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Exploring the Factors Affecting Purchase Intention of Halal Certified Foods in Turkey: A PLS-Path Modeling Study

İnci Varinli
Department of Business, Melikşah University, Turkey

Ekrem Erdem
Department of Economics, Erciyes University, 38039 Melikgazi, Kayseri, Turkey

Mutlu Yüksel Avcılar
Department of Management Information Sytems, Osmaniye Korkut Ata University, Turkey

Abstract
The global market value of the halal food industry was estimated at US$1.1 trillion in 2013. The halal food industry is growing in a number of markets, mainly in countries in the Middle East, North Africa and the South East Asia region. Indonesia is the biggest halal food market with a market value of $197 billion; Turkey is the second largest market with an estimated market value of $100 billion. The halal food sector has great potential to drive the global economy. Despite the halal food industry having a significant share in the global economy, the number of empirical studies that have been conducted on the consumer purchase behavior of halal food is quite limited. In order to fill this gap, we aimed to investigate the factors influencing intention to purchase halal certified products among Muslim consumers in Turkey. The data were collected by means of self-administered questionnaires from consumers and the study was conducted in Kayseri, Turkey. The convenience sampling method was used and a total of 650 questionnaires were collected between February and March 2014. The PLS-Path modeling analysis results reveal that consumers' preference for halal certified products, consumers' religiosity level, price and sales promotions are important factors influencing consumers' halal food purchase intention.
Keywords: Consumer behavior, halal certified products, purchase intention, religiosity, and partial least square analysis.

1. Introduction

Today the halal food market has already attracted the attention of many companies in a variety of goods and services sectors. It is assumed that the annual compound growth rate (CAGR) of the total halal food market in the period of 2012 to 2016 will exceed 4.4%. On the other hand, the halal food market accounts for approximately 16% of the total food market at present (Dudley, 2013). As reported in the Global Islamic Economy Report, global Muslim spending on food and beverages (F&B) has increased 10.8% to reach $1.292 billion in 2013. This has increased the potential halal food market to 17.7% of global expenditure in 2013 compared to 16.6% in 2012. This expenditure is expected to grow to more than $2.5 trillion by 2019 and account for more than 21% of the global expenditure. According to the Global Islamic Economy Report, Indonesia, Turkey, Pakistan, and Iran are the leading countries with a Muslim food consumption volume of $190 billion, $168 billion, $108 billion, and $97 billion, respectively (State of the Global Islamic Economy 2014-2015 Report.pdf, zawya.com).

One of the most important factors affecting the growth of the halal food market is the increase in the Muslim population. In this sense, according to the American Research Institutions Study, Islam is one of the largest and fastest-growing religions in the world; close to 25% of the world's population is Muslim that is nearly 1.6 billion people. Sixty-two percent of this population lives in the Asia-Pacific region, 20 percent in the Middle East and North America, 16 percent in the sub-Saharan Africa, and 2 percent in the Europe (yenisafak.com.tr). Moreover, the rise in the Muslim population is higher than the world average. Therefore, the ratio of the Muslim population in the world population is estimated to be 30 percent by 2025 (http://www.worldhalalforum.org; Mellahi and Budhwar, 2010, p. 686). In fact, Muslim consumers are highly sensitive to halal products. Some producers in non-Muslim countries are currently trying to produce halal products because of the increase in Muslim visitors to those countries, such as the US and European countries (http://www.dunyabulteni.net).

The concept of halal includes many areas like cosmetics, medicine, supplement materials, detergent, and tourism but food consumption is the most crucial one for consumers' basic needs. In this regard, it is particularly important to know and study Muslim consumers' food consumption behavior since they have to consume halal products. "Halal" means permissible and halal is applied to any object or an action that is permissible to use or engage in according to Islamic law. The term covers and designates not only food and drink but also all matters of daily life. "Haram" on the other hand, means products that are not allowed to be produced or consumed by Islamic law. Allah commends all Muslims and humankind to eat halal food in the Holy Qur'an:

"O ye people! Eat of what is on earth, lawful and good (pure, clean); and do not follow the footsteps of the Evil One…" (Ali, 1991: 2/168); and "O ye people! Eat of the good (pure, clean) things that we have provided for you…" (Ali, 1991: 2/172). According to Abdul et al. (2009), and Al-Nahdi and Islam (2011), "halal food," as a global term, may be the same as other foods visually but the quality, contents, type of process, different methods used in the operating process from the beginning to the end have all been approved and recommended by Islamic rules. In other words, halal food means complying with the rules set by Islamic jurisprudence in all stages of production and consumption of everything eaten. Thus, halal food consumption has become one of the most popular issues in Islamic marketing literature.

