Role of the Theory of Planned Behavior in Consumer's Willingness to Pay for Halal Logistics: Evidence from Pakistan

Syed M. Fauzan Ali
Research Associate at KASBIT

Dr. Kashif Riaz

Saad Waqas
Lecturer at KASBIT

Sahar Khan
Lecturer at KASBIT

Abstract
Halal logistics is among the major components for manufacturing halal products. However, Halal is found to be a unique concept and involves sumptuous guidelines and implementations, hence it requires a large sum of investment. Moreover, the logistics cost like in any other supply chain is transferred to the end consumer which in turn increases the price of the product. There are various studies conducted on Muslim consumer's behavior towards Halal products, however, Muslim consumer's behavioral intention towards paying the cost for Halal Logistics can still be considered as Novel. Hence, this research made use of the Theory of Planned behavior and considered the three predictors of behavior in the theory i.e. Subjective Norms, Attitude, and Perceived behavioral control along with an additional variable i.e. religiosity to observe the factors that best predict the consumer's inclination to purchase Halal Logistics in Pakistan. Data was collected from 159 respondents from Karachi, Pakistan. Structure Equation Modeling technique was employed in this research using Smart PLS 3. The outcomes of the research revealed that the attitude of the consumer towards Halal and their level of religiosity best predicted the willingness of the consumer to pay for Halal Logistics. It is anticipated that this research will provide a better comprehension of the consumer's behavior towards Halal logistics and it will enable the policymakers to enhance Halal supply chain practices.

Keywords*:* Halal products, supply chain logistics, theory of planned behavior

---

Role of the Theory of Planned Behavior   **43**   **Syed M. Fauzan Ali, Saad Waqas**
in Consumer's Willingness to Pay for Halal   **& Sahar Khan**
Logistics: Evidence from Pakistan

Introduction

In today's world of globalization, the exchange of commodities has been increasing exponentially. And along with the growth in the population of Muslims across the globe, societies have started to consider and consume halal products (Ligte, 2019). Halal is a word of the Arabic Language which means "Permissible to consume", and the concept of halal has gained popularity because of the rise in the Muslim population across the globe (Baharudding, et al., 2015; Salleh, et al., 2014). Diamant, (2019) reported in an article published by Pew Research Center (PRC) that the adherents of the religion Islam living across the globe are approximately 1.8 billion. Gillani, et al., (2017) explained how Halal has become a symbol of standard living and quality assurance for Muslims across the globe as the global market for Halal products is expanding into a leading energy pitch of global finance and commerce. Also, Ngah, et al., (2019) argued that Halal products are assured to be Halal for consumption based on their handling as per the requirements of Shariah within the total chain of practices. Today, Halal is not merely limited to the choice of food, but this concept is now associated with various other areas including cosmetics, Pharmaceutical, banking, and services of logistics such as warehousing and transportation activities (Mukhtar and Butt, 2012). Hence, Halal has now become a major concept within the Muslim community (Gillani, et al., 2017; Ngah, et al., 2019). Therefore, a product certified to be halal should go through complete assessment in the process of manufacturing and should be assessed at every level of the supply chain to certify that it conforms to the laws of Shariah.

Problem Statement

Halal logistics is defined as a practice to prevent contamination of consumable food and raw materials amid the transportation activities and avoid deception to ensure that Muslims receive only the "Halalan Toyibban" products (Tarmizi, et al., 2014). With the rise in demand that comes from the Muslim community for Halal products, logistic service providers are now gradually moving towards Shariah-compliant transportation activities or Halal transportation to establish Halal Supply Chain and ensure that only Halal products are delivered to the customers (Ngah, et al., 2019). Hence, they have started to incorporate Halal transportation services into their business. This can be seen as a wise step because it can further reinforce the trust of the customers (Ngah, A. H., et al. 2018). A guaranteed Halal product is the one that is handled following the guidelines of Shariah across the chain of practices (Muhammad, et al., 2009). Hence, Halal logistics has become a crucial issue that must be addressed to ensure that the Shariah requirements for Halal are met (Baharudding, et al., 2015). Previous studies have confirmed that customers show a willingness to purchase Halal products (Aziz and chok, 2013; Majid, et al., 2015; Ahmed, et al., 2015). However, there are mixed results reported in the literature about the role of the three factors that build up the Theory of Planned Behavior i.e. Subjective Norms, Attitude, and Perceived Behavioral Control in predicting consumer's behavioral intention (Bashir, et al., 2019; Afendi, et al., 2014). Moreover, religiosity is also found to play its part in stimulating consumer behavioral intention towards purchasing Halal products or services (Abou-Youssef, et al., 2015).

Hence, it is imperative to examine whether consumers will be willing to pay for "Halal Logistics" and what factors would best predict their behavioral intention to pay for such services. Also, only a few studies have examined consumer's behavioral intention to

Role of the Theory of Planned Behavior   **44**   **Syed M. Fauzan Ali, Saad Waqas**
in Consumer's Willingness to Pay for Halal   **& Sahar Khan**
Logistics: Evidence from Pakistan

purchase Halal transportation service by incorporating the Planned Behavior Theory with an additional variable i.e. religiosity (Ngah, et al., 2019). Consequently, this study aims to address the gap by examining those factors that best predict the willingness to pay for Halal Logistics among the Muslim consumers of Pakistan.

Research Aim and Objectives

To address the gap about consumer's behavioral intention to purchase Halal logistic services and the determinants that best predict this behavior. This study aims to make use of the Planned Behavior Theory (TPB) and examine the governing factors that determine the Pakistani consumer's behavioral intention and inclination to purchase Halal Logistics.

