

*A Research on The Attitude and Purchasing Behavior of Muslim Consumers Towards Products with Halal Logo in Another Muslim Country**

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Abstract

Consumers living in Muslim countries often do not pay attention to the halal logo as they think that the products in their own countries meet the halal requirements. However, Muslim consumers are highly susceptible to purchasing halal products when they go to a non-Muslim country. The halal logo makes it easier for consumers who have this sensitivity to choose halal products. At this point, it is wondered whether the halal logo is effective in the purchasing behavior of Muslims in different Muslim countries. From this point of view, in this study, it is aimed to fill the gap in the literature by investigating the attitudes and behaviors of Muslim consumers towards products with halal logo when they go to another Muslim country. For this purpose, the halal logo knowledge, awareness and attitudes, and halal logo product purchasing behaviors of Muslim international students coming to Turkey, a Muslim country, for university education were examined. The research model developed for this purpose was created by utilizing the knowledge, attitude and practice (KAP) model. Within the scope of the study, data were collected from 396 international students through an online questionnaire using convenience sampling method. The obtained data were analyzed using structural equation modeling (SEM). The investigation revealed that halal logo awareness and attitude toward halal logo products significantly affect halal logo product purchasing behavior. However, information about halal logos is unlikely to have a significant and beneficial effect on the halal logo product purchasing behavior.

Keywords: halal logo, halal logo knowledge, halal logo awareness, attitude towards halal logo products

* The compliance of this research with ethical rules was accepted with the decision of the Social and Human Sciences Research Ethics Committee of Karabuk University Rectorate, numbered E.116168.

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Müslüman Tüketicilerin Başka Bir Müslüman Ülkedeki Helal Logolu Ürünlere Yönelik Tutum ve Satın Alma Davranışı Üzerine Bir Araştırma

Özet

Müslüman ülkelerde yaşayan tüketiciler, kendi ülkelerindeki ürünlerin helal şartlarını sağlayan ürünler olduğunu düşündüğünden dolayı çoğu zaman helal logosuna dikkat etmemektedir. Ancak Müslüman tüketiciler, Müslüman olmayan bir ülkeye gittiklerinde, helal olan ürünleri satın alma konusunda son derece hassas davranmaktadırlar. Helal logosu ise bu hassasiyete sahip olan tüketicilerin helal ürün seçimini kolaylaştırmaktadır. Bu noktada Müslümanların, farklı Müslüman ülkelerdeki sergileyeceği satın alma davranışlarında helal logosunun etkili olup olmadığı merak edilmiştir. Buradan hareketle çalışmada, literatürde sınırlı bir çalışma alanına sahip olan Müslüman tüketicilerin, başka bir Müslüman ülkeye gittiğinde, helal logolu ürünlere yönelik tutum ve davranışları araştırılmak istenmiştir. Bu amaçla, Müslüman bir ülke olan Türkiye'ye üniversite eğitimi için gelen Müslüman uluslararası öğrencilerin helal logo bilgisi, farkındalığı ve helal logolu ürünlere yönelik tutum ve satın alma davranışları incelenmiştir. Bu amaçla geliştirilen araştırma modeli, bilgi (knowledge), tutum (attitude) ve uygulama (practice) (KAP) modelinden faydalanılarak oluşturulmuştur. Çalışma kapsamında, 396 uluslararası öğrenciden kolayda örnekleme yöntemi kullanılarak online anket aracılığıyla veri toplanmıştır. Elde edilen veriler yapısal eşitlik modeli (SEM) kullanılarak analiz edilmiştir. Analiz sonucunda, helal logolu ürün satın alma davranışı üzerinde, helal logo farkındalığının ve helal logolu ürüne yönelik tutumun anlamlı ve pozitif etkisi tespit edilmiştir. Ancak helal logo bilgisinin, helal logolu ürün satın alma davranışı üzerinde anlamlı ve pozitif bir etkisi bulunamamıştır.

Anahtar Kelimeler: helal logo, helal logo bilgisi, helal logo farkındalığı, helal logolu ürünlere yönelik tutum



1. INTRODUCTION

The concept of halal is mentioned in the Quran, the holy book of Islam. The term halal is an Arabic word meaning "permissible." The Quran explains the concept of halal with its various verses. Verse 173 of Surah Al-Baqarah reads as follows: *"He has only prohibited for you carrion, blood, the flesh of swine and that upon which a name of someone other than "Allah" has been invoked. Then, whoever is compelled by necessity, neither seeking pleasure nor transgressing, there is no sin on him. Verily, Allah is Most-Forgiving, Very-Merciful"* (The Holy Quran, Surah Al-Baqarah, verse 173).

Halal product means a clean and reliable product. According to the Quran, the word "halal" means permissible or legal. Halal covers all stages, from raw material procurement to distribution of final products and reaching the consumer (Man and Sazili, 2010). The term "Halal" means fit for consumption and use by Muslims, while "Haram" is anything illegal or prohibited. In this context, products that are not contrary to the rules of the Islamic religion and not prohibited are considered halal (Wilson, 2014). The Quran orders Muslims to consume halal products (The Holy Quran, Surah Al-Baqarah, verses 3 and 172). The Holy Quran guides Muslims throughout their lives. For this reason, it is of great importance to consume halal products for Muslim consumers who lead their lives in accordance with the orders and prohibitions of the Quran. In addition, many studies show that halal products are preferred by non-Muslim consumers because they are clean and of good quality (Aziz and Chok, 2013; Bashir, 2019).

The basis of the clean, hygienic and reliable food produced in accordance with halal conditions is based on the following verse of the Quran: *"Forbidden to you are carrion, blood, and swine; what is slaughtered in the name of any other than Allah; what is killed by strangling, beating, a fall, or by being gored to death; what is partly eaten by a predator unless you slaughter it; and what is sacrificed on altars. You are also forbidden to draw lots for decisions. This is all evil. Today the disbelievers have given up all hope of undermining your faith. So do not fear them; fear Me! Today I have perfected your faith for you, completed My favour upon you, and chosen Islam as your way. But whoever is compelled by extreme hunger-not intending to sin-then surely Allah is All-Forgiving, Most Merciful."* (The Holy Quran, Surah Al-Ma'idah, verse 3).

