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THE RESULT OF HALAL ORIENTATION STRATEGY ON GREEN SUPPLY CHAIN PERFORMANCE IN THE FAST-FOOD INDUSTRY

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ABSTRACT

The halal orientation strategy refers to a business strategy that focuses on meeting the requirements and preferences of Muslim consumers, who have specific dietary and lifestyle preferences based on their religious beliefs. Muslims are required to eat halal food, which refers to food and beverages that are permissible under Islamic law, as outlined in the Quran and the Hadith. As a result, Muslim consumers will prefer to buy halal food. Fast-food has a broad category that encompasses a variety of different types of food and brands worldwide. Since the rise in demand for halal fast-food, there will raise a lot of questions about whether all of these foods in the marketplace are halal or not. The implementation of halal orientation strategy in the fast-food businesses will give a significant impact on green supply chain performance throughout the supply chain. Therefore, this research aimed to identify the possible halal orientation strategy that could be implemented in the fast-food industry to improve green supply chain performance. The researcher also included independent variables related to materials and ingredients used, production process, storage, transportation and logistics, halal culture, and social responsibility. To achieve this goal, questionnaires were distributed directly to randomly selected around 150 respondents in fast-food businesses. This research also used Partial Least Squares (PLS, a component-based SEM approach, to identify the relationship between independent and dependent variables using SmartPLS 4 software. This research has obtained the fast-food businesses' perception of the most possible halal orientation strategies that can be implemented in the fast-food industry to improve green supply chain performance which include social responsibility factor.

Keywords: *Halal orientation strategy, green supply chain, fast food industry*

1.0 INTRODUCTION

The primary objective of this research is to investigate the impact of the halal orientation strategy on green supply chain performance within the Malaysia fast-food industry. The fast-food industry has experienced substantial growth over the years and continues to expand across numerous regions of the world. These restaurants are often renowned for their convenience, affordability, and quick service, which makes them appealing to individuals who are short of time or seek for quick meal. The popularity of fast-food is expected to persist owing to the accelerated pace of urban life and the increasing demand for more affordable and rapid meal options (Cobbs, 2019). This study focuses on evaluating the effects of a halal orientation strategy on green supply chain performance within the context of the fast-food industry.

The halal orientation strategy is a business approach that aims to cater to the dietary and lifestyle preferences of Muslim consumers, who have certain requirements based on their religious beliefs. This strategy can manifest in diverse ways depending on the industry and target market. Various forms of halal orientation strategies can exist, contingent upon the industry and the target market. In recent years, the Muslim population has experienced growth and increased affluent, particularly in countries such as Malaysia and Indonesia. The Muslim population constitutes nearly one-fourth of the world's population and continues to grow (Robin, 2023). Consequently, Muslim consumers generally prefer to purchase halal food, as it is mandatory for them to consume food and beverages that adhere to Islamic law, as outlined in the Quran and the Hadith. This prohibits the consumption of specific types of meat, including pork and its by-products, as well as animals that are not slaughtered according to Islamic ritual guidelines. (Hafiz, 2022). Moreover, Muslims are required to avoid consuming any food or drink containing alcohol or other prohibited substances.

The increasing demand for halal food in the international market presents a significant opportunity for countries to compete and participate in a highly profitable global halal market. The global halal food market is estimated to reach $3 trillion by 2023, primarily driven by the growing demand for halal-certified food and beverages among Muslim consumers worldwide (Tho, 2019). For Malaysian businesses in the halal food industry to maintain their competitiveness in the global market for halal food goods, it is essential that a halal orientation strategy and a strategic operational strategy be developed and implemented. This ensures that Malaysia remains a key player in the lucrative global halal market. Evaluating the current climate will enable businesses to focus on vital resources and capabilities. Implementing a halal orientation strategy is another viable option that can assist the halal company in adhering to the halal standards. As a result, businesses in the fast-food industry must manage and produce food properly to guarantee halal-compliance. This will introduce businesses to a halal orientation strategy as their guidelines to fulfil halal food requirements. They can be classified into several major halal orientation strategies in terms of materials or ingredients, production processes, storage, and transportation.

The implementation of the halal orientation strategy will have an indirect impact on the green supply chain performance of the fast-food company. Green supply chain management (GSCM) entails incorporating environmental considerations into supply chain management operations. The objective of GSCM is to minimize the environmental consequences of supply chain activities, such as production, transportation, and distribution, while simultaneously ensuring efficiency and profitability (Hofer, 2022).

Various methods are employed for data gathering, encompassing a range of procedures, steps, and samples. The primary objective of this research endeavour is to attain a comprehensive understanding of the research approach that has been adopted to collect data pertaining to the impact of halal orientation strategies on green supply chain performance within the Malaysian fast-food industry. The potential halal orientation strategies encompass the use of materials or ingredients, production processes, storage, transportation and logistics, halal culture, and social responsibility.

The researcher aims to (i) To understand the current situation of Malaysia halal fast-food industry; (ii) To identify the possible halal orientation strategies can be implemented in Malaysian Halal fast-food industry; and (iii) To determine the impact of the halal orientation strategies on the green supply chain performance. The present study's data were entirely independent of any interpretation or judgement of the researcher. As such, a positivist philosophy has been adopted, characterised by

objectivistic epistemology, as there is no direct or indirect relationship between the participants and the researcher. Positivism seeks to provide "lawlike generalizations" (Saunders et al., 2023) that can be utilised to predict outcomes in identical or similar situations, typically through the employment of large amounts of data that can be statistically analysed, such as a quantitative approach (Saunders et al., 2023).

This study examined six hypotheses and gather data to assess the effects of independent variables. This methodology is consistent with that of prior researchers in this field, resulting in a deductive approach. Consequently, a deductive approach was deemed the most appropriate for this study.

