Exploring Consumer Purchasing Decision towards Halal Food Products among University Students in Malaysia using 4P Marketing Mix Theory

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DOI: https://dx.doi.org/10.47772/IJRISS.2025.9020250

Received: 13 February 2025; Accepted: 17 February 2025; Published: 17 March 2025

ABSTRACT

In the year 2018, the market revenue of global halal food amounted to approximately USD715 trillion and is forecasted to increase to USD2.04 trillion by year 2027. This value indicates the halal food industry is one of the fastest-growing food industries. Therefore, the objective of this study is to evaluate the factors that contribute to the consumer purchasing decision towards halal food products. This study used a deductive method with questionnaire instruments. There are four independent variables namely Product, Price, Place and Promotion. The underpinning theory is 4P Marketing Mix. This study adapts and modify in developing the measurement items. The sample is undergraduate students from universities in Malaysia. The purposive sampling techniques was selected in collecting data from respondents. The 200 respondents were choosing for this study. Next, the data analysis method is using structural equation model with partial least square. The result indicates all four variables exhibit significant and positive influence towards the purchasing decision of consumer towards halal food products. The contribution of this study is it will help food manufactures and retailing to develop and provide more customer-oriented halal food products. In addition, this study adds more contribution towards body of knowledge in halal marketing.

Keywords: Halal Food, 4P Marketing Mix, Malaysia, Consumer Purchasing Decision

INTRODUCTION

The halal food industry has witnessed significant growth and development in Malaysia and globally, driven by increasing consumer awareness and demand for halal-certified products. This growth is particularly notable in Malaysia, where the government has actively promoted the country as a global halal hub. The establishment of the Halal Industry Development Corporation (HDC) in 2006 marked a pivotal moment in this initiative, aiming to position Malaysia as a leader in halal food production and export (Nasir et al. (2021).

One of the primary factors contributing to the growing demand for halal food products is the heightened awareness among Muslim consumers regarding their religious obligations. The Quran and Sunnah dictate dietary laws that prohibit the consumption of haram (forbidden) foods, leading to a growing preference for halal-certified products (Saima, 2024). This awareness is not limited to Muslim consumers; non-Muslims are increasingly recognizing halal food as a safe and high-quality option, further expanding the market (Talib et al., 2016). The global halal food market is projected to reach approximately USD8 trillion by year 2030, reflecting the significant economic potential of this sector (Ali et al., 2020).

Despite the high growth and demand, the halal food industry also faces several challenges. One of the challenge faces is the implementation of halal certification, particularly among small and medium enterprises (SMEs). Many SMEs struggle with the costs and complexities associated with obtaining halal certification, which can

hinder their ability to compete in the market. Furthermore, halal ingredient procurement has been highlighted as being of vital importance in global halal supply chains, with widespread application of many non-halal ingredients with the potential for offering halal alternatives for ingredients such as gelatine, pepsin and carmine. All have either halal or vegetable-based alternatives (Randeree, 2019).

The Malaysian halal food industry is characterized by a diverse range of products, including meat, dairy, and processed foods. Therefore, government of Malaysia has implemented various policies to support the growth of this sector, including financial incentives and training programs for producers to enhance their understanding of halal standards (Hassan & Hamdan, 2013). Additionally, the establishment of halal certification bodies has helped to standardize practice and ensure compliance with halal requirements, thereby boosting consumer confidence (Daud, 2023).

Internationally, the halal food market is expanding beyond traditional Muslim-majority countries. Developed nations, despite having smaller Muslim populations, are witnessing a rise in the demand for halal products due to the increasing awareness of health and safety standards associated with halal certification (Nurrachmi, 2018). This trend presents opportunities for Malaysian producers to diversify their export markets and tap into the growing global demand for halal food (Ali et al., 2020).