Many studies reveal that pork is harmful for health (Delgado-Pando et al., 2019; Berends, 2001). The main reason for this is that pigs eat everything (garbage, carrion, dirty waste) (Harris, 2012). Since pigs have the fastest (4 hours) and weak digestive system, they cannot completely clean the toxins in the food they eat. The meat of pigs that store these toxins in their cells is extremely unhealthy (Cook and Phuc, 2019). However, halal animals such as cattle, lamb, buffalo and camel are vegetarians because they feed themselves with fresh and clean food. These animals have much more advanced digestive systems. For instance, cows have three stomachs and these stomachs process fresh clean grass for 24 hours. Thus, these fresh and



clean-fed cattle have healthy and clean meats that do not contain toxins with their advanced digestive systems (Shimon and Krieger, 2019). Halal foods are also popular with non-Muslim consumers because they are healthy and safe (Aziz and Chok, 2013). This interest is the proof that the halal food market will grow even faster in the coming years. For this reason, the halal logo, which proves that the products have halal certificate, is important.

Over 1.8 billion Muslims live in the world. Islam is also the world's fastest growing religion (Pew Research Center, 2019). The purchasing power of the Muslim population, which increases by 3% annually, is also increasing (Eum, 2009). These statistics demonstrate that the Muslim community has the potential to be a sizable and lucrative market (food, beverage, cosmetics, pharmaceuticals, fashion, banking, and tourism). Halal industries are estimated to be worth 3 trillion USD globally (Statista, 2021). In countries such as the United States, Europe, and Canada, and in the Middle East, Northeast Asia, North Africa, and Australia, the halal market is expanding (Danjuma, 2021). Today, many manufacturers in non-Muslim countries are interested in halal certification to appeal to the Muslim consumer market, which accounts for a quarter of the global population (Lipka, 2017).

Turkey's population is 99.8 percent Muslim (CIA, 2021). The fact that Muslims constitute the majority of the population demonstrates that a lifestyle consistent with the Islamic religion's principles is prevalent in Turkey (Haque et al., 2021). The anticipation is that makers, merchants, and importers operating within this social system will adhere to Islamic principles. On this basis, there is a widespread impression that things sold within Muslim countries' borders are similarly halal (Varinli et al., 2016). However, recent government food inspections revealed that certain meat products and dishes do not adhere to halal standards (e.g. the use of pork gelatin). As a result of the press coverage of these developments, the importance of halal certification has grown, and the Turkish Standards Institute (TSE), a state-affiliated organization, has begun issuing halal certificates in this area. Additionally, Turkish businesses exporting to international markets place a premium on halal certification to capture a share of the halal market. When Muslim consumers travel to countries with a majority Muslim population, their sensitivity to search for halal products is low. When Muslims travel to non-Muslim countries, they become more conscious of purchasing halal products (Öztürk et al., 2015). From this perspective, it is possible to assert that Turkish Muslim consumers possess this sensitivity. However, what kind of purchasing behavior do Muslim consumers exhibit in the Muslim countries they visit? What is the place and importance of the halal logo on purchasing decisions? How does the Halal logo shape the purchasing decisions of foreign Muslim students in Turkey?

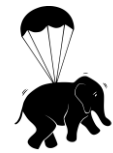
These questions define the primary and secondary research problems. The purpose of the study is to determine, based on these questions, whether the halal logo is effective in influencing the purchasing behavior of Muslims in various Muslim countries. This study is significant in revealing the attitudes and behaviors of Muslim consumers towards products with the halal logo when they travel to another Muslim country. In accordance with the purpose of the study, the



first objective was to assess the knowledge and awareness of halal logos among Muslim international students studying in Turkey. The effect of this knowledge and awareness on attitudes and purchasing behavior toward halal-labeled products were then examined. The study's sample consists of international students who come to Turkey from countries in the Middle East and Africa with a sizable Muslim population. This study is one of the few that examines the purchasing behavior of Muslim consumers who relocate from one Muslim country to another. The research model for this original study was developed using the Knowledge, Attitude, and Practice (KAP) framework and validated using SEM. According to the analysis, foreign Muslim students have an extremely high level of halal knowledge, awareness, and positive attitude toward halal products. Muslim consumers, on the other hand, do not need to be aware of the halal logo when shopping in another Muslim country, as they assume that all products sold in that country are halal. Certain consumers who have developed the habit of looking for the halal logo continue to do so even when visiting a Muslim country. In this context, on the basis of the literature review, the main hypotheses and research model were developed for the study. Then, the research methodology and analysis procedure were described, and the analysis of the data commenced. The study was concluded by presenting the findings, as well as the conclusions and recommendations based on these findings.

2. LITERATURE REVIEW

In order for businesses to develop an effective marketing strategy, they must first understand the behavior of the target consumer group correctly. Religious belief is an important instrument for a better understanding of consumer behavior. People's religious beliefs are effective in every moment of their lives, as well as on their purchasing behavior (Nurhayati and Hendar, 2020). Nowadays, the easiest way to understand whether a product is halal is to look at the logos on the product packaging. There are numerous national and international organizations throughout the world that provide various halal certificates (MUI in Indonesia, JAKIM in Malaysia, MUIS in Singapore, TSE in Turkey, etc.). However, products sold in markets bear a variety of halal labels and certifications. Turkey had better incorporate the organizations that issue certificates bearing the association's identification into the TSE to eliminate this uncertainty just like JAKIM (Yusof, 2017). Although Turkey does not require halal food certification, the Turkish Standards Institute (TSE), a public institution with international credibility, certifies halal conformity. Halal conformity certification enables producers to distinguish between what they produce for a healthy lifestyle and what consumers consume. Additionally, it ensures the proper operation of the control mechanisms, the consistency of the actual content with the label declarations, and the expansion of the analysis capability. It provides knowledge on the accuracy of product declarations and non-halal ingredients (pork, blood, carrion, alcohol content, halal slaughter in meat products) at the products' source (TSE, 2022). Halal certification contributes to the development of international trade and cooperation for halal, healthy, and hygienic production and consumption by developing halal standards and establishing a reliable certification mechanism.



