

INFLUENCE OF PERCEIVED CSR ON PURCHASE INTENTION IN MALAYSIA VEGAN FOOD INDUSTRY

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Abstract

This study aims to fill the gap in the study of the relationship between CSR perception and purchase intention in vegan food products within the context of Malaysia, a developing country known for its multiracial and multicultural community. This study aims to give Malaysian food industry players and entrepreneurs an insight into the implications of CSR perception towards Malaysian consumers on vegan food products. The population of this study consists of general consumers in Malaysia. As a cross-sectional study was carried out, the responses across different consumer demographic profiles were analysed to further understand the customers with various backgrounds. This study was conducted in a quantitative research mode. A cross-sectional survey was carried out, and data were collected from 99 Malaysian consumers with different demographic profiles. The survey data was analysed by adopting the PLS-SEM model. The result concluded that perceived CSR do not directly affect the purchase intention of vegan food, but is mediated by satisfaction and price fairness. Health consciousness does not have a significant effect towards the purchase intention of vegan food. Food companies must develop a strategy to link CSR initiatives with delivering satisfaction and price fairness value to consumers, thereby attracting purchase intention. Strategies and action plans must be implemented to emphasise the importance of dietary control in forming a healthier community. Effort from the government and food companies plays vital roles in raising awareness and encouraging Malaysians' access to affordable, healthy vegan food. This article's contribution is to propose a model that broadens the research in the literature examining the association between "Perceived CSR" and "Purchase intention" for vegan food products. The current study is an addition to the literature in that it analyses the acceptance of Malaysian consumers of vegan food products with different factors as mediators.

Research Paper

Keywords: Perceived CSR, Purchase Intention, Satisfaction, Price Fairness, Health Consciousness, Vegan Food

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Introduction

Malaysia has the most obese population in Southeast Asia, with the prevalence of obesity among adults at 21.8% in 2023, increased from 19.7% in 2019 (World Obesity, 2024). The increasing trend of obesity is a significant concern for public health. It is the leading cause of major non-communicable diseases (NCD), including type 2 diabetes, hypertension, which leads to cardiovascular diseases, and some kinds of cancers (Kim & Ramos, 2017; Mohd Sidik et al., 2021). According to the World Bank, NCDs caused 73.44% of deaths in Malaysia in 2019 (Trading Economics, 2025). Urbanised lifestyle changes and poor eating habits are the primary causes leading to the rise in the obesity rate in Malaysia (Islam, 2018; Mohd Sidik et al., 2021). The lifestyle change resulting from urbanisation has caused more Malaysians to eat out instead of having home-cooked food. The 'eat-out' practice is often associated with the consumption of unhealthy food (Gan et al., 2018). This is because Malaysians tend to opt for ready-to-eat meals or fast food when eating out, as they are cheaper, more convenient, and easily accessible. However, most of the outside food contains high carbohydrates, fats with less nutrition, which may lead to health issues such as overweight, obesity, and finally result in higher NCD rates (Mohamed et al., 2017).

The high NCD rate in Malaysia has brought great concern due to its negative impact on society and the economy. The cost of treatment has become an economic burden to Malaysian families and even the government. The direct healthcare expenses for NCD, which consisting of cardiovascular diseases, diabetes, and cancers, amounted to RM9.65 billion in 2017 (MOH, 2022). This amount is expected to continue skyrocketing as it anticipates the

drastic rise in medical costs from year to year. According to statistics, medical costs in Malaysia have increased by 12.6% in 2023, further escalating the country's negative financial impact (The Malaysia Reserve, 2024). To address the public health issue and mitigate the socio-economic issues associated with it, the Malaysian Ministry of Health (MOH) has launched programs to promote healthier eating habits among Malaysians. One of the programs MOH emphasised is refining and promoting the healthy plate guideline with the “quarter, quarter, half” principle. Malaysians are encouraged to increase their plant-based food intake from fruits and vegetables to achieve a balanced diet with sufficient nutrition intake (MOH, 2021). As one of the top meat consumers in Southeast Asia, Malaysia has relatively low vegan or vegetarian food consumption compared to neighbouring countries such as Thailand and Vietnam (Islam, 2018). A survey jointly conducted by PwC, Rabobank, and Temasek in 2020 found that only 20% of Malaysian respondents reported being likely to become vegan or vegetarian, ranking fifth behind Indonesia, Thailand, Singapore, and the Philippines (Jungle Insights, 2022).