The study aims to address the following Objectives:

- To investigate the role of the Planned Behavior Theory (TPB) in the customer's inclination to pay for Halal Logistics
- To examine the impact of religiosity on customer's inclination to pay for Halal Logistics
- To identify the factors that best predict consumer's intention to pay for Halal Logistics among Muslims of Pakistan

Research Questions

The research study will answer the following research questions:

To what extent does the theory of planned behavior play a role in predicting the customer's inclination to purchase Halal Logistic services amongst the Muslims of Pakistan?

To what extent does religiosity predict the customer's inclination to pay for Halal Logistics among the Muslims of Pakistan?

Scope of the Study

It is anticipated that the findings of this research will function as a benchmark in redefining the Halal practices, especially for the Halal logistic service manufacturers and providers of Halal products in the future.

Literature Review

This chapter will begin with the collected works on the Planned Behavior Theory which has been adopted in this study. Further, the literature will continue with the empirical review on independent and dependent variables adopted in the research. The literature will end with the theoretical development of the hypotheses.

Theoretical Background

"Planned Behavior Theory" is a commonly used notion to elucidate consumer conduct at a discrete level (Han, et al., 2017). This theory began as a reasoned action theory in the year 1980 which was used to predict a customer's intent to engage in a specific behavior at a specific place and time. The theory explains all the behaviors on

Role of the Theory of Planned Behavior   45   **Syed M. Fauzan Ali, Saad Waqas**
in Consumer's Willingness to Pay for Halal   **& Sahar Khan**
Logistics: Evidence from Pakistan

which an individual can exercise self-control. Also, the theory argues that behavioral achievements rely on "motivation (intention) and ability (behavioral control)" (Madden, et al., 1992). According to Ajzen, (1991) the theory has three major constructs which are subjective norms, perceived behavioral control, and attitude (p. 182). The central factor in the theory is the intention or the willingness to indulge in the behavior which assumes the motivational factors that serve as a trigger. They indicate the level of effort of a person, how hard an individual is willing to perform that behavior. If the intention or willingness to indulge in the behavior is strong then its performance will also be stronger (Armitage and Christian, 2017).

The versatility of this theory comprising of subjective norms, attitudes, and perceived behavioral control makes the Planned Behavior Theory (TPB) applicable in a diverse field of works (Ngah, et al., 2018). Attitude is defined as the consumer's feeling of favorableness or disapproval towards a certain behavior which is based on his assessment and judgment of that particular behavior (Billows and McNeill, 2018). Likewise, subjective norms are defined as the belief that a particular group of persons (i.e. the society) will support or approve a specific behavior. They are identified utilizing the perceived social pressure from the group of people for an individual to act in a specific way, and that individual's motivation to fulfill with the views of these people (Minton, et al., 2018). Meanwhile, "perceived behavioral control" denotes to the person's perception of self-ability to perform a specific behavior which is identified by the aggregate set of available control beliefs, i.e. perception regarding the availability of the factors that may assist or hinder the performance of the behavior (Johe and Bhullar, 2016). Although the notion is set with these 3 constructs, however, Ajzen argued that other constructs can also be equated into the study to enhance the expounded variance of the endogenous variables (Ajzen, 1991).

Theoretical Development of Hypotheses
Consumer Attitude and Consumer Willingness to Pay

Attitude is a major predictor of consumer's willingness to purchase, and the relationship between attitude and consumer intention is found to be positive and significant by numerous scholars including Billows and McNiell, (2018), Shin, et al., (2018), and Othman and Kamarohim, (2016). Also, Sharma and Kushwaha, (2018) discovered that the consumer's attitude has a significant and positive association with the consumer's purchase behavior. Similarly, Yeo, et al., (2017) revealed that customer attitude has a significant and positive relationship with the consumer's behavioral intention towards the purchase of online products. Conclusively, attitude influences the consumer's willingness to pay for a product or service. Attitude is based on a consumer's awareness and belief regarding a specific product or a service, which is an outcome of the information integration process, and in due course, it impacts the consumer's aim to behave in a specific manner (Yadav and Pathak, 2016). Moreover, Asri and Ngah, (2018) argued that a positive attitude score will straight away influence the willingness of the consumer to perform a specific behavior. Conclusively, the subsequent hypothesis has been established.

H₁: Consumer Attitude has a substantial positive effect on Consumer's willingness to pay for Halal Logistics

Role of the Theory of Planned Behavior   46   **Syed M. Fauzan Ali, Saad Waqas**
in Consumer's Willingness to Pay for Halal   **& Sahar Khan**
Logistics: Evidence from Pakistan

Subjective Norms and Consumer Willingness to Pay

Ajzen, (1991) explains subjective norm as the pressure from the society to perform or to avoid a specific behavior and stated that subjective norm is the key factor in the Planned Behavior Theory. The normative social influence may be from friends, colleagues, family, relatives, or other important groups (Bashir, et al., 2019). Moreover, Dean, et al (2012) argued that consumer's willingness to perform a certain behavior is substantially affected by subjective norms such as friends and members of the family. Divya and Nakkeeran, (2018) empirically observed the mediating influence of subjective norms, perceived awareness, and health consciousness on customer's inclination to purchase functional food products. The study concluded that subjective norms have a constructive correlation with the consumer's willingness to purchase functional foods. Moreover, the study also revealed a substantial positive connection between perceived awareness and consumer's behavioral intention. However, Bashir, et al., (2019) did not find any significant positive relationships between subjective norms and consumer willingness to purchase. Nonetheless, Afendi, et al., (2014) revealed that all three factors i.e. subjective norms, perceived behavioral control, and attitude had a significant and positive connection with consumer's willingness to pay for halal products. Therefore, the research study hypothesized that:

H₂: **Subjective Norms have a significant positive impact on consumer's willingness to pay for Halal Logistics**

