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Relationship Between the Packaging Properties and Consumers' Attitudes Towards Packaging: An Application in Ağrı Province

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Abstract: Today, the packaging is an effective marketing tool used by manufacturers and is an integral part of product strategy. Well-designed packages both provide convenience for consumers and consist of a part of manufacturers' promotional activities. While marketing units are considered price, product, distribution and promotion, many marketers regard packaging as the fifth P of marketing. Packaged products are becoming increasingly important in today's competitive markets. Mostly, packaged products offered to consumers in supermarkets and hypermarkets undertake as the role of silent vendors on shelves, and the right packaging choice is important to reach the end-user especially. Package; it is a material that surrounds the product, provides a safe way of preserving, storing, transporting and even introducing it, which adds value to the product. Attitudes are trends that constitute the psychological dimension of the factors that affect consumer behaviour. Knowing the direction and severity of consumer tendencies is important for producers to be able to move towards these trends or to change consumer attitudes. It is equally important in developing packaging strategies to knowing the attitudes towards package. The purposes of this study are to examine the relationship between the package characteristics of the products and the attitudes of the consumers in the product choice, to investigate the relationship between demographic variables and package characteristics of the participating consumers, and the relationships between demographic variables and attitudes of consumers in product choice. By an application in the province of Ağrı, these relationships have been examined with statistical methods and suggestions have been presented.

Keywords: Packaging, consumer attitudes, marketing, statistical analysis.

Ambalaj Özellikleri ile Tüketicilerin Ambalajlamaya Yönelik Tutumları Arasındaki İlişki: Ağrı İlinde Bir Uygulama

Öz: Ambalajlama, günümüzde üreticiler tarafından kullanılan etkili bir pazarlama aracıdır ve ürün stratejisinin ayrılmaz bir unsurudur. İyi tasarlanmış ambalajlar hem tüketicilere kolaylık sağlar hem de üreticilerin tanıtım faaliyetlerinin bir bölümünü oluşturur. Pazarlama birimleri fiyat, ürün, dağıtım ve tanıtım olarak kabul edilirken, birçok pazarlamacı ambalajlamayı pazarlamanın beşinci P'si olarak kabul eder. Günümüzün rekabetçi piyasalarında ambalajlı ürünlerin önemi giderek artmaktadır. Çoğunlukla, süpermarketlerde ve hipermarketlerde tüketicilere sunulan paketlenmiş ürünler, raflarda sessiz bir satıcının rolünü üstlenir ve özellikle son kullanıcıya ulaşmak için doğru paketleme seçimi önemlidir. Ambalaj; ürünü saran, güvenli bir şekilde korunmasını, depolanmasını, taşınmasını ve hatta tanıtılmasını sağlayan bir malzeme olup, ürüne değer katan bir unsurdur. Tutumlar, tüketici davranışlarını etkileyen faktörlerin psikolojik boyutunu oluşturan eğilimlerdir. Tüketici eğilimlerinin yönünün ve şiddetinin bilinmesi, üreticiler için bu eğilimlere yönelik hareket edebilme ya da tüketici tutumlarının değiştirebilmesi açısından önemlidir. Ambalaja yönelik tutumların bilinmesi de, ambalajlama stratejilerinin geliştirilmesinde aynı derecede öneme sahiptir. Bu çalışmanın amacı; ürünlerin ambalaj özellikleri ile ürün tercihinde tüketicilerin tutumları arasındaki ilişkiyi incelemek, araştırmaya katılan tüketicilere ait

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demografik değişkenler ile ambalaj özellikleri arasındaki ilişkileri ve demografik değişkenler ile tüketicilerin ürün tercihindeki tutumları arasında ilişkileri aramaktır. Ağrı ilinde bir uygulama ile bu ilişkiler istatistiksel yöntemlerle incelenmiş ve konu ile ilgili öneriler sunulmuştur.

Anahtar Kelimeler: Ambalajlama, tüketici tutumları, pazarlama, istatistiksel analiz.

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I. Introduction

As an important element of integrated marketing communication, besides the positive effects of packaging on product development and renewal stages, the importance of packaging is increasing in parallel with the development of the self-service system and supermarkets and hypermarkets nowadays. In addition to the fact that packaging is a material that only wraps around the product, the fact that it is a factor that advertises the product and adds value to the product has an effect on this increase (Şen, 2007:1). Rapidly changing lifestyles, socio-economic conditions, increase in income, increasing the presence of women in business life, the spread of large chain stores, awareness of consumers and often making decisions of consumers at points of sale increases that the importance of packaging products and the demand for packaging products. When the consumer profile of today is examined, it is seen that consumers buy products not only for their functional properties but also for their symbolic meanings. For example; Original perfume bottles, oil containers etc. stylish and decorative packaging can be preferred. Correct positioning is of remarkable importance in the marketing of similar products. At this point, packaging plays a major role. Because packaging is one of the tools used for communication with the consumer and used by the manufacturer to convey the messages by seeing the role of salesperson. Therefore, the packaging which was previously used only for transportation and storage nowadays advertises the product (Alagöz & Ekici, 2009:84).

II. Conceptual Framework

A.The Definition and Important of Packaging

During the delivery of the product which is put into the final consumers from the place of production, packaging makes product promotion and protect from external factors. Maintaining the quality of food products from the producer to the final consumer is possible with appropriate and quality packaging (Gökalp, 2007:80).

Consumers buy the product not only for its functional use but also for its symbolic meaning. In addition to these features, packaging carries both the company's name and the brand of the product to consumers. Therefore, the managers who understand the importance of packaging should try to make a difference in the packaging of the product and gain to the product an identity (Underwood, 2003:62).

The package is material, can then be disposed of or recycled, that protects the product, facilitates the transportation, storage, sale and use of the product (Tek, 1999:372). Packaging according to another definition; are the most cost-effective

windings or containers that protect the product from possible damages in the distribution chain through which the product passes from production to the consumer (Turan, 1997:5). According to another definition, packaging is wraps and coatings made of metal, paper, cardboard, glass, tin, plastic and wood that protect the product from external influences and facilitate the distribution and marketing operations by keeping the goods put together. According to Kotler (2000:419), the packaging is the design of the container or box in which a product is to be placed. In other words, the packaging is the process of wrapping with substances that protect the foods from external influences, prevented the changes in the quality of the foods during the period from production to consumption and attract the attention of the buyer in terms of shape (Bener, 1995:115).