Demand for halal food certified products has increasingly been seen in the world. In fact, there are more than 200 institutions delivering halal food certification in different countries at present (Dudley, 2013). This kind of certification has been given by GIMDES (Association of Supervision and Certification of Food and Need Supplements), TSE (Turkish Institute of Standards), and HEDEM (Center for Halal Food Supervision and Certification) in Turkey since 2010. These institutions determine whether food and other products are halal or not, and so many companies or trademarks apply to these institutions for halal certification for their food and/or non-food products to certify their products' compliance with religious requirements and their reliability.

Turkey, which is the sixteenth largest economy in the world, has a population of approximately 80 million, 99 percent of which are Muslim. In fact, Rarick et al. (2012) stated that the highest purchasing power of the Muslim population is found in Saudi Arabia and Turkey (p. 104). For this reason, the Turkish consumers' purchase decisions with regard to halal food certified products have particular importance for domestic and foreign producers. According to the Global Islamic Economy Report, while Turkey is the second country in terms of halal food consumption, few empirical investigations have been attempted to investigate the factors influencing intention to purchase halal certified products among Muslim consumers in Turkey (Varinli, Erdem and Yıldız 2012; Erdem, Varinli and Yıldız, 2012; Kurtoğlu and Çiçek, 2013).

2. Literature Review

Interest in the purchase decisions of Muslim consumers has increased in recent years. Sandıkçı and Ger (2011) summarized this interest as follows: the period from the rise of Islam to the 2000s as Omission and the following period as Discovery. In the period of Omission, usually religion was ignored in marketing and consumer behavior and the relation between Islam and marketing was scarcely considered. One of the reasons that Muslim consumers were regarded as poor and uneducated and thus they were ignored economically. This population, which was considered unimportant economically, was ignored academically. Although 82% of the world population stated that religion is important in their daily decisions (Sedikies, 2010, p.3), the relation between marketing and religion has been regarded as an unimportant subject.

There are very limited studies on the subject of Islamic marketing mix. These studies have usually concentrated on Islamic Finance, Islamic Banking, and Islamic Economics. Recently there has been a tendency towards this subject in the marketing literature. Among these studies, the product, which is the main element of marketing mix, has attracted the most attention. From the perspective of Islamic Marketing, this subject starts with Halal Products. The product is the basis for marketing mix and thus all the decisions taken for the product affect the other marketing mix components (price, place, and promotion). There have been many studies regarding halal food consumer preference (especially meat consumption) in different countries (Bonne et al., 2007; Bonne et al., 2008).

2.1. Halal Food Consumer Behavior Model

The theory of planned behavior (TPB) is a frequently used model suggested by Ajzen (1991) to analyze the behaviors of consumers towards halal food. TPB (Ajzen, 1991) is an extension of the theory of reasoned action (TRA). Aziz and Chok, (2013), Alam and Sayuti, (2011), Bonne et al. (2007), and Bonne et al. (2008) used this model while studying halal food consumption behavior. In TPB, three factors affect behavior. These are attitude, subjective norm, and perceived behavioral control. Attitude is an important factor in influencing consumer intention in purchasing halal food products. In addition, attitude is postulated to have a direct relationship with intention behavior. Attitude towards the behavior is defined as the individual's positive or negative feelings about performing a behavior. It is determined through an assessment of one's beliefs regarding the consequences arising from a behavior and an evaluation of the desirability of these consequences. Attitude is a psychological tendency to evaluate whether something is liked or disliked. It is the evaluation of self-performance of a given behavior. A subjective norm is defined as an individual's perception of whether people important to the individual think the behavior should be performed. At this level, the culture of the society people live in may control their behavior. The perception of behavioral control is an individual perception to the extent that a particular behavior may be controlled. The extent to which an individual understands and follows his or her religion is a perception that may control their behavior (Soesilowati, 2010, p. 154).

The intention to purchase halal certified food precedes the actual purchase. Intention reflects future

behavior. The intention to purchase is an indication of the willingness of a consumer to purchase a product, to recommend it to others and to rebuy it. In this regard, the subject has a unique importance in the field of consumer behavior.

In the study, Aziz and Chok (2013) aimed to determine the relationship among intention to purchase halal products and halal awareness, halal certification, product quality promotion, and trademark. At the end of their analysis, using structural equation modeling, researchers found that while intention to purchase halal products has a positive relation with halal awareness, halal certification, promotion, and purchasing trademark, it has a negative relation with food quality. Mukhtar and Butt (2012) investigated the role of Muslim attitude towards halal products, their subjective norms, and religiosity in predicting intention to choose halal products. The results indicate that subjective norms, attitude towards halal products and intra personal religiosity have a positive influence on attitude towards halal products but they found that the most powerful factor influencing the choice of halal food was subjective norm. On the other hand, Lada et al. (2009) found that the theory of reasoned action (TRA) is a valid model for the prediction of intention to choose halal products. In addition, attitude and subjective norm were found to be positively related to intention, with subjective norm being the more effective predictor. Finally, subjective norm was found to be positively related to the attitude to choose halal products.

