

Analyzing the effect of the quality of packing on customer behavior from Bushehr's chain market customer's point of view

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Abstract

The aim of the current study is to analyze the effect of the quality of packing on customer behavior from Bushehr's chain market customer's point of view. The statistical society is the whole customers in Bushehr's chain markets. A total of 170 women and 111 men have been chosen randomly. The tool for gathering information in this study is a questionnaire for the customers. The results indicated that 100% of the customers have determined the effect of quality very much. 84% of them considered color to be very important, 89.7% considered the material of the package very important, 88.3% considered the style of package very important, 81.5% considered variable packaging very important and finally 79% considered descriptive and complete information on the package very important. In order to analyze the results of question 6, the Friedman technique was used which indicates the most important and the least important the packaging. In order to analyze question 7, t-test was used and the results indicated that the mean of the answers between men and women about the quality of the packaging was different and its effects was meaningful ($p < 0.001$). Regarding the question 8, the answers are meaningful based upon the customer's level of education on a level ($p < 0.02$). In order to analyze the variables of question 9, ANOVA was used, which led to the result that there is no meaningful relation between the age and the opinion of the customers about the question on level ($p = 1$).

Keywords: The quality of packing, product, customer behavior, food, customers, chain markets

Introduction

Packing is an important part of the modern life and like that the importance and the variety of

the products which need packing is increased. Today it is a great industry, art and financial activity, there is no doubt that mankind has learned packing from the nature, by taking a look at fruits, eggs, shells of walnut, pistachio, nuts, etc.. We can prove this fact. The first rules of packing can be seen in ancient Greek, they kept the olive oil in special packs named Amphora and marked it with the seal and wrote the city, time of sealing and the person in charge on it (Saeedian 2009, p. 8).

In order to achieve a more accurate analysis of customer behavior one of the things we have to consider is the elements regarding this matter. The behavior can be affected by many factors; the experts divide these into three groups of social, marketing and positioning elements. The social environment is in contact with many things like culture, social classification, leading groups, personal status etc. And, each of the marketing factors like product, price, elevation and distribution can all affect the reaction of the customer. The effect of the product on the customer is very important. Lot of the attributes of a product like the brand, the producing company, innovation, can all affect the customer's behavior.

A brief study of the traditional approaches shows that the traditional thought line was consisted of the internal attributes of the product, and this will not answer the needs we have in the modern society; the customers are affected by multiple layers of the product. But, the reality of our society shows that all the efforts in this field are based upon the traditional approaches and field studies play no role in the process.

In the current situation, the producers do not have any clear idea about the importance and the role packaging plays in the sales. In order to fill this gap, this study tries to analyze the way the affection works and define the important factors affecting the design process and customer behavior to take a

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small step toward helping the marketing and growth of the work. Also, making a better competitive environment for food industries (Rahmani, 2009, p. 13).

In this study, we have first used library studies to define the theory aspects, and then we have performed the field studies in this field. Finally, we have used the gathered data from the chain markets to analyze the effects of the packaging on customer behavior.

Significance of the study

The importance of the packaging and design as a tool to make connection with customers and the choosing of trademarks is increasing day by day. In order to fulfill the connection goals we have the gain enough psychological data in this field. It is a necessary factor to understand the customer behavior. The packaging of a product is an art, science and technology to keep and protect the good from harms and pollutions; it is considered a way to deliver a message to the customer in marketing. It will also help us keep a tidy and suitable keeping stance; these are all reasons that even the traditional thoughts have moved towards packaging.

Most of the customers pay a lot of attention to the looks but a few of them pay enough attention to the information provided on the labels. We use a wide range of things to give detail to the foods like colors, shapes, designs, symbols etc. these will all attract the customers and help them with the identification of the products. The likelihood of a purchase by a customer increases with the level the product satisfies their expectations. When the customer has not thought beforehand about the purchase, they can make the decision at the same time with the purchase process by using connective elements (Alami, 1995, p. 37)

Theory

These days we hear talk about the packaging worldwide and know its importance in the proper proposing the products. Big companies with known brands rethink their packing strategy and undergo expensive and complicated processes to do that; but, unfortunately packing has not found its proper position in our country yet and as a result we have a weak presence in the world market.