Perceived Behavioral Control and Consumer Willingness to Pay

Dinc and Budic, (2016) argued that perceived behavioral control affects the behavior and intention both indirectly and directly through behavioral intention. Perceived Behavioral Control is comprised of three factors which include availability, controllability, and ability (Kiriakidis, 2017). Moreover, Ajzen, (2005) argued that consumers should maintain a specific level of control to gain self-confidence in performing behavioral intentions. Hence, through the combination of perceived behavioral control and intention one can predict the behavior of an individual (Dinc and Budic, 2016; Ajzen, 2005). Hoeksma, et al., (2017) argued that perceived behavioral control, subjective norms, personal norms, and attitude together determine the maximum percentage of consumer's willingness to purchase. Likewise, Shin, et al., (2018) concluded that perceived behavioral control, subjective norms, attitude, and personal norms were the best predictors of consumer's behavioral intention to pay for a product or service. Conclusively, the study hypothesized that:

H₃: Perceived Behavioral Control has a significant positive impact on Consumer's Willingness to Pay for Halal Logistics

Consumer Religiosity and Consumer Willingness to Pay

Religiosity can be defined as a person's belief in GOD which is characterized by his piousness and religious enthusiasm (Mokhlis, 2020). Being a major subdivision of human values, religion offers personal and social identity under the perspective of a cosmic or metaphysical background. It affects how individuals consider their purpose in life, and what they consider as their responsibility towards others, towards GOD, and to themselves (Agarwala, et al., 2019). Hence, it is argued that religion has a significant

Role of the Theory of Planned Behavior   47   **Syed M. Fauzan Ali, Saad Waqas**
in Consumer's Willingness to Pay for Halal   **& Sahar Khan**
Logistics: Evidence from Pakistan

influence on the customer's behavioral intention which heavily relies on the individual's level of religiosity or the significance of religion in the life of an individual (Nasse, et al., 2019). Mukhtar and Butt, (2012) reported a substantial positive influence of attitudes, subjective norms, and religiosity on the customer's intent towards purchasing Halal products. Similarly, Rahman, et al., (2015) empirically examined the impact of awareness regarding religious matters on the consumer's intent to procure Halal cosmetics. Their study reported a significant constructive association between consumer's attitude and religiosity and customer's intent to purchase halal cosmetic products. Likewise, Othman and Kamarohim, (2016) empirically examined the effects of religiosity, country of origin, attitude, and level of confidence on the consumer's intention to purchase Halal products in Malaysia. Their study reported a significant positive relationship between religiosity and the consumer's intention to purchase halal products. Moreover, the country of origin, level of confidence, and attitude also had significant positive relationships with consumer's intent to pay for halal products in Malaysia. Hence, the study suggested that religiosity is a major factor that should be taken into account when promoting Halal products.

Therefore, the study hypothesized that:

H₄: **Religiosity has a significant positive impact on Consumer's Willingness to Pay for Halal Logistics**

Conceptual Model
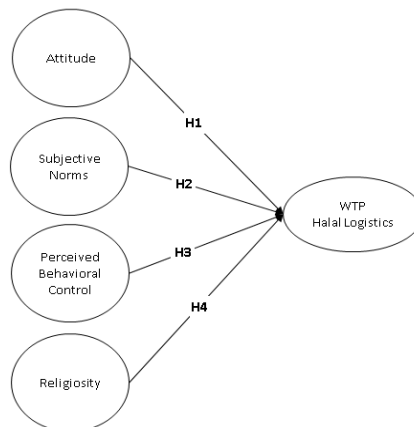
Methodology
This section of the study demonstrates the adopted methodology through which the research has been conducted.

Research Purpose
An explanatory research purpose was utilized in this study. The reason to choose an explanatory research purpose was to enable the researcher to examine the interconnected

Role of the Theory of Planned Behavior   **48**   **Syed M. Fauzan Ali, Saad Waqas**
in Consumer's Willingness to Pay for Halal   **& Sahar Khan**
Logistics: Evidence from Pakistan

relationships between the variables of the construct (Quinlan, et al., 2019). Hence, the explanatory research purpose aligned with the aim of the research study. The research proposed the effect of subjective norms, perceived behavioral control, attitude, and religiosity on consumer's behavioral intention to purchase Halal Logistic services. Hence, the outcome of the research helped Halal logistics service providers and Halal Manufacturers to further improve the Halal chain of practices and ensure strong consumer trust.

Research Approach

The research study had adopted a quantitative approach to research to inspect the association amid the variables of the construct (Bell, et al., 2018). The connection of subjective norms perceived behavioral control, and attitude with a customer's inclination to pay for Halal logistics highlighted the importance of the Planned Behavior Theory (TPB) (Ajzen, 1991). In the approach adopted by the study Subjective Norms, Attitude, Perceived Behavioral Control, and Religiosity played a significant role in driving the consumer's inclination to pay for Halal logistics. Furthermore, a deductive approach was adopted where hypotheses are developed through the literature and then data was collected to test the validity of the hypotheses (Bryman & Bell, 2015).

Research Design

A correlational research design was embraced by the study. The reason to choose a correlational research design was to enable the researcher to examine the impact that one variable has over another (Bell, et al., 2018). Furthermore, a survey-based research design was adopted to collect the data. The study was conducted in Karachi Pakistan, and data was collected from Muslim consumers living in Karachi.

Sampling Technique

Purposive sampling was employed by the research study. This technique allowed the researcher to draw the sample from the population-based on self-judgment and the need for the study (Quinlan, et al., 2019). The study had been conducted in Karachi Pakistan and only Muslim consumers were considered to participate in the study. A questionnaire was dispersed to the participants online using social media platforms such as LinkedIn and Facebook.

Sample Size

The targeted populace for this study was Muslim Consumers living in the City Karachi. The selected sample size for the research study comprised of 159 respondents. According to Tabachnick & Fidell, (2001) a sample size of 150 respondents is deemed suitable to conduct Structured Equation Modeling. Also, Ngah, et al. (2014) and Ngah, et al., (2019b) confirmed that a sample size of fewer than 200 subjects is deemed acceptable for conducting SEM. The participants had a clear understanding of the Halal and Haram concept in Product manufacturing and its handling across the chain of practices.