In the study of Alam and Sayuti (2011) regarding the buying behavior of halal food, it was revealed that all the factors (trust, moral obligation, habit, and self-identity) have a positive and significant effect on consumers' intention to buy halal food. In their research, Salman and Sıddıqui (2011) indicated that (a) religion is the omnipotent source of religious beliefs for Muslim consumers; (b) beliefs are closely knitted with religious commitment; (c) people who are highly religious may not necessarily have a high level of awareness about halal food; (d) attitude towards halal food is closely akin to the notion of beliefs; and (e) the dogma of identity is more linked with intrinsic rather than extrinsic forces.

2.2. Religion and Consumption of Halal Food

In the life of consumers especially in consumption patterns religion has an important effect. In particular, Muslim consumers are very selective in terms of food consumption, personal care products, hotels, and restaurants due to their religion. Religion is defined as “the belief in the existence of a supernatural power and in life after death” (Oxford Advanced Learners’ Dictionary). The majority of people who practice religious beliefs also believe, their conduct in this life will affect their life after death; belief in religion influences believers’ conduct. Because one’s consumption habits and behavior are a part of one’s identity (Mirchandani and Aprilfaye, 2010), it is not surprising that religious beliefs should influence believers’ consumption decisions. For example, Mokhlis (2008) found that devotion has an effect on evaluating some specialties of retailers. He concluded that religious people value systems differ from less religious and non-religious people (Mokhlis, 2008, p.123). Similarly, Swimberghe et al. (2009) found that the religion factor has an important influence on a consumer’s shopping behavior. Finally, Essoo and Dibb (2004) investigated the effect of religion on shopping behavior, and researchers found that the religion effect was very important.

Abdul et al. (2009) found that there is a significant relationship between respondents’ religion and their perceptions towards halal logo and ingredients. Shaharudin et al. (2011) reported that religion affects the intention to buy organic products, in their study about discoveries of the religious factor and its influence towards purchase intention of organic food in Malaysia. The result showed some differences with the previous literature, which reported that the religious factor plays one of the most influential roles in shaping food choice in certain countries of the world.

Ambali and Bakar (2013) stated that there are some other factors influencing this awareness other than halal certification logo, such as religious belief, education, and information about halal (through TV, newspapers, radios, internet, and so on), halal logo, and hygienic concerns. Alam et al. (2011) investigated the effect of religiosity on Muslim consumer behavior and on purchasing decisions, and researchers found that religiosity has an important impact on purchasing behavior of Muslim consumers.

On the other hand, Hamdan et al. (2013) investigated the influential factors in Muslim consumers’ purchasing decisions of processed food products, and determined that the features of processed food products, awareness of halal labeling, and knowledge about processed halal food products are the key variables in this context. Their findings showed that the most influential factor in Muslim consumers’ purchasing decisions is the level of knowledge (and/or familiarity) about the processed product. In the same line, Omar et al. (2008) found that the four most important factors affecting the attitudes of Muslim consumers towards a halal product were the content of the product, its owner or producer, marketing matters, and halal food certificate. Another study, Abdul et al. (2009) indicated that there is a strong relationship between the consumers’ perceptions on halal logo, product mix and their religious beliefs. Finally, Shaharudin et al. (2010) interestingly found that the religion factor had a small effect on consumer’s intention to purchase organic products in Malaysia.

This study was designed to examine the relationships among consumers’ preference for halal certified products, price perceptions of halal certified products, sales promotions of halal certified products, and

consumers' religiosity level with the intention to purchase halal certified products among the Muslim community in Turkey. In this context, the proposed conceptual model and hypotheses are shown in Figure I.