Previous studies have used the Theory of Reasoned Action-TRA or its derivatives to explain the relationship between attitudes, intentions, and behavior (Garg and Joshi, 2018). TRA, suggests that behavioral intention precedes behavior and is influenced by attitude towards behavior (Abd Rahman et al., 2015; Rizkitysha and Hananto, 2022). Many studies on halal have found that attitude affects the intention to purchase halal products (Aziz and Chok, 2013; Garg and Joshi, 2018; Elseidi, 2018). Previous research has revealed that attitude and intention are effective in purchasing halal products, while attitudes are associated with variables such as knowledge, religiosity, and perceived usefulness of the halal label (Abd Rahman et al., 2015; Mbawuni and Nimako, 2017; Rizkitysha and Hananto 2022). The purpose of this study, which was conducted using the Knowledge, Attitude, and Practice (KAP) paradigm, was to determine the effect of halal logo knowledge, awareness, and attitude toward halal logo products on halal logo product purchase behavior. While knowledge generates an attitude, knowledge and attitude together generate practice, according to the KAP model (Launiala, 2009). While the knowledge component reflects what an individual knows, the attitude component, which expresses a mental and nervous state of readiness, has a directive effect on how the individual reacts to all objects and situations with which he is associated. The implementation component is the concrete, observable, and quantifiable actions taken by an individual in response to a stimulus. The KAP framework is predicated on the premise that each stage of the knowledge, action, and implementation framework can be influenced by what comes before. The KAP model, which aims to comprehend what people know, feel, and do, has also been extensively used in halal consumption research (Sadeeqa et al., 2013; Nuratifah et al., 2019; Latiff et al., 2020). While knowledge is concerned with the extent to which an individual comprehends a subject, attitude is concerned with the individual's feelings and attitudes toward that subject. On the other hand, practice is defined as a person's method of demonstrating his knowledge and attitudes about a subject through his behaviors (Ahamad and Ariffin, 2018). Kaliyaperumal (2004) defined knowledge as understanding any subject, his definition of attitude was feelings about the subject based on the point of view one has. He defined the practice as the outward expression of knowledge and attitudes as action. While the study's knowledge and awareness of the halal logo indicate the knowledge stage, its attitude toward the product bearing the halal label also represents the attitude stage. Finally, the purchase behavior of products bearing the halal logo is consistent with the application process. On the basis of these explanations, the study utilized the KAP model to establish hypothetical linkages in the study.

2.1. Halal Logo Knowledge

The Halal logo is a way of informing, persuading and verifying that it complies with Islamic law (Sosianika and Amalia, 2020). The halal logo promises to use halal materials, halal slaughter, halal processing and halal distribution (TSE, 2022). Thus, halal logos provide peace of mind for Muslims as they are the main sign to distinguish products. The concept of halal, which is valid for all aspects of human life in Islam, has a very broad and comprehensive meaning. It applies to all aspects of people's lives, from their eating habits to the way they dress and use cosmetics, from their choice of financial instruments to logistics. Certification is not



limited to meat or food products. It covers many consumer products such as cosmetics, pharmaceuticals and cleaning supplies. Food manufacturers are also required to comply with reference standards such as HACCP, GMP, GHP and ISO 9000 to meet the halal requirement (TSE, 2022). Halal certification means official recognition of regular preparation, slaughter, cleaning, handling and other relevant management practices by the incumbent (such as TSE in Turkey). Certified halal food must be able to signal that the food complies with strict standards of hygiene and sanitation (TSE, 2022).

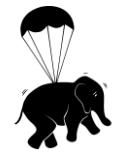
In the whole production process, the halal certificate is given after the inspections of the authorized institutions approved by the official religious institution of the state, as a result of their application to the enterprises that fulfill the conditions of being halal, that is, the standards. The organization that received this certificate uses the halal logo on its packaging. Consumers believe that the halal logo proves food production companies meet halal conditions in producing processes.

The Turkish Standards Institute (TSE) is the only institution in Turkey authorized to issue the state-level halal food certificate. This TSE service made the market's halal certification system secure. In this context, the Halal Accreditation Agency (HAA) was established as the sole institution authorized to provide halal accreditation services in Turkey to operate in the field of halal accreditation both domestically and internationally, to represent Turkey in halal accreditation studies conducted on international platforms, and to take the lead in such studies. (HAA, 2019). The World Halal Council (WHC) established in Indonesia in 1999 and the Islamic Countries Standards and Metrology Institute (SMIIC), established in Istanbul in 2013 with the approval of the Organization of Islamic Cooperation, carry out their studies on halal product accreditation standards. Malaysia, of which 60 percent of its population of approximately 30 million is Muslim, is one of the leading countries in halal food certification (JAKİM) (Nuratifah et al., 2019). Muslim countries desire common international halal standards, as is evident. In addition, the government intends to implement its own halal certification systems in accordance with international standards.

The quantity of knowledge a consumer has about a product has an effect on the purchase decision-making process (Saida et al., 2014). Because every Muslim is required to consume halal items, halal product information plays a significant role in Muslim customers' purchasing decisions. As a result, knowledge about halal products has a substantial impact on halal consciousness (Ambali and Bakar, 2014; Awan et al., 2015). The following information was used to construct the H1 hypothesis:

H1: Halal logo knowledge has a positive and significant effect on halal logo awareness.

The desire to meet the world population's growing food demand has steered the industry toward processed foods. Except for fruits and vegetables, almost all packaged products bought by consumers from supermarkets are processed foods that have lost their natural structure. These foods, which are high in sugar, fat, preservatives, and chemicals, have progressively become a



danger to human health. As a precaution, consumers who are aware of this situation and concerned about their health prefer manufacturer logos with internationally recognized and valid certificates. Conscious consumers want to reduce the risks they perceive by reading the labels on the product packaging. In this respect, it is important for consumers to know what the logos on the product packaging mean and to be aware of them in terms of choosing the right product. The important thing is whether consumers can detect or remember the halal food logo at the time of purchase (Erdem et al., 2015). Consumption of halal-labeled foods is a fundamental quality condition for developing, maintaining and strengthening an overall Islamic lifestyle and identity, and is a mechanism for relieving stability (Fauzi, 2022). Several variables, including halal knowledge, religiosity, and perceived usefulness, have been identified as predictors of attitudes toward halal-labeled products in previous research (Rizkitysha and Hananto, 2022). The Halal logo enables Muslim consumers to make more informed purchasing decisions. The Halal logo is viewed as a quality indicator, guarantee, or indicator of religious satisfaction that enables Muslim consumers to place their trust in the products (Aziz and Chok, 2013; Anam et al., 2018; Sosianika and Amalia, 2020). Maichum et al. (2017), on the other hand, discovered that halal knowledge has a significant effect on attitudes toward halal food. Based on this information, the H2 hypothesis was developed as follows:

H2: Halal logo knowledge has a significant positive effect on the consumer's attitude toward halal logo products.