Instrument

For this research study, a questionnaire was adopted from Ngah, et al., (2019). The questionnaire comprised of two sections, where the first section dealt with the profile of

Role of the Theory of Planned Behavior   49   **Syed M. Fauzan Ali, Saad Waqas**
in Consumer's Willingness to Pay for Halal   **& Sahar Khan**
Logistics: Evidence from Pakistan

the respondents while the second section measured the endogenous and exogenous variables on a Seven-point Likert scale (Bell, et al., 2018). Furthermore, the reliability of the instrument was tested through Cronbach's Alpha. The inter-item correlation was assessed using Cronbach's Alpha to analyze whether the items on the questionnaire provide consistent and appropriate results which confirmed the reliability of the instrument (Hair, et al., 2014).

Statistical Technique

To conduct this research study a structured equation modeling technique had been employed using Smart PLS software. Structure equation modeling allowed the researcher to examine the structural relationships among the latent variables of the research framework (Yang, 2018). Furthermore, the research had employed a non-parametric technique called bootstrapping, which enabled the researcher to evaluate the statistical significance of the path coefficients which pointed out the probable connections between the variables in the structured equation model (Hair et al. 2012). Likewise, the reliability and validity of the research framework had been tested through reliability and validity assessments at both the construct and individual indicator level (Hair, et al., 2014).

Ethical Consideration

Ethical concerns were fully taken to account during the collection of data. All respondents were ensured complete anonymity when gathering responses and the collected information was used solely for this research. Hence, privacy was guaranteed to the participants.

Data Analysis

This section of the study presents the analysis of the data and interpretation of the results.

Role of the Theory of Planned Behavior   **50**   **Syed M. Fauzan Ali, Saad Waqas**
in Consumer's Willingness to Pay for Halal   **& Sahar Khan**
Logistics: Evidence from Pakistan

Respondent Profile

Table 1: Profile of Respondents

To conduct this study, a total of 200 surveys were dispersed among the population using

Variables	Category	Frequency	Percentage
Gender	Male	143	89.90
	Female	16	10.10
	Total	159	100
Age	18-22	17	10.70
	23-30	46	28.93
	31-40	54	33.96
	41-50	29	18.24
	>50	13	8.17
	Total	159	100
Qualification	Secondary	5	3.14
	Diploma	12	7.57
	Bachelors	47	29.55
	Masters	91	57.23
	Post-Doctoral	4	2.51
	Total	159	100
Income	Less than 25,000	35	22.01
	25,000-35,000	78	49.05
	35,000-50,000	36	22.65
	50,000 and above	10	6.29
	Total	159	100

LinkedIn and Facebook. A total of 159 responses were received of which 89% were males and approximately 10% were females. Hence, in this study, the male participants were significantly higher in number as compared to female participants. Likewise, 33.9% of the participants were aged between 31 and 40. Whereas, 28.9% were aged somewhere between 23 and 30. Only a few participants were above 50 i.e. 8.17% and in the same way a few participants were younger than 22 i.e. 10.7%. Participants who were aged between 41 and 50 were 18.24%. The level of participant's qualification was also considered in this study. Among the 159 respondents, 57.23% of the participants owned a master's degree. Similarly, 29.55% were bachelors while only a few participants were diploma holders and a few owned a post-doctorate degree. Lastly, the level of participant's income was also considered and results show that a major portion of the sample i.e. 49% had an income level between 25,000 and 35,000. The participants whose income level was below 25,000 and those respondents whose level of income was

**Role of the Theory of Planned Behavior
in Consumer's Willingness to Pay for Halal
Logistics: Evidence from Pakistan**

51

**Syed M. Fauzan Ali, Saad Waqas
& Sahar Khan**

somewhere between 35,000 and 50,000 were more or less equal in number i.e. 22.01% and 22.65% respectively. Only a few participants i.e. 6.29% had an income level beyond 50,000.

Evaluation of the Outer Model

Table 2: Outer Loadings

	Attitude	Perceived Behavioral Control	Religiosity	Subjective Norms	WTP Halal Logistics
A1	0.802				
A2	0.793				
A3	0.819				
A4	0.807				
A5	0.818				
PBC1		0.871			
PBC2		0.828			
PBC3		0.854			
PBC4		0.785			
R1			0.893		
R2			0.868		
R3			0.919		
R4			0.897		
R5			0.912		
SN1				0.838	
SN2				0.898	
SN3				0.926	
WTP1					0.916
WTP2					0.920
WTP3					0.913

The results in Table 2 illustrate the combined outer loadings which reflect the reliability of all the constructs in the model (Hair et al. 2014). The results show that all the outer loadings are on their respective items, and their value is greater than 0.70. Hence, the criterion for outer loadings has been established (Fornell & Larcker, 1981).

Convergent Validity

Table 3: Convergent Validity

	CA	CR	AVE
Attitude	0.868	0.904	0.652
Perceived behavioral Control	0.855	0.902	0.698
Religiosity	0.940	0.954	0.806
Subjective Norms	0.865	0.918	0.789
WTP Halal Logistics	0.905	0.940	0.840

Role of the Theory of Planned Behavior
in Consumer's Willingness to Pay for Halal
Logistics: Evidence from Pakistan
52
Syed M. Fauzan Ali, Saad Waqas
& Sahar Khan

The research further examined the convergent validity to quantify whether the two measures of the construct that ought to be related theoretically are correlated (Hamid, et al., 2017). Table 3 illustrates that the Average Variance extracted values are greater than the threshold value i.e. 0.50 for all the latent variables of the construct. Moreover, the values of Cronbach's alpha and Composite Reliability which are greater than the threshold value of 0.70 for all the latent variables are deemed acceptable (Hair et al. 2012). The values of Cronbach's Alpha indicate that the Inter-Item correlation is high which confirms the reliability of the instrument. Furthermore, these values also indicate that convergent validity has been established.