Even though the industries have advanced so much in the recent years but we still haven't gained anything suitable in the worldwide market, we are

even unable to have a proper presence in markets of dates, pistachio, saffron etc. that we are one of their greatest producers. Products that are harvested with a lot of effort and then sold back to another third country with cheap prices and then, after re-packing in a proper way sold again in the worldwide market at a high price and all the benefit goes to westerners.

In order to understand the importance of packaging, we are forced to have a brief look at marketing as well, since packaging is an international tool it has a very important role. Economic agencies have paid attention to this matter for years and follow it in design, graphic, colors and suitable packaging in order to increase their share in the market more than their competitors (Maleki 2004, p. 15)

A good packaging can work as a silent salesman and since it not only belongs to production lane but it also lingers in the marketing domain. The decisions on it must be made by both marketing and producing managers. Attracting customers by packaging is the role of the marketing managers and their common decisions with the other managers can help to reach a suitable process and have a prosperous marketing, the tests and studies of big companies show that packaging plays the most important role in attracting the customers and sales in the domestic and international sales.

The food packaging for a new product requires many factors, the first step we have to take is creating an image or a subliminal thought for the packaging, it means understanding that what it means and what it wants to do? The decision about other factors like shape, place, materials, etc. is the second thing we have to do. These factors must all be fused together in a suitable way to reach the maximum optimal outcome; the packaging must also be in parallel with the advertisement and the prices we put on the product (Golchin Far 2011, p. 120)

Definition of packaging

– Packaging is creating a protective layer that ensures the safety of the product from the stage after production to the consumption and helps the sales.

– Any package that contains a product and eases protection and transportation can be called packaging.

– The packaging gives the message of the producer to the buyer and creates a connection with them to give information.

– Dehkhoda has defined packaging in his en-

cyclopedia as: placing different products or materials in a layer or box.

– Packaging is creating a layer or box that ensures the safety of the contents from the stage after production to transportation, storage, distribution and final consumption, and keeps it away from chemical or physical harm.

– Packaging can be considered the outer layer of a system called product.

– A system that reduces the time of product to PAINE from the distribution, transportation, storage, sales and consumption.

Benefits of packaging

There are some benefits for packaging as follows:

- Possibility of storing the goods and protect them from chemical, physical and mechanical harms for a longer period.
- Better engineered shapes and because of that better storing possibilities.
 - Better and easier usage
 - Easy transportation and reduced chance of harm from environmental reasons.
 - Reduced chance of theft, because the counting can be done on high speed and automatically and the traits of each product reduce the theft's chance.
 - Easier distribution
 - More sales
 - Reduced wastes by proposing a good and suitable package we can reduce this factor by a great deal.
 - Helping the customer to achieve a thoughtful purchase by placing useful labels and providing information.
 - Reserving one of the most influential parts of a country's financial state resides in this factor.
 - Helping to increase the level of employment and creating a work environment because this industry is rather new in our country, and it has yet to find its proper place but should achieve it. We can also buy various products in bulk and by providing a good package, we can increase the sales and increase the income and culture at the same time.
 - Saving the environment by using proper package and using of recyclable materials we can reduce garbage production and help the environment by this (Bolorian, 2009)

The negative points

The negative traits of this field are so little when we compare them to the positive ones; in one word they consider it extra expenses and unrecyclable materials can be considered the most important factor. About the

extra expense the transportation and storage expenses can help to reduce this factor (Bolorian, 2007).

Review of related literature

The studies inside Iran

Saeedian (2002) has stated that packaging is an important part of the modern life. The more a country gets developed and industrial the more gets the importance of the products with packaging.

Ranjbaran (2009) has stated that the companies will use different materials like quality, good prices, good services, good customer relation, etc. to achieve the happiness of the customers. One of the methods they use to achieve this is proper packaging with high quality. Bolorian (1994) has stated that the packaging is the clothes of the product and the customer guesses about the quality, price, content, etc. by looking at the package of a product.

Zaribaf (2003) stated that the companies have to use dynamic patterns of culture, society etc. in order to keep in touch with the ever changing customer needs.

Rahmani (2009) has found out during his researches has found out that the packaging is very important to get customers attention and the beautiful designed packages can attract more customers.