The development of halal food products in Malaysia and worldwide is a dynamic and evolving landscape. While the industry faces challenges related to certification and market competition, the increasing consumer awareness and demand for halal products present significant opportunities for growth. As Malaysia continues to position itself as a global halal hub, ongoing support from the government and industry stakeholders will be crucial in overcoming these challenges and capitalizing on the burgeoning halal market. Therefore, this paper evaluated the factors that contribute to the consumer purchasing decision towards halal food products.

LITERATURE REVIEW

The halal food industry has experienced significant growth and development, particularly in Malaysia, where the government has actively promoted the country as a global halal hub. This growth is driven by increasing consumer awareness and demand for halal-certified products, which are perceived as safe and compliant with Islamic dietary laws (Nasir et al., 2021; Hassan & Hamdan, 2013). The 4P marketing mix—Product, Price, Place, and Promotion—provides a comprehensive framework for analysing the marketing strategies employed in the halal food sector.

Product

The product aspect of the halal food industry encompasses a wide range of offerings, including meat, dairy, and processed foods. The halal certification process ensures that products meet specific religious and quality standards, which enhances consumers trust and satisfaction (Talib et al., 2016). Moreover, the concept of "*Halalan Thoyyiban*" emphasizes not only the permissibility of food but also its cleanliness and quality throughout the production chain (Surya & Saragih, 2019). As consumer preferences evolve, halal products are increasingly being tailored to meet the demands of both Muslim and non-Muslim consumers, who view halal food as a high-quality option (Miftahuddin et al., 2022).

Price

Pricing strategies in the halal food market are influenced by various factors, including production costs, certification fees, and market competition. Research indicates that halal certification can enhance a product's perceived value, allowing producers to command premium prices (Hosseini et al., 2019). However, small and medium enterprises (SMEs) often face challenges in managing these costs, which can hinder their competitiveness in the market (Al, 2023). The willingness to pay for halal products is also affected by consumers' perceptions of quality and safety, which are critical in driving purchasing decisions (Madenci et al., 2020).

Place

The distribution channels for halal products are essential for ensuring product availability and accessibility. The halal supply chain must be meticulously managed to prevent contamination and maintain product integrity (Zailani et al., 2017). In Malaysia, the government has implemented policies to support halal logistics, which are crucial for maintaining the halal status of products from production to consumption (Zailani et al., 2017). Additionally, the expansion of halal products into international markets presents opportunities for Malaysian producers to diversify their export strategies and tap into the growing global demand for halal food (Ali et al., 2020).

Promotion

Promotional strategies in the halal food industry focus on educating consumers about the benefits of halal products and building brand loyalty. Effective marketing campaigns highlight the ethical and quality aspects of halal food, appealing to both Muslim and non-Muslim consumers (Muflih & Juliana, 2020). Social media influencers have emerged as a powerful tool for promoting halal food, as they can effectively reach target audiences and enhance brand visibility (Antara et al., 2023). Moreover, the role of halal literacy and consumer education is vital in fostering a deeper understanding of halal principles, which can influence purchasing behaviour (Khan et al., 2020).

Therefore, the halal food industry is a dynamic and evolving sector characterized by increasing consumer awareness and demand for halal-certified products. The application of the 4P marketing mix provides valuable insights into the strategies employed by halal producers to enhance product offerings, optimize pricing, improve distribution channels, and implement effective promotional campaigns. As the global halal market continues to expand, ongoing support from government and industry stakeholders will be crucial in overcoming challenges and capitalizing on the burgeoning opportunities within the halal food sector.

RESEARCH METHODOLOGY

This research aims to investigate the factors influencing consumer purchasing decisions regarding halal products among university students in Malaysia, utilizing the 4P marketing mix framework—Product, Price, Place, and Promotion. The study employed a structured questionnaire to collect data from respondents, focusing on their perceptions and behaviors related to halal products.

The research adopts a quantitative approach, employing a cross-sectional survey design to gather data from university students. This design is appropriate as it allows for the collection of data at a single point in time, facilitating the analysis of relationships between the 4P marketing mix elements and consumer purchasing decisions (Edeh et al., 2021).