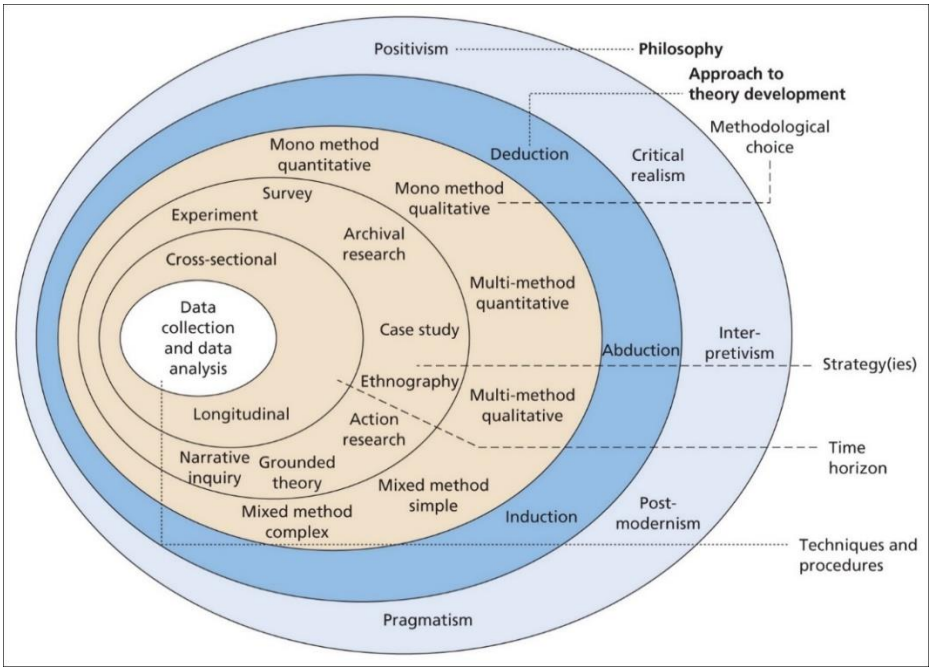

Fig. 1: Research Onion Diagram. Source from Saunders, Lewis and Thornhill (2016)

2.0 METHODOLOGY

In term of methodological choice by Saunders, Lewis and Thornhill (2023), researcher has the choice to adopt single or multiple methods of inquiry. The methodological choice can either be mono, mixed or multi-methods and the aim of selecting a suitable one for the study is to achieve coherence in research design. The mono method employs the use of one instrument of inquiry. This method is usually associated with a deductive approach to theoretical development where the focus is on using data to test a theory, and a favoured style of data collection and analysis technique is quantitative (p.166). The widely used research instruments are usually surveys which can be conducted through face-to-face (self-administered), telephone, online, or mail (Saunders, Lewis & Thornhill 2016). As the mono-method employs the use of a single data collection technique, the multi-method employs more than one data collection technique. However, researchers can decide to use a mixed method approach where more than one instrument of enquiry is employed by adopting different methodologies (p.166). For instance, this can be the use of both quantitative and qualitative method for one study. The present study undertook the mono-method by employing a single instrument of inquiry, which is through face-to-face (self-administered) contact with potential respondents.

2.1 Research Strategy

The employment of surveys from a diverse and representative sample of the population is the most frequently utilised method for data collection (Saunder et al., 2023). Surveys are widely regarded as a reliable and efficient means of data collection among specific population groups (Saunder et al., 2023). This method is utilised to scientifically gather data from respondents and serves as an instrument for

researchers to achieve their research objectives through the measurement of variables of interest (Saunder et la., 2023).

Questionnaires play a crucial role in the research process by serving as a means for researchers to collect information on their research questions. As such, the design of the questionnaire is a critical aspect that can significantly impact the quality of the data collected (Saunder et al., 2023). The current investigation employed a questionnaire as its primary survey instrument, drawing largely from the existing literature and making necessary modifications to ensure relevance to the present research context. The collected data, derived from questionnaires, permit quantitative analysis and enable researchers to concurrently assess multiple variables. This approach facilitates the gathering of opinions, situations, or practices via questionnaires from a representative sample of individuals (Saunder et al., 2023). Questionnaires can be administered through face-to-face (self-administered), telephone, mail, or electronic means.

Self-administered questionnaires have several advantages. By employing appropriate sampling techniques, this method enables the researcher to obtain the most representative sample and provides greater flexibility in data collection (Saunder et la., 2023). Moreover, it allows the collection of a wide range of data from respondents and boasts a higher response rate (Neuman, 2014). Additionally, it affords the researcher the opportunity to address the intricate queries posed by the respondents (Saunder et al., 2023).

3.0 RESULTS AND DISCUSSION

3.1 Respondent Profile Information

Descriptive analysis is used to evaluate, define, display, and interpret collected data using tables, graphs, and overview calculations (Saunders et al., 2019). The researcher used descriptive analysis to analyse the demographic data of respondents collected from Section A of the questionnaires for this research. Based on the table, there are five categories of the demographic profile of respondents. The survey targeted respondents and asked them to answer questions regarding their gender, age, ethnicity, religion, respondent's working background, location, frequency of respondents' buying halal fast-food in a month, and factors when choosing fast-food restaurant. Besides, the researcher asked respondents' opinion about fast-food consumers, and the implementation of halal orientation strategy in their organisation. Table 1 displays the descriptive data for the current study sample, which includes information on gender, age, ethnicity, and religion.

Table 1: Characteristics of the Sample

Dempgraphics	Item	Frequency	%
Gender	**Female**	**138**	**92.0**
	Male	12	8.0
	Total	150	100.0
Age	18 - 24 years old	124	82.7
	25 - 31 years old	24	16.0
	32 - 38 years old	0	0
	39 – 45 years old	2	1.3
	46 years old and above	0	0
	Total	150	100.0
Ethnicity	Malay	150	100.0
	Chinese	0	0
	Indian	0	0
Religion	Muslim	150	100.0
	Non-Muslim	0	0

Table 1 shows the gender frequency distribution of respondents in this research. There were 12 male respondents (8%) and 138 female respondents (92%) among the total 150 respondents. The respondents from any fast-food industry were randomly selected and assigned. However, the percentage

of female respondents was higher than male respondents in this research. This demonstrates that most fast-food businesses employed a majority of female worker.

Next, the frequency distribution of respondents' age in this research and the age range of respondents was divided into 5 categories namely 18-24 years old, 25-31 years old, 32-38 years old, 39-45 years old, 46 years old and above. There were 124 respondents aged 18-24 (82.7%), 24 respondents aged 25-31 years old (16.0%), 2 respondents aged 39-45 years old (1.3%), and none of respondent aged between 32-38, 46 years old and above. Therefore, the majority of respondents to this survey were between the ages of 18-24 while the age range that represented the least number of respondents was 39-45 years old.