Kermaninejad (2006) has stated that the relation between packaging and customer is established by numerous factors like color, shapes, designs, size etc.

Mohammadi (1997) has analyzed the behavior of customers in big markets and realized that they pick the products inside the big malls. The customer is free of any kind of mind pressure and the attractiveness of the products increases the instant sales.

Arbabi (2007) has stated in an article named "the role of design and packaging on the amount of purchase by customer" that the packaging is one of the most important marketing factors, especially about the consumable products.

Monafi and Najafi (2008) have considered low prices as one the main reasons for instant purchase because they offer the least mind occupation.

Studies outside of Iran

Lee (2003) has considered packaging an art, technology and science to protect the goods in order to control, protect, transport, store and show information.

Cutler (2005) has written that packaging means creating a layer of packaging for a product. Ampior

and Villa (2006) have stated that the package is a storage layer in direct contact with the product, which protects and keeps the goods, helps to identify it and helps the transportation and the mercantile aspect of the product.

Ahmad (2005) stated that packaging plays a vital role in production, storage, distribution and marketing of various products.

Randbo (2005) stated that companies can use the packaging in order to divide themselves from competitors and gain some sort of business advantage.

Patsola (2001) by analyzing the goals of packaging has stated that there are two main goals of packaging 1) protection and storage of the good 2) attracting customers and helping the sales.

Park and Shannon (2006) have stated that seeing a product with attractive packaging, design or other provoking stimulants can be a good suggestion for purchase.

Robert (2001) state that the customer likes to use outward and non essential traits like packaging instead of quality factor. This happens more when the customer 1) doesn't know the product 2) doesn't have enough time to evaluate the product 3) can't make a proper decision about the main traits.

Cutler (2005) has stated as before, one of the most important factors is instant purchase; it means the customer decides to buy a product as soon as he/she sees it even though there is no prior understanding. This kind of purchase more happens to the easy products, they are buying very easily by the customers, they are available everywhere, have low prices and will usually be bought repeatedly. If the product doesn't invoke the customer he/she won't make the purchase. In general buying product with low pressure usually takes place without acquiring information. This suggests that the information on the labels is usually less important; this means that when the customer wants to pay a high level of attention they suffice to the writings on the package.

Prendergost and Pit (1996) have analyzed the basic elements of packaging and studied their role in the marketing and organization managing. Managing the packages gets its importance from the fact that they should be kept from harm during their transportation in the distribution channels.

Nancaro et al (2007) state that there is a high possibility that customers pay attention to different factors from smell, visual, voice, sensual or other aspects. All the while they pay attention to the image of the product.

Moon (2001) stated that the relation between customer choices in different markets and the traits of

package designs have a key element; the market should use them to achieve a proper strategy.

Research questions

Main question: how much does the quality of the packaging have a role in the behavior of the food product to customers?

Minor questions:

1. How much does the color of the packaging have a role in the behavior of food product customers?

2. How much does the material of the packaging have a role in the behavior of the food product to customers?

3. How much does the method of the packaging have a role in the behavior of the food product to customers?

4. How much does the variability of the packaging have a role in the behavior of the food product to customers?

5. How much does the full provided information on the packaging have a role in the behavior of the food product to customers?

6. Is there any difference from customer's point of view about the elements of behavior of the food product to customers?

7. Is there any meaningful relation between differences of the opinions between different genders of food product customers?

8. Is there any meaningful relation between differences of the opinions between different levels of education of food product customers?

9. Is there any meaningful relation between differences of the opinions between different ages of food product customers?

Methodology

The methods of study are various and in this study, as the interference does not change the variables, it is a non-experimental one; but since it analyzes the behavior of the customers of chain markets, it is a descriptive one which is done by survey method.

Statistical society

The statistical society of this study consists of all the chain markets of Bushehr's customers for one week (from April 25th to April 31th). The number of the customers were almost 1050 persons.