The target population for this study comprises university students enrolled in public and private institutions across Malaysia. A purposive sampling technique employed to select participants from various universities, ensuring a representative sample of the student population. This method is effective in minimizing bias and enhancing the generalizability of the findings (Campbell, 2022). The sample size determined using Cochran's formula, aiming for 200 respondents to ensure statistical validity.

The questionnaire developed based on the 4P marketing mix framework, with sections dedicated to each of the four elements (McCarthy, 1964). Questions assess students' perceptions of halal product quality, variety, and compliance with halal standards. Items will be adapted from existing literature on consumer behaviour towards halal products (Sousa, et al., 2017). Questions focus on the availability and accessibility of halal products in various retail outlets, including supermarkets, convenience stores, and online platforms. This section explores how distribution channels influence purchasing behavior (Ming & Jais, 2022). The questionnaire utilizes a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree) to measure respondents' attitudes and

perceptions. A pilot test conducted with a small group of students to refine the questionnaire and ensure clarity and reliability.

Data collected through an online survey distributed via university mailing lists and social media platforms. This approach is efficient and allows for a broader reach among students (Edeh et al., 2021). Informed consent obtained from participants, and confidentiality will be assured.

The collected data analyzed using Statistical Package for the Social Sciences (SPSS) and SmartPLS software. Descriptive statistics employed to summarize demographic information and responses, while inferential statistics, including multiple regression analysis, used to examine the relationships between the 4P marketing mix elements and consumer purchasing decisions (Daragmeh et al., 2021). The significance level will be set at $p < 0.05$.

This research methodology outlines a structured approach to investigating the influence of the 4P marketing mix on consumer purchasing decisions regarding halal products among university students in Malaysia. By employing a quantitative survey design and a well-structured questionnaire, the study aims to provide valuable insights into the factors that drive halal product consumption in this demographic.

RESULT AND DISCUSSION

This study using partial least square method in assessing the structural equation modelling. There are 200 respondents involved in this analysis. Figure 1 shows the analysis output for research framework.

