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ARAŞTIRMA MAKALESİ **RESEARCH ARTICLE**

Determination of Consumer's Willingness to Pay for Halal Food

Tüketicilerin Helal Gıda Ürünlerine Yönelik Ödeme İstekliliklerinin Belirlenmesi

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Abstract

Halal food has been studied in recent years in terms of both food safety and food security. Especially halal food products health, hygiene, quality, eco-friendly and so on. Considering the criteria, it is seen as an opportunity for entrepreneurs in the food sector. The rise in the demand for halal food products in the world evaluation of these opportunities is important in terms of Turkey. Indeed, Turkey is an important country as the potential for halal food products, consumers should investigation of attitudes and behavior towards halal food. Within the scope of the study, it was aimed to determine the willingness of consumers to pay for halal foods and for this purpose, 383 consumers were surveyed with a simple random sampling method in central districts of Konya. In the study, Willingness to Pay (WTP) method, which is one of the conditional evaluation methods, was used to determine the willingness of consumers to pay for halal foods. In this context, firstly, probit analysis was performed to determine the variables that best explain the willingness of consumers to pay. According to the probit analysis, it was found that willingness to pay for halal food products positively affected the gender, consumer age, marital status, consumer income, consumer occupation and education of the consumer. In addition, the marginal effects of variables used in the willingness to pay model for halal food for different payment options were calculated. According to the analysis, it was determined that the willingness to pay for marginal increases in the variables of the gender of the consumer, household width, consumer age, marital status, consumer monthly income, occupational status and consumer education. The level at which consumers are willing to pay for halal foods is WTP 10, a category where consumers can pay 100% or 2 times higher than normal price.

Keywords: Consumer, Food sector, Halal food, Marginal effects, Willingness to pay

Özet

Helal gıda hem gıda güvenliği hem de gıda güvencesi açısından son yıllarda üzerinde çalışılan konular arasındadır. Özellikle helal gıda ürünlerinin sağlık, hijyen, kalite, çevre dostu vb. kriterler dikkate alındığında gıda sektöründe girişimciler için fırsat olarak görülmektedir. Dünya'da helal gıda ürünlerine olan talebin yükselmesiyle bu fırsatların değerlendirilmesi Türkiye açısından da önemlidir. Nitekim Türkiye helal gıda ürünlerine yönelik olarak önemli bir potansiyel ülke olup, tüketicilerin helal gıdalara yönelik tutum ve davranışlarının incelenmesi gerekmektedir. Çalışma kapsamında da tüketicilerin helal gıdalara yönelik ödeme istekliliklerinin belirlenmesi amaçlanmış ve bu amaca yönelik olarak Konya ili Merkez ilçelerinde basit tesadüfi örnekleme yöntemine göre belirlenen 383 tüketici ile anketler yapılmıştır. Yapılan çalışmada tüketicilerin helal gıdalara yönelik ödeme

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isteklilikleri belirlenmesi için koşullu değerlendirme yöntemlerinden olan Willingness to Pay (WTP) yöntemi kullanılmıştır. Bu kapsamda öncelikle olarak tüketicilerin ödeme istekliliğini en iyi şekilde açıklayan değişkenlerin belirlenmesi amacıyla probit analizi yapılmıştır. Yapılan probit analizi sonucuna göre helal gıda ürünlerine yönelik ödeme istekliliğini tüketicinin cinsiyeti, tüketici yaşı, medeni durumu, tüketici geliri, tüketici mesleği ve tüketicinin eğitimi pozitif yönde etkilediği belirlenmiş olup, hanedeki birey sayısının helal gıda ürünlerine yönelik olarak ödeme istekliliğini azalttığı bulunmuştur. Ayrıca çalışma kapsamında helal gıda için ödeme istekliliği modelinde kullanılan değişkenlerin farklı ödeme seçenekleri için marjinal etkileri hesaplanmıştır.