Furthermore, for the ethnicity and religion frequency distribution of respondents in this research, there were 150 Malay and Muslim respondents (100%). This showed that most fast-food businesses employed a majority of Malay and Muslim workers.

Respondent's Working Background

Are you currently working or have previous experience in the fast-food industry?

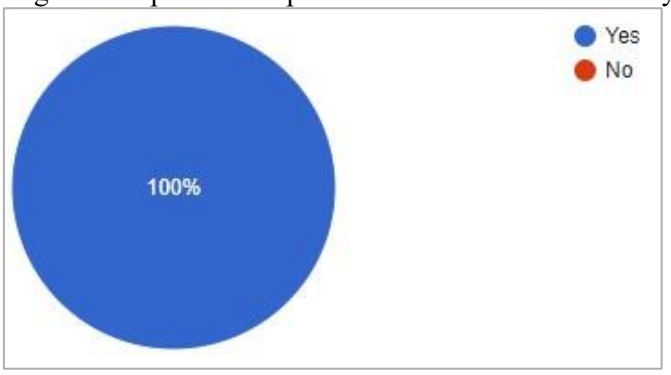

Fig. 2: Respondent's Working Background Pie Chart. (Source: Survey Output)

Figure 2 shows the respondent's working background in this research. According to the findings, 150 respondents (100%) are currently working and have experience in the fast-food industry.

Location

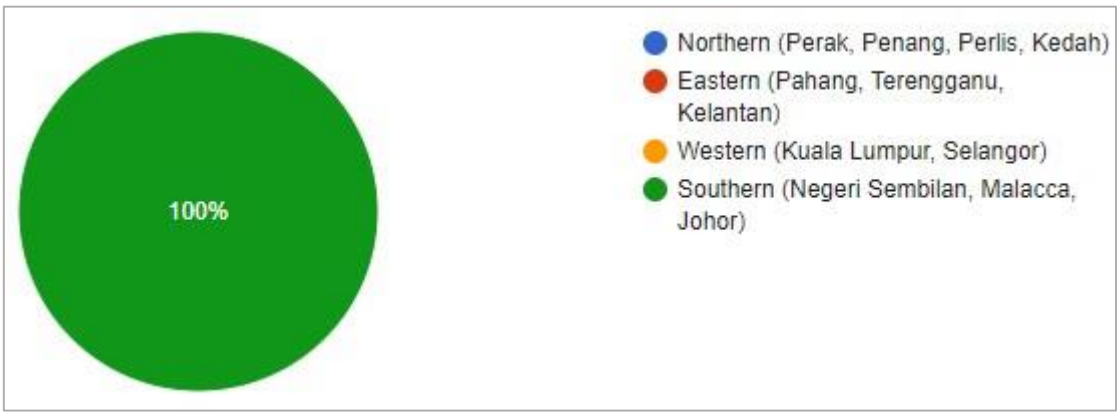

Fig. 3: Respondent's Location Pie Chart. (Source: Survey Output)

Figure 3 shows the location of respondents in this research. From the figure above, 150 respondents (100%) are currently working in fast-food industry in Southern areas such as Negeri Sembilan, Malacca and Johor.

3.2 Frequency of Respondents' Buying Halal Fast-food in a Month

Table 2: Frequency of Respondents' Buying Halal Fast-food in a Month. (Source: Survey Output)

Frequency of Respondents' Buying Halal Fast-food in a Month	Frequency	Percent
1 time	1	0.7
2 to 3 times	119	79.3
More than 5 times	30	20.0
Total	150	100.0

Table 2 presents the frequency distribution of respondents' buying halal fast-food was divided into 3 categories which were 1 time, 2 to 3 times and more than 5 times in a month. From the table above, 1 respondent buying fast-food 1 time (0.7%), 119 respondents buying 2 to 3 times (79.3%), and 30 respondents (20%) buying fast-food more than 5 times in a month. Therefore, the majority of respondents in this research often bought fast-food for 2 to 3 times per month.

3.3 When Choosing Fast-food Restaurant Factors

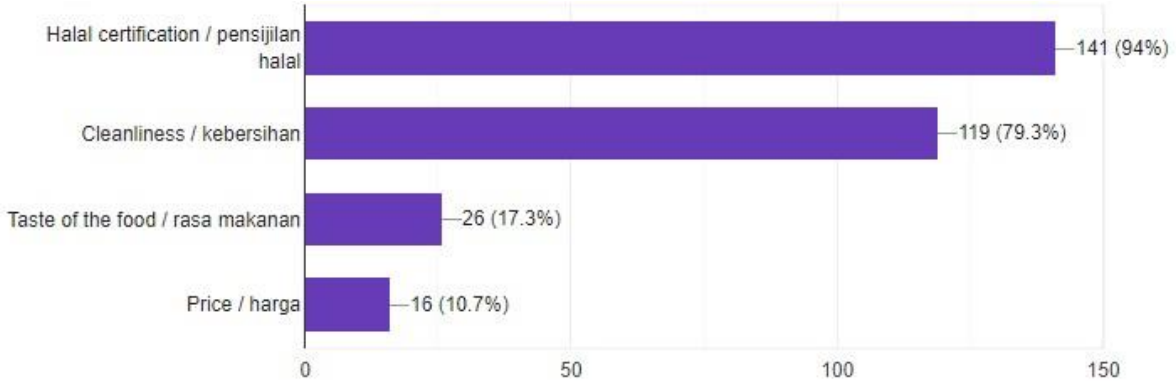

Fig. 4: Factors When Choosing Fast-food Restaurant Bar Chart. (Source: Survey Output)

Figure 4 presents the frequency distribution of respondents selected the factors when choosing fast-food restaurant. Some of factors listed in the above figure were halal certification, cleanliness, taste of food and price. There were 141 respondents who chose halal certification (94%), 119 respondents focused on cleanliness (79.3%), 26 respondents selected taste of food (17.3%) and 16 respondents considered pricing as their key factors when choosing fast-food restaurant. As a result, the majority of respondents in this research frequently prioritized halal certification, followed by cleanliness, taste of food and price.