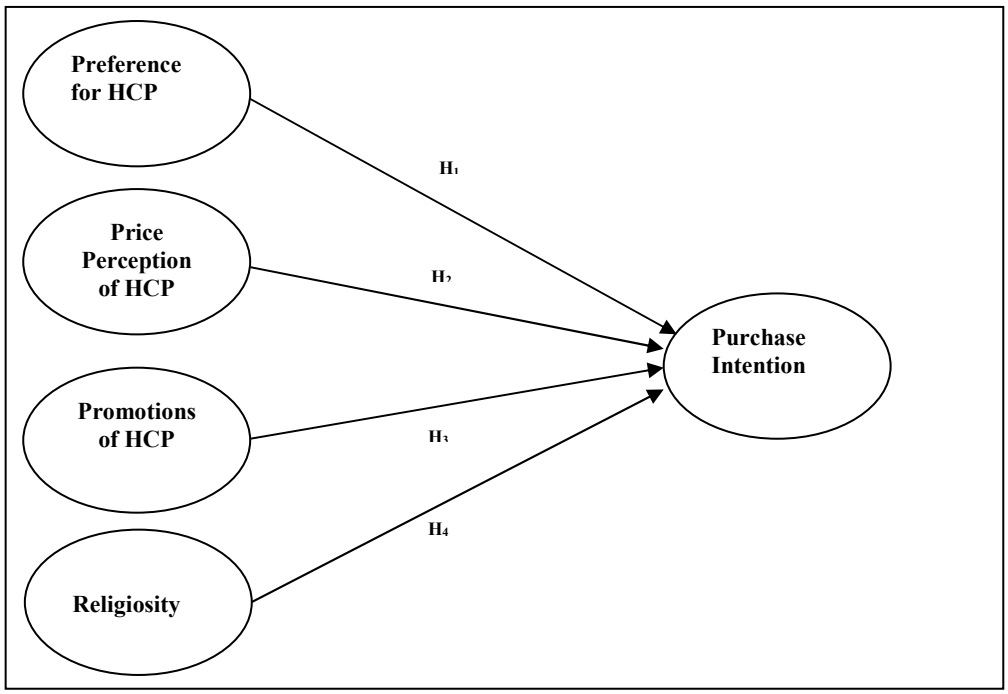

Figure I. Conceptual Research Model

The research model shows the PLS-path model with five latent variables presented by circles. Preference for HCP, price perception of HCP, promotions of HCP and religiosity are independent exogenous latent variables and halal certified product purchase intention is dependent endogenous latent construct in the research model. The relationships between the latent constructs are shown as single headed arrows. Single headed arrows are considered to show a predictive relationship between the latent constructs. The hypotheses developed for this study in accordance with the research model are as follows:

H_1: Consumers' preferences for halal certified products positively affect consumers' halal certified products purchase intention.

H_2: Consumers' price perceptions of halal certified products positively affect consumers' halal certified products purchase intention.

H_3: Sales promotions of halal certified products positively affect consumers' halal certified products purchase intention.

H_4: Consumers' religiosity level positively affects consumers' halal certified products purchase intention.

3. Method and Data Collection

The data used in this study were collected via self-administered questionnaires from consumers and the study was conducted in Kayseri, Turkey. The convenience sampling method was used and a total of 650 questionnaires were collected between February and March 2014. The questionnaire consisted of three sections. The first section, which included statements on the perceptions of consumers about halal certified food products, was measured by using a five point Likert type scale, ranging from 5 meaning "strongly agree" to 1 "strongly disagree". The authors, according to the current situation in Turkey, developed these statements because halal certification is a new subject in Turkey.

The second section included five statements related to the self-reported religiosity level of the consumers. A five-point Likert type scale, ranging from 5 meaning "strongly agree" to 1 "strongly disagree", was used to measure consumers' religiosity. These statements were adapted from Wilkes et al. (1986) to measure the religiosity of consumers in a predominantly Muslim society rather than in Judeo-Christian societies. The religiosity scale consisted of five statements. The third section consisted of general demographic questions for classification purposes. These questions were aimed at determining the age, gender, marital status, education, income level of the participant.

3.1. Data Analysis

Data analysis was performed using Partial Least Squares (also called PLS path modeling/PLS-PM), a structural equation modeling technique that uses a principal-component-based estimation approach (Vinzi et al., 2010: 48).

PLS-PM is a variance-based method to estimate structural equation models. The goal is to maximize the explained variance of the endogenous latent variables (Hair et. al., 2014). The use of PLS has certain advantages: (1) it is a nonparametric technique and, therefore, does not assume normality of the data; (2) it does not require as large a sample size as other causal modeling techniques; (3) it can be used to estimate models that use both formative and reflective indicators; and (4) it does not suffer from indeterminacy problems like other causal modeling techniques using AMOS, EQS or LISREL (Hair et al., 2014: 27). We used PASW Statistics18 and SmartPLS software (Ringle et. al., 2005) 2.0 M3 version to estimate the parameters in our research model, with the number of bootstrap samples being 5,000 and all containing 650 cases.

4. Results

4.1. Profile of the Respondents

A total of 650 respondents participated in the study. The profile of the respondents (see Table I) emerging from the survey is as follows. Among the survey respondents, just over half (56%) were male and the remaining 44% were female. Approximately 63% of respondents were married, while the remaining 37% were single. According to the survey, 30% of the respondents indicated that they had completed an undergraduate degree, 23% had completed secondary level education, nearly 21% had completed vocational high school, and 14% had a postgraduate degree and the remaining 11% only had elementary level education. Among the respondents, 38% indicated that they had a household income between 1,001 and 2,000 , nearly 25% indicated that they had a household income between 2,001 and 3,000 , 24% indicated that their income level was under the 1,000 ; the remaining 13% indicated their household income level was more than 3,001 . Among the respondents, 39% were between the ages of 19-29 years old, 29% were between the ages of 30-39 years old, 19% were between the ages of 40-49 years old, the remaining 13% were more than 50 years old. Finally, about 27% of the respondents gave their occupation as government employees, 17% were students, nearly 14% were workers, 13% were housewifes, and the remaining 29% indicated several other occupations.