Anahtar Kelimeler: Tüketici, Gıda sektörü, Helal gıda, Marjinal etkiler, Ödeme istekliliği

1. Introduction

Needed a title, the concept of halal food has gained a seat in the food industry. Improved trade conditions and globalization have swiftly paved the way for non-Muslim countries as well as Muslim countries to find a place in this market (Memiş et al., 2018). That a product or service is halal means that it does not violate religious rules or is not religiously prohibited (TDK, 2018). Putting the concept of halal fully into practice can only be achieved by obeying the Islamic rules (Yazıt et al., 2017), and in essence, the concept of halal food refers to the fact that Islamic rules are followed in every stage of food production (Akpınar et al., 2014); (Türker, 2018) to deem food substances as halal is not only about the way the animal is slaughtered, alcohol use, sources of food and beverages, but also about standards and processes (Memiş et al., 2018).

As of 2016, total market size of halal food products has exceeded 3.6 trillion dollars. The greatest share on sectorial basis is held by the finance sector with 50% and food sectors with 31% (Anonymous, 2015). With 20% annual growth rate, the industry has a trade volume of approximately $ 605 billion per year. Thus, the halal industry has become one of the fastest growing product and service markets in the world. One of the countries that benefit from the growth in the halal food industry is the United Arab Emirates. According to the Global Islamic Economics Report, Turkey is not included in the top 10 the countries benefiting from this trade network. Certification processes, lack of awareness and social factor, i.e. halal food-price index, are the reasons behind it (Genç and Yardımcıoğlu, 2017).

The efforts to pave the way for certification and raise awareness on halal food have reached a significant level in Turkey. On the other hand, the fact that the prices of halal food are much higher than those of other products leads to a decrease in customer demand. The price is important for both businesses and consumers. For producers, the prices of products with halal certificate indicate the monetary value of the products at certain costs while for consumers it refers to the benefit to be gained from the consumption of those products. Therefore, it is necessary for a sustainable marketing to set the prices of halal food products by taking into consideration the perception of the consumers, income level and demands besides the production costs.

In the literature, there are many studies discussing the perceptions, attitudes and knowledge levels of consumers about halal food. In particular, the studies were conducted on consumers' attitudes and behaviors towards halal food (Çukadar, 2017); (Gürdin, 2017); (Kızgın and Özkan, 2014); (Kurtoğlu and Çiçek, 2013); (Memiş et al., 2018); (Nurrachmi, 2017); (Özdemir and Yaylı, 2014); (Öztürk et al., 2016); (Soesilowati, 2010); (Yazıt et al., 2017). In addition, various studies were carried out on halal food certificate (Genç and Yardımcıoğlu, 2017); (Hamdan et al., 2013); (Kitayama et al., 2018) on consumer awareness level of halal food (Derin and Mevlüt, 2016), on halal food markets and the nature of those markets (Mahdı and Djakeli, 2014); (Torlak, 2012); (Wan Hassan and Awang, 2009). Furthermore, several studies concluded that attitudes towards halal food differ in line with consumers' socio-economic status (Boyraz et al., 2017) and there are technological differences between halal food and traditional food (Ilıe et al., 2016).

In the context of willingness to pay, previous studies were particularly carried out on agriculture and food. Bal et al. (2006) put forward consumers' willingness to pay for safe food while (Mutlu, 2007) revealed consumers' willingness to pay for certified red meat products. In addition, (Toklu et al., 2016) examined the willingness to pay for geographical indication (GI) products. There are also studies on the willingness to pay for halal food. Çukadar (2017) and Genç)Yardımcıoğlu (2017) determined the willingness of consumers to pay for halal certified products. However, in both studies, willingness to pay was measured by a Likert scale. Unlike previous studies, the current study employs the Willingness to Pay (WTP) scale to specify how much extra consumers would accept to pay for a particular benefit. Marginal effects of the variables in the willingness model were measured for different payment options, as well. Accordingly, it was tested by which factor the willingness to pay extra for halal food products will vary.

2. Materials and Methods

In the current study, primary and secondary data were employed to determine the willingness of consumers to pay extra for halal food products. The primary source of data is the surveys conducted with consumers in Konya.