In the context of marketing activities related to the product, the packaging is of great importance today. Packaging affects both cost and sales. (Mucuk, 2009:149). Some businesses see packaging as only a protective and convenience tool. Since packaging is a part of goods policy, its value should be considered in terms of marketing (Cemalcılar, 1999:120). The packaging is an important complement that makes the goods held on the market. Also, firms have to give importance to packaging to create demand for their brands (Islamoğlu, 2002:215). The development and increase in the number of supermarkets and other self-service stores loaded that also the marketing task on the packaging which in addition to their main duties. Furthermore, packaging constitutes an important dimension of the product as a communication tool recently (Odabaşı & Oyman, 2002:243). The packaging has gained importance as a marketing tool due to factors such as diversification of production and economic development. These factors are the development of modern marketing concept, growth of buyers' market, development of self-service method and supermarkets, increasing in the number of working women and in the income and welfare of consumers, developments of the packaging industry and technology (Tetra-Pak, aluminium cans, etc.) (Tek, 1999:371).

As a result, the packaging should be of the consumer's attention, arouse interest, inform consumers about the characteristics of the product, provide consumer confidence and leave a positive impression of the product in the mind of the consumer. In addition, packaging should contribute to the immediate recognition of a company or brand (Dilber et al., 2012:161).

B. The Kinds of Package

The packaging consists of two different parts: inner packaging and outer packaging. The inner packaging is an element that initially surrounds and protects the product, usually provided to the consumer with the product, and therefore directly affects the consumer's decision to purchase the product. Inner packaging has two main functions, namely protection and promotion (Gökalp, 2007:81). The main purpose of the outer packaging is to provide the togetherly transportation of packaged products and to protect it from external factors that may occur during shipment. In addition, the packaging to be used for export should be marked and labelled according to international norms and legal regulations in the target market. Otherwise, the product may be damaged, may not reach its destination or maybe returned from customs (Usta, 2002:63).

C.The Features of Package

The packaging has to a feature that shall be remotely recognizable from both the shape and the inscriptions on it. Another feature of the package is that it is to satisfy consumers' emotions. Therefore, expensive, cheap, classic, modern, for young people, the elderly can be talked about packages (Şerifsoy, 1987:7).

According to Şen (2007:4-5), the general characteristics of the packaging can be listed as follows: Protection and storage of the product; ease of loading, unloading, filling, closing, stacking, opening and reclosing; appropriate marking (giving information); attractiveness (being remarkable, arousing the desire to buy); production quality; material economy (optimum cost); environmental protection and recycling; compliance with the demands and needs of the target market and customer; graphic design / visual creativity (distinguishing from competing products); compliance with the conditions of the country where the product is marketed; standardization (standardization between the same packages).

D.Functions of Package

By the development of technology and the emergence of needs, packaging functions also change. In general, the functions of the packaging can be listed as follows:

- **Protection function:** The package protects the product until from the manufacturer to the final consumer. It prevents to be effected negatively the product from external factors such as light, moisture, heat, air, impacts and also prevents to deterioration and pollution of the product (Tek, 1983:13).

- **Sales function:** The packaging has the product sell by attracting the attention of the customer, protecting the product and making it useful. Features such as the colour, shape and size of the packaging, the information on the packaging, and the technologies used in the production of the packaging affect the customer's decision to purchase the product (Gökalp, 2007:82).

- **Promotion function:** Promotion includes encouraging the re-purchase of the product. The packaging is equivalent to presentation. The packaging is a form of promotion without changing the quantity and quality of the product and is done for two purposes. The first purpose is to age the packaging: Over time, the packages have their faces become old. In this event, which we call packaging fatigue, while making changes, it is necessary to pay attention to the nostalgic feelings of old loyal customers. The second purpose is that dealers will not be harmed in case of sudden price reductions: This is a precautionary measure taken in order not to damage the dealers who have too many stocks with high prices in times of stagnation in sales.

- **Price adjustment function:** Products can be priced through packaging in the following ways (MEGEP, 2007:9):

- By reducing the quantity of product without changing the packaging,

- By enlarging the packaging and increasing the unit price of the product,
- By reducing the packaging and reducing the unit price of the product,
- By enlarging the packaging and reduce the unit price of the product,
- By enlarging the packaging and reducing the quantity of the product,
- By reducing the quantity and price of the product without changing the packaging.

- **Convenience function:** This function includes convenient product filling, opening, closing, using, throwing, storing, shelf placing (Gökalp, 2007:83).

- **Communication function:** How consumers perceive the product largely depends on the communication elements of the packaging. If the packaging is of high quality, consumers will consider the product to be of high quality. But if the packaging is of low quality, consumers attribute the low quality to the product itself. In other words, packaging conveys positive or negative thoughts to consumers (Gökalp, 2007:82).

- **Conflict prevention function:** Unpacked goods create distrust towards the seller. The packaging enables self-service and minimizes the conflict between the consumer and the seller (MEGEP, 2007:9).

III. Relationship Between Packaging and Consumer Behavior

A customer obtains information about a product by the way it perceives that product. Therefore, a customer's behaviour is determined by how the customer perceives the products and services around him (Mozota, 2006:124). The packaging is the first element in establishing a relationship with the consumer. It has to reassure the consumer. It refers to many things that belong to the product; packaging secures that product hygiene, quality, freshness etc. (Özkaraman, 1999:137). The packaging must be made so that it can be easily and conveniently handled and transported together with the historic preservation function. On the other hand, the colour distribution on the packaging should be in accordance with the taste of the consumers and the structure of the product. According to the results of long experiences in practice, the relationships between the factors (such as getting better, beautiful, comfortable) determining the consumer needs and the marketing elements (packaging, advertising, price and sales ways) that will satisfy these needs are as follows: If the desire of the consumer is to achieve good, the manufacturers should give importance packaging. If the desire of the consumer is to achieve new, the manufacturers should give importance to advertising. If the desire of the consumer is to achieve comfort, the manufacturers should give importance to the sales path and method (Çakıcı, 1987:20–22). Analyzing the relationship of the package with the user ensures to making a suitable and high-quality design. As a part of human behaviour, packaging is an important tool for communication and understanding. As a means of communication, packaging is also used as a sign and a message in order to transfer the behaviours, beliefs, expectations and identities of individuals to each other.