Discriminant Validity
Fornell and Larcker Criterion

Table 4: Fornell & Larcker Criterion

	Att	**PBC**	**R**	**SN**	**WTP**
Att	**0.808**				
PBC	0.722	**0.835**			
R	0.823	0.754	**0.898**		
SN	0.780	0.730	0.856	**0.888**	
WTP	0.768	0.707	0.838	0.770	**0.916**

For discriminant validity, the first criterion used is the Fornell and Larcker criterion which is among the most commonly used approaches to observe the discriminant validity of the construct. The assessment ensures that the reflective construct has a highly strong relationship with its respective indicators (Hair et al. 2012). Using this method, the square root of the Average variance Extracted was equated with the correlations of the latent construct and ensure that the square root of the AVE for each variable is greater than the correlations of the other latent variables (Hair et al. 2014). AVE in table 4 is shown in diagonal, and results reveal that discriminant validity under the Fornell and Larcker criterion has been established.

HTMT Criterion

Table 5: HTMT Criterion

	Att	**PBC**	**R**	**SN**	**WTP**
Att	-				
PBC	0.823	-			
R	0.868	0.839	-		
SN	0.894	0.847	0.849	-	
WTP	0.857	0.801	0.838	0.870	-

The second criterion used in the study to examine discriminant validity is identified as the heterotrait-monotrait ratio of correlations (HTMT). This criterion is commonly known as the building block for the evaluation of the model (Henseler, et al., 2015). The values in Table 5 are below the threshold value of 0.90 which indicates that discriminant validity under the HTMT criterion has also been established (Hamid, et al., 2017).

Role of the Theory of Planned Behavior   53   **Syed M. Fauzan Ali, Saad Waqas**
in Consumer's Willingness to Pay for Halal   **& Sahar Khan**
Logistics: Evidence from Pakistan

The Blindfolding Test

Table 6: Blindfolding Test & Quality Criteria

R^2, Adjusted R^2 & Stone-Giesser's Test (Q^2)

	R^2	Adjusted R^2	Q^2 (=1-SSE/SSO)
Attitude			
Perceived Behavioral Control	-	-	0.473
Religiosity	-	-	0.487
Subjective Norms	-	-	0.699
WTP Halal Logistics	0.731	0.724	0.550

In the further steps of the analysis estimation relevance of the Path Model was examined using the blindfolding technique through Smart PLS. Under blindfolding, Stone-Giesser's test was considered to estimate the relevance of the path model. Table 6 reveals that the Q^2 values for all the latent variables were greater than the threshold value '0' which indicates that the model has estimation relevance (Ringle, et al., 2015). Furthermore, R^2 and Adjusted R^2 were considered, and the results reveal that more than 70% of the variation in the output variable i.e. Willingness to Pay for Halal Logistics is explained by all the predictor variables in the construct (Hair et al. 2012).

Structured Model Testing

Table 7: Path Coefficients

Mean, STDEV, T-Values, P-Values

	SRW	P Values	Remarks
Attitude -> WTP Halal Logistics (H1)	1.995	0.046*	Significant
Subjective Norms -> WTP Halal Logistics (H2)	0.855	0.393	Insignificant
Perceived behavioral Control -> WTP Halal Logistics (H3)	1.359	0.174	Insignificant
Religiosity -> WTP Halal Logistics (H4)	4.442	0.000***	Significant

The final step of the examination is to inspect the validity of the hypotheses of this study. Therefore, a non-parametric method was used which is known as bootstrapping. The bootstrapping technique enables the researcher to examine the structured framework using 5000 replications and allows evaluating the path coefficients which are used to assess the causal relationships among the latent variables (Hair, et al., 2014). We hypothesized that the three predictors in the Planned Behavior Theory i.e. Perceived

Role of the Theory of Planned Behavior   54   **Syed M. Fauzan Ali, Saad Waqas**
in Consumer's Willingness to Pay for Halal   **& Sahar Khan**
Logistics: Evidence from Pakistan

Behavioral control, Subjective Norms, and Attitude along with an additional variable i.e. religiosity had a substantial and positive impact on the Customer's inclination to purchase Halal Logistic services in Pakistan. In table 7, the estimated P values indicate the significance or insignificance of the postulated hypotheses. Any value below the common threshold value of 0.05 is deemed acceptable and confirms the validity of the hypothesis (Hair, et al., 2012).

The results have revealed that Hypotheses 1 and 4 have been accepted because their respective P-value is less than 0.05. This implies that only religiosity and Attitude have a positive and substantial impact on Pakistani Muslim consumer's willingness to pay for Halal Logistics. Whereas, Hypothesis 2 and 3 were rejected because their P-value was estimated to be greater than 0.05, which means that Subjective Norms and Perceived Behavioral Control do not play a significant role in the study. Hence, this study indicates that consumer Attitude and their level of Religiosity are the top most predictors of consumer's inclination to purchase Halal Logistic services in Pakistan.