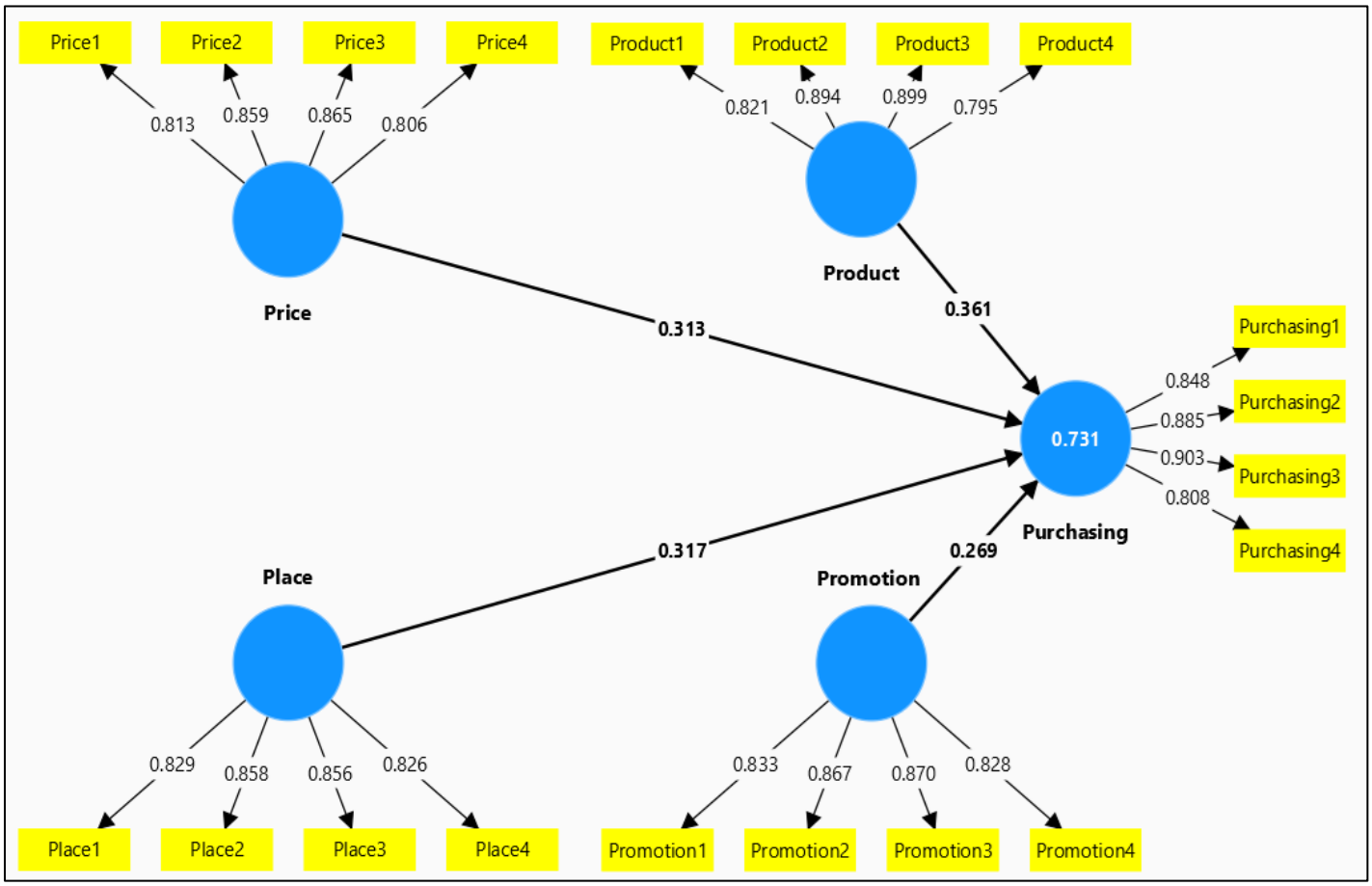

Figure 1: Output result for measurement model for research framework

The outer loading for each of construct as shown in Table 1. The requirement for outer loading should be higher than 0.7 (Hair et.al.,2010). This indicates the items exhibits good convergent validity. Convergent validity is the degree to which the individual indicator reflects the construct (Kline, 2011). The characteristics of the indicator should represent only one factor and be strongly related to each other.

Table 1: Convergent validity based on outer loading for measurement model

Construct	**Items**	**Outer loading**	**Convergent validity (loading >0.7)**
Product (P1)	Product1	0.821	Valid
	Product2	0.894	Valid
	Product3	0.899	Valid
	Product4	0.795	Valid
Price (P2)	Price1	0.813	Valid
	Price2	0.859	Valid
	Price3	0.865	Valid
	Price4	0.806	Valid
Place (P3)	Place1	0.829	Valid
	Place2	0.858	Valid
	Place3	0.856	Valid
	Place4	0.826	Valid
Promotion (P4)	Promotion1	0.833	Valid
	Promotion2	0.867	Valid
	Promotion3	0.870	Valid
	Promotion4	0.828	Valid
Purchasing Decision (PD)	Purchasing1	0.848	Valid
	Purchasing2	0.885	Valid
	Purchasing3	0.903	Valid
	Purchasing4	0.808	Valid

Table 2 shows the internal consistency of each construct. Cronbach Alpha (CA) provides reliable opinions based on relationships and correlations between indicator. The acceptable value if the Cronbach Alpha is larger than 0.7 (Hair et. al, 2003). Composite Reliability (CR) is a measure of internal consistency in scale items. CR is the total amount of true score variance relative to the total scale score variance (Brunner & Sub, 2005). The acceptable value of CR should be higher than 0.7 (Hair et. al, 2017). Next, Average Variance Extracted (AVE) is a measure of the amount of variance that is captured by a construct in relation to the amount of variance due to measurement error (Bryne, 2010). The minimum value for acceptable AVE is 0.5. The AVE should not be lower than 0.5 to demonstrate an acceptable level of convergent validity, meaning that the latent construct explains no less than 50% of the indicator variance (Fornell & Larcker, 1981).