The halal label is not just an element of packaging, it is a part of a belief system and ethical code of conduct. It is an indication of obeying the orders and prohibitions of the religion of Islam with a sense of responsibility towards Allah (El-Bassiouny, 2017). The halal logo signifies that the item is halal. As a result, the logo serves as a source of knowledge. In this context, a consumer with religious sensitivities must have access to halal logos or certification knowledge. Halal knowledge of consumers plays an important role in their purchasing behavior (Nurhayati and Hendar, 2020). Based on this information, the H4 hypothesis was developed as follows:

H4: Halal logo knowledge has a significant positive effect on the purchasing behavior of products bearing the halal logo.

2.2. Halal Logo Awareness

Awareness is the state of having knowledge or comprehension of a particular subject or situation (Randolph, 2003). In the context of halal, "awareness" refers to the state of knowing and researching the halal conditions of products in accordance with Islam's halal and haram knowledge. Halal awareness refers to the degree to which Muslims are aware of what they are permitted to eat, drink, and use (Ambali and Bakar, 2014). The term "awareness level" refers to the state of consciousness. Individuals may exhibit varying degrees of awareness. Yasid et al. (2016) found that religious beliefs, self-identity, and media exposure affect awareness of halal food. The findings of Ambali and Bakar's (2014) study indicate that religious belief,



exposure, certification logo, and health reason are potential sources of Muslim awareness of halal consumption. 98 percent of Indian Muslims believe that halal refers to prayers offered while a sheep, chicken, cow, or camel is slaughtered (Potluri and Potluri, 2018). As a result, the study demonstrates that they are unaware of the true definition of halal. However, after explaining the halal concept to these individuals, 95% agreed that it is necessary to understand the halal concept to prefer halal certified products. Azam (2016) discovered that consumers pay attention to the halal logo as a result of their familiarity with halal foods and products. Previous research has suggested that awareness has a positive effect on the consumer's attitude toward purchasing food products (Aziz and Chok, 2013; Hamdan et al., 2013; Abd Rahman, et al., 2015; Bashir, 2019). Based on this information, the H3 hypothesis was developed as follows:

H3: Halal logo awareness has a positive and significant effect on the attitude towards the halal logo product.

With the knowledge provided by the halal logo or certification, Muslims can be better informed about the products they are considering purchasing. Therefore, it may be possible to protect consumers from false, misleading or deceptive practices with the awareness of the halal logo (Azam, 2016). Awareness is a determining factor in the purchasing decision process (Rachmawati and Suroso, 2020). Halal awareness plays a triggering role in purchasing halal products (Zakaria et al., 2017; Afendi, 2020). Based on this information, the H5 hypothesis was developed as follows:

H5: Halal logo awareness has a positive and significant effect on halal logo-related purchasing behavior.

2.3. Attitude Towards Products with Halal Logo

Attitude, the second component of the KAP model, is an internal expression of an individual's feelings, reflecting whether an individual likes a product or service. According to Ajzen (1991), attitude towards behavior is the degree to which a person evaluates the behavior in question as positive or negative. Consumers' knowledge and attitudes towards halal logo products determine whether consumers will think positively or negatively about purchasing food products with halal logo. Studies show that consumers generally have a positive attitude towards the Halal logo/certificate/label (Abd Rahman et al., 2015; Awan et al., 2015). When it comes to eating halal logo food, attitude is a significant factor in determining a consumer's purchasing behavior toward halal logo food products. This is because individuals with more favorable attitudes appear to be more likely to purchase halal products. Similarly, in other studies, attitude is identified as a significant factor influencing purchasing behavior for halal-labeled products (Ahamad and Ariffin, 2018; Kwol et al., 2020). Based on this information, the H6 hypothesis was developed as follows:

H6: Attitudes toward products bearing the Halal logo have a significant positive effect on the purchasing behavior of products bearing the Halal logo.

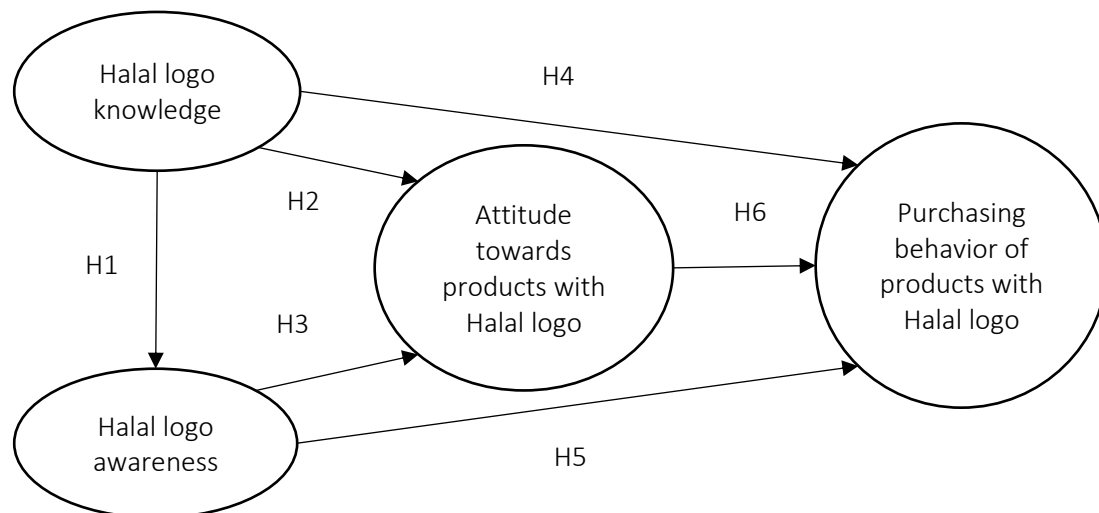


2.4. Purchasing Behavior of Products with Halal Logo

Consumer purchasing behavior is concerned with how individuals, groups, and organizations select, buy, use, and dispose of products, services, ideas, or experiences to meet consumers' demand (Kotler and Armstrong, 2001). People's sensitivities towards halal and haram concepts are effective in shaping the attitudes, intentions and behaviors of Muslims towards the products they consume.