Promoting vegan food consumption is one strategy to help Malaysians achieve a healthier diet, thereby reducing the obesity rate and preventing NCDs (Islam, 2018). Vegan food is often viewed as a more nutritious food option and helps boost the body's immunity (Boffa & Schreilechner, 2022). It can help with weight loss, as it usually contains lower calories and saturated fats, but higher fibre content (Loh et al., 2022). Additionally, vegan food is also considered rich in anti-inflammatory properties, a crucial attribute in preventing cancer (Habib et al., 2023). Malaysia's Ministry of Agriculture and Food Safety (MAFI) acknowledged the limitation of high-value-added agro-

food products produced in Malaysia due to the perception of higher risk and lower profitability, which causes a supply-demand mismatch within the food production value chain (MAFI, 2021). This study aims to understand further the factors that attract more consumers to vegan food, enabling food companies to innovate high-quality vegan products for the Malaysian market. This, in turn, is expected to increase vegan food consumption among the Malaysian population and contribute to the formation of a healthier nation.

CSR Practices in the Malaysian food industry

In recent decades, Corporate Social Responsibility (CSR) has gained popularity among organisations as an essential business practice to achieve better performance. The concept of CSR provides a framework for a company to achieve beyond economic returns and put extra effort into contributing to other stakeholders, including society, customers, employees, and the government, in four primary areas of responsibility: economic, legal, ethical, and philanthropic (Turker, 2008). The adoption of CSR used to be viewed as a Western ideology. It may not be adopted in the same way in developing countries due to challenges of socioeconomic and cultural differences (Gajadhar, 2022). However, a 2022 survey by KPMG International shows that the Asia-Pacific region has become the fastest-growing region in sustainability reporting, with 6 out of the top 10 countries, territories, and jurisdictions from this region. The main drivers of the growth of CSR practice include the benefits of financial performance (Yu & Choi, 2016), improved stakeholder relationships (Tapang & Bassey, 2017), competitive advantages (Kramer, 2006), and legislative controls (Fooks, Gilmore, Collin, & Lee, 2012), among others.

In Malaysia, CSR practices have gained popularity in the business world since around 2007 (Ramasamy et al., 2007). The Malaysian government has regulated all publicly listed companies (PLCs) to have CSR reporting as a mandatory requirement starting from 2016 (Louis et al., 2022; Ali, 2023).

Literature Review

In this section, a review of past studies on CSR practices in the food industry has been carried out to understand previous research further and develop the research framework. Various variables related to food product purchase intention are studied to understand the correlation between different variables in past studies. From those studies, research hypotheses were developed and conceptualised based on cognitive consistency theory.

Review of perceived CSR to purchase intention of food products

Studies of the relationship between CSR practice and the food industry became more popular around 2011, when publications rose significantly from 2011 to 2019 (He et al., 2022). The bibliometric review carried out by He et al. revealed that from the top ten countries with highest number of publications on CSR in food industry between 1993 to October 2019, nine of it are from western countries, with USA (112 publication) being the top, followed by England (85 publication) and China (65 publication) (Table 1). The key focus of the studies is consumer behaviour, supply chain and corporate

strategy. More research has been conducted on sustainability since 2016, following the announcement of the 2030 Sustainable Development Goals by the United Nations.