3.4 Respondents' Opinion about who is the Fast-food Consumers Do you think the demand for halal fast-food is only from Muslim Customers?

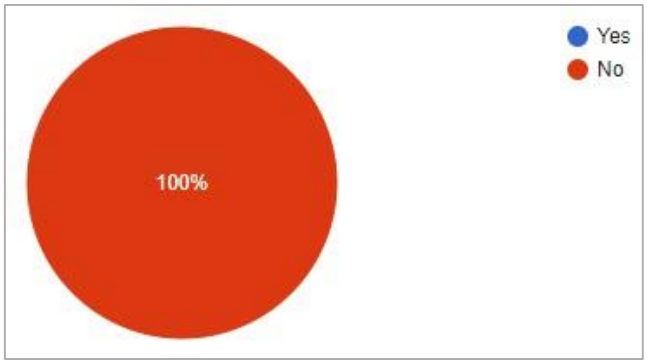

Fig. 5: Respondents' Opinion about who is the Fast-food Consumers Pie Chart (Source: Survey Output)

Figure 5 illustrates the respondents' opinion about the fast-food consumers in their restaurant. According to the findings, 150 respondents (100%) agreed that the demand for halal fast-food was not only for Muslim consumers. This shows that the non-Muslim consumers often bought halal fast-food.

3.5 Respondents' Opinion about the Implementation of Halal Orientation Strategy in Their Organisation

Does the implementation of halal orientation strategy will be beneficial to your organisation?

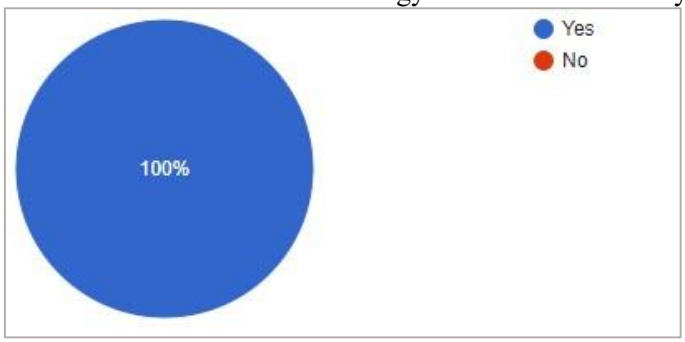

Fig. 6: Respondents' Opinion about the Implementation of Halal Orientation Strategy in Their Organisation Pie Chart. (Source: Survey Output)

Figure 6 shows the respondents' opinion about the implementation of halal orientation strategy in their organisation. From the table above, 150 respondents (100%) agreed upon the implementation of halal orientation strategy in their organisation. This shows that this strategy was very crucial and beneficial for their organisation as well as could increase their company profit and performance especially in green supply chain performance.

3.6 Evaluation of PLS Path Model Results

In the social sciences, SEM (Structural Equation Modelling) techniques are widely used to evaluate the relationship between latent variables for research goals (Wong, 2013). These methods are called PLS-SEM and CB-SEM. In recent years, CB-SEM has gained popularity, particularly when testing a hypothesis with a large sample size and a normal data distribution (Joe et al., 2012). Conversely, researchers discovered that it was difficult to fulfil the CB-SEM criteria (Wong, 2013). In contrast, PLS-SEM works better when no assumptions about data distribution are made (Joseph F. Hair & Sarstedt, 2019). SmartPLS 4 is the PLS-SEM utilised in this work for variance-based structural equation modelling. The measuring model and the structural model made up its two parts. Convergent and discriminant validity issues were resolved in the estimate model by the PLS algorithm in the SmartPLS 4, whereas the structural model was used to conduct hypothesis testing, either accepting or rejecting the hypothesis.

3.7 Assessment of Measurement Model

The Partial Least Squares Path Modelling (PLS-PM) of 150 distributed surveys was utilised to examine and assess the data in this research. In the fundamental path model, the major purpose of PLS-PM is to maximise the variance of the dependent variable. A statistical analysis can also be utilised to identify expected correlations between latent variables (Joe et al., 2014). As all of the arrows in the path model are just one direction and single-headed, PLSPM provides an image of the hypothesis in the study framework (Joe et al., 2012). PLS-PM was chosen for this research because it makes the most sense for assessing the analytical links in the study framework. There are two types of models in SmartPLS 4:

measurement models and structural models. The measurement model was used to compute the structural model's unobserved variables. Figure 4.6 shows the measuring model for this research.