Figure 1: Bootstrapping (Estimated Model)
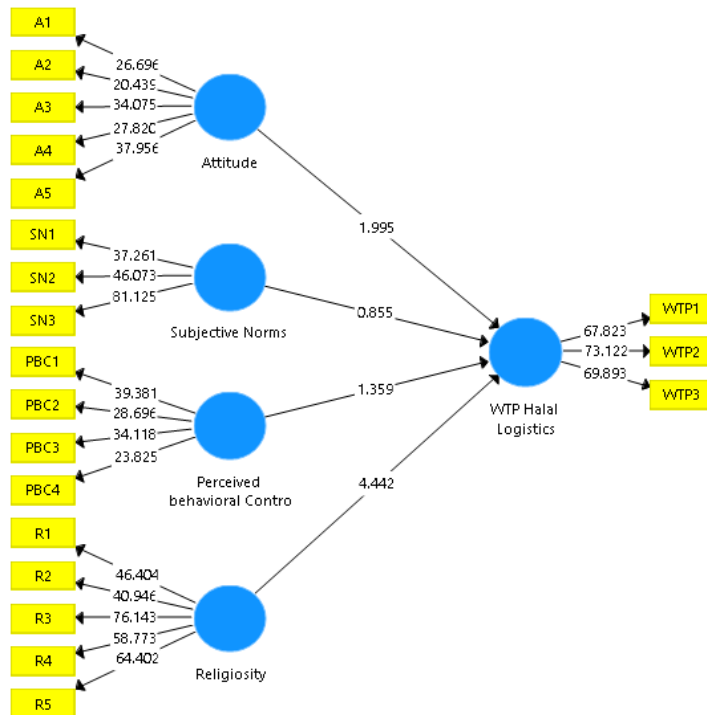
Discussion

The literature provides evidence that Halal has become a major concern for the Muslim community today. The concept of Halal is not only limited to the selection of food, but today this concept is applied to other areas as well such as Cosmetics, Pharmaceutical, and transportation of goods (Muhammad, et al., 2009). Muslims demand Shariah-Compliant transportation of goods and expect that logistic service providers ensure that only Halal products are delivered to the customers. Hence, this requires Shariah compliance throughout the chain of practices (Baharudding, et al., 2015).

Role of the Theory of Planned Behavior   55   **Syed M. Fauzan Ali, Saad Waqas**
in Consumer's Willingness to Pay for Halal   **& Sahar Khan**
Logistics: Evidence from Pakistan

Previous studies have applied the planned behavior theory to predict consumer's intention to purchase using the three major predictors of behavior i.e. perceived behavioral control, subjective norms, and attitude (Yeo, et al., 2017; Bashir, et al., 2019; Shin, et al., 2018). However, mixed results were identified. Consequently, it was imperative to examine whether these factors predicted the consumer's inclination to pay for Halal Logistics in Pakistan. Hence, the theory of planned behavior (Ajzen, 1991) was applied in this study, and the three constructs of the theory i.e. Attitude, subjective norm, and Perceived Behavioral Control were considered, and an additional variable was added to the framework i.e. religiosity to examine to what extent these factors predicted the Pakistani consumer's willingness to pay for Halal Logistics.

Our findings revealed that Customer Attitude has a significant and positive impact on consumer's inclination to pay for Halal Logistics. Attitude is derived through consumer's awareness and belief regarding a specific product or a service and is an outcome of the information integration process. In due course, it impacts the consumer's aim to behave in a specific manner (Yadav and Pathak, 2016). Pakistani consumers demonstrate a positive score of attitude towards the Halal Logistics Service, which in turn influence their behavioral intention towards paying the Halal Transportation cost. Hence, Attitude is found to be the best predictor of consumer's willingness to pay for Halal Logistics in Pakistan. These findings are congruent with the findings of Sharma and Kushwaha, (2018) that identified the same results in the context of consumer's attitudes towards eco-labeling and green purchase behavior. Moreover, our findings also agree with Yeo, et al., (2017) and Billows and McNiell, (2018) who identified that consumer's attitudes positively influenced consumer's purchase behavior. Similarly, our findings identified that religiosity played a substantial role in predicting consumer's purchase intention towards Halal Logistics. Customers who had a high level of religiosity and awareness regarding Halal matters were more inclined towards paying for Halal Transportation. These findings are also congruent with Mukhtar, and Butt, (2012), Rahman, et al., (2015), and Kamarohim, (2016) who identified the role of consumer's religiosity in predicting consumer's purchase behavior towards Halal products.

However, our study did not find any positive relationship between Subjective norms and consumers' inclination to purchase Halal Logistic services. This indicates that the normative influence of groups such as friends or family members do not play a role in stimulating the behavioral intention towards paying for Halal Logistics among the consumers of Pakistan. Likewise, the connection between Perceived Behavioral Control and customer's inclination to pay for Halal logistics was also found to be insignificant. Both these findings are congruent with the findings of Bashir, et al., (2019) whose results also exhibited an insignificant role of perceived behavioral control and subjective norms in predicting consumer's willingness to purchase Halal products in the context of South Africa. Conclusively, our findings suggest that the attitude of customers towards Halal and their level of religiosity would best predict consumer's inclination to pay for Halal Logistics. Moreover, the consumer's level of religiosity has the highest level of influence on the consumer's behavioral intention towards paying the Halal logistics cost. Hence, their religiosity level shapes their attitude towards Halal (Agarwala, et al., 2019) which in turn motivates the customer to pay for Halal Logistics in Pakistan.

Role of the Theory of Planned Behavior
in Consumer's Willingness to Pay for Halal
Logistics: Evidence from Pakistan

56

Syed M. Fauzan Ali, Saad Waqas
& Sahar Khan

Conclusion & Recommendation
Conclusion

The study revealed that consumer's attitudes towards Halal and Consumer's level of religiosity play a substantial role in identifying the customer's inclination to pay for Halal Logistics in Pakistan. Hence, Halal logistics service providers and as well as Halal Manufacturers should focus on these two factors when developing a strategy to enhance customer's inclination to pay the Halal logistics cost. Halal has become a very important and sensitive issue for the Muslims as their demand for halal products is increasing rapidly. Moreover, with the increase in the awareness of the concept of Halal, this notion which was previously limited to the selection of food has now become a major concern in various products and services. Consequently, Halal logistic service providers should ensure Shariah compliance throughout the chain of practices to avoid contamination and deliver only Halal products to Muslim consumers. Hopefully, this study will help the relevant parties to conduct various sessions or discussions and further generate awareness regarding the concept of Halal logistics in Pakistan. Furthermore, this study could also help the policymakers to predict consumer behavior towards Halal Logistics and enhance their business strategies by ensuring Shariah compliance to better serve Muslim consumers.