The sample

To select the sample, first we have to define the

amount of the sample, which is related to the validity. The more we need validity, the more samples we need and vice versa. In this study, we used in the estimation of the sample size formula with the 1050 statistical societies by 95% accuracy and 5% error rate, the sample result was 281 persons.

$$n = \frac{t^2 \times p \times q \times N}{(d^2 \times N) + (t^2 \times p \times q)} = \frac{2^2 \times .5 \times .5 \times 1050}{(.05^2 \times 1050) + (2^2 \times .5 \times .5)} = 281$$

P – is the ratio of the persons with required aspects (p – 1)

q – Is the ratio of the persons without the required aspects (1/96)

T – Is the accuracy (95%)

d – Is the negligible error ratio (5%)

N – The statistical population

n – The sample amount

Data collection instrument

In this study, the required information was gathered by questionnaires, and it included two parts

A: Demographic questions: they were asked to define the personal traits of the customers.

B: The poll: it was used to determine the opinion of the customers of chain markets about the effect of the quality of the packaging on the customer behavior. The questionnaire was based on 30 items of the five likert scale. It included 5 dimensions including color of the package, material of the package, the method of packing, the variety of packages and full information on the product label and each of them had 6 items. The total point of each person is summed up from all these factors. And, the total number between 30 and 150 defines the effect of the packaging quality on the customers of chain market behavior.

Validity and reliability questionnaires were used before the main study. In order to determine the validity, we gave the questionnaire to some teachers at universities to determine if the questions represent suitable answers or not. After deleting or adding some of the items, we printed the finalized questionnaire and gave it to a smaller statistical society and 40 copies of it were filled with customers. Then, we coded them and calculated them by SPSS application and reliability alpha tester method.

Results

After gathering the data and removing the incomplete questionnaires, we started analyzing

281 remaining ones and based upon this, they were numbered again and each information were coded. We analyzed them by SPSS in windows. In analyzing the data, the descriptive statistical methods like distribution tare, percentage, average, standard deviation, etc. and also descriptive question (number 1 to 5) were used. In the scale of results, each of the questions was analyzed by advanced methods (question 6) and t-test for independent groups (question 7) and variance analysis and scheffe following test (questions 8 & 9).

Main question

How much does the quality of the packaging have a role in the behavior of the food product to customers?

Table 1. Distribution of respondents according to their opinions about the effectiveness of quality food packaging products to consumer behavior

Per-cent	Frequency (number)	The impact of quality food packaging products to consumer behavior in terms of subjects
%0	0	Very little
%0	0	little
%0	0	Average
%0	0	Very
%100	281	Very much
%100	281	Sum
	134/66	Mean
	6/62	Standard deviation

The data show that 100% of the customers considered the effect to be very high. The average of their answers was 134/66, and the standard was 6/62.

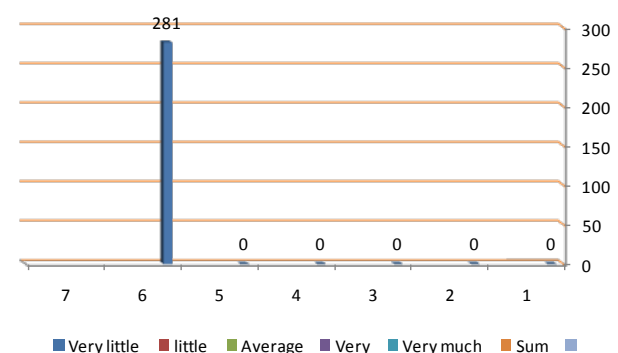


Figure 1. Distribution of respondents according to their views about the effects of color on behavior, consumer packaged goods, food

Side questions

1. How much does the color of the packaging have a role in the behavior of food product customers?

Table 2. Distribution of respondents according to their views about the impact of gender on consumer packaged goods and food

Per- cent	Frequency (number)	Color effects on consumer behavior and food packaging products in terms of subjects
%0	0	Very little
%0	0	Little
%0	0	Average
%16	45	Very
%84	236	Very much
%100	281	Sum
	26/81	Average
	2/31	Standard deviation

According to the data we can say that 16% of all of the participants considered the color factor's effect to be high and 84% considered it very high. The average of the score was 26/81 and the standard was 2/31.