Today, psychologists use the packaging as a means of communication in understanding the inner worlds and desires of individuals. Also, graphic applications play a key role in establishing a relationship between packaging and consumer. The visual elements such as colour, texture, form, font and surface design applied on the surface of the package contribute to the sale of the product by providing useful information about what the product is (Şen, 2007:94).

The reason why the package is called a silent salesperson is that it contributes to the sale of the product. Sometimes the consumer can choose the product packaging even in order to use in the storage of other products (Silayoi & Speece, 2004:607). There is the great effect of the packaging on attracting consumers' attention and arousing their interest. Customers can evaluate using the information on the packaging, which already constitutes the first three stages of purchasing behaviour. Therefore, it can be said that the effect of the packaging is important during the trial phase of the product by the consumer (Küçük, 2002:27). In addition, in order to be able to talk about a successful packaging, is necessary to be centred the customers in the packaging design. When packaging, customers' demographic characteristics, needs and desires should be taken into consideration. The message to be given to the customer with the packaging should be determined during the design of the packaging. It must be checked whether the packaging effectively attracts the attention of the customer (Nancarrow & Wright, 1998:7).

A.The Purpose of The Research

The purpose of this study is to investigate the relationship between the packaging characteristics of the products and the attitudes of consumers in product choice. It also examines the relationship between demographic variables of the participating consumers and packaging characteristics, and the relationship between demographic variables and attitudes of consumers in product choice.

B.The Important of The Research

The attitudes of consumers towards packaging are very important both in terms of achieving personal goals of consumers and in terms of achieving the marketing targets envisaged by the firms. Although there are similar studies in the preference of packaged products in the literature, this study in which involving a local application is important to contribute to the literature.

C.Population and Sample

Consumers residing in Ağrı province were wanted to accept as the population of the study by the researcher. However, the average number of consumers who shop in 6 supermarkets in the city centre of Ağrı was found to be 6000 per day. Therefore, the population of the study was accepted as 6000 people. Based on this number, the sample size was calculated using the following formula (Yamane, 1973:133):

$n = \frac{NP(1-P)Z^2}{(N-1)d^2 + P(1-P)Z^2}$; (n: The size of the sample, N: The size of the population, P: Probability of event's occurring, (1-P): Probability of event's non-occurring, α : The level of significance, Z: Z test value at level $\%(1-\alpha)$, d: Error margin). The sample size was calculated as 361 (with P=0,50 and 5% error margin). The simple random sampling method was chosen for the sampling method. Of the 635 questionnaires distributed to consumers, 600 were included in the study since they returned in accordance with the analysis. In other words, the sample size was determined as 600. Therefore, the selected sample is represented 10% of the population, which this rate is sufficient for the study.

D.Assumptions and Limitations of The Research

It is assumed that the responses of the surveyed consumers reflect the opinions about the determination of their attitudes towards packaging in product preference, and consumers whose opinions were consulted were assumed to be sincere in their responses. The limitations of this study are determined as thus: Consumers who shopping at six large convenience stores operating in the city centre of Ağrı, on May 15-25, 2019. The scale for determining the properties of the package has 17 questions. The scale for determining consumers' attitudes towards packaging in product preference has 29 expressions.

E.The Model and Hypotheses of The Research

This study is in a descriptive format. In other words, an existing situation is tried to be described in this study. Descriptive research studies explain the relationships between variables by taking into account the previous situation of events. And the data collect by a measurement tool such as survey, exam and observation form. The determining of the situation is done by summarizing the collected data. In addition, general characteristics are estimated using estimation methods (Özdemir et al., 2015:15).

The model of the research is presented in Figure 1. The model is consisting that the packaging characteristics of the preferred products, the socio-demographic characteristics of the participants and their attitudes towards packaging:

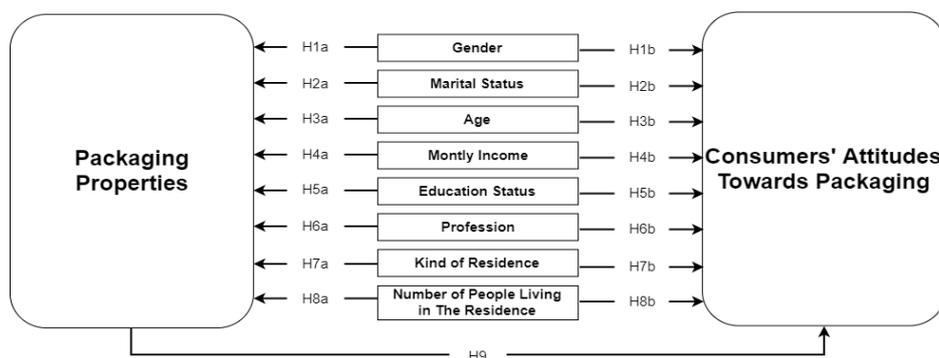


Figure 1. The Model of The Research

In Figure 1 which is given above, demographic variables have been shown to be related to both packaging properties and attitudes towards packaging. It also includes the relationship between the packaging properties of the products that form the basis of the research and the attitudes of consumers in product choice.

Sixteen hypotheses have been established to measure the relationships between socio-demographic variables of consumers and their attitudes towards packaging and between socio-demographic variables of consumers and packaging properties:

H1a: The gender of consumers has an impact on the determination of the packaging properties.

H1b: The gender of consumers has an impact on consumers' attitudes towards packaging.

H2a: The marital status of consumers have an impact on the determination of packaging properties.

H2b: The marital status of consumers have an impact on consumers' attitudes towards packaging.

H3a: The age of the consumers has an impact on the determination of the packaging properties.

H3b: The age of consumers has an impact on consumers' attitudes towards packaging.

H4a: The monthly incomes of consumers have an impact on the determination of packaging properties.

H4b: The monthly incomes of consumers have an impact on consumers' attitudes towards packaging.

H5a: The education status of consumers have an impact on the determination of the packaging properties.

H5b: The education status of consumers have an impact on consumers' attitudes towards packaging.

H6a: The professions of consumers have an impact on the determination of packaging properties.