Future Directions

There are a few limitations to the study. The study is limited to time constraints and Data was gathered from consumers living in Karachi, future research can consider gathering data from consumers living across the country. Moreover, the study was focused on identifying the factors that govern customer's inclination to purchase Halal logistic services in Pakistan only. Future studies can focus on a comparative analysis of different countries or regions to observe the factors that affect consumer's behavior towards Halal logistics. Finally, it is recommended that future research should consider adding other additional variables such as personal norms to the framework to further enhance the expounded variance of the endogenous variables. Hopefully, this study will positively contribute to the Halal studies and further enhance the concept of Halal.

References

Abou-Youssef, M. M. H., Kortam, W., Abou-Aish, E., & El-Bassiouny, N. (2015). Effects of religiosity on consumer attitudes toward Islamic banking in Egypt. *International Journal of Bank Marketing*. *33*(6), 786-807

Afendi, N. A., *et al*. (2014). Determinants of halal purchase intention: case in Perlis. *International Journal of Business and Social Research*, *4*(5), 118-123

Agarwala, R., *et al*. (2019). Religiosity and consumer behavior: A summarizing review. *Journal of Management, Spirituality & Religion*, *16*(1), 32-54

Ahmad, A. N., *et al*. (2015). Assessing awareness and religiosity on consumer behavior towards halal food and cosmetic products. *International Journal of Social Science and Humanity*, *5*(1), 10

Aji, H. M. (2017). Examining the moderating role of high-versus-low skepticism toward Halal labels: findings from Indonesia. *International Journal of Islamic Marketing and Branding*, *2*(4), 278-303

Role of the Theory of Planned Behavior   57   **Syed M. Fauzan Ali, Saad Waqas**
in Consumer's Willingness to Pay for Halal   **& Sahar Khan**
Logistics: Evidence from Pakistan

Ajzen, I. (1991). The Planned Behavior Theory. *Organizational behavior and human decision processes*, *50*(2), 179-211

Ajzen, I. (2005). *Attitudes, personality, and behavior (2nd ed.)*. Berkshire, England: Open University Press. McGraw-Hill Education (UK)

Armitage, C. J., & Christian, J. (2017). *From behavior attitudes: Basic and applied research on the Planned Behavior Theory. In Planned Behavior (pp. 1-12)*. Routledge

Asri, N. M., & Ngah, A. H. (2018). Contributing Factors of Consumer Willingness to Pay For Halal Transportation Cost. *Advances in Transportation and Logistics Research*, *1*(1), 838-850

Aziz, Y. A., & Chok, N. V. (2013). The role of Halal awareness, Halal certification, and marketing components in determining Halal purchase intention among non-Muslims in Malaysia: A structural equation modeling approach. *Journal of International Food & Agribusiness Marketing*, *25*(1), 1-23

Baharuddin, K., *et al*. (2015). Understanding the halal concept and the importance of information on halal food business needed by potential Malaysian entrepreneurs. *International Journal of Academic Research in Business and Social Sciences*, *5*(2), 170-180

Bashir, A. M., *et al*. (2019). Factors affecting consumers' intention towards purchasing halal food in South Africa: a structural equation modeling. *Journal of Food Products Marketing*, *25*(1), 26-48

Bell, E., *et al*. (2018). *Business research methods*. Oxford university press

Billows, G., & McNeill, L. (2018). Consumer attitude and behavioral intention toward collaborative consumption of shared services. *Sustainability*, *10*(12), 4468

Bryman, A., & Bell, E. (2015). *Business Research Methods (Vol. fourth)*. Glasgow: Bell & Bain Ltd

Dean, M., *et al*. (2012). The role of self-identity, past behavior, and their interaction in predicting intention to purchase fresh and processed organic food. *Journal of Applied Social Psychology*, *42*(3), 669–688

Diamant, J., (2019). *The countries with the 10 largest Christian populations and the 10 largest Muslim populations*. [Online], Available at https://www.pewresearch.org/fact-tank/2019/04/01/the-countries-with-the-10-largest-christian-populations-and-the-10-largest-muslim-populations/ (Thursday, March *26*, 2020)

DINC, M. S., & Budic, S. (2016). The impact of personal attitude, subjective norm, and perceived behavioral control on entrepreneurial intentions of women. *Eurasian Journal of Business and Economics*, *9*(17), 23-35

Divya, M., & Nakkeeran, S. (2018). The mediating effect of perceived awareness, subjective norms, health consciousness on willingness to consume functional foods in India. *TAGA J. Graph. Technol*, *14*, 1101-1120

Fathi, E., *et al*. (2016). Drivers of consumers' willingness to pay for halal logistics. *British Food Journal*, *118*(2), 464-479

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of marketing research*, *18*(1), 39-50

Role of the Theory of Planned Behavior   **58**   **Syed M. Fauzan Ali, Saad Waqas**
in Consumer's Willingness to Pay for Halal   **& Sahar Khan**
Logistics: Evidence from Pakistan

Gillani, S., *et al*. (2017). Factors Reinforcing Pakistan Halal Food Industry to be the World Halal Food Hub. *Journal of Education and Social Sciences*, *6*(02), 31-43

Hair Jr, *et al*. (2014). Partial least squares structural equation modeling (PLS-SEM). *European business review*, *26*(2), 106-121

Hair, J. F., *et al*. (2012). Partial least squares: the better approach to structural equation modeling?. *Long Range Planning*, *45*(5-6), 312-319

Hamid, AB., *et al*., (2017). Discriminant Validity Assessment: Use of Fornell & Larcker criterion versus HTMT Criterion. *In Journal of Physics: Conference Series*, *890*(1), p. 012163.