Table I. Descriptive Statistics of Respondents

Gender	**Frequency**	**Percent**	**Marital Status**	**Frequency**	**Percent**
Male	359	55.5	Married	403	62.9
Female	288	44.5	Single	238	37.1
Total	*650*	*100.0*	*Total*	*641*	*100.0*
Education Level	**Frequency**	**Percent**	**Income**	**Frequency**	**Percent**
Elementary education	73	11.3	Under 1000	108	24.0
Secondary education	151	23.4	1001 -2000	174	38.0
Vocational school	138	21.4	2001 -3000	115	24.5
Undergraduate	194	30.0	More than 3001	62	13.5
Post graduate	90	13.9	*Total*	*459*	*100.0*
Total	*646*	*100.0*			
Age	**Frequency**	**Percent**	**Occupation**	**Frequency**	**Percent**
19-24	133	21.0	Government Official	172	27.1
25-29	112	18.0	Worker	88	13.9
30-34	109	17.0	Retired	41	6.5
35-39	78	12.0	Tradesman	58	9.1
40-44	62	10.0	Self-employed	48	7.5
45-49	53	9.0	Housewife	83	13.1
More than 50	80	13.0	Student	109	17.1
Total	*627*	*100.0*	Unemployed	7	1.1
			Other	29	4.6
			Total	*635*	*100.0*

4.2. Measurement Model Analysis

In order to assess the psychometric properties of the multiple item scales used in our reflective research model, we followed the procedures suggested by Vinzi et al. (2010) and Hair et al. (2014). Unidimensionality, convergent validity, composite reliability (also called Dillon Goldstein's rho), and average variance extracted (AVE) and discriminant validity were assessed to examine the measurement models. Vinzi et al. (2010) suggest that the reflective measurement construct should be homogenous and unidimensional. In order to assess unidimensionality, we conducted principle component analysis with varimax rotation (by using PASW Statistics18) for each of the four exogenous and one endogenous latent constructs. For all five constructs, unidimensionality is evidenced if the first eigenvalue ($\lambda>1$) of the block of variables exceeds one and the second eigenvalue ($\lambda<1$) is smaller than one. Based on the principle component analysis results, each of the five latent

constructs was considered as unidimensional (see PCA/ eigenvalue column in Table II).

Table II. Homogeneity and unidimensionality of measurement variables

Construct	Item	Outer loading	PCA Eigen value	AVE	Dillon Goldstein's rho/ Composite Reliability (CR)	Cronbach's Alpha	Outer [a] T-Statistic ***
Purchase Intention	BIV3.25	0.871	2.699	0.676	0.893	0.841	63.45
	BIV3.26	0.783	0.505				24.24
	BIV3.27	0.811					35.22
	BIV3.28	0.822					34.74
Preference of HCP	HFCV3.1	0.868	3.499	0.699	0.921	0.892	48.37
	HFCV3.16	0.773	0.549				33.02
	HFCV3.2	0.867					48.53
	HFCV3.5	0.874					54.57
	HFCV3.9	0.794					28.29
Price Perception of HCP	PHCPV3.23	0.815	1.835	0.602	0.8142	0.679	28.03
	PHCPV3.24	0.889	0.716				82.55
	PHCPV3.8	0.588					9.91
Promotions of HCP	PROHCPV3.13	0.820	1.873	0.623	0.829	0.695	30.78
	PROHCPV3.14	0.646	0.726				10.58
	PROHCPV3.15	0.883					62.81
Religiosity	RELV6.10	0.782	2.874	0.574	0.870	0.813	26.16
	RELV6.6	0.676	0.824				15.41
	RELV6.7	0.788					30.34
	RELV6.8	0.832					34.21
	RELV6.9	0.700					14.88

[a] t-values for two-tailed test: ***2.58 (Significance level 1%)

The measurement model for constructs with reflective measures is assessed by looking at individual item reliability. The individual item reliability is evaluated by examining the loadings of the measures with the construct they intend to measure. A high indicator's outer loading on constructs represents how much of the variation in an item is explained by the construct and is described as the variance extracted from the item. Using the rule of thumb of accepting items with loadings of 0.708 or more, this implies that the variance shared between the construct and its indicator is larger than the measurement error variance (Hair et al., 2014). As shown in Table II, except for one indicator, the remaining standardized outer loadings of the reflective constructs are large (>0.70) and statistically significant (all the outer loadings t-values >2.58; significance level 1%) on their respective constructs. The PLS-PM analysis results reveal that within-method convergent validity is evidenced by the large (>0.50) and significant item loadings on their respective constructs. Furthermore, construct convergent validity assessment builds on the AVE value as the evaluation criterion. In the measurement model, as shown in Table II, the AVE values of 0.699 (Preference for HCP), 0.676 (Purchase Intention), 0.623 (Promotions of HCP), 0.602 (Price Perception of HCP), and 0.574 (Religiosity level) are above the required minimum level of 0.50 (Hair et al., 2014). Thus, the PLS-PM analysis results reveal that the measure of the five reflective constructs have high levels of convergent validity.