H6b: The professions of consumers have an impact on consumers' attitudes towards packaging.

H7a: The kind of consumers' residences has an impact on the determination of the packaging properties.

H7b: The kind of consumers' residences has an impact on consumers' attitudes towards the packaging.

H8a: The number of people living in the residence has an impact on the determination of the packaging properties.

H8b: The number of people living in the residence has an impact on consumers' attitudes towards the packaging.

In addition to these hypotheses, another hypothesis was established to look for a statistically significant relationship between packaging properties and consumers' attitudes towards packaging:

H9: The packaging properties effect on consumers' attitudes towards packaging.

F. Development of Data Collection Tools and Data Collection

The prepared questionnaire consists of three parts. There is personal (socio-demographic) information in the first part, there is the scale of packaging properties in the part of the second, there is the scale of towards packaging attitude in the third part. The Likert-type 5-point rating scale is used to determine the responses of the participants to the questions asked. Likert scale is designed as from (1) "Unimportant" to (5) "Very important". The method of face-to-face interviews was applied with 635 consumers who shop at 6 of supermarkets in the city centre of Ağrı. 600 of the returned questionnaires were found suitable for analysis. The scales used in this research are the scales developed by Şen (2007) and used in his master thesis. The packaging scale consisted of 17 items and the attitude scale towards packaging consisted of 29 items. There are also 8 items to determine the socio-demographic characteristics of the participants.

G. The Method of The Research

Reliability analysis of the scales in the questionnaire was applied. Confirmatory factor analysis was not applied for "the packaging properties" and "consumers' attitudes towards packaging" scales used in the study because they were internationally valid and reliable. Frequency analysis was applied to determine the socio-demographic characteristics of the consumers participating in the study. By taking into consideration the responses of the participants to the scales of "the packaging properties" and "consumers' attitudes towards packaging", the arithmetic means and standard deviations of the answers were calculated and the prominent features of the packaging in consumer preference were determined. Dual tests were applied in order to determine whether the demographic characteristics of the participants had an effect on packaging preference. First of all, normality tests were applied to determine whether the variables were distributed normally. Parametric tests (independent-samples t-test, ANOVA) were used for the analysis of variables with normal distribution, and nonparametric tests (Mann-Whitney U test and Kruskal Wallis test) were used for the analysis of non-normally distributed variables. In addition, linear regression analysis and correlation analysis were applied to determine the effect of packaging properties on consumers' attitudes towards the packaging.

H.Data Analysis and Findings

Firstly, the reliability analysis of the items of the scales used in the study was applied. Kolmogorov - Smirnov normality test was used to determine whether the variables show normal distribution. While looking for relationships with demographic variables; the Mann-Whitney and Kruskal Wallis tests were applied since the variables were not normal, in addition to the frequency analysis. Correlation and regression analyses were applied to determine whether there is a relationship between packaging properties and consumers' attitudes towards packaging. Significance level was accepted as 0,05 in the research. SPSS 24 package program was used for data analysis.

J.Findings on Demographic Characteristics of Consumers Participating in the Research

The findings obtained from the demographic questions of the measurement tool are summarized in Table 1, before presenting the findings related to the purpose of the study. Gender, marital status, age, monthly income, education status, profession, kind of residence and number of people living in the residence were taken as demographic variables.

Table 1. Information on the consumers participating in the survey

Variables		N	%	Variables		N	%
Gender	Female	331	55,2	Profession	Not working	84	14,0
	Male	269	44,8		Public worker	42	7,0
Marital status	Married	248	41,3		Public officer	114	19,0
	Single	352	58,7	Self-employment /			
Age	18 and below	90	15,0	Registered employees	54	9,0	
	19 - 25	157	26,2	Private sector employee	88	14,7	
	26 - 30	115	19,2	Retired	41	6,8	
	31 - 35	50	8,3	Student	177	29,5	
	36 - 40	44	7,3	Kind of residence	Tenant	244	40,7
	41 - 45	83	13,8		Host / Staying with his family (with relatives)	269	44,8
46 and above	61	10,2	The Apart / Dormitory		87	14,5	
Monthly income	Less than 2.000 TL	132	22,0	1	28	4,7	
	2.001 – 3.000 TL	187	31,2	2	93	15,5	
	3.001 – 4.000 TL	155	25,8	3	123	20,5	
	4.001 – 5.000 TL	94	15,7	4	170	28,3	
	5.001 TL and above	32	5,3	5	104	17,3	
Education status	Lettered	8	2,7	6	51	8,5	
	Elementary School	29	9,7	7	18	3,0	
	Middle School	13	4,3	8 and more	13	2,2	
	High School	143	47,7	Total	600	100,0	
	Bachelor	89	29,7				
Graduate	18	6,0					

As can be seen in Table 1; 55,2% of the surveyed consumers are female and 44,8% are male. The majority of the participants (45,4%) are between 19-30 years old. 58,7%

of the participants were single and 47,7% were high school graduates. In terms of their monthly average incomes, the majority of the participants (79%) have less than 4000 TL income. 19% of the consumers participating in the study were a public officer and 29,5% were students. While 14,5% of the consumers participated in the study were students staying in apartments/dormitories, the remaining consumers were staying with their families/relatives. 66,1% of the participants share the same dwelling with 3-5 people.