It is critical to understand the consumers to determine their level of knowledge and awareness about the product. Because a favorable attitude toward a product or service serves as the foundation for favorable behavior. Halal logo knowledge is critical for developing a favorable attitude toward products bearing the halal logo. As a result, consumer familiarity with the halal logo will increase awareness of the halal logo, positively affecting consumers' attitudes and purchasing behavior toward halal products. The for this study is presented in Figure 1. It is based on the discussions in the literature and the hypotheses developed in the preceding sections.

Figure 1. The research model



3. RESEARCH METHOD

This research is an empirical study that aims to identify and test a relationship model that was proposed as a result of an extensive literature review to explain the relationship between halal logo knowledge and awareness, attitudes and purchasing behavior toward halal logo products. The research population consists of 9498 international students from Muslim-majority countries enrolled at Karabük University. Although these students are from Muslim-majority countries, they may practice other religions. As a result, the probability-based sampling method



could not be used in the research because there is no sampling frame for Muslim students. Due to the fact that the research data were collected online, the convenience sampling method was used, which is one of the non-probability sampling methods used in this study.

The survey questions were translated into Turkish and then back into English with the help of language experts using the "translation-back translation" technique and compared with the original statements under the control of field experts. In addition, content validity was checked by the academicians working in the marketing and theology fields. The compliance of this research with ethical rules was accepted with the decision of the Social and Human Sciences Research Ethics Committee of Karabük University Rectorate, numbered E.116168. In the data screening process, first of all, the draft questionnaire form was applied to 70 students in the research sample, and a pilot study was carried out. The questionnaire was completed by correcting any missing or illegible sections. The research collected data between February 13 and April 10, 2022, and an online questionnaire was made available at the following URL: "<https://forms.gle/YncecfJghDVZdacC7>" The online survey drew a total of 428 respondents. However, because the study sampled Muslim international students, 32 participants who stated they were not Muslims were excluded from the study. The remaining 396 participants' questionnaires were evaluated, and analyses were conducted.

The statements in the scale were evaluated using a 5-point Likert scale (1: strongly disagree - 5: strongly agree). The expressions used to quantify halal logo knowledge were adapted from Nurhayati and Hendar's study (2020). The expressions used to assess halal logo awareness are adapted from Nurhayati & Hendar's (2020) and Aziz & Chok's (2013) studies. The expressions used to assess attitudes toward the halal logo product were adapted from Abd Rahman et al.'s (2015) and Yadav & Pathak's (2016) studies. The expressions used to quantify the purchasing behavior of products bearing the halal logo are derived from Bashir's (2020), Vizano et al.'s (2021), and Ashraf's (2019).

Reliability analysis is used to determine the internal consistency of the dimensions in the measurement model, as well as convergent validity, which is used to determine the relationship between each observed variable (expression) measuring the same dimension and the dimension to which it is related, as well as the convergent validity of each dimension individually. A discriminant validity test was used to determine the existence of constructs. The two-stage approach proposed by Gerbing and Anderson (1988) was adopted to test the measurement model. For this, standardized item loadings, average variance extracted (AVE), composite reliability (CR) and Cronbach's Alpha values were checked. While evaluating convergent validity, 3 criteria were taken as basis. These criteria are: reliability of measurement items, CR of measurement items, and AVE for each construct. Discriminant validity, on the other hand, was examined by correlations between constructs and comparison of AVE values (Fornell and Larcker, 1981; Gefen et al., 2000). Thus, the measurement model's reliability and validity were assessed based on its compliance statistics. Finally, the research model was validated against



the expected results from the measurement model using structural equation modeling (SEM). The data were analyzed using the SPSS 24 and AMOS 24 package programs.

4. RESULTS

Table 1 displays the demographic profile and sample descriptive statistics.

Table 1. Demographic Profile and Sample Descriptive Statistics

	N	Percentage		N	Percentage
Age			Level of religiosity		
18-20	147	37.1	Very little	7	1.8
21-23	152	38.4	Little	21	5.3
24-26	48	12.1	Middle	95	24.0
27-29	31	7.9	Good	104	26.3
30+	18	4.5	Very good	169	42.7
Monthly spending amount (Turkish Lira-TL)			Ethnicity		
Less than 1000 TL	209	52.8	Chad	88	22.2
1001-2000TL	130	32.8	Other African countries	87	22.0
2000-3000	34	8.6	Syria	27	6.8
3000-4000	23	5.8	Yemen	44	11.1
Class			Jordan	16	4.0
Preparatory Class	243	61.4	Other Middle East countries	87	22.0
1st Grade	42	10.6	Turkic Republics	39	9.9
2nd Grade	31	7.8	Muslim South Asian countries	8	2.0
3rd Grade	19	4.8	Gender		
4th Grade	30	7.5	Male	81	20.5
Postgraduate	31	7.9	Female	315	79.5

4.1. Exploratory Factor Analysis

The purpose of this exploratory factor analysis was to determine whether all variables in the research model relating to halal logo knowledge, halal logo awareness, attitude toward halal logo products, and purchasing behavior with halal logo products are structurally compatible with the literature and to assess their validity and reliability. The averages of the participants' responses to the statements, factor loads, Cronbach's alpha values, and explained variance values for the structure are shown in Table 2.