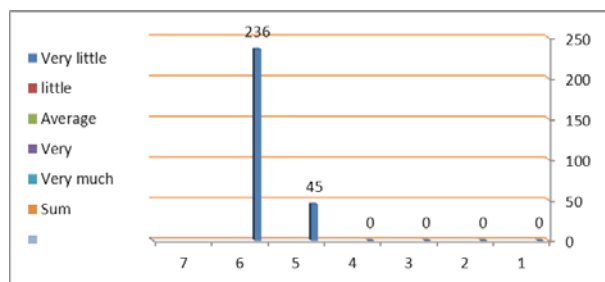


Figure 2. Distribution of respondents according to their opinions about the effectiveness of sex behavior in consumer packaged goods and food

2. How much does the material of the packaging have a role in the behavior of the food product to customers?

Table 3. Distribution of respondents according to their views about the impact of gender on consumer packaged goods and food

Per- cent	Fre- quency (number)	Material effect on the behavior of the consumer packaged goods, food from the perspective of participants
%0	0	Very little
%0	0	Little
%0	0	Average
%10/3	29	Very
%89/7	252	Very much
%100	281	Sum
	27/26	Average
	2/05	Standard deviation

The data suggest that 10.3% of the customers considered the effect to be high and 89.7% of them considered it very high, the average score on the question was 27/62 and the standard deviation was 2/05

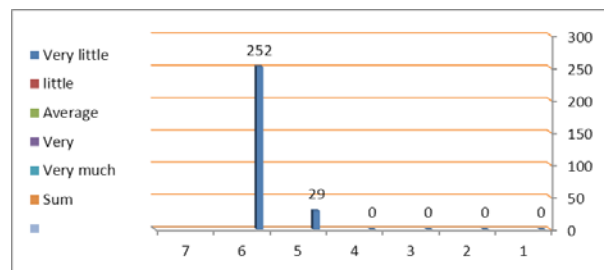


Figure 3. Distribution of respondents according to their opinions about the effectiveness of sex behavior in consumer packaged goods, food

3. How much does the method of the packaging have a role in the behavior of the food product to customers?

Table 4 shows the ratio of the customers about their opinion on the question.

Table 4. Distribution of respondents according to their view about the effects on the behavior of the consumer packaged goods and food

Per- cent	Fre- quency (number)	Impact of packaged food products on consumer behavior in terms of subjects
%0	0	Very little
%0	0	Little
%0	0	Average
%11/7	33	Very
%88/3	248	Very much
%100	281	Sum
	27/16	Average
	1/98	Standard deviation

The data show that 11.7% of the participants considered the effect to be high and 88.3% of them considered it very high. The average of the score was 27/16 and the standard deviation was 1/98.

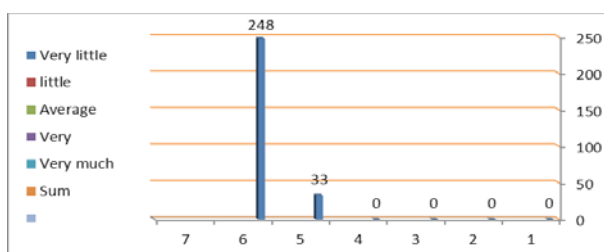


Figure 4. Distribution of respondents according to their views about the impact of food packaging products to consumer behavior

4. How much does the variability of the packaging have a role in the behavior of the food product to customers?

Table 5 shows the ratio of the customers about their opinion on the question.

Table 5. Distribution of respondents according to their views about the effects of diversity on consumer packaged goods and food

Percent	Frequency (number)	Variety of food packaging products' impact on consumer behavior in terms of subjects
%0	0	Very little
%0	0	Little
%0	0	Average
%18/5	52	Very
%81/5	229	Very much
%100	281	Sum
	26/49	Average
	2/58	Standard deviation

According to the data 18.5% of the participant considered the effect to be high and 81.5% of them considered the effect to be very much, the average was 24/69 and the standard deviation was 2/58.

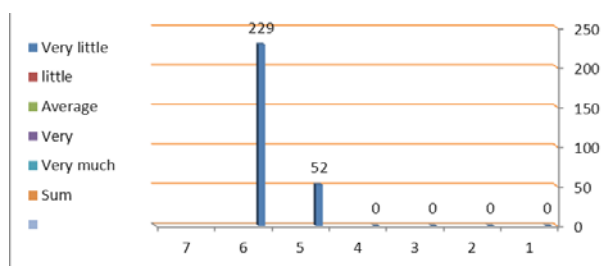


Figure 5. Distribution of respondents according to their views about the impact of diversity on consumer packaged goods, food

5. How much does the full provided information on the packaging have a role in the behavior of the food product to customers?