Table 2. Mean values of expressions for packaging properties

Packaging Properties		Scale					X̄	S.D.
		Unimportant	2	3	4	Very important		
The packaging should be easy to open.	F	37	34	84	200	245	3,97	1,154
	%	6,2	5,7	14,0	33,3	40,8		
The packaging must be made of recycled material.	F	10	17	70	228	275	4,24	0,886
	%	1,7	2,8	11,7	38,0	45,8		
Packaging should not take up much space.	F	35	31	82	223	229	3,97	1,118
	%	5,8	5,2	13,7	37,2	38,2		
Packaging should be easy to transport.	F	10	25	65	223	277	4,24	0,916
	%	1,7	4,2	10,8	37,2	46,2		
The packaging must contain instructions for use.	F	11	16	48	191	334	4,37	0,880
	%	1,8	2,7	8,0	31,8	55,7		
The packaging must be made of moisture-resistant material.	F	15	17	66	159	343	4,33	0,955
	%	2,5	2,8	11,0	26,5	57,2		
The design of the packaging is important.	F	52	64	151	214	119	3,47	1,175
	%	8,7	10,7	25,2	35,7	19,8		
The colour of the packaging is important.	F	116	130	143	127	84	2,89	1,324
	%	19,3	21,7	23,8	21,2	14,0		
The packaging should be interesting.	F	96	92	151	157	104	3,14	1,316
	%	16,0	15,3	25,2	26,2	17,3		
The position of the product on the market shelf is important.	F	104	79	159	157	101	3,12	1,322
	%	17,3	13,2	26,5	26,2	16,8		
It is important that the package does not leak out.	F	7	18	53	129	393	4,47	0,864
	%	1,2	3,0	8,8	21,5	65,5		
Production and expiry date information should be seen easily.	F	11	8	39	120	422	4,56	0,823
	%	1,8	1,3	6,5	20,0	70,3		
The packaging must not be produced from materials harmful to health.	F	12	23	27	145	393	4,47	0,900
	%	2,0	3,8	4,5	24,2	65,5		
The packaging should be able to be used for other purposes after the product is finished.	F	56	46	122	181	195	3,69	1,257
	%	9,3	7,7	20,3	30,2	32,5		
The packaging must contain information about the manufacturer.	F	19	43	83	199	256	4,05	1,066
	%	3,2	7,2	13,8	33,2	42,7		
The inscriptions on the packaging must be legible.	F	13	16	30	212	329	4,38	0,870
	%	2,2	2,7	5,0	35,3	54,8		
Packaging design must be original.	F	48	67	205	157	123	3,40	1,164
	%	8,0	11,2	34,2	26,2	20,5		

The mean and standard deviation values of the questions are presented in the table above. Accordingly, the statement "Production and expiry date information should be seen easily" has the highest score with an average of 4,56. "It is important that the package does not leak out" and "The packaging must not be produced from materials harmful to health" statements' averages are 4,47. However, "The colour of the packaging is important" statement has the lowest score with an average of 2,89. In other words, in consumers' product preferences; they were seen to important that "production and expiry date information should be seen easily", "it is important that the package does not leak out", and "the packaging must not be produced from materials harmful to health". "The colour of the packaging is important" statement was seen to unimportant.

Table 3. Mean values of expressions for consumers' attitudes towards packaging

Consumers' Attitudes Towards Packaging							\bar{X}	S.D.
		Unimportant	2	3	4	Very important		
I pay attention to the quality of materials used in packaging.	F	21	40	122	207	210	3,91	1,062
	%	3,5	6,7	20,3	34,5	35,0		
The design of the packaging is effective in purchasing the product.	F	34	57	186	229	94	3,49	1,046
	%	5,7	9,5	31,0	38,2	15,7		
It is important for me to have all the product information on the packaging.	F	8	27	44	230	291	4,28	0,883
	%	1,3	4,5	7,3	38,3	48,5		
In my opinion, large packaging should not be used for a small product.	F	40	38	99	154	269	3,96	1,211
	%	6,7	6,3	16,5	22,7	44,8		
I buy products from a brand I trust, no matter how the packaging.	F	103	88	122	164	123	3,19	1,376
	%	17,2	14,7	20,3	27,3	20,5		
I buy products of a brand I do not know if the packaging is beautiful.	F	195	126	132	73	74	2,51	1,373
	%	32,5	21,0	22,0	12,2	12,3		
It is important to me the packaging which protect the product.	F	20	22	37	162	359	4,36	0,988
	%	3,3	3,7	6,2	27,0	59,8		
I prefer products with beautiful packaging from the similar and the same priced products.	F	69	60	148	187	136	3,44	1,262
	%	11,5	10,0	24,7	31,2	22,7		
In my opinion, the packaging must be recyclable.	F	27	23	95	199	256	4,06	1,069
	%	4,5	3,8	15,8	33,2	42,7		
To me, the packaging design must be original.	F	61	61	124	181	173	3,57	1,280
	%	10,2	10,2	20,7	30,2	28,8		
I can pay extra for a product because its packaging is beautiful.	F	212	121	123	92	52	2,45	1,352
	%	35,3	20,2	20,5	15,3	8,7		
To me, a product with good packaging is also quality.	F	164	150	136	103	47	2,42	1,334
	%	27,3	25,0	22,7	17,2	7,8		
To me, the packaging should be basic.	F	57	80	208	149	106	3,28	1,180
	%	9,5	13,3	34,7	24,8	17,7		
In my opinion, the packaging should be resealable after opening.	F	30	32	89	201	248	4,01	1,108
	%	5,8	8,3	14,8	33,5	41,3		
To me, packaging should be easy to hold.	F	20	24	49	273	234	4,13	0,957
	%	3,3	4,0	8,2	45,5	39,0		
To me, the packaging should be resistant.	F	23	24	41	232	280	4,20	1,000
	%	3,8	4,0	6,8	38,7	46,7		
I read the label information on the packaging.	F	24	23	57	222	274	4,17	1,020
	%	4,0	3,8	9,5	37,0	45,7		
Good packaging increases confidence in the brand.	F	44	43	142	210	161	3,67	1,159
	%	7,3	7,2	23,7	35,0	26,8		
In my opinion, if the packaging is of good quality, the product is of good quality.	F	103	128	140	118	111	3,01	1,356
	%	17,2	21,3	23,3	19,7	18,5		
To me, the package should feel good when touched.	F	72	94	163	140	131	3,27	1,293
	%	12,0	15,7	27,2	23,3	21,8		
To me, the packaging should be open easily.	F	22	29	90	249	210	3,99	1,012
	%	3,7	4,8	15,0	41,5	35,0		
In my opinion, packaging directly affects the price of the product.	F	47	72	113	230	137	3,57	1,191
	%	7,8	12,0	18,8	38,3	23,0		
To me, packaging should be transport easily.	F	5	29	92	269	205	4,07	0,872
	%	0,8	4,8	15,3	44,8	34,2		
The packaging provides me to distinguish the brand.	F	25	36	122	209	208	3,90	1,075
	%	4,2	6,0	20,3	34,8	34,7		
Production and expiry date information should be on the packaging.	F	11	21	64	165	339	4,33	0,931
	%	1,8	3,5	10,7	27,5	56,5		
To me, packaging should be interesting.	F	29	52	187	206	126	3,58	1,062
	%	4,8	8,7	31,2	34,3	21,0		
In my opinion, the packaging of the product should be renewed from time by time.	F	23	56	122	264	135	3,72	1,034
	%	3,8	9,3	20,3	44,0	22,5		
Including photos of famous people on the packaging affects my preference.	F	266	175	93	43	20	1,97	1,098
	%	44,3	29,2	15,5	7,7	3,3		
In my opinion, using the same packaging for a long time gives the image of a well-established brand.	F	46	35	160	196	163	3,66	1,161
	%	7,7	5,8	26,7	32,7	27,2		