Accordingly, the research population is composed of consumers in Konya. Simple random sampling method was used for selecting the research sample. The formula below was used in the scope of the simple random sampling (Miran, 2002); (Newbold et al., 2012); (Oğuz and Karakayacı, 2017). In the light of the simple random probability sampling method, 90% confidence interval and 5% error margin were fixed to determine the sample size. In total, 383 respondents from different regions of Konya were interviewed. On the other hand, for the secondary data, all kinds of printed publications, reports, scientific publications were reviewed and compiled.

$$n = \frac{\mathrm{N}(pq)}{(N-1)D^2+(\mathrm{pq})} \qquad \text{(Eq.1).}$$

Contingent Valuation Method was used to determine the willingness of consumers to pay extra for competing products. Contingent Valuation Method used in this research is a survey method. At the stage of implementation, a hypothetical market is created for any environmental goods or services that cannot be bought or sold in the market and a scenario is drafted about the benefits that people will get from those goods or services. These scenarios are provided to the sample group selected for the survey and thus it is determined the extent to which people are willing to pay for the benefit they obtain from the use or consumption of the goods or services in question (Carson, 2000); (Yıldırım, 2014). This method, which is generally used for the matters related to environmental awareness, was adopted in the current study to find out how much consumers are willing to pay for halal food products. The aim of the analysis was to identify the prices that consumers are willing to pay for.

In recent years, important methods have been developed to estimate the economic value of the assets which do not have any monetary value within the economy (Ortaçeşme et al., 1999); (Talay and Belkayalı, 2010). These methods include direct and indirect methods. Indirect methods are based on monitoring the course of economic indicators and determining their value for different environmental factors. Direct methods, on the other hand, avoid a potential market assumption and allow individuals to express their preferences for environmental commodities through reciprocal interviews and surveys. The most used direct method in the studies is the contingent valuation method. There are two main components of the conditional assessment methodology. The first is the Willingness To Pay (WTP) method, which specifies how much consumers are willing to pay for a particular benefit, and the second one is the Willingness To Accept (WTA) method, which shows how much consumers will accept to pay at a certain cost (Holvad, 2006). In the scope of the current study, Willingness to Pay (WTP) method was used to determine how much extra consumers are willing to pay for halal food.

In general, the function of the Willingness To Pay (WTP) curve developed in KDY studies is as follows (Maalouf et al., 2004)

$$WTP = \beta' x + \varepsilon \qquad \text{(Eq.2)}$$

where WTP* is the an unobserved latent variable, X is a vector of independent variables effecting WTP (age, gender, education, household size, income, Marital status, Occupation), ß is a vector of parameters demonstrating the relationship between dependent variable (WTP) and independent variables, e is an unobserved disturbance term. The relation between the unobserved WTP and observed outcome for respondent i, WTP (WTP=0,1,2,3,4,5,6,7,8,9,10) can be summarized as follows:

Where μ, is a parameter representing a threshold separating the categories in the observed variable. The probability can be written following equations (3):

Prob (WTP =0)=Φ(-$\beta' x$).

Prob(WTP =10)= 1- Φ($\mu_{10} - \beta' x$). (Eq.3)

To determine the marginal effects;

$$\frac{\partial pr(wtp=0)}{\partial x} = -\varphi(\beta' x)\beta,$$

$$\frac{\partial pr(wtp=2)}{\partial x} = [\varphi(-\beta' x) - \varphi(\mu - \beta' x)]\beta, \quad \text{(Eq.4)}$$

$$\frac{\partial pr(wtp=10)}{\partial x} = -\varphi(\mu_9 - \beta' x)\beta.$$

In this study, willingness to pay is listed in eleven (11) categories. Accordingly, those who do not want to pay at all (0), who want to pay 10% (1), who want to pay more than 20% (2), who want to pay more than 30% (3), who want to pay more than 40% (4), who want to pay more than 50% (5), those who want to pay more than 60% (6), who want to pay more than 70% (7), who want to pay more than 80% (8), who want to pay more than 90% (9) and those who want to pay more than 100% (10).