Table 1. Top ten countries with the most publications on CSR in the food industry (adopted from He et al., 2022)

Country	Number of publications	Percentage of publications (%)
USA	112	22.49
England	85	17.07
China	65	13.05
Italy	41	8.23
Netherlands	39	7.83
Germany	31	6.23
Australia	29	5.82
Canada	19	3.82
France	16	3.21
Spain	16	3.21

More studies have been conducted to test the relationship between CSR and consumer buying intention or behaviour regarding organic food products (Nejati et al., 2011); however, only a handful of studies have analysed the relationship between CSR and consumer purchase intention in vegan or vegetarian food. Most studies in developed countries concluded a positive impact of CSR on food purchasing intention or decision; the consumers in this region are willing to pay a higher premium due to social and environmental responsibilities from the food companies (Salamzadeh et al., 2022; Ebrahimi et al., 2022; Prakash et al., 2023; Nosi et al., 2020). However, in the context of developing countries, CSR may not have direct influence towards organic food product purchase intention, but other mediating factors such as corporate reputation (Hengboriboon et al., 2022), perceived value (Yilmaz,

2023; Hsu et al., 2018), taking place to mediate CSR towards the consumer purchase intention.

The study of CSR towards vegan food products is very scarce; one study has been carried out to examine how CSR affects different groups of consumers towards the vegan food industry. Boffa & Schreilechner (2022) studied how consumers from different diet options react to the CSR vegan food industry. In their study, they found that women vegan consumers have more positive responses towards CSR initiatives from the pure vegan food industry, but care less about CSR initiatives from normal food companies that produce vegan food products. More studies are needed to understand how perceived CSR influences consumers towards vegan food products.

Cognitive Consistency Theory

In most studies about how CSR is related to the purchase intention of food products, the theory of planned behaviour (TPB) was adopted to conceptualise the research framework. This study provides a different angle to analyse consumers' adoption of vegan food through cognitive consistency theory (CCT). CCT explained that people tend to maintain the coherence between their beliefs, attitudes and behaviour (Heider, 1946). The uneasiness and stress caused by the inconsistency is just like the psychological experience when one is in the state of hunger or thirst (Sharma et al., 2009).

Slinky (2019) mentioned that people turn to vegan food consumption when they learned about the sustainability impact and health benefits of doing so and begin to experience their existing diet options, which are perceived as unhealthy and less environmentally friendly. They are adopting the belief that

consuming vegan food contributes to the planet's sustainability by preserving animal welfare and positively affecting the preservation of the environment. CSR practice in a vegan food company may create an alignment with the belief in sustainability, ethics, and healthier consumption, thus fulfilling the CCT explanation.

Vegan food tends to have a more premium price tag. Suppose the company is heavily involved in a CSR initiative. In that case, the customer is willing to pay for the premium due to satisfaction with the perceived value carried by the vegan product and hence feels that the price tag is fair (Leonidou et al., 2010). As a result, this behaviour is justifiable by CCT.

Hypotheses Development

Relationship of PCSR toward the PI of vegan food

PCSR may directly or indirectly influence purchase intention (Oberseder et al., 2013). When a company actively implements CSR initiatives targeting customers as its stakeholders, customers will develop perceived value on the engagement and raise a firm purchase intention (Dawkin & Lewis, 2023; Smith, 2023). As a result, the following hypotheses are proposed:

H1 Consumer's Perceived CSR (PCSR) positively affects the purchase intention of vegan food products (PI).

Relationship of PCSR toward the SAT of vegan food

Positive perceived CSR will make consumers feel good when they purchase the company's product, which creates an additional value and bene-

fit to the consumer (Carvalho et al., 2010). This makes the customer feel identified with the company through the corporate identity framework and hence has higher satisfaction (Marin et al., 2009; Yuen et al., 2016). Through this relationship, the following hypothesis is proposed:

H2 Consumers' Perceived CSR (PCSR) positively affects customer satisfaction (SAT) with vegan food products.