Table 6. Distribution of respondents according to their opinions about the effectiveness of complete product information listed on the packaging of goods on consumer behavior and food

Percent	Frequency (number)	Full information on the product package insert effect on food consumer behavior in terms of subjects
%0	0	Very little
%0	0	Little
%0	0	Average
%21	59	Very
%79	222	Very much
%100	281	Sum
	26/93	Average
	2/43	Standard deviation

The data show that 21% of the participants considered the effect to be high and 79% of them considered the effects to be very high, the average of the score on this matter was 26/93 and the standard deviation was 2/43.

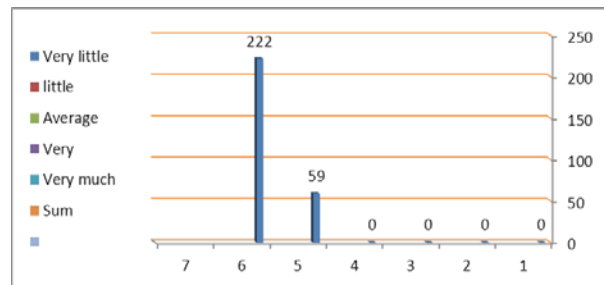


Figure 6. Distribution of respondents according to their views on the effects of complete product information listed on the packaging of goods on consumer behavior, food

6. Is there any difference from customer's point of view about the elements of behavior of the food product to customers?

Table 7. Results of Friedman test to compare the customers' point of view about the effects of food components on the behavior of consumer goods packaging food

Sig.	Degrees of freedom	Chi-square calculated	Number
0001/	4	20/03	281

Table 8. Comparison of mean score components packaged food product from the consumer's perspective

Mean Rating	Components packaged food product from the consumer's perspective
2/96	Color packing goods
3/16	Packing material goods
3/18	Packaged goods
2/68	Variety of packaged goods
3/02	All product information listed on the packaging of goods

According to the above table, at least in one pair of them, a meaningful relation exists ($p < /0001$) because the result is less than /05. Therefore, we can say that the method of packaging and the variety of the packaging are the most and least important factors in the same order. The effect is much more than what the man considered it.

7. Is there any meaningful relation between differences of the opinions between different genders of food product customers?

Table 9. Comparison of male and female customers comment on the impact of quality food packaging products to consumer behavior

Gender	N	Mean	SD	Degrees of freedom	t	Sig.
Man	111	131/73	5/69	279	6/4	0001/.
Woman	170	136/57	6/49			

As we can see in the table, the difference between men and women in meaningful with the T test results we acquired. From the results, we can say that women considered the quality of the packaging more important and therefore the thesis is declined.

8. Is there any meaningful relation between differences of the opinions between different levels of education of food product customers?

Table 10. Comparison of the impact on the consumer's perspective of quality food packaging products to consumer behavior in terms of their education

Education	Number	Mean	SD
The Diploma	29	132/51	5/3
Diploma	39	137/3	7/21
Above Diploma	45	134/13	5/83
Above Bachelor	100	134/01	6/59
Above Bachelor	68	135/38	6/94
Sum	281	134/66	6/62

Table 11. Results of ANOVA

Source	Square	Degrees of freedom	Mean square	F	P
Between groups of	496/57	4	124/18	2/91	.02
The Groups	11779/79	276	42/68		
Sum	12276/55	280	—		

As we can see in the 10 & 11 tables, the deviation between the average score is meaningful which

means the thesis can be proven. The results of the scheffe test (table 12) also show that the difference between under diploma levels and the diploma level was meaningful but the other levels were not meaningful like that because the results were more than/05.