Table 2: Internal consistency for construct

Variable	Cronbach Alpha (>0.7)	Composite Reliability (>0.7)	AVE (>0.5)	Internal consistency
Product (P1)	0.875	0.915	0.729	Consistent
Price (P2)	0.856	0.903	0.699	Consistent
Place (P3)	0.863	0.907	0.709	Consistent
Promotion (P4)	0.872	0.912	0.722	Consistent
Purchasing Decision (PD)	0.884	0.920	0.743	Consistent

Table 3 shows the discriminant validity using the Fornell-Larcker criterion. The Fornell-Larcker criterion explains that the square root of AVE in every latent variable should be more than other correlation values among the latent variables (Fornell & Larcker, 1981). It is means that, the diagonal values in bold is the square root of AVE while other values are the correlation between the respective constructs. The discriminant validity is achieved when a diagonal value in bold is higher than the values in its row and column. Table 3 concludes all constructs achieved discriminant validity.

Table 3: Fornell-Larcker criterion

	Product (P1)	Price (P2)	Place (P3)	Promotion (P4)	Purchasing Decision (PD)	Discriminant validity
Product (P1)	**0.854**					Valid
Price (P2)	0.196	**0.836**				Valid
Place (P3)	0.264	0.212	**0.842**			Valid
Promotion (P4)	0.363	0.458	0.201	**0.850**		Valid
Purchasing Decision (PD)	0.604	0.575	0.533	0.608	**0.862**	Valid

Next, this study evaluated the cross loading for each of construct as shown in Table 4. The loadings of indicators of the construct should be higher than the loading on another construct (Dash & Paul, 2021; Hamid, et al, 2017). Table 4 indicates all construct meet the requirement level of discriminant validity because the loading of measurement items for particular construct is higher than another construct.

Table 4: Cross loadings

	Place	**Price**	**Product**	**Promotion**	**Purchasing**
Place1	**0.829**	0.165	0.194	0.129	0.436
Place2	**0.858**	0.137	0.196	0.230	0.451
Place3	**0.856**	0.237	0.252	0.171	0.479
Place4	**0.826**	0.173	0.246	0.144	0.427
Price1	0.197	**0.813**	0.127	0.396	0.454
Price2	0.128	**0.859**	0.140	0.389	0.473
Price3	0.196	**0.865**	0.242	0.422	0.514
Price4	0.189	**0.806**	0.139	0.326	0.479
Product1	0.170	0.234	**0.821**	0.383	0.517
Product2	0.275	0.207	**0.894**	0.295	0.553
Product3	0.253	0.158	**0.899**	0.326	0.539
Product4	0.197	0.055	**0.795**	0.228	0.444
Promotion1	0.211	0.420	0.252	**0.833**	0.539
Promotion2	0.138	0.395	0.295	**0.867**	0.520
Promotion3	0.196	0.408	0.317	**0.870**	0.529
Promotion4	0.134	0.328	0.380	**0.828**	0.473
Purchasing1	0.429	0.493	0.507	0.552	**0.848**
Purchasing2	0.506	0.499	0.532	0.444	**0.885**
Purchasing3	0.467	0.502	0.544	0.590	**0.903**
Purchasing4	0.435	0.488	0.496	0.506	**0.808**

Then, the discriminant validity also analysed using the Heterotrait-Monotrait ratio of correlations (HTMT). The HTMT is a statistical technique employed to evaluate discriminant validity in business management research (Nawanir et al., 2019; Roemer et al., 2021). The acceptable level of discriminant validity is suggested to be less than 0.90 (Hair & Alamer, 2022; Gold et al., 2001; Kline, 2011).