3. Results and Discussion

In the scope of the study, firstly, the variables that explain the consumers' willingness to pay in the best way are supposed to be determined. It is important to involve both social and economic variables in the study because these variables have a notable effect on willingness to pay. As a matter of fact, it has been revealed in various studies that social characteristics of consumers have a great effect on willingness to pay (Angulo et al., 2005); (Mutlu, 2007); (Nayga Jr et al., 2002). All these social parameters affect the perception levels and attitudes and behaviors of the consumers; therefore, a great number of studies include these parameters in the research models (Torun and Akpınar, 2014); (Yılmaz et al., 2009). In this context, socio-economic indicators to be utilized in determining the factors affecting consumers' willingness to pay are provided in Table 1. Since each of the parameters such as gender, number of individuals in the household (household size), consumer age, marital status, income level, profession and education have an impact on consumers' willingness to pay for halal food products, they are included in the research model in the current study.

Table 1. Descriptive Statistics on Factors Affecting Payment Willingness

Gender	Male	67%
	Female	33%
Household size	1	4%
	2	12%
	3	22%
	4	30%
	5	24%
	6	7%
	6-+	1%
Age	Under 18	0%
	19-25	12%
	26-33	24%
	34-40	26%
	41-50	22%
	51-+	16%
Household Monthly İncome	1500 ₺ and below	6%
	1.501-3.000 ₺	41%
	3.001-5.000 ₺	36%
	5.000 ₺-8.000 ₺	14%
	8.000 ₺-12.000 ₺	2%
	12.000 ₺ and above	1%

Marital status	Single	13%
	Married	84%
	Divorced	3%
Occupation	Housewife	12%
	Unemployed	2%
	Private sector	38%
	Engineer	6%
	Officer	11%
	Teacher	8%
	Academician	3%
	Student	1%
	Artisan	19%
Education	Not Literate	1%
	Literate	2%
	Primary school	22%
	Middle School	10%
	High school	27%
	University	35%
	Master / Doctor	3%

Ordered Probit model was established to determine the willingness to pay extra for halal food products. The results are presented in Table 2. To determine the statistical significance of the probit model, Cox and Snell was calculated as 60.20% at 1% significance level. This rate indicates that changes in independent variables account for 60% of the dependent variable. When the overall research model is examined, it is observed that all the statistics are significant.

Table 2. Payment Willings Analysis for Halal Food

	Estimate	Std. Error	Wald	Degree of freedom	Significance level	95% Confidence interval	
						Lower limit	Upper limit
[WTP = ,00]	-0.161	0.473	0.116	1	0.733	-1.088	0.766
[WTP = 1,00]	2.052	0.369	30.886	1	0.000	1.328	2.775
[WTP = 2,00]	2.718	0.374	52.789	1	0.000	1.985	3.451
[WTP = 3,00]	3.432	0.382	80.589	1	0.000	2.683	4.182
[WTP = 4,00]	3.775	0.387	95.099	1	0.000	3.016	4.533
[WTP = 5,00]	4.034	0.391	106.357	1	0.000	3.267	4.801
[WTP = 6,00]	4.547	0.401	128.335	1	0.000	3.76	5.334
[WTP = 7,00]	4.638	0.404	132.128	1	0.000	3.847	5.429
[WTP = 8,00]	4.717	0.405	135.347	1	0.000	3.922	5.512
[WTP = 9,00]	4.758	0.407	136.987	1	0.000	3.961	5.555
Household size	-0.063	0.031	3.974	1	0.046	-0.124	-0.001
Age	0.175	0.04	18.916	1	0.000	0.096	0.253
Marital Status	0.328	0.066	24.557	1	0.000	0.198	0.458
Income	0.115	0.057	4.02	1	0.045	0.003	0.227
Occupation	0.027	0.019	2.062	1	0.151**	-0.01	0.064
Education	0.285	0.038	56.648	1	0.000	0.211	0.36
Gender	0.177	0.114	2.419	1	0.120*	-0.046	0.4