Internal consistency was examined by using Cronbach's alpha coefficient and composite reliability index. Cronbach's alpha coefficient is the traditional criterion for internal consistency, which provides an estimate of reliability based on the inter-correlations of the observed indicator variables. A construct is considered homogenous if the Cronbach's alpha coefficient is larger than 0.70 for confirmatory studies (Vinzi et al., 2010; Hair et al. 2014). As Table II shows, the PLS-PM analysis results indicate that the constructs internal consistency measures of Cronbach's Alpha are also above the minimum threshold level of 0.70, except for the Price Perception of the HCP construct (0.68). In our model, as shown in Table II, the composite reliability index for all constructs exceeds the minimum acceptable value of 0.70 (Hair et al. 2014). The composite reliability values of 0.92 (Preference of HCP), 0.89 (Purchase Intention), 0.87 (Religiosity level), 0.83 (Promotions of HCP) and 0.81 (Price Perception of HCP) demonstrate that all five reflective constructs have high levels of internal

consistency reliability.

Finally, to assess discriminant validity, the Fornell and Larcker (1981) criterion and the cross-loading criterion were evaluated. According to the Fornell and Larcker criterion, the square root of the AVE of each construct should be higher than the construct's highest correlation with any other construct in the model. Table III shows the results of the Fornell and Larcker criterion assessment with the square root of the reflective constructs' AVE on the diagonal and the correlations between the constructs in the lower left triangle. The logic of this method is based on the idea that a construct shares more variance with its associated indicators than with any other constructs (Hair, et al., 2014). Overall, the square roots of the AVEs for the reflective constructs Purchase Intention (0.82), Preference of HCP (0.84), and Price Perception of HCP (0.78), Promotions of HCP (0.79), and Religiosity level (0.76) are all higher than the correlations of the constructs with other latent variables in the path model.

Table III. Discriminant validity-correlations between latent variables

	Purchase Intention	**Preference for HCP**	**Price Percept. of HCP**	**Promotions of HCP**	**Religiosity**
Purchase Intention	**(0.822)**				
Preference of HCP	0.768	**(0.836)**			
Price Perception of HCP	0.725	0.648	**(0.775)**		
Promotions of HCP	0.475	0.507	0.473	**(0.789)**	
Religiosity level	0.552	0.596	0.463	0.367	**(0.758)**

Diagonal elements (values in parentheses) are the square root of the AVE

In addition to the Fornell and Larcker criterion, we also examined the cross loadings to assess construct discriminant validity. Discriminant validity is established when an indicator's loading on a construct is higher than all of its cross loading with other constructs (Hair et al., 2014). Table IV shows the loadings and cross loadings for every indicator. Comparing the loadings across the columns, in all cases an indicator's loadings on its own construct are higher than all of its cross-loadings with other constructs. Thus, the results indicate there is discriminant validity between all the constructs. Overall, the Fornell and Larcker criterion as well as cross loading provide evidence of the constructs' discriminant validity.

Table IV. Discriminant validity-constructs loading and cross loading

	Purchase Intention	**Preference for HCP**	**Price Percept. of HCP**	**Promotions of HCP**	**Religiosity**
PIV3.25	**0.871**	0.635	0.626	0.452	0.498
PIV3.26	**0.783**	0.555	0.457	0.322	0.433
PIV3.27	**0.811**	0.559	0.689	0.360	0.404
PIV3.28	**0.822**	0.660	0.594	0.413	0.478
HFCV3.1	0.644	**0.868**	0.515	0.386	0.513
HFCV3.16	0.665	**0.773**	0.660	0.493	0.465
HFCV3.2	0.626	**0.867**	0.506	0.371	0.523
HFCV3.5	0.658	**0.874**	0.547	0.434	0.512
HFCV3.9	0.612	**0.794**	0.471	0.429	0.477
PHCPV3.23	0.495	0.461	**0.815**	0.411	0.343
PHCPV3.24	0.754	0.633	**0.889**	0.424	0.454
PHCPV3.8	0.314	0.350	**0.588**	0.228	0.226
PROHCP13	0.394	0.384	0.421	**0.820**	0.278
PROHCP14	0.268	0.337	0.263	**0.646**	0.225
PROHCP15	0.439	0.471	0.413	**0.883**	0.353
RELV6.10	0.385	0.452	0.324	0.258	**0.782**
RELV6.6	0.382	0.451	0.302	0.242	**0.676**
RELV6.7	0.462	0.466	0.429	0.297	**0.788**
RELV6.8	0.469	0.529	0.339	0.321	**0.832**
RELV6.9	0.383	0.349	0.354	0.266	**0.700**

[a] Bold values are constructs loading for each item that are above the recommended value of 0.5; an item's

loadings on its own variable are higher than all of its cross loadings with other variable.