Relationship of PCSR toward PF of vegan food

When a company practises CSR initiatives, it develops a company image that the company is concerned about the environment, society and even its customers. This brings an additional perceived benefit to the consumer, and thus the consumer may feel the price is fair even if the price is higher (Samuel & Chandra, 2014; Habel et al., 2016). This expectation leads to the following hypothesis:

H3 Consumers' perceived CSR (CSRP) positively affects vegan food products' price fairness (PF).

Relationship of SAT toward PI of vegan food

Satisfaction has a strong connection to purchase intention. When customers feel satisfied, it will enhance customers' loyalty, stimulate repurchase intention and make them less sensitive to price (Yoon et al., 2010; Hansemark & Albinson, 2004). This resulted in the following hypothesis:

H4 Consumer satisfaction (SAT) positively affects vegan food products' purchase intention (PI).

Relationship of PF toward PI of vegan food

Price fairness has always been a strong predictor towards purchase intention (Lee et al., 2011). Price as a significant barrier to purchase intention may significantly mitigate the cause of the higher price tag if it is transparently disclosed and makes sense (Kathuria & Gill, 2013). The unfair price tag can lead to customer disloyalty, complaints, and even switching to other alternatives (Semuel & Chandra, 2014). Thus, the following hypotheses are proposed:

H5 Consumer's price fairness (PF) positively affects vegan food products' purchase intention (PI).

Relationship of HC toward PI of vegan food

Health consciousness positively influences the purchase intention of healthy food (Raft et al, 2024). Vegan food is perceived to be healthy naturally (Boffa & Schreilechner, 2022). Thus, consumers more conscious about their health are more likely to consume vegan food from its perceived healthier value (Chamburi, 2023). Thus, the following are proposed:

H6 Health Consciousness (HC) positively affects the purchase intention of vegan food products (PI).

Mediation relationship of HC, SAT and PF between PCSR and PI of vegan food

The relationship between PCSR and PI is complex, as CSR affects PI through direct and indirect relationships (Oberseder et al., 2013). The indirect relationship is mediated through different mediating variables (Alniacik et al.,

2020). Most of the literature available has concluded that other variables always mediate the relationship between PCSR and PI. Health consciousness, satisfaction, and price fairness have been tested as important variables to further understand the relationship between PCSR and PI of vegan food. Many past studies recognised that the relationship between PCSR and PI is always indirect and complex.

Though consumers may have a positive attitude towards the CSR practice of companies, it may not directly translate into the purchase intention of the products. One of the studies concluded that PCSR fulfil the satisfaction feeling among consumers, and hence accepts that the price is fair with the extra value from the satisfaction experience, which finally translates into their purchase intention. Sequential mediation relationships are tested for PCSR and PI to uncover the complex, indirect pathways through which PCSR influence the consumer purchase intention, rather than assuming more direct links (Jha et al., 2022). The hypotheses of the mediation relationship are proposed as follows:

H7 Satisfaction (SAT) positively mediates the relationship between consumers' perceived CSR (PCSR) and purchase intention (PI) of vegan food products.

H8 Price fairness (PF) positively mediates the relationship between consumers' perceived CSR (PCSR) and purchase intention (PI) of vegan food products.

H9 Health Consciousness (HC) positively mediates the relationship between consumers' Perceived CSR (PCSR) and the purchase intention (PI) for vegan food products.

H10 Customer satisfaction (SAT) and price fairness (PF) sequentially mediate the relationship between consumers' perceived CSR (PCSR) and purchase intention (PI) of vegan food products.

H11 Health Consciousness (HC) and price fairness (PF) sequentially mediate the relationship between consumers' perceived CSR (PCSR) and purchase intention (PI) of vegan food products.