The HTMT was introduced by Henseler et al. (2015) as an estimator for the correlation between two latent variables. It is based on the multitrait-multimethod (MTMM) matrix, in which correlations are compared to assess discriminant validity (Campbell and Fiske, 1959). Table 5 shows the HTMT value for each of the construct for this study. The result shows all value less than 0.90. Therefore, this indicates that discriminant validity has been ascertained. As the conclusion, the measurement model passed all diagnostic tests.

Table 5: HTMT

	Product (P1)	Price (P2)	Place (P3)	Promotion (P4)	Purchasing Decision (PD)	Discriminant validity
Product (P1)						Valid
Price (P2)	0.221					Valid
Place (P3)	0.301	0.246				Valid
Promotion (P4)	0.417	0.528	0.229			Valid
Purchasing Decision (PD)	0.684	0.661	0.609	0.691		Valid

Next, this study evaluated the structural model. Figure 2 shows the structural path model for the research framework. Table 2 shows significance of path coefficient analysis for structural model. The result revealed Product (P1) has a positive and significant influence on Purchasing Decision (PD) with standard beta coefficient is 0.361, p-value is 0.000. Next, the analysis shows Price (P2) has a positive and significant influence on Purchasing Decision (PD) with standard beta coefficient is 0.313, p-value is 0.000. Then, the analysis shows Place (P3) has a positive and significant influence on Purchasing Decision (PD) with standard beta coefficient is 0.317, p-value is 0.000. Subsequently, the analysis shows Promotion (P4) has a positive and significant influence on Purchasing Decision (PD) with standard beta coefficient is 0.269, p-value is 0.000.

Based on Table 7, all four hypotheses are supported. This concluded that in encouraging consumers to purchase halal food, all four variables namely Product, Price, Place and Promotion need to carefully consider. Businesses must continuously adapt these elements based on market trends, customer preferences, and competitive pressures to maximize success.