Statistically significant at *%15 importance level and **%20 importance level

According to the result of the probit analysis, all the parameters in the model were considered important because the significance levels of t statistical values were less than 20%. As a matter of fact, there are many studies that accept up to 20% of the statistical significance level in the Agricultural Economy and Consumer studies conducted to date (K. Ağızan, 2018); (S. Ağızan and Bayramoğlu, 2018); (Bayramoğlu et al., 2019); (Bayramoğlu et al., 2013); (Bayramoğlu et al., 2014); (Oğuz and Arısoy, 2002); (Oguz and Kaya, 2016); (Oguz and Yener, 2018). The first social parameter in the model is the household size. Within the scope of the study, the household size varies from 4 to 5 people on average with a percentage of 54. Accordingly, a negative correlation was found between the number of individuals living in the household and willingness to pay for halal food products. As the number of individuals in the household decreases, consumers' willingness to pay for products with halal food certificate will increase, or, as the number of individuals in the household increases, the willingness to pay will decrease. This is an expected result, meaning that the increase in the number of individuals in the household will increase the consumption of products with halal food certificate and thus the household expenses will increase, as well. The prices of products with halal food certificate are higher than those of other food products. Hence, the demand for these products will tend to decrease as the number of household members increases.

Another parameter in the model is the consumer age. Within the scope of the study, it is seen that the average age of consumers ranges between the ages of 30 and 40 with 26%, between the ages of 26 and 33 with 24%, and between the ages of 41 and 50 with 22% (Table 1). According to the probit analysis, there is a significant and positive correlation between consumer age and willingness to pay. When the other variables are fixed, it can be indicated that the one-year increase in the age of household head increases the willingness to pay extra for halal products. As a matter of fact, as consumers get older, they gain higher religious sensitivity, which results in higher awareness on food consumption. Previous studies also verify that awareness of halal products increases with the age factor (Golnaz et al., 2010); (Yazıt et al., 2017).

Another parameter is the marital status of the consumer. It is seen that 84% of the consumers in the current study are married, 13% are single and 3% are divorced (Table 1). The analysis results indicate that there is a significant and linear correlation between marital status and willingness to pay. It is observed that married individuals have higher willingness to pay extra for halal food. Marriage brings further responsibility on individuals and they intend to provide family members with healthy and halal products. On the other hand, single consumers ignore such sensitivities and consume other food products, as well.

The most important factor affecting the preference of goods and services is the individual's income level. As a matter of fact, high prices affect the consumption rate of halal products. Therefore, it is known that these products

will be more accessible if income level increases. Within the scope of the current study, it is concluded that there is a significant and positive correlation between income groups and willingness to pay. According to the analysis results, it can be claimed that the products with halal food certificate have high income elasticity of demand. That is, the change in quantity of consumption is higher than the change in income. Therefore, the marketing of halal food products or the establishment of marketplaces by taking into consideration the income level of consumers in the region will pave the way for the expansion of halal product markets. The profession parameter in the model develops awareness in each aspect because the income levels of consumers differ based on their professions. As mentioned earlier, the increased level of income increases individuals' willingness to pay. Therefore, it has been concluded because of analyses that individuals with high-income professions such as academics and civil servants show higher willingness to pay for halal food products.

Education, which is another parameter, is an important factor for raising awareness and embracing the use of halal products. As the level of education increases, the demand for halal food products grows, which results in increase in willingness to pay. As a matter of fact, this has been revealed in previous studies and it is expected that the demand for products with halal certificate will grow as the level of education increases (Çukadar, 2017). The analysis results in the current study conclude a significant and positive correlation between the level of education and willingness to pay. However, the level of education can be increased only via awareness-raising and publication activities, because a significant proportion of consumers (88%) are at and above the age of 26. Accordingly, consumers should be informed about halal food. Proliferation of public service announcements, advertising and promotional activities, and the establishment of halal food sections in bazaars or markets will pave the way for awareness-raising, and thus, consumers with low educational level will become more knowledgeable about halal products.

The last variable is gender. The analysis results in the current study conclude that halal food products are mostly preferred by female consumers and they are more willing to pay extra for halal food products. As a matter of fact, the main responsible person for fulfilling responsibilities within the family and is responsible for the kitchen is the woman at home. Although the man generates income for the household, the woman deals with housework and is responsible for feeding the family. In addition, it is known that women are more willing to pay for halal foods as they have higher religious sensitivity, higher level of social responsibility, pay more attention to promotional activities, security, certification, advertisement and brand (Kurtoğlu and Çiçek, 2013).