Research Framework

Based on the hypotheses developed from the previous section, the research conceptual framework is developed as follows:

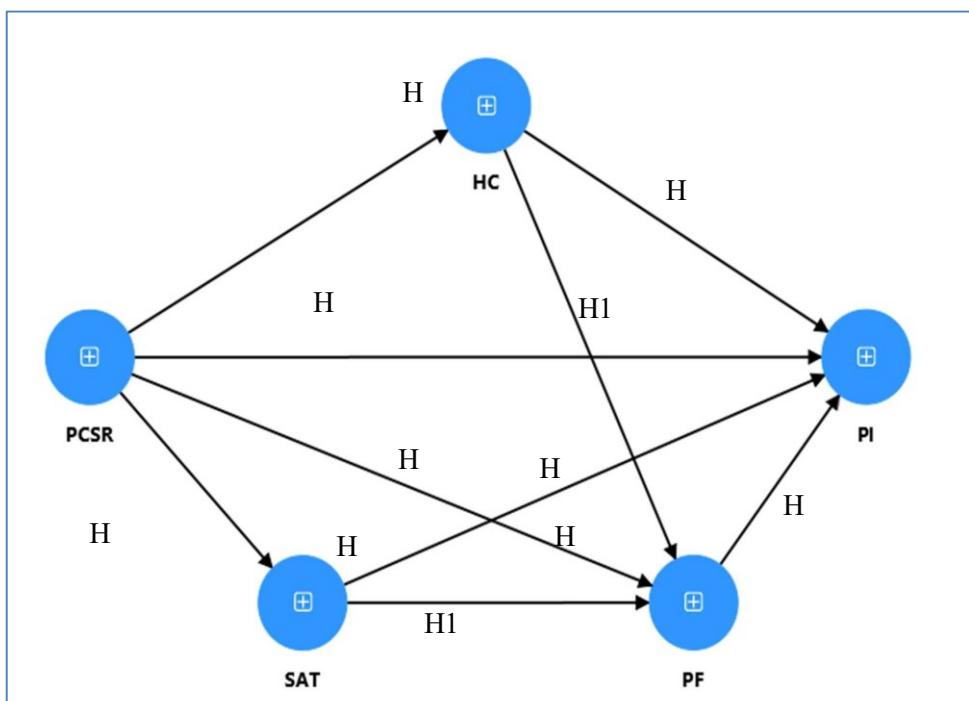


Figure 1. Research framework

Research Method

In this section, the research method used in this study was elaborated on in the following sequence: unit of analysis, population frame, sampling and data collection, survey instruments, and development of the survey instrument. Subsequent sections explain the type of analysis used in this research.

Research Design

This study employs a quantitative research approach. A cross-sectional survey was conducted to collect data from domestic consumers with diverse demographic backgrounds. The survey was conducted from March to May 2025. The survey questionnaires were distributed to the target respondents via Google Forms and were conducted anonymously.

Unit of Analysis

To generate a representative result, the unit of analysis needed to be determined according to the research purpose. In this study, the unit of analysis selected is at the individual level. Every individual consumer will be sampled and analysed based on their response.