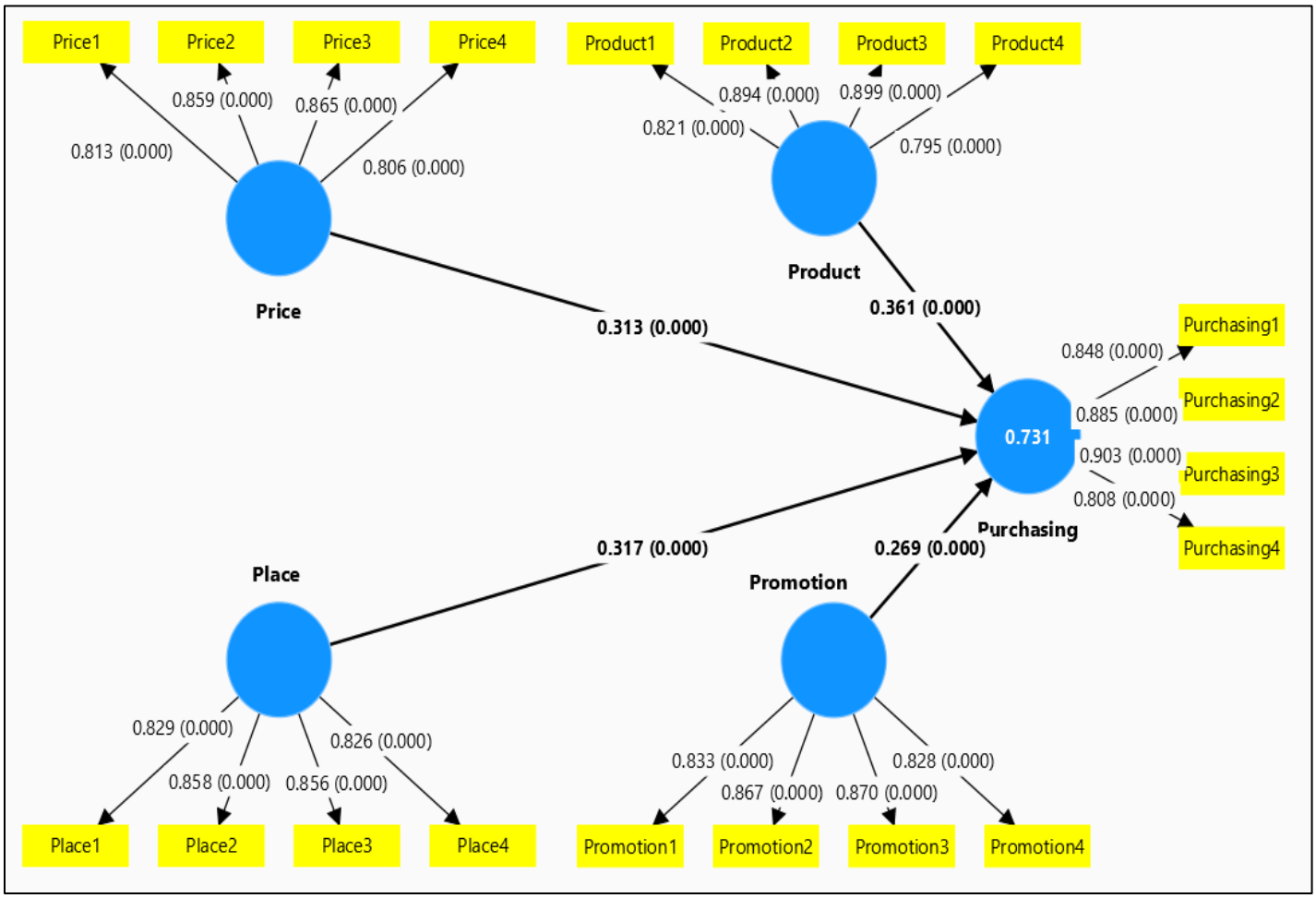

Figure 2: Output result for structural model for research framework

Table 6: Path analysis

Relationship	Std beta	t-value	p-value	Lower Limit	Upper limit	Significant
P1>PD	0.361	6.681	0.000	0.268	0.445	Yes
P2>PD	0.313	5.559	0.000	0.225	0.410	Yes
P3>PD	0.317	6.140	0.000	0.229	0.398	Yes
P4>PD	0.269	5.011	0.000	0.186	0.363	Yes

Table 7: Hypotheses testing

Hypothesis	p-value	Decision
There is significant and positive Product (P1) towards Purchasing Decision	0.000	Supported
There is significant and positive Price (P2) towards Purchasing Decision	0.000	Supported
There is significant and positive Place (P3) towards Purchasing Decision	0.000	Supported
There is significant and positive Promotion (P4) towards Purchasing Decision	0.000	Supported

Next, this research calculated the R-squared value for the established structural model. R-Squared (R^2 or the coefficient of determination) is a statistical measure in a regression model that determines the proportion of variance in the dependent variable that can be explained by the independent variable (Chicco et al., 2021). R-squared is a measure that provides information about the goodness of fit of a model. The threshold value for good model fit is 0.5 (Hair et al., 2017). Table 8 shows R-squared is 0.731 indicating that 73.1% of the variation in the dependent variable was explained by the independent variables in developed structural model. Therefore, the model fit is substantial that indicates high level of model fit and predictive accuracy.

Q-square is predictive relevance, measures whether a model has predictive relevance or not (> 0 is good). Further, Q^2 establishes the predictive relevance of the endogenous constructs. Q-square values above zero indicate that data and model analysis values are well reconstructed and that the model has predictive relevance (Fornell & Cha, 1994). Table 8 shows Q^2 value greater than zero indicates that the model has predictive relevance, meaning it can reliably predict outcomes for new data points.

It's important to note that while both R^2 and Q^2 assess model fit, they serve different purposes. R^2 measures how well the model fits the training data, whereas Q^2 evaluates the model's predictive performance on new, unseen data. Table 8 concludes that the developed structural model exhibits substantial model fit and high predictive relevance.