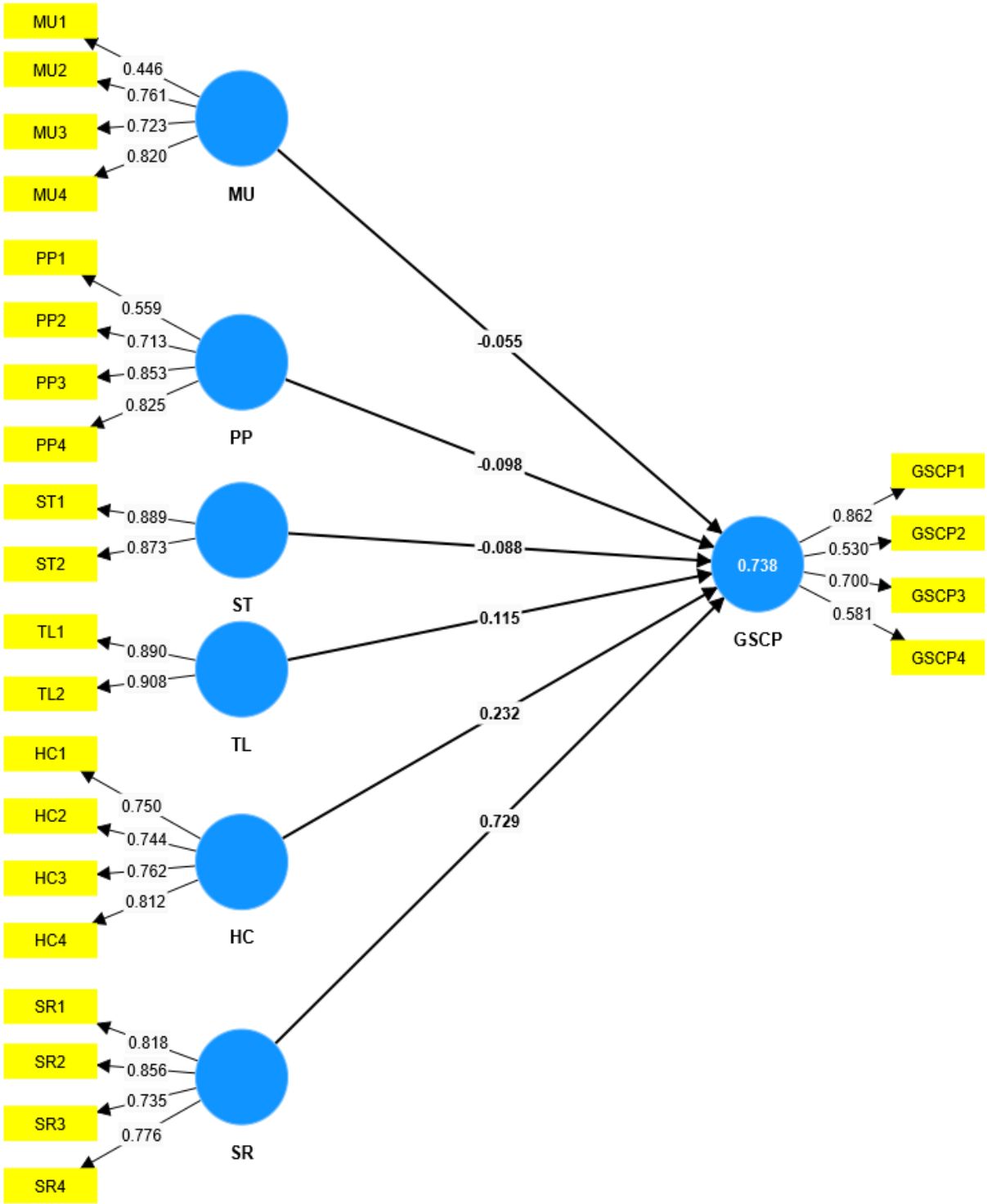

Fig. 7: Measurement Model

3.8 Construct Validity

There are two kinds of construct validity; convergent and discriminant validity. The examination of what items must be related to each other is known as convergent validity while discriminant validity refers to each construct being empirically distinct from the others. Discriminant validity investigates

how one latent variable varies from others. To establish discriminant validity in SmartPLS 4, the Fornel and Lacker criteria, Cross loadings, and Heterotrait-Monotrait (HTMT) techniques are utilised. Each technique has its own set of rules or criteria for determining discriminant validity of constructs.

3.9 Convergent Validity

According to Joe F. Hair et al. (2014), convergent validity is defined as the degree of correlation between measures of the same subject matter. Convergent validity is associated with extracted average variance (AVE) and construct loadings. According to Joe et al. (2014), a construct with a larger outer loading suggests that the items used to measure the same idea agree or that the related indicators have a lot in common. Since the outer loading (standardised) indicator indicates whether or not every element on a build is significantly loaded, it should be 0.700 or greater. It should be removed if the outside loading is less than 0.700. Nonetheless, the items may be kept if the average variance extraction value is higher than 0.50 (Joseph et al., 2019). Table 3 shows the results of the measurement model. Convergent validity for each construct is established using the average variance that is obtained. This research's variable AVE was more than 0.50, demonstrating the establishment of convergent validity.

Table 3: Measurement Model

Construct	Items	Loadings	Composite Reliability	AVE
Materials and Ingredients Used	MU1	0.446	0.789	0.493
	MU2	0.761		
	MU3	0.723		
	MU4	0.820		
Production Process	PP1	0.559	0.831	0.557
	PP2	0.713		
	PP3	0.853		
	PP4	0.825		
Storage	ST1	0.889	0.874	0.776
	ST2	0.873		
Transportation and Logistics	TL1	0.890	0.893	0.807
	TL2	0.908		
Halal Culture	HC1	0.750	0.851	0.589
	HC2	0.744		
	HC3	0.762		
	HC4	0.812		
Social Responsibility	SR1	0.818	0.874	0.636
	SR2	0.856		
	SR3	0.735		
	SR4	0.776		
Green Supply Chain Performance	GSCP1	0.862	0.769	0.463
	GSCP2	0.530		
	GSCP3	0.700		
	GSCP4	0.581		

The average variance extraction model is characterised by the significant mean value of the square loads of the construct-related indicators. As previously mentioned, a latent variable is deemed appropriate if its average variance extraction value is 0.5 or above, meaning that it can account for more

than half of the indicator variation on average (Joe et al., 2014). The variance values for each construct demonstrate convergent validity when the average variance extraction is more than 0.50. Table 4 shows the average variance extraction of the constructs for the relevant constructs.

Table 4: Average Variance Extract

Construct	AVE
MU	0.493
PP	0.557
ST	0.776
TL	0.807
HC	0.589
SR	0.636
GSCP	0.463

After that, the construct reliability of the variables was determined. Table 4 shows all of the construct reliability value variables. Construct reliability is 0.70 or higher (Wong, 2013). Table 4 shows that all conceptions had acceptable reliability scales ranging from 0.769 to 0.893. Composite reliability for materials or ingredients used was reported as 0.789, for production process was reported as 0.831, storage was 0.874, transportation and logistics reported its composite reliability as 0.893, halal culture was reported as 0.851, social responsibility was 0.874 and green supply chain performance reported its composite reliability as 0.769. This shows that the composite reliability values were adequate for evaluating convergent validity. As a result, the current study did not violate the constructs' convergent validity.