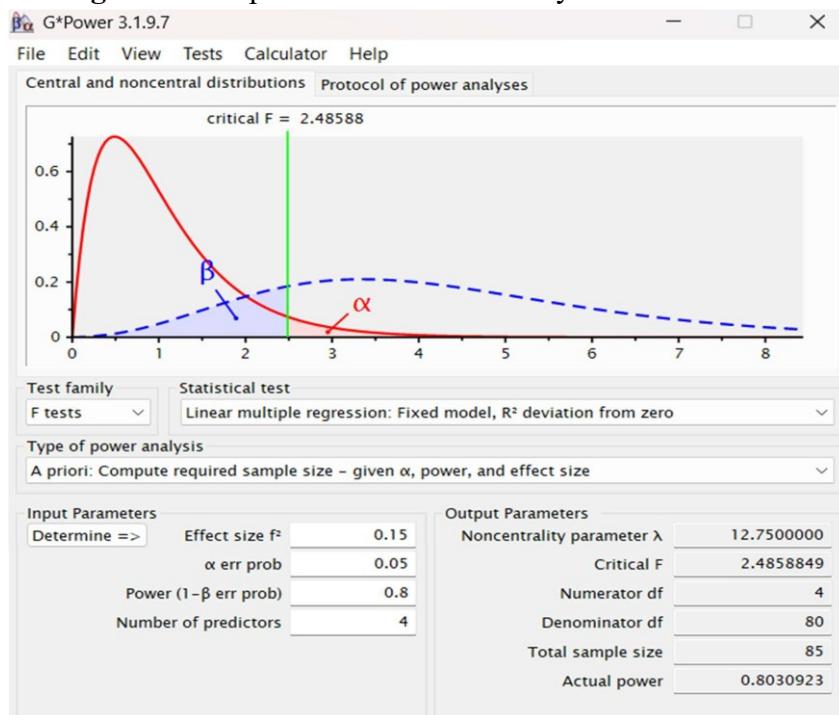
Population and sampling

This survey is planned to be conducted among domestic consumers in Malaysia. The cluster sampling method was initially chosen to obtain generalised results from different demographic backgrounds, representing the population of consumers in Malaysia. However, the sampling method shifted to

convenience sampling and snowball sampling due to a poor response rate from the targeted respondents in order to receive sufficient responses for this study. The target respondents are adult domestic consumers with different demographic backgrounds. The survey questionnaires will be distributed through social media, targeting consumers from different demographic backgrounds to obtain generalised results representing the community.

G*Power 3.1 software determines the sample size required for this research. It was first developed by Erdfelder, Faul, & Buchner in 1996, and further improved in 2009 for statistical power analysis and sample size determination. A priori power analysis was chosen by setting the desired power level ($1-\beta$ err prob) at 0.8 and the significance level (α) at 0.05, which is commonly acceptable (Faul, Erdfelder, Buchner & Lang, 2009). With an effect size of 0.15, which is known as the medium effect, a sample size of 85 is required to achieve the acceptable and significant power levels. A screenshot of the calculation is shown in Figure 2.

Figure 2. Sample size determination by G*Power 3.1.9.7



Research Instrument

In this research, questionnaires will be prepared for data collection from all respondents. The questionnaires will be divided into two parts. The first part will mainly collect demographic information from the respondents. The second part of the questionnaire will collect the responses on the research variables based on a 5-point Likert scale, with 1 for strongly disagree to 5 for strongly agree. The questions will be adopted from the available literature, which has been tested for validity through past studies.

For perceived CSR (PCSR), the questions are adopted from studies by Bianchi et al. (2019), which have nine items of constructs. The constructs are

being validated with a Cronbach's alpha of 0.836. Some example questions are “Vegan food companies are socially responsible” and “Vegan food companies are actively involved in philanthropic works.”

For satisfaction (SAT), the questions are adopted from studies by Bigne et al. (2011) and Severt et al. (2020), which use four items of constructs. The constructs are being validated with a Cronbach's alpha of 0.799. An example of the question is, “Vegan food fulfils all my expectations.”

For price fairness (PF), the questions are adopted from studies by Hassan et al. (2013) and Namkung & Jang (2010) with four items of constructs. The constructs are being validated with a Cronbach's alpha of 0.849. An example of the question is “Vegan food is worth the value.”

For purchase intention (PI), the questions are adopted from studies by Harun et al. (2018), which use six items of constructs. The constructs are being validated with a Cronbach's alpha of 0.793. An example of the question is, “Vegan food will be my top choice.”

For health consciousness (HC), the questions are adopted from studies by Nagaraj (2021) with five items of constructs. The constructs are being validated with a Cronbach's alpha of 0.78. An example of the question is “I am self-conscious about my health status all the time.” All constructs are tested with a Cronbach's alpha value higher than 0.7, which is acceptable.

Discussion & Analysis

In this chapter, the survey data were analysed using Smart PLS 4 software with the PLS-SEM model. The results of the data collection and the

analyses explained in the previous chapter will be discussed. Firstly, the response rate of the survey and the respondents' profile will be explained and analysed. Next, the result of the goodness of measure will be discussed, followed by the results of the structural model analysis.