Han, H., *et al*. (2017). Emerging bicycle tourism and the Planned Behavior Theory. *Journal of Sustainable Tourism*, *25*(2), 292-309

Henseler, J., *et al*., (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the academy of marketing science*, *43*(1), 115-135

Hoeksma, D. L., *et al*. (2017). An extended Planned Behavior Theory to predict consumers' willingness to buy mobile slaughter unit meat. *Meat Science*, *128*, 15-23

Johe, M. H., & Bhullar, N. (2016). To buy or not to buy: The roles of self-identity, attitudes, perceived behavioral control, and norms in organic consumerism. *Ecological Economics*, *128*, 99-105

Kiriakidis, S. (2017). Perceived behavioral control in the Planned Behavior Theory: variability of conceptualization and operationalization and implications for measurement. *In Strategic Innovative Marketing (pp. 197-202)*. Springer, Cham

Ligte, J. S. (2019). The Importance of Halal Logistics Implementation in Indonesia in Compliance with Domestics and Global Halal Market Requirements. *Jurnal Transportasi Multimoda*, *17*(2), 17-26

Madden, T. J., *et al.,* (1992). A comparison of the Planned Behavior Theory and the theory of reasoned action. *Personality and social psychology bulletin*, *18*(1), 3-9

Majid, M. B., *et al*. (2015). Consumer purchase intention towards Halal cosmetics & personal care products in Pakistan. *Global Journal of Research in Business & Management*, *1*(1), 1-9

Meleddu, M., & Pulina, M. (2016). Evaluation of individuals' intention to pay a premium price for ecotourism: An exploratory study. *Journal of Behavioral and Experimental Economics*, *65*, 67-78

Minton, E. A., *et al*. (2018). The subjective norms of sustainable consumption: A cross-cultural exploration. *Journal of Business Research*, *82*, 400-408

Mokhlis, S. (2020). Consumer religiosity and shopping behavior in Malaysia. *Malaysian Management Journal*, *11*(1-2), 87-101

Muhammad, N., *et al*. (2009). Positioning Malaysia as halal-hub: integration role of supply chain strategy and halal assurance system. *Asian Social Science*, *5*(7), 44-52

Mukhtar, A., and Mohsin Butt, M. (2012). Intention to choose Halal products: the role of religiosity. *Journal of Islamic Marketing*, *3*(2), 108-120

Nasse, T. B., *et al*. (2019). Religiosity and consumer behavior in developing countries: An exploratory study on Muslims in the context of Burkina Faso. *African Journal of Business Management*, *13*(4), 116-127

Role of the Theory of Planned Behavior   **59**   **Syed M. Fauzan Ali, Saad Waqas**
in Consumer's Willingness to Pay for Halal   **& Sahar Khan**
Logistics: Evidence from Pakistan

Ngah AH., *et al*., (2014). Barriers and enablers in adopting Halal transportation services : A study of Malaysian Halal Manufacturers. *International Journal of Business and Management*, *2*(2), 49–70

Ngah, A. H., *et al*. (2018). The influence of electronic word of mouth on the theory of reasoned action and the visit intention to the world monument fund site. *Indian Journal of Public Health Research & Development*, *9*(11), 1277-1282

Ngah, A. H., *et al*. (2019a). Willingness to Pay for Halal Transportation Cost: The Moderating Effect of awareness on the Planned Behavior Theory. *Journal of Environmental Treatment Techniques*, *8*(1), 13-22

Ngah, A. H., *et al*., (2019b). Modeling the adoption of halal warehousing services among halal pharmaceutical and cosmetic manufacturers. *Journal of Sustainability Science and Management*, *14*(6), 88-101

Othman, M., & Kamarohim, N. (2016). Factors that Influence the purchase of Halal Products. *Pertanika Journal of Social Science and Humanities*, *24*, 165-177

Quinlan, C., *et al*. (2019). *Business research methods*. South-Western Cengage

Rahman, A., *et al*. (2015). Consumers and Halal cosmetic products: awareness, religiosity, attitude, and intention. *Journal of Islamic Marketing*, *6*(1), 148-163

Ringle, C., *et al*., (2015). Structural equation modeling with the SmartPLS. *Brazilian Journal Of Marketing*, *13*(2), 1-18

Salleh, N. Z. M., *et al*. (2014). The practice of Shariah-compliant hotels in Malaysia. *International Journal of Trade, Economics and Finance*, *5*(1), 26

Sharma, N. K., & Kushwaha, G. S. (2018). Factors Affecting Towards Green Purchase Behavior Among Young Consumers in India. *In Green Computing Strategies for Competitive Advantage and Business Sustainability (pp. 183-210)*. IGI Global

Shin, Y. H., *et al*. (2018). The Planned Behavior Theory and the norm activation model approach to consumer behavior regarding organic menus. *International Journal of Hospitality Management*, *69*, 21-29

Tabachnick, B. G., & Fidell, L. S. (2001). *Using multivariate statistics*. Allyn and Bacon. Needham Heights, MA

Tarmizi, H. A., *et al*. (2014). Factors influencing readiness towards halal logistics among food-based logistics players in Malaysia. *UMK Procedia*, *1*, 42-49

Yadav, R., & Pathak, G. S. (2016). Intention to purchase organic food among young consumers: Pieces of evidence from a developing nation. *Appetite*, *96*, 122-128

Yang, Y., (2018). *Structural equation modeling. In Advanced Research Methods for Applied Psychology*. Routledge

Yeo, V. C. S., *et al*. (2017). Consumer experiences, attitude, and behavioral intention toward online food delivery (OFD) services. *Journal of Retailing and Consumer Services*, *35*, 150-162

Role of the Theory of Planned Behavior   **60**   **Syed M. Fauzan Ali, Saad Waqas**
in Consumer's Willingness to Pay for Halal   **& Sahar Khan**
Logistics: Evidence from Pakistan