Table 5: Composite Reliability

Construct	Cronbach's Alpha	Composite reliability (rho_a)	Composite reliability (rho_c)
MU	0.651	0.700	0.789
PP	0.729	0.755	0.831
ST	0.712	0.714	0.874
TL	0.762	0.766	0.893
HC	0.767	0.768	0.851
SR	0.809	0.821	0.874
GSCP	0.66	0.756	0.769

3.10 Discriminant Validity

In this research, the discriminant validity technique was also utilised to assess validity. The discriminant validity has been used to evaluate when one construct does not associate with another. Discriminant validity refers to the degree to which the measures of different ideas differ. The idea is that if two or more concepts are distinct, valid measures of each should not have a high correlation. (Fornell et al., 1981). As a result, three approaches were used to support and validate the current research study, as well as to assess and access the discriminant validity:

a) Fornell-Larcker Criterion
b) Cross Loadings Analysis
c) Heterotrait-Monotrait Ratio (HTMT)

3.10.1 Fornell Larcker Criterion

The Fornell Larcker Criterion was the first criterion used to evaluate discriminant validity in SmartPLS 4. The Fornell Larcker Criterion was developed by Fornell et al., (1981). This criterion thoroughly

assesses the discriminant validity. The square root of the AVE of each variable in the study model must be greater than the correlation of the same variable with others in this procedure. It displays the Fornell Larcker Criterion results as a matrix. The values at the top of diagonals must be greater than the values at the bottom. The numbers on the top of the diagonals in Table 6 were greater than the values below, indicating that discriminant validity has been established.

Table 6: Fornell Larcker Criterion

	GSCP	HC	MU	PP	SR	ST	TL
GSCP	**0.680**						
HC	0.777	**0.767**					
MU	0.314	0.417	**0.702**				
PP	0.659	0.790	0.482	**0.747**			
SR	0.842	0.849	0.429	0.811	**0.797**		
ST	0.509	0.668	0.468	0.804	0.638	**0.881**	
TL	0.614	0.740	0.414	0.693	0.659	0.713	**0.899**

Note: The Data on the diagonal (in bold) is the square root of AVE of the construct while the other values are the correlations with another construct

3.10.3 Heterotrait-Monotrait Ratio (HTMT)

Heterotrait-Monotrait Ratio (HTMT) is another method introduced by (Henseler et al., 2014) for evaluating discriminatory validity of data in SEM. The (geometric) mean of the average correlations for the items measuring the same construct divided by the mean value of the item correlations across constructs is known as the HTMT. (Joseph et al., 2019). The HTMT result is delivered as an index table using SmartPLS 4. It is an alternative to the Fornell Larcker Criterion for evaluating discriminatory validity in the PLS-SEM. The average of the correlations between each variable in the model was used to compute HTMT. HTMT readings above threshold lead to problems with distinguishing values. According to Henseler et al. (2014), the threshold value of HTMT is 0.9, indicating that two variables have a correlation but not a stronger correlation than 0.9. It presents evidence of multicollinearity. Table 7 displays HTMT values that were less than 0.9, indicating that the discriminant validity of constructs were established.

Table 7: Discriminant Validity (HTMT)

	GSCP	HC	MU	PP	SR	ST
GSCP HC	0.934					
MU	0.378	0.579				
PP	0.801	1.038	0.698			
SR	0.961	1.075	0.605	1.041		
ST	0.647	0.906	0.655	1.108	0.859	
TL	0.783	0.975	0.563	0.942	0.855	0.969

3.11 Assessment of Structural Model

The structure equation model (SEM) is a tool that displays the expected path using a theoretical model. The SEM model in the suggested research model includes the hypothesised link between the independent, and dependent variables. The structural model predicts the accuracy of the hypothesised pathways of the theoretical model. To put it another way, the structural model is tested to determine whether the hypothesised relationship within the inner model is correct. Figure 8 depicts the performance of the structural model. As previously stated, the three parameters in current research that determined the hypothesised correlations between constructs were:

