 and t-statistic to 2.596 values (greater than 1.96) it can be said: cognitive-perceptual approach to product at 95 percent positive and meaningful impact on the willingness to buy the product and this hypothesis is confirmed.

The fourth hypothesis of this study examined the willingness to buy the product on word of mouth advertising Referring to the results of research data in the table (5) and according to the path coefficient of 0.110 and t-statistic to 0.613 values (less than 1.96) it can be said: the willingness to buy the product at 95 percent positive and meaningful impact on advertising is word of mouth and this hypothesis can not be confirmed.

Fifth hypothesis of this study was to test the willingness to buy the product on the product selection. Referring to the results of research data in the table (5) and according to the path coefficient of 0.330 and t-statistic to 3.967 values (greater than 1.96) It can be said: the willingness to buy the product at 95 percent positive and meaningful impact on product selection, and this hypothesis is confirmed. So in general we can say that all hypotheses of this study except the fourth hypothesis is confirmed.

Using variables in this study to evaluate the effect of packaging on customer purchase intention perceptual and cognitive research on internal resources management is a new phenomenon that is in its infancy. Doing present study could help to rise in domestic resources and provide a comprehensive resource for researchers inside the continuation of this research.

Managers can also use the results of this research to understand the impact packaging factors on customer purchase intention and in their decisions about increasing willingness to buy among consumers, using the results of this research on the factors influencing their investment. Researchers also continue the research can pay attention to the following: Adding other variables in the field of packaging conceptual model, the effect of the type and nature of
the product in the packaging, test new models and a review of the results of the hypotheses on population.
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