Table 8: R-squared and Q-squared analysis

Model	R-squared (R^2)	Model fit (R^2>0.5)	Q-squared (Q^2)	Predictive relevance (Q^2>0)
Structural model	0.731	Substantial model fit	0.533	Good predictive relevance

Then, this study performed the collinearity diagnostics test. A variance inflation factor (VIF) measures the amount of multicollinearity in a set of multiple regression variables. Here are common thresholds for interpreting VIF values: VIF = 1: No correlation between the predictor variable and other variables. 1 < VIF < 5: Moderate correlation; generally acceptable. VIF ≥ 5: Indicates potentially problematic multicollinearity (Hair et al., 2011). Table 9 shows the VIF value. Based on Table 9, the VIF for all four constructs are less than 5, that concludes there is no serious multicollinearity problem.

In statistics, an effect size is a value measuring the strength of the relationship between two variables in a population, or a sample-based estimate of that quantity. It assesses how strong one exogeneous construct contributes to explain a certain endogenous construct in term of R-squared. According to Cohen's (1988) guidelines, $f^2 \geq 0.02$, $f^2 \geq 0.15$, and $f^2 \geq 0.35$ represent weak, moderate, and substantial effect sizes, respectively. Table 9 shows the f-squared value for variables in the research model. Table 9 indicates Product (P1) has substantial effect on Purchasing Decision (PD) as the f-squared was recorded at 0.400. Next, the Price (P2) has moderate effect

Table 9: VIF and f-squared analysis

Variable	VIF	Serious multicollinearity (VIF ≥ 5)	f-squared value	Effect size
Product (P1)	1.205	no	0.400	substantial
Price (P2)	1.291	no	0.282	moderate
Place (P3)	1.110	no	0.336	moderate
Promotion (P4)	1.408	no	0.191	moderate

CONCLUSION

The halal food marketing landscape in Malaysia is characterized by a dynamic interplay of the 4P marketing mix—Product, Price, Place, and Promotion—each playing a crucial role in shaping consumer purchasing decisions. The findings of this research underscore the importance of these elements in enhancing the appeal and accessibility of halal products to both Muslim and non-Muslim consumers.

For first construct, product shows attributes, such as quality, variety, and compliance with halal standards, are paramount in influencing consumer preferences. The halal certification process not only assures consumers of the product's compliance with Islamic dietary laws but also enhances their trust and satisfaction. As consumers become increasingly aware of the health and ethical implications of their food choices, the demand for high-quality halal products continues to rise.

For the second construct, Price strategies are also critical, as they directly impact consumer purchasing behaviour. The study indicates that while consumers are willing to pay a premium for halal-certified products, the pricing must remain competitive to attract a broader audience, particularly among price-sensitive segments. This balance is essential for small and medium enterprises (SMEs) that may struggle with the costs associated with halal certification.

The third variable, Place refers to the distribution channels through which halal products are made available to consumers. The research highlights the significance of ensuring that halal products are easily accessible in various retail environments, including supermarkets, convenience stores, and online platforms. Effective distribution strategies can enhance product visibility and convenience, thereby encouraging purchases. The Malaysian government's initiatives to support halal logistics further facilitate the efficient distribution of halal products, reinforcing Malaysia's position as a global halal hub.

Finally, Promotion plays a vital role in communicating the benefits of halal products to consumers. The study emphasizes the effectiveness of promotional strategies, such as social media marketing and loyalty programs, in building brand awareness and fostering customer loyalty. By educating consumers about the ethical and quality aspects of halal products, marketers can enhance consumer engagement and drive purchasing decisions. In conclusion, the application of the 4P marketing mix provides valuable insights into the factors influencing consumer purchasing decisions in the halal food sector in Malaysia. As the halal market continues to expand, it is imperative for stakeholders to leverage these marketing strategies to address consumer needs and preferences effectively. Ongoing support from the government and industry players will be crucial in overcoming challenges and capitalizing on the burgeoning opportunities within the halal food market. Future research could explore the impact of emerging trends, such as digital marketing and sustainability, on halal food consumption patterns.

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