1. Coefficient of Determination (R^2)
2. Effect Size (f^2)

3. Path Coefficients

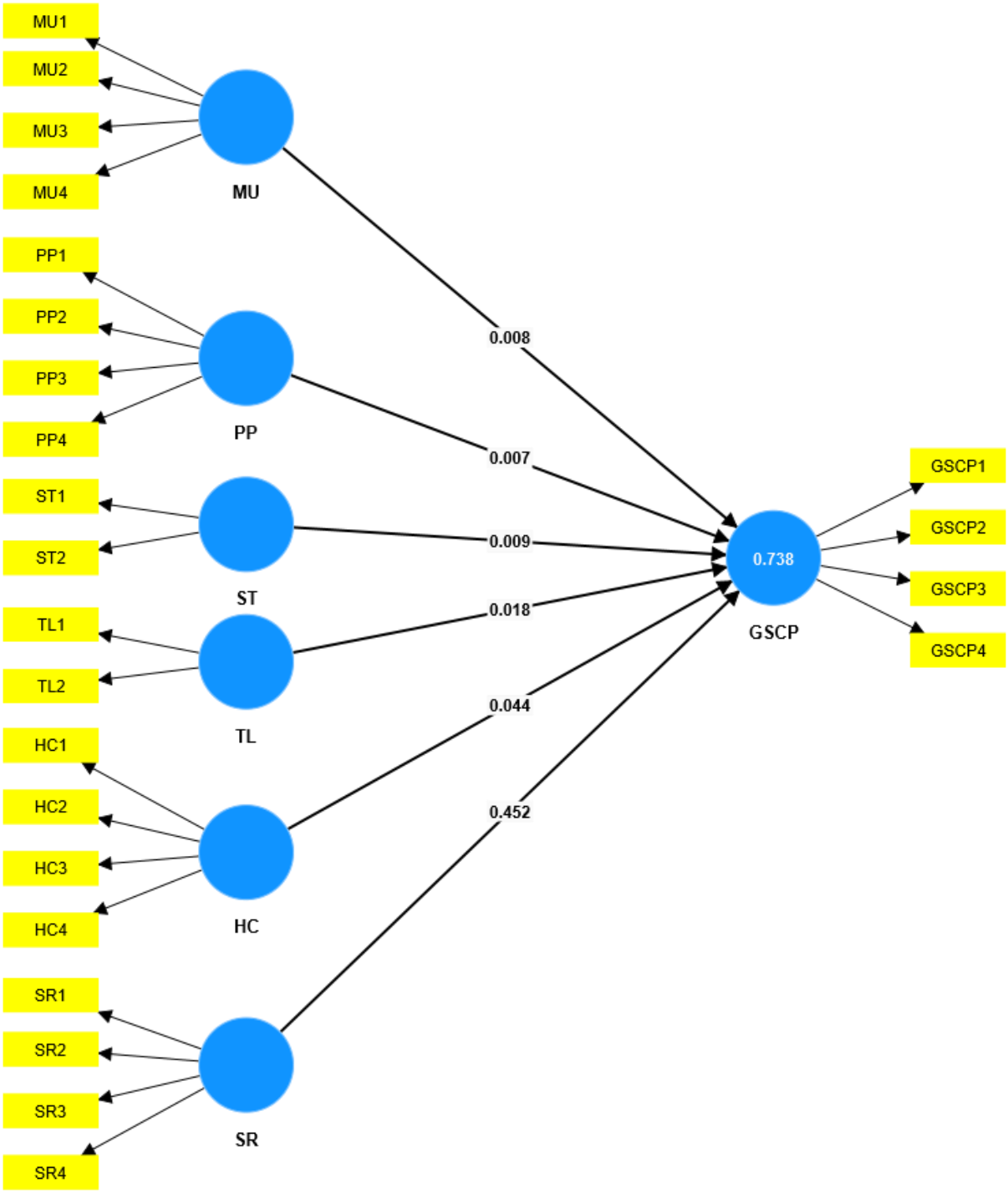

Fig. 8: Structural Model

3.11.1 Coefficient of Determination (R^2)

R^2 evaluation structural model assessment is one of the important steps. It represents the variation of the dependent variable (Henseler et al., 2014). The value of R^2 has been assigned a range of 0 to 1, with higher values indicating stronger variance. Table 8 displays the current research findings, which revealed a strong value of 0.738 for green supply chain performance.

Table 8: Coefficient of Determination (R^2)

Construct	R-square (R^2)
GSCP	0.738

3.11.2 Effect Size (f^2)

Many factors can modify or have an impact on a variable in a structural model such as the removal of an exogenous variable can have an impact on the endogenous variable. f^2 is the change in R-square when exogenous variable is removed from model. F-square (f^2) is effect size >=0.02 is small, >=0.15 is medium and 0.35>= is large (Cohen, 1998). Table 9 illustrates the F-square value for each path of this research.

Table 9: Result for Effect Size (f^2)

Path	f-square	P-Values
MU -> GSCP	0.008	0.284
PP -> GSCP	0.007	0.501
ST -> GSCP	0.009	0.232
TL -> GSCP	0.018	0.218
HC -> GSCP	0.044	0.313
SR -> GSCP	0.452	0.000

3.11.3 Path Coefficient

Leguina (2015) advocated the use of the bootstrapping approach to test the importance of path coefficients. The details and significance of path coefficients are displayed in Table 11. The table demonstrates that the materials and ingredients used had a significant negative on green supply chain performance (β = -0.055, t = 1.072, p = 0.284). Production process had a significant negative on green supply chain performance (β = -0.098, t = 0.672, p = 0.501). Storage had a significant negative on green supply chain performance (β = -0.088, t = 1.197, p = 0.232). Transportation and logistics had a significant negative on green supply chain performance (β = 0.115, t = 1.233, p = 0.218). Halal culture had a significant negative on green supply chain performance (β = 0.232, t = 1.010, p = 0.313). Social responsibility had a significant positive on green supply chain performance (β = 0.729, t = 3.697, p = 0.000).

The current study applied the bootstrapping technique, generating approximate t-values for each path coefficient's significance test from 5000 subsamples. Table 10 provides a summary of all outcomes.

Table 10: Path Coefficient

	Path coefficients	SD	T-Value	P-Value
MU -> GSCP	-0.055	0.051	1.072	0.284
PP -> GSCP	-0.098	0.146	0.672	0.501
ST -> GSCP	-0.088	0.074	1.197	0.232
TL -> GSCP	0.115	0.093	1.233	0.218
HC -> GSCP	0.232	0.230	1.010	0.313
SR -> GSCP	0.729	0.197	3.697	0.000

3.12 Hypothesis Testing

Path coefficients can be viewed as OLS standardised beta coefficients (Ordinary Least Square) in a similar manner. The bootstrapping method was applied to test the significance of hypothesised correlations in order to estimate the practical t-value for the route coefficients. The significance is important since it would require managerial attention. The findings of the structural model for path coefficients and P-value are displayed in Figure 9, and Table 11 provides evidence of the hypothesis testing (direct effect).