The average and standard deviation values of the questions measuring consumer attitudes towards packaging are presented in the table above. According to this: consumers' purchasing behaviour taking into account the packaging characteristics of the product, the statement "The protection of the product is the most important element for me" has the highest score with an average of 4,36. Then, the following statements were considered important by consumers, respectively. The statement of "Production and expiry date information should be on the packaging" with an average of 4,33, and the statement of "It is important for me to have all the product information on the packaging." with an average of 4,28. In other words, the fact that all information related to the product, such as the production and expiration date on the product, and the protection of the product, has an important place in the preferences of consumers.

However, the statements with low scores were listed as follows: The statement of "Including photos of famous people on the packaging affects my preference" with an average of 1,97; the statement of "To me, a product with good packaging is also quality" with an average of 2,42; the statement of "I can pay extra for a product because its packaging is beautiful" with an average of 2,45; and the statement of "I buy products of a brand I do not know if the packaging is beautiful" with an average of 2,51. In other words, in consumers' product preferences; the photos of famous people on the product and the packaging looks nice is not cared by consumers.

K.Reliability Analyses of Variables

Reliability is a requirement of scientific researches. The first condition that a scale can be considered valid is that it is reliable. Low reliability indicates that the study is worthless and the results obtained are meaningless. While the high reliability means that the results should be reliable, it does not mean that the results are scientifically correct. The reliability coefficient is calculated as the reliability indicator, and It takes a value between 0 and 1 (Güriş & Astar, 2015:282-283). Many different estimation methods are used to calculate the reliability coefficient.

Table 4. The results of the reliability analysis of the scales used in the research

Variables	N	Items	Cronbachs' α
The Packaging Properties	600	17	0,801
Consumers' Attitudes Towards Packaging	600	29	0,779
Both Scales	600	46	0,854

The Cronbach alpha value was calculated as 0,801 for the packaging properties scale that consisting of seventeen questions; it was calculated as 0,779 for the consumers' attitudes towards packaging scale that consisting of twenty-nine questions; it was calculated as 0,854 for both scales that consisted of forty-six questions. Since these values are greater than 0,700, the scales used are accepted to be reliable (Kalaycı, 2010:405; Güriş & Astar, 2015:283; Uludağ, 2019:223).

L.Findings regarding the relationships among socio-demographic variables, packaging properties, and costumers' attitudes towards packaging

The results of the normality test (Kolmogorov-Smirnov) of the variables used in the study are presented in Table 5:

Table 5. Normality test results of variables

Variables	Normality Test (Kolmogorov-Smirnov)		
	Statistic value	Degree of freedom	P
Gender	0,368	600	0,000
Marital status	0,386	600	0,000
Age	0,202	600	0,000
Monthly income	0,203	600	0,000
Education status	0,270	600	0,000
Profession	0,180	600	0,000
Kind of residence	0,262	600	0,000
Number of people living in the residence	0,155	600	0,000
The packaging properties	0,091	600	0,000
Consumers' attitudes towards packaging	0,054	600	0,000

The Kolmogorov-Smirnov test, which includes the Chi-Square test, is used as an alternative to the Shapiro-Wilks test if the number of participants is more than 50. As a result of the test, it was found that all variables used in the study do not have normal distribution as shown in Table 5 ($P < 0,5$). Therefore, assuming that variables are not suitable for normal distribution, non-parametric tests are preferred to predict variable relationships.

If the research data are suitable for normal distribution, the t-test, which is one of the parametric tests, is used for variables with two categories. Independent samples t-test is used to determine whether there was a significant difference between two independent groups. However, if the variables used in the study do not conform to the normal distribution, Mann-Whitney test which it is the non-parametric was used. Mann-Whitney U test compares the medians of the groups instead of comparing the averages of the two groups as in the comparison of the two means in the t-test. It transforms the values of continuous variables into two groups. Thus, it evaluates whether the ordering between the two groups is different. With this process, the available distribution of the values is not important as the values are transformed into sequential order (Kalaycı et al., 2006:99; Karagöz, 2010:23).

If the research data is suitable for normal distribution, ANOVA which is one of the parametric tests is used for the variables having more than two categories. ANOVA is used to test whether the average of more than two quantitative populations is equal to each other. However, if the variables used in the study do not conform to the normal distribution, Kruskal Wallis test which is the non-parametric was used. It is the most widely used test instead of ANOVA in the test of the null hypothesis, which claims that more than two independent samples are drawn from the same population (Karagöz,

2010:25). According to Kartal (2006: 213), the Kruskal-Wallis test is a very strong nonparametric test.

For examining the relationship between gender and marital status variables and packaging properties of products, and for the relationship, they between consumers' attitudes towards packaging was applied Mann-Whitney test. Kruskal Wallis test was used to examine the relationships packaging properties and consumers' attitudes towards packaging with other variables. Findings of analyses and its interpretations are given in Table 6.

Table 6. Findings regarding the relationships between socio-demographic variables and packaging properties, regarding the relationship between socio-demographic variables and costumers' attitudes towards packaging.