Table 12. Results of Scheffe test for the comparison of quality of insights about customer behavior, consumer packaged goods according to their education level

Education	The Diploma		Diploma		Above Diploma		Bachelor	
	Mean Difference	P	Mean Difference	P	Mean Difference	P	Mean Difference	P
The Diploma	-	-	4/79	05/	1/61	/89	1/49	/88
Diploma	4/79	05/	-	-	3/17	/3	3/29	/13
Above Diploma	1/61	89/	3/17	3/	-	-	/12	/99
Bachelor	1/49	88/	3/29	13/	/12	/99	-	-
Above Bachelor	2/86	42/	1/92	71/	1/24	/91	1/37	/78

9. Is there any meaningful relation between differences of the opinions between different ages of food product customers?

Table 13. Comparison of the impact on the consumer's perspective of quality food packaging products to consumer behavior based on their age

Age	Number	Mean	Standard deviation
Less than 30 years	93	133/22	5
30 to 35 years	69	134/66	7/05
36 to 40 years	34	135/85	7/19
41 to 45 years	40	135/87	5/3
46 years	45	135/66	8/83
Sum	281	134/66	6/62

As it is clear from the above tables, based upon the variance, we can say that there is no meaningful relation between the average of the customer scores.

Table 14. Summary Analysis of Variance

Source	Square	Degrees of freedom	Mean square	F	
Between groups of	344/22	4	86/08		
The Groups	11932/23	276	43/23	1/99	/1
Sum	12276/55	280	–		

Discussion

39% of the participants were men and 60.5 percent were women; 10.3% were under diploma, 13.9% were diploma, 16% were college entr e, 35.6% had bachelor degree and 24.2% had masters. The most populated group belonged to bachelor degree, where 33.1% were under 30 years, 24.6% were between 30 and 35, 12.1% were between 36 and 40, 14.2% were between 41 and 45; and 16% were 46 years old and more. Most of the participants were under 30 years.

The main question: how much does the quality of the packaging have a role in the behavior of the food product to customers?

All of the customers (100%) considered the effects to be very high, the average score was 134/66 and the standard deviation was 6/62. These findings are in accordance with Faraji (2001) Saeedian (2002) and Hoverly (2007). Analyzing the question shows that the packaging is one of the most important elements of the sales and that are why all customers considered the effects very high.

Minor questions

1. How much does the color of the packaging have a role in the behavior of food product customers?

16% of all of the participants considered the color factor's effect to be high and 84% considered it very high. The average of the score was 26/81 and the standard was 2/31. These findings are in accordance with Mohammadi-Almoti (2007) Golchinfar (2011) and Lee (2007) which shows that the main factor in gaining attention is color. All of the customers approved this effect.

2. How much does the material of the packaging have a role in the behavior of the food product to customers?

10.3% of the customers considered the effect to be high and 89.7% of them considered it very high, the average score on the question was 27/62 and the standard deviation was 2/05. These are in ac-

cordance with Zaribaf (2003) Roosta (2002) and Silavi (2007), analyzing the question shows that the packaging is a key factor in customer's decisions because he can use its help to reach his own decision and that is why all of them considered this factor effective.

3. How much does the method of the packaging have a role in the behavior of the food product to customers?

11.7% of the participants considered the effect to be high and 88.3% of them considered it very high. The average of the score was 27/16 and the standard deviation was 1/98. These are in accordance with Alami (1994), Bolorian (2008) and Cutler (2008), analyzing this question shows that the importance of design in the packaging as a tool of marketing is very high that is why all the customers considered this important factor.

4. How much does the variability of the packaging have a role in the behavior of the food product to customers?

18.5% of the participant considered the effect to be high and 81.5% of them considered the effect to be very much, the average was 24/69 and the standard deviation was 2/58. These were in accordance with Rahmani (2009), Moslemizade (1996) and Serka (2004). Analyzing the question shows that the variance in the packaging is one of the customer attracting methods and it gets more important in the competitive world of today. That is why all the customers confirmed the high value of this factor.

5. How much does the fully provided information on the packaging have a role in the behavior of the food product to customers?

21% of the participants considered the effect to be high, and 79% of them considered the effects to be very high, the average of the score on this matter were 26/93 and the standard deviation was 2/43. These were in accordance with Alami (1994), Arabi (2007) and John (2004). Analyzing the question, it shows that proper packaging from the visual aspect can pass good information to the customer, and that is why all the customers considered the effect of this factor very high.

6. Is there any difference from customer's point of view about the elements of behavior of the food product to customers?