According to the probit analysis results, consumers' willingness to pay for halal food products was determined in the light of the number of household members, age, marital status, income, profession, education and gender of consumers. The significance level of each parameter was found below the acceptable values in the field of agricultural economy. Accordingly, all parameters except the number of household members have a positive correlation with the willingness to pay. For this reason, firstly, awareness-raising should be ensured through educational activities to spread the use of halal food products. In addition, the unit costs of halal food products should be reduced, and they should be marketed in a way that society can benefit.

Table 3 presents the marginal effects of the variables used in the model of willingness to pay for halal food for different payment options. The range of the dependent variable was extended between 0% and 100% to explain the factors by which the willingness to pay extra for halal food products will vary. The highest level of willingness to pay despite the marginal increases in the variable of gender, household size, age, marital status, income, occupational status and educational level is the category WTP = 10, where consumers are willing to pay 100% extra than normal price. In other words, the fact that consumers are women increases the willingness to pay twice the normal price at 30 percent. Similarly, while the increase of household width decreased the willingness to pay by 10%, the increase of consumer age was determined to increase by 19%, the marriage of consumers by 46%, the increase of consumer income by 26%, the employment of consumers by 4% of academics or civil servants, and the willingness to pay by 23% of consumer education graduates.

Table 3. Probit Analysis Marginal Effects

	Gender	Household size	Age	Marital status	Income	Occupation	Education
WTP=0	-0.019	0.006	-0.012	-0.028	-0.016	-0.002	-0.002
WTP=1	-0.558	0.191	-0.347	-0.844	-0.478	-0.073	-0.043
WTP=2	-0.213	0.073	-0.132	-0.321	-0.182	-0.028	-0.302
WTP=3	0.013	-0.005	0.008	0.020	0.011	0.002	0.024
WTP=4	0.097	-0.033	0.060	0.146	0.083	0.013	0.037
WTP=5	0.095	-0.033	0.059	0.144	0.081	0.012	0.023
WTP=6	0.202	-0.069	0.125	0.305	0.173	0.026	0.015
WTP=7	0.034	-0.012	0.021	0.051	0.029	0.004	0.011
WTP=8	0.028	-0.010	0.018	0.043	0.024	0.004	0.001
WTP=9	0.014	-0.005	0.009	0.022	0.012	0.002	0.005
WTP=10	**0.307**	**-0.105**	**0.191**	**0.464**	**0.263**	**0.040**	**0.231**

Examining the marker of each variable in the model, the marker of the household size is negative and statistically significant at 5% significance level. Accordingly, it can be put forward that the increase in the number of individuals in the household will reduce the willingness to pay extra for halal food products. Table 3 shows, in each value range, the relationship between household size and willingness to pay. Accordingly, as the number of individuals in household increases, consumers' probability of no-payment, paying 10% extra and paying 20% extra for halal food products increases by 1%, 20% and 7% respectively, whereas the probability of paying 30% extra, paying 40% extra, paying 50% extra, paying 60% extra, paying 70% extra, paying 80% extra, paying 90% extra, and paying 100% extra decreases by 1%, 3%, 3%, 6%, 1%, 1%, 1% and 10%, respectively

The marker of gender, another variable in the model, is positive. Accordingly, it can be indicated that the fact that consumers are women will increase the willingness to pay extra for halal food products. When the gender is female, the probability of no-payment, paying 10% extra and paying 20% extra decreases by 1%, 55% and 21%, respectively, whereas the probability of paying 30% extra, paying 40% extra, paying 50% extra, paying 60% extra, paying 70% extra, paying 80% extra, paying 90% extra, and paying 100% extra increases by 1%, 9%, 20%, 3%, 2%, 1% and 30% respectively.

Another variable is age and its marker in the probit analysis is positive. Accordingly, as the age range of consumers increases, the willingness to pay extra for halal food products increases, as well. Similar to the variable of gender, the probability of non-payment, paying 10% extra and paying 20% extra decreases by 1%, 34% and 13%, respectively, whereas the probability of paying 30% extra, paying 40% extra, paying 50% extra, paying 60% extra, paying 70% extra, paying 80% extra, paying 90% extra, and paying 100% extra increases by %1, %6, %5, %12, %2, %1, %1 and %19, respectively.