Survey Response

The survey questionnaires were distributed through email, WhatsApp, and Facebook social networks. The questionnaires are shared directly with potential respondents from different ages, ethnicities, and education levels to get more generalised survey results. Malaysian respondents generally give lower responses to academic surveys. Survey questionnaires were sent to reach 150 potential respondents; however, only 99 completed survey forms were received throughout the survey period, which gives a response rate of only 66%. As a result, the demographic profile distribution may not represent the actual population in Malaysia. Rewards in terms of monetary or free gifts should be considered in future research to encourage more participation from Malaysian respondents.

Descriptive Analysis

Descriptive analysis was conducted to analyse the demographic profile distribution of the respondents who participated in this survey. Descriptive analysis is a technique that helps to present and conclude data more constructively and often gives us a broader view of data (Analytics steps, 2021). Through descriptive analysis, we can understand the distribution of respondents in different demographic classifications, which provides us with better

insight to interpret the statistical analysis results in the next section. In this survey, the demographic items recorded are gender, nationality, age group, ethnicity, education level, and income level. Listed in Table 2 is the demographic profile of respondents.

Table 2. Demographic profile of respondents

Demographic	Classification	Frequency	Percentage
Gender	Male	37	37.4%
	Female	62	62.6%
Nationality	Malaysian	97	98.0%
	Non Malaysian	2	2.0%
Age group	below 30	31	31.3%
	30-39	34	34.3%
	40-49	20	20.2%
	50 & above	14	14.1%
Ethnicity	Malay	29	29.3%
	Chinese	62	62.6%
	Indian	7	7.1%
	Others	1	1.0%
Education level	SPM	7	7.1%
	Certification or Diploma	12	12.1%
	Bachelor degree	65	65.7%
	Master's degree and above	15	15.2%
Income level	RM2499 and below	14	14.1%
	RM2500 to RM4999	36	36.4%
	RM5000 to RM7499	25	25.3%
	RM7500 to RM9999	9	9.1%
	RM10000 and above	15	15.2%

Of 99 respondents from this survey, 62.6% are females and 37.4% are males. This shows a higher response rate from female respondents compared to males. Two foreigners are staying in Malaysia who took part in this survey, which contributes to 2%, where the rest are Malaysian respondents. From the age group classification, it was observed that the respondents were made up

of 31.3% below 30, 34.3% aged from 30 to 39, 20.2% aged from 40 to 49, and 14.1% aged 50 and above. The respondents aged below 40 have a higher ratio of 65.6%, which is reported as the consumer group with the highest openness to accept new products, according to a market report by Vodus (2024). In the classification of ethnicity, the respondents consisted of 29.3% of Malays, 62.6% of Chinese, 7.1% of Indians, and 1% of other ethnicities. Looking into the level of education among the respondents, the majority of them obtained a Bachelor's degree (65.7%), followed by a Master's degree or above with 15.2%, a college certification or diploma with 12.1%, and lastly SPM certificate with 7.1%. This distribution may be caused by the difficulty in attracting respondents with a lower academic level in Malaysia, as they may find it not relevant to them. The last demographic classification of the respondents is the level of income. Referring to Table 2, the highest group of respondents based on their income level is consumers with an income of RM2500- RM4999 range (36.4%) and followed by the RM5000-RM7499 range (25.3%).

In summary, the demographic profile distribution of this survey is biased towards female consumers, the age group below 40 years old, the Chinese community, respondents with tertiary education, and earning in the range of RM2500 – RM7499, which fall into the B40 and lower M40 group. This distribution has limited generalisation against Malaysia's actual population. However, in the context of limited resources and timeline, and limitations with the compromised sampling method, the result of the study will be interpreted based on the sample characteristics as is.