At least in one pair of them a meaningful relation exists ($p < /0001$) because the result is less than./05, in total we can say that the method of packaging and the variety of the packaging are the

most and least important factors in the same order. These were in accordance with Almoti (2007), Saraf (2003) and Minor (2007). Analyzing the question shows that the method of packaging is the most important factor and the variety are the least.

7. *Is there any meaningful relation between differences of the opinions between different genders of food product customers?*

As we can see in the table, the difference between men and women in meaningful with the T test results we acquired. From the results, we can say that women considered the quality of the packaging more important and therefore the thesis is declined. These were in accordance with Golchinfar (2011), Roosta (2002) and Lee (2007). Analyzing the question, it shows that women do most of the shopping today and that is why they consider the effect much more important.

8. *Is there any meaningful relation between differences of the opinions between different levels of education of food product customers?*

The deviation between the average score is meaningful which means the thesis can be proven. The results of the scheffe test (table 12) also show that the difference between under diploma levels and the diploma level was meaningful, but the other levels were not meaningful like that because the results were more than/05. These are in accordance with Saeedian (2002), Faraji (2001) and Silavi (2007) analyzing the question shows that the opinion difference between under diploma level and diploma is meaningful but has no significant meaning in the other levels.

9. *Is there any meaningful relation between differences of the opinions between different ages of food product customers?*

Based upon the variance, we can say that there is no meaningful relation between the average of the customer scores and their ages, so the thesis was declined. These were in accordance with Zaribaf (2003), Alami (1994) and Cutler. Analyzing the question shows that there is no meaningful difference between different age group's opinions about the packaging quality.

Suggestion for future studies

- Use of other methods like interview with the student
- Similar studies on other groups.
- Paying attention to matters that increases the manager's level of understanding about the quality of packaging.

- Studies in other city to extend the results we acquired.

- Make a proper chart for improving the quality of packaging in the related organizations.

- We should study the current challenges we face in this field.

References

- Adel, A., & Momeni, M. (2005). *Application of statistics and management*. Tehran: SAMT publication.
- Ampuero O., & Natalia, V. (2005). Consumer perceptions of product packaging. *Journal of Consumer Marketing*, 23 (2), 100–112.
- Anthology Oven, J., & Bkhtayy, A. (2011). *Consumer behavior*. Tehran, 12th Edition.
- Arbabi, A. (2007). *The role of product design and packaging on consumer buying*, Unpublished master's thesis, Azad University, Tehran, Iran.
- Berkman, H., & Gilson C. (2002). *Consumer behavior concepts & strategies*. Enneking Ulrikh, Neumann: Kent Publishing.
- Bolourian-Tehrani, M. (2008). *Marketing management market*. Tehran: Institute for Trade Studies and Research.
- Civilian, A. R. (2004). A systematic analysis of consumer behavior, *Journal of the Director's Message*, 28, 29.
- Elmi, M. (1994). *Guidelines on the basic package*. Tehran: Iran Export Promotion Center.
- Golchin far, S., & Bkhtayy, A. (2011). Consumer behavior. *Journal Concept*, 12, 60–80.
- Kermaninajad, F. (2006). *Look at packaging design*. Tehran: Karin.
- Lee, S. G., & Lye, S. W. (2003). Design for manual packaging. *International Journal Physical Distribution & Logistics Management*, 33, 10–40.
- Mohammad, A. S. (2007) The necessity and role of packaging in stores. *Journal of Conception*.
- Mohebbi, H. (2000). *Package management: The need for systematic approaches to modern packaging industry*. Tehran: Dialogue.
- Rahmani, A. (2009). *Examined the most important criteria in packaged goods* (Unpublished master's thesis). Aras International University campus Tehran Branch, Iran.
- Ranjbarian, B. (2008). *Marketing management market*. Tehran: Commercial Publishing Company
- Saeidian, M. (2008). *The role of packaging on consumer behavior*, Unpublished master's thesis. University

of Tehran Branch Aras International Campus, Iran.
Salman, A. A., Salman, N. A., & Salman, A. (2005).
Critical issues in packaged food business. *British*

Food Journal, 107 (10), 760–80.
Zaribaf, M. (2003). *Global management*. Tehran,
SAMT Publication.