Variables	Hypothesis	Test	Statistics Value	P	Result
Gender					
Packaging Properties	H _{1a}	Mann Whitney U	U = 43272,000	0,554	Rejected
Consumers' Attitudes Towards Packaging	H _{1b}	Mann Whitney U	U = 42427,500	0,322	Rejected
Marital Status					
Packaging Properties	H _{2a}	Mann Whitney U	U = 39508,000	0,048	Accepted
Consumers' Attitudes Towards Packaging	H _{2b}	Mann Whitney U	U = 43488,000	0,939	Rejected
Age					
Packaging Properties	H _{3a}	Kruskal Wallis	$\chi^2 = 54,650$	0,000*	Accepted
Consumers' Attitudes Towards Packaging	H _{3b}	Kruskal Wallis	$\chi^2 = 45,681$	0,000*	Accepted
Monthly Income					
Packaging Properties	H _{4a}	Kruskal Wallis	$\chi^2 = 23,747$	0,000*	Accepted
Consumers' Attitudes Towards Packaging	H _{4b}	Kruskal Wallis	$\chi^2 = 23,911$	0,000*	Accepted
Education Status					
Packaging Properties	H _{5a}	Kruskal Wallis	$\chi^2 = 28,047$	0,000*	Accepted
Consumers' Attitudes Towards Packaging	H _{5b}	Kruskal Wallis	$\chi^2 = 37,117$	0,000*	Accepted
Profession					
Packaging Properties	H _{6a}	Kruskal Wallis	$\chi^2 = 31,016$	0,000*	Accepted
Consumers' Attitudes Towards Packaging	H _{6b}	Kruskal Wallis	$\chi^2 = 61,526$	0,000*	Accepted
Kind of Residence					
Packaging Properties	H _{7a}	Kruskal Wallis	$\chi^2 = 8,392$	0,015*	Accepted
Consumers' Attitudes Towards Packaging	H _{7b}	Kruskal Wallis	$\chi^2 = 10,601$	0,005*	Accepted
Number of People Living in The Residence					
Packaging Properties	H _{8a}	Kruskal Wallis	$\chi^2 = 20,458$	0,005*	Accepted
Consumers' Attitudes Towards Packaging	H _{8b}	Kruskal Wallis	$\chi^2 = 44,610$	0,000*	Accepted

*: Hypotheses with significant relationships between variables were accepted.

As can be seen in Table 6, sixteen hypotheses had been established by the assumption that there is a relationship between the demographic characteristics of consumers and the packaging properties and is a relationship between the demographic characteristics of consumers and their attitudes towards packaging. As a result of the analyzes, the significant relationships are found for thirteen hypotheses ($P < 0,05$):

The hypothesis “H2a: The marital status of consumers have an impact on the determination of packaging properties” is confirmed that the marital status of the consumers had an effect on the determination of the packaging properties.

The hypothesis “H3a: The age of consumers has an impact on the determination of the packaging properties” is confirmed that the ages of the consumers had an effect on the determination of the packaging properties.

The hypothesis “H3b: The age of consumers has an effect on the attitude of the consumer towards the packaging” is accepted and it is confirmed that their ages had an effect on the attitude of the consumer towards the packaging.

The hypothesis “H4a: The monthly incomes of consumers have an impact on the determination of packaging properties” is confirmed that the monthly incomes of the consumers had an effect on the determination of the packaging properties.

The hypothesis “H4b: The monthly incomes of consumers have an impact on consumers’ attitudes towards packaging” is accepted and it is confirmed that their monthly incomes had an effect on the attitude of the consumer towards the packaging.

The hypothesis “H5a: The education status of consumers have an impact on the determination of the packaging properties” is confirmed that the education status of the consumers had an effect on the determination of the packaging properties.

The hypothesis “H5b: The education status of consumers have an impact on consumers’ attitudes towards packaging” is accepted and it is confirmed that their education status had an effect on the attitude of the consumer towards the packaging.

The hypothesis “H6a: The professions of consumers have an impact on the determination of packaging properties” is confirmed that the professions of the consumers had an effect on the determination of the packaging properties.

The hypothesis “H6b: The professions of consumers have an impact on consumers’ attitudes towards packaging” is accepted and it is confirmed that their professions had an effect on the attitude of the consumer towards the packaging.

The hypothesis “H7a: The kind of consumers' residences has an impact on the determination of the packaging properties” is confirmed that the kind of consumers' residences had an effect on the determination of the packaging properties.

The hypothesis “H7b: The kind of consumers' residences has an impact on consumers’ attitudes towards the packaging” is accepted and it is confirmed that their

kind of consumers' residences had an effect on the attitude of the consumer towards the packaging.

The hypothesis “H8a: The number of people living in the residence has an impact on the determination of the packaging properties” is confirmed that the number of people living in the residence had an effect on the determination of the packaging properties.

The hypothesis “H8b: The number of people living in the residence has an impact on consumers' attitudes towards the packaging” is accepted and it is confirmed that their number of people living in the residence had an effect on the attitude of the consumer towards the packaging.

As a result of the analyzes, the significant relationships are not found for the three hypotheses ($P > 0,05$):

The hypothesis “H1a: The gender of consumers has an impact on the determination of the packaging properties” is found that the gender of the consumers had no effect on the determination of the packaging properties.

The hypothesis “H1b: The gender of consumers has an impact on consumers' attitudes towards packaging” is found that gender had no effect on consumers' attitudes towards packaging.

The hypothesis “H2b: The marital status of consumers have an impact on consumers' attitudes towards packaging” is found that marital status had no effect on consumers' attitudes towards packaging.

M.Findings of the relationship between the packaging properties and consumers' attitudes towards packaging

Related findings and comments regarding the relationship between packaging properties and consumers' attitudes towards packaging are presented below. By assuming that the consumers' attitudes towards packaging are affected by the packaging properties of the products, the packaging properties was considered as an independent variable, and the consumers' attitudes towards packaging was considered as a dependent variable. Correlation analysis is an analysis technique used to determine the direction and degree of the relationship or dependence between the two variables. Correlation analysis was applied to measure the relationship between two variables for this reason (Büyüköztürk, 2011:31, Güriş & Astar, 2015:287).

Table 7. Correlation analysis table examining the relationship between packaging properties and consumers' attitudes towards packaging

		Packaging Properties
Consumers' Attitudes Towards Packaging	Coefficient of Spearman Correlation	0,489
	P	0,000*
	N	600

As shown in Table 5; Both packaging properties and consumers' attitudes towards packaging were tested by Kolmogorov-Smirnov normality test and it was found that the variables did not show normal distribution (Test statistic values were estimated for packaging properties and consumers' attitudes towards packaging as $P=0,000$). In this case, the Spearman correlation coefficient used for non-normally variables was calculated (Güriş & Astar, 2015:292).