Marital status has a positive marker in the probit analysis. It was found that married consumers are willing to pay more for halal food products. As a matter of fact, this is an expected result. In this regard, marginal analysis is utilized to determine in which group the willingness to pay is high. Accordingly, the married consumers' probability of no-payment, paying 10% extra and paying 20% extra decreases by 2%, 84% and 32% respectively, whereas the probability of paying 30% extra, paying 40% extra, paying 50% extra, paying 60% extra, paying 70% extra, paying 80% extra, paying 90% extra, and paying 100% extra increases by 1%, 14%, 14%, 30%, 5%, 4%, 2% and 46%, respectively.

As the level of income increases, the consumers' willingness to pay extra for halal food products increases, as well. Accordingly, consumers with high income level show higher willingness to pay. The consumers' probability of no-payment, paying 10% extra and paying 20% extra decreases by 1%, 47% and 18%, respectively, whereas the probability of paying 30% extra, paying 40% extra, paying 50% extra, paying 60% extra, paying 70% extra, paying 80% extra, paying 90% extra, and paying 100% extra increases by 1%, 8%, 8%, 17%, 2%, 2%, 1% and 26%, respectively.

The last variable in the model is occupational groups. Accordingly, there is a positive correlation between the preference of occupations with high income and the willingness to pay extra for halal food products. This fact has also been revealed by the probit analysis results. The probability of consumers with qualified occupations for no-payment, paying 10% extra and paying 20% extra decreases by 1%, 7% and 2%, respectively. On the other hand,

the consumers' probability of paying 30% extra, paying 40% extra, paying 50% extra, paying 60% extra, paying 70% extra, paying 80% extra, paying 90% extra, and paying 100% extra for halal food products increases by 1%, 1%, 2%, 1%, 1%, 1% and 4%, respectively.

4. Conclusions

Halal food is becoming an important issue at a global extent each day, particularly in Islamic countries. Therefore, the studies on halal food are considered important in order to raise awareness and create demand. In this scope, the current study revealed by the probit analysis the factors that are effective in driving individuals to prefer halal food products. Along with the probit analysis, Willingness to Pay (WTP) analysis was performed to determine how much extra consumers are willing to pay for halal food products. According to the analysis results, it was concluded that the willingness to pay for halal food products is significantly and positively correlated with the increase in gender, marital status, income, age, education and occupation of consumers, while being negatively correlated with household size. Furthermore, the marginal effects of the variables were calculated, and it was determined that the consumers' probability of paying extra increased depending on the increase in the level of variables. According to the results of marginal effect analysis, individuals who have higher levels of education, age and income and work particularly in the public sector are more responsive to halal food products and thus are more willing to pay extra for halal food products.

In conclusion, the basic approach in setting the product price is to calculate the cost and add a profit margin. Nevertheless, the cost is not associated with the value perceptions of consumers. As a matter of fact, what is important for consumers is the marginal benefit that they are going to get from the product. Therefore, the prices of some products are intentionally set slightly above their production cost, while such products as halal food where consumers can obtain a large amount of benefit are marketed at prices remarkably higher than the cost. Indeed, the analysis results show that consumers are generally willing to pay extra for halal food products. In this regard, it is important to highlight that the socio-economic characteristics of consumers should be taken into consideration in the establishment of halal food markets and/or bazaars. Because the socio-economic characteristics of consumers are important in making product policy and welfare analysis, and it is an important factor in the formation of consumption expenditure patterns.

Advertising, public spots, price discounts, advantageous packages, gifts, free trials etc. that will ensure the promotion of halal food products along with their socio-economic features. The purchasing behavior of consumers should be directed using marketing tools. As a matter of fact, consumers who buy halal products will consume products that are healthy in terms of food safety and their religious value understanding will increase because they are halal. In addition, with the provision of documents such as warranty and certification for halal food producers, the problem of trust in products will be reduced, and national and international marketing facilities will be provided by creating a brand.

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