Table 2: Factor Analysis Results for The Variables

Constructs/Item	Mean	Factor Load	Cronbach Alfa	Variance Explained
Halal Logo Knowledge-HLK			0.922	21.104
HLK1- I am aware that the Halal logo is used to identify products that have been prepared in accordance with Islamic principles.	4.48	0.955		
HLK2- I am aware that the Halal logo is a certification given to products that are halal according to Islam.	4.53	0.907		
HLK3- The Halal logo certifies that the food product contains no haram ingredients.	4.39	0.760		
Halal Logo Awareness-HLA			0.909	18.916
HLA1- I look for the halal logo when purchasing products.	4.09	0.971		
HLA2- I will only buy products that bear the halal logo.	4.02	0.859		
HLA3- I am able to differentiate between Halal certificate logos and others.	4.11	0.678		
Attitude Towards Products with Halal Logo-AHL			0.950	23.129
AHL1- It's a good idea to buy products with the halal logo.	4.52	0.872		
AHL2- Purchasing products with the halal logo is a wise choice.	4.47	0.810		
AHL3- I like the idea of purchasing Halal logo products.	4.46	0.884		
AHL4- It would be nice to buy products with Halal logo.	4.47	0.801		
The Behavior of Purchasing Products with the Halal Logo-HLP			0.905	17.406
HLP1- I always buy products with the halal logo.	4.06	0.912		
HLP2- I specifically choose to buy products with halal logo	4.25	0.705		
HLP3- If I am torn between two halal brands, I would prefer the brand with the halal logo.	4.39	0.683		
KMO: 0.927; Total Variance Explained: % 80.606				

Cronbach's alpha coefficient was calculated to determine the scales' reliability in this study. Because the α values are greater than the acceptable value (0.70), the scales used are considered reliable (Nunnally, 1978). The Kaiser-Meyer-Olkin (KMO) test result of 0.927 indicates that the research sample is sufficient for factor analysis. The Bartlett's sphericity test was also significant (Chi-square: 5181.046; df: 78; p0.001), indicating that the distributions of the scale's variables were suitable for analysis. The exploratory factor analysis revealed that related variables accounted for 80.606 percent of the total variance.

4.2. Confirmatory Factor Analysis

When the findings obtained as a result of confirmatory factor analysis (CFA) are examined in Table 3, it is seen that quite satisfactory results were obtained (Byrne, 2010; Kline, 2015; Schermelleh-Engel et al., 2003). After determining the good fit values of the CFA model,



reliability and validity analyzes of each construct were performed. (AVE) and (CR) values were calculated to evaluate the measurement model in terms of reliability and validity. It is desirable that the CR value be greater than 0.70 and the AVE value greater than 0.50 (Fornell and Larcker, 1981).

Table 3. AVE and CR Values of The Structural Model

	AVE	CR
Halal Logo Knowledge	0.801	0.923
Halal Logo Awareness	0.778	0.913
Attitude Towards Products with Halal Logo	0.817	0.947
The Behavior of Purchasing Products with the Halal Logo	0.766	0.908
<i>Model Fit Results: $\chi^2=202.119$; $df = 58$; $p=0.000$; $CMIN/DF = 3.485$; $p = 0.000$; $GFI = 0.926$; $AGFI = 0.883$; $NFI = 0.961$; $TLI = 0.963$; $CFI= 0.972$; $RMSEA = 0.079$</i>		

When the CR and AVE values for all dimensions presented in Table 3 and included in the research model are examined, it is possible to conclude that the dimensions have internal consistency or reliability, because "CR > 0.70" and "AVE > 0.50" meet the validity criteria. Discriminant validity is determined by comparing the square roots of the AVE values to the correlation coefficients between the constructs. Correlation coefficients between constructs should be less than the AVE values' square roots (Fornell and Larcker, 1981). Correlation coefficients and AVE square root values are shown in Table 4.

Tablo 4. Correlations, Mean, Standard Deviation and Square Root of AVE.

Construct	HLK	HLA	AHL	HLP
HLK	0.895			
HLA	0.571**	0.882		
AHL	0.755**	0.678**	0.904	
HLP	0.584**	0.776**	0.749**	0.875
Mean	4.473	4.076	4.485	4.239
Standard Deviation	0.967	1.147	0.915	1.074
Notes: ** p < 0.01; Diagonal elements (in bold) are the square root of the average variance extracted (AVE). (HLK: Halal Logo Knowledge, HLA: Halal Logo Awareness, AHL: Attitude Towards Products with Halal Logo, HLP : The Behavior of Purchasing Products with the Halal Logo)				

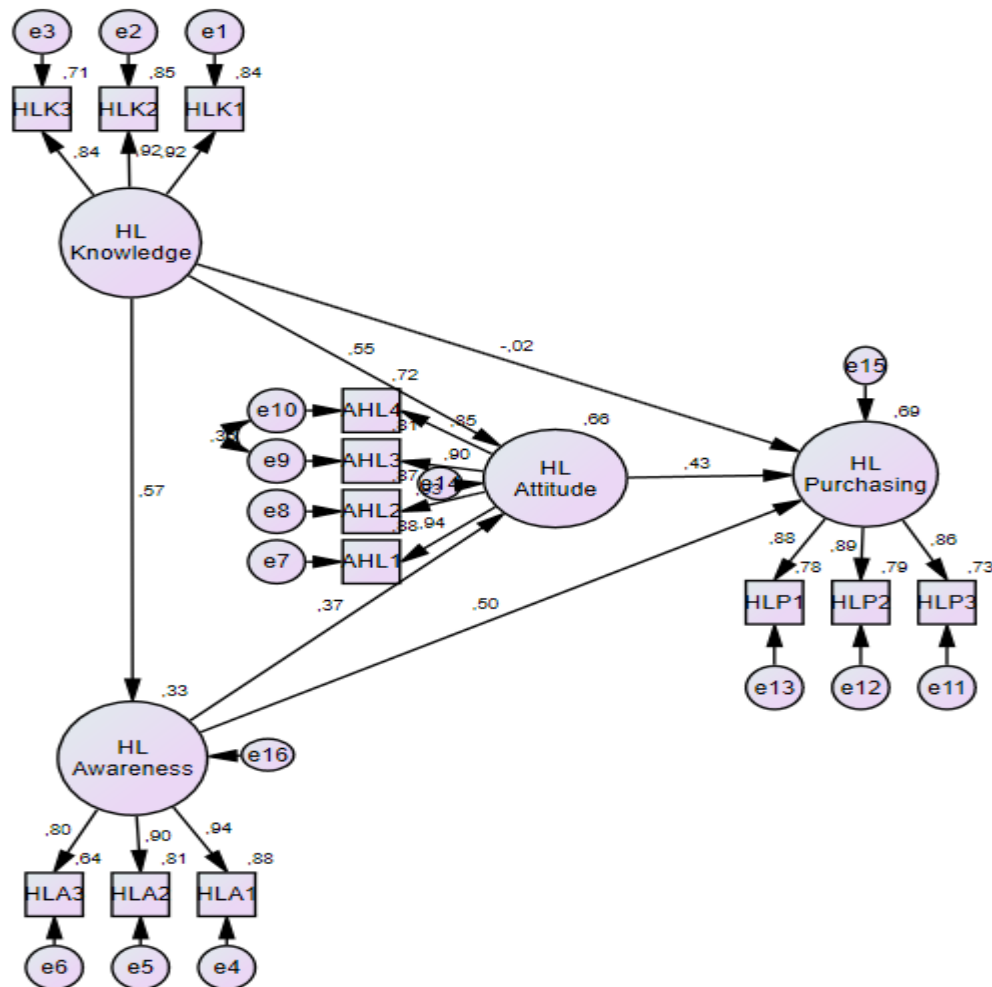
When the data in Table 4 are examined, the correlation coefficients between the structures are found to be less than the square root AVE values. When all of the findings are considered together, it is possible to assert that the scale's construct validity is established.