A significant, positive and middle degree linear relationship was found between packaging properties and consumers' attitudes towards packaging, with 95% of reliability ($r=0,489$; $p<0,05$) (Güriş & Astar, 2014:290).

Table 8. The regression model which measures the relationship between packaging properties and consumers' attitudes towards packaging

Model	R	R ²	Adjusted R ²	Sd. Error of the Estimate
Linear	0,489	0,239	0,238	0,359

Predictors: (Constant), Packaging properties.

Dependent Variable: Consumers' attitudes towards packaging,

In the linear regression model, the correlation coefficient was calculated as 0,489. In this analysis, the consumer's attitude towards packaging was taken as the dependent variable, and the packaging properties was taken as the independent variable. The coefficient of determination (R^2) was calculated at approximately 0,24. So, it can said that the packaging properties explains 24% of the consumer's attitude towards packaging.

Table 9. ANOVA table of the regression model which measures the relationship between packaging properties and consumers' attitudes towards packaging

Model	Sum of Squares	df	Mean Square	F	P
Regression	29,877	1	29,877	230,711	0,000*
Residual	77,441	598	0,129		
Total	107,318	599			

Dependent Variable: Consumers' attitudes towards packaging,

Predictors: (Constant), Packaging properties.

The mathematical expression of the relationship between packaging properties and consumers' attitudes towards packaging was examined by regression analysis. According to the analysis, the model was found to be statistically significant ($F=230,711$; $p<0,05$). In other words, the relationship between packaging properties and consumers' attitudes towards packaging can be represented by a linear regression model. Therefore, "H9: The packaging properties effect on consumers' attitudes towards packaging" hypothesis has been confirmed. In this context; consumers' attitudes towards packaging are considered as dependent variable (Y) and packaging properties as the independent variable (X), and the linear regression model is written as

$$\text{Consumers' Attitudes Towards Packaging} = 1,925 + 0,489 * \text{Packaging Properties}$$

In other words, 1 unit increase in packaging properties leads to an increase of 0,489 units in consumers' attitudes towards packaging.

Table 10. Coefficients of the regression model which measures the relationship between packaging properties and consumers' attitudes towards packaging

Model	Unstandardized Coefficients		Standardized Coefficients	t-value	P
	b	Std. Error	β		
Constant	1,925	0,111		17,356	0,000*
Packaging Properties	0,489	0,028	0,528	15,189	0,000*

Dependent Variable: Consumers' attitudes towards packaging

Estimated coefficients of linear regression model between packaging properties and consumers' attitudes towards packaging are given in the table above. According to the findings, the coefficients of the constant and packaging properties variable in the established model were found to be statistically significant (P=0,000 was found for both the model constant and the packaging properties variable) (Kalaycı, 2010:204; Güriş & Astar, 2015:311). According to these results, the packaging properties of the products and the consumers' attitudes towards the packaging can be estimated using this mathematical model.

IV.Results

In this study, the relationship between the packaging properties of the products and the consumers' attitudes in product choice is examined. In addition, the relationship between the demographic variables and packaging properties of consumers and the relationships between demographic variables and consumers' attitudes in product preferences are sought in Ağrı province. In this study, the process was followed as indicated below and these conclusions were reached:

In order to determine the reliability of the study, the data was accepted as reliable by using Cronbach's alpha formula. The normality analysis of the variables was applied and it was decided to use Mann-Whitney and Kruskal Wallis tests which they are non-parametric after determining that the variables were not suitable for normal distribution. Findings that related to demographic characteristics of consumers and answers of scale questions were summarized by frequency analysis. Sixteen hypotheses have been established with the assumption that there is a relationship between demographic variables and research variables. The hypotheses were tested using SPSS 24 package program and significant relationships were found for thirteen hypotheses. Consumer preferences and packaging properties were affected by demographic variables such as gender, marital status, age, monthly income, education status, professions, kind of residence, and the number of people living in the residence. Furthermore, the packaging properties variable was also affected by the marital status variable of the consumers. However, no significant relationship was found for three of the hypotheses established. Gender and marital status have no effect on consumer attitudes in product choice. Furthermore, the packaging properties variable is not affected by the gender variable of the consumers.

Finally, correlation and regression analyses were conducted in order to investigate whether there is a relationship between packaging properties and consumers' attitudes towards packaging in product preference. It was accepted by correlation analysis that there was a positive, middle degree and significant relationship between consumers' attitudes towards packaging and packaging properties of products ($r=0,489$; $p<0,05$). The coefficient of determination (R^2) was approximately 0,24. So; The variable packaging properties explains 24% of the consumers' attitude towards packaging. Linear regression analysis was applied to measure the relationship between packaging properties and consumers' attitudes towards packaging. In the model, consumers' attitude towards packaging is accepted as the dependent variable and packaging properties is accepted as the independent variable. As a result of the analysis, a statistically significant relationship was found between the variables ($F=230,711$; $p<0,05$). The coefficients of the model constant and packaging property variable were found to be significant. Therefore, it can be said that the packaging properties of the product are effective for consumers to prefer the product.

In the light of these findings; we can state that consumers are conscious about the packaging properties of the products, because they are under 30 years of age and highly educated. Therefore, it is recommended that manufacturers consider the following when presenting their products on the market. Manufacturers should be packaging their products in line with consumers' wishes, thoughts, needs and etc., should be writing necessary descriptions on products, should be using durable materials for packaging, and should be producing quality products. In the study, it was found that 79% of the participants' monthly income was below 4,000 TL. Therefore, consumers with low-incomes prefer to look at the packaging properties of the product. Information and images on the packaging that not related to the product such as pictures of famous people do not attract consumers. In this study, the packaging properties of the product were found to be effective in consumers' preferences of products. If they can be offered to the consumer in a low-priced and robust packaging, known branded products maybe find a wider market. Because consumers generally prefer manufacturers that follow low-priced product strategies. In addition, manufacturers must consider accounting the conditions of consumers such as the marital status, age, education status, professions, monthly income, the type of dwelling they live in and the number of people they live with. Because these conditions are effective for the preferences of consumers to products. The conclusion that the gender of the consumers reached in this study is not effective in product preference can be refuted by other studies. As a result, it is recommended that manufacturers, while they make production, take into account the packaging properties of the products and the demographic characteristics of the consumers.

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