The goal of reflective measurement model assessment is to ensure the unidimensionality, reliability, and validity of the constructs measures and therefore provide support for the suitability of their inclusion in the structural path model. The key criteria include indicator reliability, composite reliability, convergent validity, and discriminant validity. Based on the analysis results, all model evaluation criteria were met, providing support for the measures' unidimensionality, reliability, and validity.

4.3. Structural Model Analysis

As discussed above, having the measurement model has been confirmed as reliable and valid, then, the next step is to evaluate the structural model results, which involves examining the model's predictive capabilities and the relationships between the constructs. Thus, the key criteria for assessing the structural model in PLS-PM are the significance of the path coefficient, the level of R^2 values, and the predictive relevance (Q^2) (Hair et al., 2014). Assessment of the structural path coefficient significance and relevance of the structural model (see Figure II) relationships was conducted by applying the PLS–SEM algorithm, which estimates the structural model relationships (the path coefficients) to demonstrate the hypothesized relationships between the reflective constructs. In addition to assessment of the size of the path coefficients, their significance was obtained using the bootstrapping option (5,000 resample and 650 cases). Table V shows the results of the hypothesis testing and structural relationships.

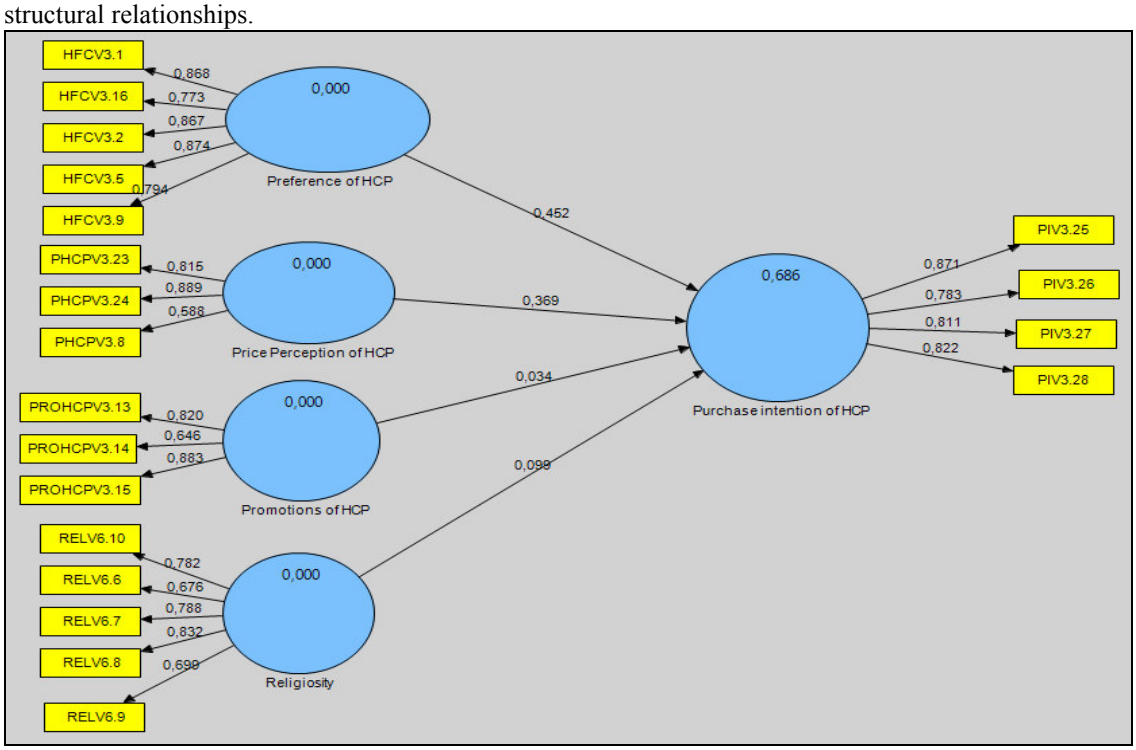

Figure II. Structural Research Model PLS-PM Analysis Result

As can be seen in Table V, consumers preference for halal certified food has a positive effect on consumers' halal certified food purchase intention (standardized path coefficient = 0.452, t-value =10.044, SE=0.045, and p<0.01).This result empirically supports Hypothesis 1. Price perception of halal certified food has a positive effect on customers' halal certified food purchase intention (standardized path coefficient = 0.369, t-value =10.543, SE=0.035, and p<0.01). This result empirically supports Hypothesis 2. Sales promotions of halal certified food have a positive effect on consumers' halal certified food purchase intention (standardized path coefficient = 0.034, t-value =3.238, SE=0.011, and p<0.01). This result empirically supports Hypothesis 3. Finally, consumers' religiosity level has a positive effect on consumers' halal certified food purchase intention (standardized path coefficient = 0.099, t-value =3.065, SE=0.032, and p<0.01).This result empirically supports Hypothesis 4. The PLS-PM analysis results reveal that consumers' preference for the halal certified food construct has the most effect on purchase intention, followed by price perception, consumers' religiosity level, and finally sales promotions of halal certified products construct, respectively.