4.3. Structural Equation Modeling and Testing Hypotheses

According to the results of confirmatory factor analysis, the measurement model was found to be valid. After ensuring the reliability and validity of the measurement model, the structural equation model was used in the second stage. For this purpose, the research model in Figure 1 was tested. The AMOS screenshot of the path analysis of the structural model is given in Figure 2.



Figure 2. Structural Equation Modeling

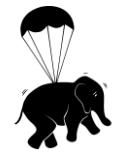


It was determined that the fit indices obtained in the path analysis were at the good fit level. Table 5 shows the fit values and hypothesis test results regarding the structural equation modeling.

Table 5. Table of Hypothesis Tests

Hypothesis	Structural paths	Standardized Regression Weights	p	Supported or not
H1	HL Awareness<---HL Knowledge	0.571	***	Yes
H2	HL Attitude<---HL Knowledge	0.546	***	Yes
H3	HL Attitude<---HL Awareness	0.367	***	Yes
H4	HL Purchasing<---HL Knowledge	-0.025	0.661	No
H5	HL Purchasing<---HL Awareness	0.498	***	Yes
H6	HL Purchasing<---HL Attitude	0.430	***	Yes

Notes: ***p < 0.001 ($\chi^2/df = 3,485$; p = 0.000. GFI = 0.926; AGFI = 0.883; NFI = 0.961; TLI = 0.963; CFI= 0.972; RMSEA = 0.079



When the findings in Table 5 were examined, all hypotheses were accepted except for the H4 hypothesis. While halal logo knowledge had a significant and positive effect on halal logo awareness and attitude towards halal logo product, no significant effect was found on halal logo product purchasing behavior. Halal logo awareness has a significant and positive effect on the attitude towards the product with the halal logo and the purchasing behavior of the product with the halal logo. In addition, it was found that the attitude towards the product with the halal logo has a significant and positive effect on the purchasing behavior of the product with the halal logo.

When R^2 values are analyzed, it is discovered that halal logo knowledge accounts for 33% of halal logo awareness. Halal logo knowledge and awareness variables account for 66% of the attitude toward halal logo products. The rate of explanation for the halal logo knowledge, halal logo awareness, and attitude variables regarding halal logo product purchasing behavior was calculated to be 69%.

5. DISCUSSION and IMPLICATIONS

5.1. Theoretical Implications

The theory of planned behavior (TBP; [Ajzen, 1991](#)) has been used in the literature to ascertain the factors influencing consumer behavior and purchase intention regarding halal foods ([Shah Alam and Mohamed Sayuti, 2011](#); [Ali et al., 2020](#)). The KAP model was used as the theoretical foundation for developing hypotheses in this study. In addition, in line with the findings in the literature, evidence was found that consumers act in direct proportion to their knowledge levels and attitudes ([Abd Rahman et al., 2015](#); [Ahamad and Ariffin, 2018](#); [Kwol et al., 2020](#)). The increased level of knowledge of the consumer will also reduce some perceived risks ([Anam et al., 2018](#)). However, the overlooked point is that the source of this information is not always confirmed. If correct information is obtained from a reliable source, a more accurate purchasing decision can be made ([Abdul et al., 2009](#)). Based on these findings in the literature, considering that the halal logo guarantees an accurate and reliable information source, it can be said that it will help consumers make the right purchase decision. In this respect, it can be said that the KAP model works effectively in terms of consumers' halal logo knowledge, attitudes towards products with halal logos, and purchasing behavior ([Ahamad et al., 2018](#); [Bashir, 2019](#); [Kwol et al., 2020](#); [Latiff et al., 2020](#)).

This demonstrates that a consumer's knowledge of the products has an effect on their attitude toward the products or logos as well as their purchasing decisions. Knowledge is a state of awareness, familiarity, and consciousness that is acquired through education and experience. The capacity to perceive, feel, and be conscious of events and objects is referred to as awareness. Halal awareness contributes to the purchase of halal products. Increased awareness among the Muslim population indicates an increase in demand for halal products. Having a halal logo on a product will improve the consumer's attitude toward that product. Being aware of the halal logo entails recognizing it prior to making a purchase decision. Marketers hope to



persuade their target consumer audience by declaring (or disclosing) that their products are halal and Sharia-compliant (Islamic criteria permitted by Islamic law). They believe that halal certification and logos are necessary for this.