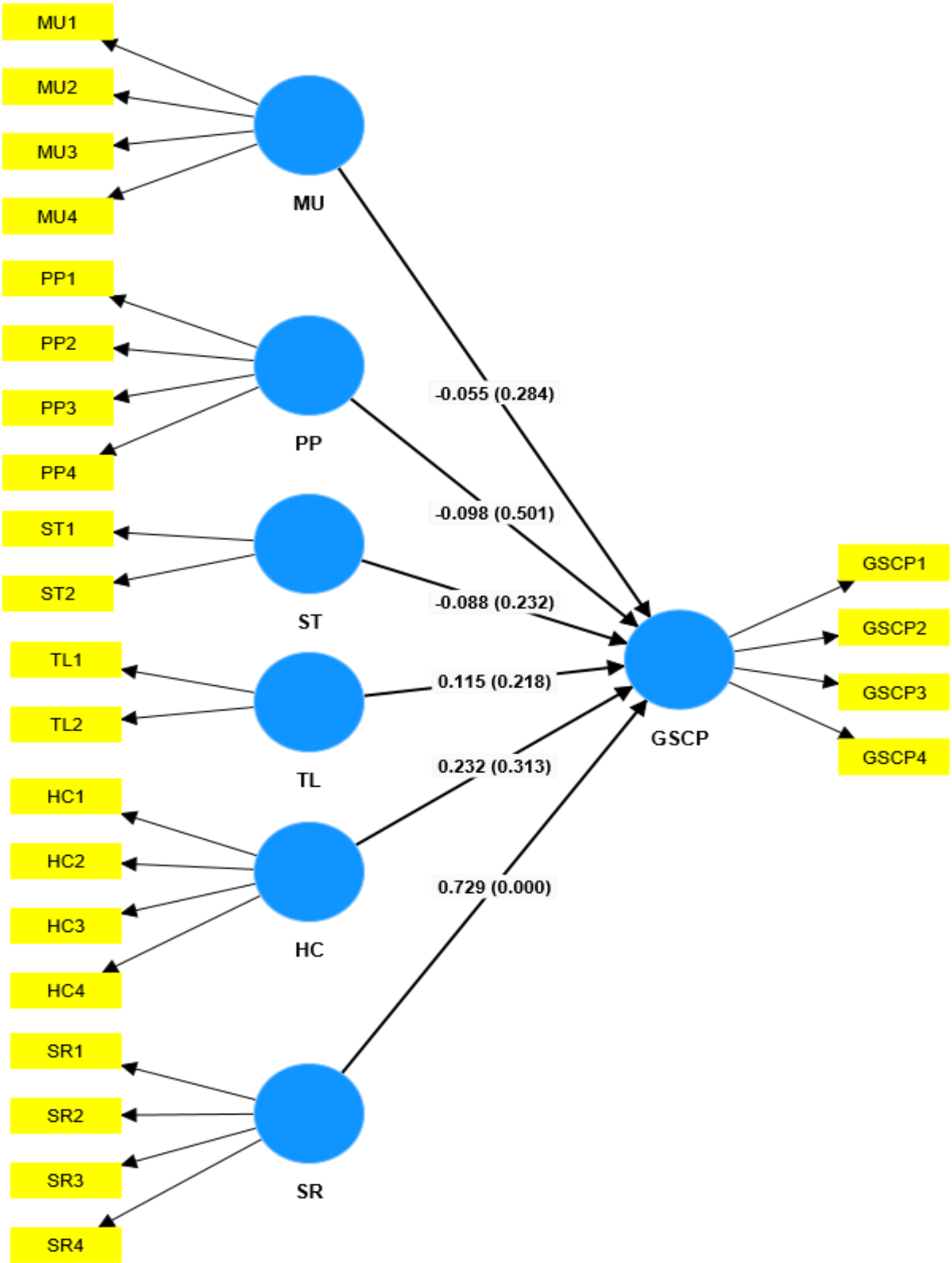

Fig. 9: Structural Model for Path Coefficients and P-value

Table 11: Table of Hypothesis Testing (Direct Effect)

	Path coefficients	SD	T-Value	P-Value	CI 2.5%	CI 97.5%
MU -> GSCP	-0.055	0.051	1.072	0.284	-0.139	0.059
PP -> GSCP	-0.098	0.146	0.672	0.501	-0.363	0.207
ST -> GSCP	-0.088	0.074	1.197	0.232	-0.222	0.071
TL -> GSCP	0.115	0.093	1.233	0.218	-0.069	0.300
HC -> GSCP	0.232	0.230	1.010	0.313	-0.214	0.594
SR -> GSCP	0.729	0.197	3.697	0.000	0.354	1.098

Table 12: Hypothesis Testing Summary

No.	Hypothesis	Decision
H1	Materials and ingredients used has significant positive impact on green supply chain performance	Rejected
H2	Production process has significant positive impact on green supply chain performance	Rejected
H3	Storage has significant positive impact on green supply chain performance	Rejected
H4	Transportation and logistics have significant positive impact on green supply chain performance	Rejected
H5	Halal culture has significant positive impact on green supply chain performance	Rejected
H6	Social responsibility has significant positive impact on green supply chain performance	Accepted

Table 13 summarizes the following:

H1: Materials and ingredients used has significant positive impact on green supply chain performance

The hypothesized H1 proposed that relationship materials and ingredients used has a significant positive on green supply chain performance. However, the results of this research showed that materials and ingredients used did not have a significant positive impact on the green supply chain performance (β = -0.055, t = 1.072, p = 0.284). Since the value of p was greater than 0.05, therefore the hypothesis was rejected.

H2: Production process used has significant positive impact on green supply chain performance

The hypothesized H2 proposed relationship production process has a significant positive on green supply chain performance. However, the results indicated that production process did not have a significant positive impact on the green supply chain performance (β = -0.098, t = 0.672, p = 0.501). As the p-value was higher than 0.05, the hypothesis was rejected.

H3: Storage has significant positive impact on green supply chain performance

The hypothesized H3 proposed relationship storage has a significant positive on green supply chain performance. Nevertheless, empirical evidence indicates that storage has no significant impact on green supply chain performance (β = -0.088, t = 1.197, p = 0.232). Given that the pvalue exceeds the conventionally accepted threshold of 0.05, the H3 hypothesis was deemed untenable, and was therefore rejected.

H4: Transportation and logistics has significant positive impact on green supply chain performance

The hypothesized H4 proposed relationship transportation and logistics has a significant positive impact on green supply chain performance. However, the findings revealed that transportation and logistics failed to exhibit a statistically significant positive impact on green supply chain performance ($\beta = 0.115$, $t = 1.233$, $p = 0.218$). Given that value of p surpassed the threshold of 0.05, the hypothesis was considered invalid.

H5: Halal culture has significant positive impact on green supply chain performance

The hypothesized H5 proposed relationship halal culture has a significant positive on green supply chain performance ($\beta = 0.232$, $t = 1.010$, $p = 0.313$). Since the value of p was greater than 0.05, therefore the hypothesis was rejected.

H6: Social responsibility has significant positive impact on green supply chain performance

The hypothesized H6 proposed relationship social responsibility has a significant positive on green supply chain performance ($\beta = 0.729$, $t = 3.697$, $p = 0.000$). Since the value of p less than 0.05, therefore the hypothesis was accepted.

Then, the data showed sufficient values of calculation validity to proceed to the structural model. SmartPLS 4 Software were employed in the current investigation to investigate the proposed association between variables. This analysis tested six hypothesis or relationships. Among these, one was supported and five were not according to the results.

4.0 CONCLUSION

In conclusion, the researcher has achieved the objectives to understand the current situation of Malaysian halal fast-food industry, identify the possible halal orientation strategies that can be implemented in Malaysian halal fast-food industry and determine the impact of the halal orientation strategy on the green supply chain performance. According to data analysis of 150 respondents, social responsibility is one of the best halal orientation strategies that has a positive impact on green supply chain performance in the fast-food industry.

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