Table V. PLS results for structural model and hypothesis testing

Path	Path Coefficient	Standard Error	T-Statistic [a]	Hypothesis	Decision
Preference for HCP -> Purchase Intention	**0.452**	0.045	10.044	H_1	**Supported**
Price Percept. of HCP -> Purchase Intention	**0.369**	0.035	10.543	H_2	**Supported**
Promotions of HCP -> Purchase Intention	**0.034**	0.011	3.238	H_3	**Supported**
Religiosity -> Purchase Intention	**0.099**	0.032	3.065	H_4	**Supported**

[a] t-values for two-tailed test: ***2.58 (sig.level 1%)

The R^2 and Q2 values of the endogenous latent construct were also obtained using the PLS algorithm procedure. Table VI shows the results of the R^2 and Q2 values. As the endogenous latent construct, the R^2 value for purchase intention of halal certified food product is 0.686 with a Q2 value of 0.330, which show a large effect size. The magnitude of the R^2 values is a criterion of predictive accuracy, while the Q^2 value is an indicator of the model's predictive relevance. According to Hair et al. (2014), PLS-PM aims at maximizing the R2 values of the endogenous latent variable in the path model. The R2 values (coefficients of determination) represent the amount of explained variance of the endogenous constructs in the structural model. In general, the R2 values of 0.75 and 0.50 for the endogenous constructs can be described as substantial, and moderate, respectively. The R^2 value for purchase intention of halal certified food product (0.686) was considered as moderate. Moreover, Q^2 values bigger than zero for a reflective endogenous construct imply the path model's predictive relevance for a particular construct. By performing blindfolding procedures, the Q2 value is considerably above zero, which supports the model predictive relevance for the endogenous construct.

Table VI. PLS results for endogenous latent construct R^2 and Q^2

Endogenous Latent Construct	R^2	Q^2	Effect Size [a]
Purchase Intention	0.686	0.330	Large

Assessing predictive relevance (Q^2) value of the effect size: 0.02= Small, 0.15= Medium, 0.35= Large.

5. Conclusion

The halal food market has become more attractive for Muslim and non-Muslim producers and marketers because of the fast-growing global Muslim population and increasing education and welfare level. Today's consumers may choose the company that provides the best value (differences and innovation) in the halal food market. Therefore, knowing and applying Islamic rules and principles will come to the forefront in competition, and companies are aware that catering for consumers' Islamic values can allow them to gain an advantage in global competition.

The purpose of this study was to investigate the factors influencing intention to purchase halal certified products among Muslim consumers in Turkey. The analysis results indicate that consumers' preference for halal certified products, consumers' religiosity level, and marketing related variables are important factors influencing consumers' halal food purchase intention.

This study reveals that preference for halal certified food construct is the most important factor explaining the intention to purchase halal products. The consumers' price perception construct is the second most important factor, consumers' religiosity level construct is the third most important factor, and finally, the sales promotions of halal products construct is the least important factor explaining the intention to purchase halal products. From the findings of the study, all independent variables were statistically significant in determining halal food purchasing intention among Muslim consumers in Turkey. The findings of our research are similar to Aziz and Chok (2013) research results. Although Muslim consumers live in different countries, the intention to purchase halal food is affected by similar factors and consumers' preference for halal food exhibits similar purchase behavior. In addition, many of the studies related to this subject, as well as the findings of our study, reveal that consumers' religiosity level affects consumers' halal food purchase behavior.

Tournois and Aoun (2012) emphasized that non-Muslims producers and marketers thinking of entering the halal food market, must know and apply Islamic principles. In particular, the marketing of halal certified foods to Muslim consumers, who are very sensitive on the subject of halal food, is likely to provide an advantage over non-Muslim producers and marketers. This study explores the factors that are effective in examining consumers' behavior with regard to their purchase intention of halal foods. Finally, we believe that this study will add to the current body of knowledge relating to the general concept of halal food and consumer behavior in a developing country.

The findings of this study give us some useful insights into the consumers' purchase intention of halal products. However, the results of this study should be viewed its some limitations. One limitation is that this study uses a non-probability convenience sampling method. This sampling method constrained the application of

the study findings to the general population. Therefore, future research should use the probability-sampling method and may retest the research model; thus, their findings could then be applied to the general. A second limitation is that the data were obtained from only Kayseri city residents in Turkey, which may lead to sampling bias. Therefore, future research should extend this study to other cities, other countries, and other societies. Finally, our study did not consider other possible marketing variables that could affect purchase intention of halal food, besides price and sales promotions. Variables, such as, advertising, distribution, and place related constructs might be included into the research model. This study has the potential to be the basis of further explorations of halal food consumption within other countries and other societies. In relation to these considerations, the results of this study will provide a useful source for further research work.

Conflicts of Interest

The authors declare no conflict of interst.

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