The stages of identifying and evaluating alternatives are vital for a better understanding of the consumer's purchasing decision process. Because in these two phases, the consumer's need for knowledge increases. Businesses that provide this knowledge that the consumer needs will have the chance to develop a positive attitude towards their logos with the satisfying knowledge they provide (Hamdan et al., 2013). Because the consumer who has access to knowledge will answer the questions in his mind and reduce some of the risks he perceives. In addition, they will sympathize with the idea that the logo is transparent and reliable. The knowledge that the consumer needs may be the technical features of a product, its content, the way of use, warranty conditions, etc. Muslim consumers, on the other hand, need knowledge about whether food products are halal when they go to a non-Muslim country (Hamdan et al., 2013). The easiest way to meet this need for knowledge is to look at the halal logo on the packaging of the product or to read the explanations that it is halal or to believe the verbal declaration of a Muslim manufacturer or seller (Abdul et al., 2009). However, in cases where this dialogue cannot be realized, the knowledge on the packaging is a savior. In recent years, as the consumption of prepared and packaged foods has increased as a result of urbanization, the importance of the knowledge on the packaging has increased (Yunus et al., 2014). A halal certificate, which is a form of trust, certifies that a product contains halal ingredients (Shaari et al., 2019). Religious belief has an impact on people's lifestyles, daily decisions, and consumption patterns. Halal logo awareness is inextricably linked to people's halal logo knowledge and religious belief levels. Consumers who are aware of the halal logo understand that halal certificates imply a commitment to safe production practices. As a result, he views halal foods as more secure, hygienic, delectable, and of superior quality (Hashim, 2009).

5.2. Managerial Implications

This study will assist marketing managers and halal food manufacturers in gaining a better understanding of the purchasing attitudes and behaviors of foreign Muslim consumers living in Muslim countries toward halal logo products. Numerous manufacturers in Muslim-majority countries are exempt from using the halal logo, even if their products meet the halal requirements. However, given the growing awareness of halal in recent years, the use of a logo should be prioritized. Certain logos emphasize the halal logo and dispel any doubts about the product's halal status. Thus, the risk perceived by the consumer against the logo and the product is eliminated as long as the consumer is certain that the product is halal. When a consumer sees the halal logo, they gain confidence in it because their doubts about the product and perceived risks are allayed. This lack of trust in logos can result in a negative attitude toward logos and a decrease in purchase intention. In this case, logos that incorporate the halal logo are perceived as halal, whereas logos that do not incorporate the halal logo are perceived as not halal, despite



the fact that they are. In this situation, Logos should complete the necessary halal certifications by not disregarding consumer demands in this direction.

Due to the fact that the logos and markings on the packaging are universal, they serve as an excellent source of knowledge and direction for foreign consumers. When consumers believe that halal-certified products are necessary for their well-being, their desire to purchase them increases. Thus, the halal logo can be used to promote the product. The halal logo plays a critical role in shaping consumer attitudes, intentions, and behaviors regarding food shopping as a means of informing and reassuring. In light of Muslim consumers' sensitivities, logos should make halal logos visible.

Muslim consumers often do not pay attention to the halal logo when they go to another Muslim country (Adekunle and Filson, 2020), because they believe that products in a Muslim country are halal (Perdana et al., 2018; Farah, 2021). Participants also believe and trust that the product in a Muslim country like Turkey is halal (Perdana et al., 2018). For this reason, it is thought that they do not pay attention to the halal logo, but it was observed that a segment with higher religious sensitivities pays more attention to the halal logo (Firdaus et al., 2022). It is predicted that the reason for rejecting the H4 hypothesis stems from the answers given by the participants with lower religious sensitivities. However, in samples with a high level of religiosity, it is predicted that the halal logo knowledge of consumers will have a positive and significant effect on the purchasing behavior of halal logo products.

As a result of the study's findings, logos that operate in or export to Muslim consumer markets must display their logos and explanations demonstrating that their products are halal on their products. Thus, he will demonstrate that it is halal and dispel any doubts about its non-halal status. Thus, the logo's halal market share will increase as a result of the increased halal awareness.

6. CONCLUSION

The findings of this study indicate that understanding of halal logos has a substantial effect on halal logo awareness and attitudes toward halal logo products. Additionally, halal awareness has a substantial impact on the attitude toward and purchasing behavior of products bearing the halal logo. Similarly, one's attitude regarding a product with the halal logo has a substantial impact on the product's purchasing behavior.

While halal logo awareness had a substantial effect on other variables, it had no significant effect on the purchasing behavior of halal logo products. Because understanding of halal logos takes both attention and motivation. The consumer's subconscious mind should be programmed to look for the halal logo. Strong incentives are required to get consumers to examine the halal logo. However, because Turkey is a Muslim country and practically all products are halal, the impact of halal logo awareness on purchasing decisions is diminished. Muslim foreign students



in Turkey are unconcerned about the halal logo since they are aware that Turkey is a Muslim country and that its products are halal.

Because Muslim customers are aware that products manufactured in a Muslim country are halal, they frequently overlook the halal logo when visiting another Muslim country. Particularly in a country like Turkey, where the Muslim population exceeds 90%, there is increased faith in the halal status of the items. As a result of this trust, it is believed that foreign Muslim students studying in Turkey ignore the halal logo. Only those with a greater level of halal education, awareness of the halal logo, and religious sensitivity paid more attention to the halal logo. In Muslim-majority nations, the halal logo receives little attention because it is assumed that the products are halal. However, if a person has a high level of halal education, halal logo awareness, and religion, their attention rate increases as well.

6.1. Limitations and Future Research

This study is not without limits. Only behavioral factors influencing the purchasing of halal branded food were considered in the study. The study enrolled a small number of individuals. Due to the absence of a probability-based sampling technique in the research, the findings will be sample-based. This study examined only three variables to ascertain the purchasing behavior of halal branded items at Karabük University, which has the highest number of foreign students in Turkey. Variables such as perceived risk, perceived trust, perceived quality, religiosity, and health awareness may be other factors to be considered in future research. In addition, in future studies, it can be researched which country's products are perceived as more halal among Muslim countries. (For example, are products of Turkish origin perceived as more halal than other products of Muslim origin?).

Another noteworthy feature is the prominence accorded to the halal logo by foreign companies operating in Muslim countries but being based in non-Muslim countries. Such foreign logos feel the need to attach more importance to halal certification and logos than local ones. Because there may be suspicion towards the products of such foreign logos in Muslim markets from time to time (during boycott periods). Foreign brands who wish to dispel these questions about their logos are obligated to demonstrate their halal compliance through both their package explanations and the use of halal logos. Thus, the halal perception, attitude and purchase intention of Turkish consumers towards foreign origin food logos can be investigated in future studies.

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