Measurement model assessment

The measurement model was tested through the PLS algorithm to test its goodness of measurement. Firstly, the outer loading of all indicators in every construct was determined to validate the indicators' reliability. All indicators except HC4 and HC5 in construct Health Consciousness obtained outer loadings more than 0.7, which indicates that the indicators' correlation with their constructs is strong enough and is acceptable in this study (Hair et al, 2019). Next, the constructs' composite reliability (ρ_c) and average variance extracted (AVE) were determined and assessed. Results show that all constructs are acceptable, with ρ_c more than 0.7 and AVE more than 0.5, indicating that the convergent validity of the constructs is acceptable. As the ρ_c and AVE for construct Health Consciousness (HC) with values of 0.867 and 0.573 are higher than the acceptable values, thus its indicators HC4 and HC5 with outer loadings 0.698 and 0.531 (higher than 0.4 but lower than 0.7) are both accepted according to the criteria proposed by Hair et al. (2019). The result of the measurement model assessment is listed in Table 3.

Table 3. Measurement model assessment

Construct	Items	Outer Loading	CR	AVE
Perceived CSR (PCSR)	PCSR1	0.809	0.954	0.698
	PCSR2	0.886		
	PCSR3	0.797		
	PCSR4	0.801		
	PCSR5	0.809		
	PCSR6	0.894		
	PCSR7	0.836		
	PCSR8	0.861		
	PCSR9	0.819		
Health Consciousness (HC)		0.824	0.867	0.573
	HC1			
	HC2	0.823		
	HC3	0.859		
	HC4	0.698		
Price Fairness (PF)	HC5	0.531		
	PF1	0.763	0.909	0.714
	PF2	0.9		
	PF3	0.873		
Purchase Intention (PI)	PF4	0.837		
	PI1	0.891	0.941	0.728
	PI2	0.85		
	PI3	0.86		
	PI4	0.855		
	PI5	0.93		
Satisfaction (SAT)	PI6	0.716		
	SAT1	0.875	0.89	0.729
	SAT2	0.88		
	SAT3	0.805		

Notes: Indicator SAT4 was dropped to achieve acceptable discriminant validation between SAT and PI.

After the assessment of the reliability and validity of the constructs, the measurement model was further assessed for its discriminant validity. Determination of Heterotrait-Monotrait Ratio (HTMT) was carried out to test

the intercorrelation among the constructs. This is to ensure every construct is distinct and does not overlap with the other, so that the model is able to be evaluated fairly and not biased. For this study, the HTMT value for correlation between satisfaction (SAT) and purchase intention (PI) from the original module returned to be 0.932, which is higher than the threshold value based on lenient acceptance of 0.9 (Hair et al. 2019). The model was further improved by dropping the indicator SAT4, which contributed to the higher HTMT between SAT and PI. From the HTMT result for the revised model as stated in Table 4, the HTMT value for the correlation between SAT and PI is 0.907, which is still slightly higher than the lenient threshold of 0.9. However, as pointed out by Henseler et al. (2015), bootstrapping analysis may be performed as an HTMT inference test, and the confidence interval of HTMT is to be determined to confirm its acceptance. The upper threshold of HTMT's confidence interval should not include the value of 1 in order for the model to be accepted. As the upper bound CI for correlation between SAT and PI is 0.965, which is lower than 1, it is considered to be acceptable, according to Henseler et al. (2015). The confidence interval of HTMT of the revised model has been tested with the result in Table 5. The higher HTMT value for SAT and PI may possibly be caused by the respondents' interpreting both constructs similarly and not being able to clearly distinguish between the two constructs. This model may be tested with a larger sample size and a more generalised population to have sufficient variance among the two constructs in a future study, or else the model can be further refined by removing the SAT to reduce the confusion of the respondents.

Table 4. Hypothesis analysis

	β coefficient	STDE V	T-statistics	P-values	Decision
Direct effects	H1	0.088	0.083	1.064	0.144
	H2	0.549	0.053	10.295	0
	H3	0.331	0.09	3.657	0
	H4	0.622	0.073	8.52	0
	H5	0.18	0.092	1.963	0.025
	H6	0.03	0.069	0.433	0.333
Specific indirect effects	H7	0.342	0.053	6.483	0
	H8	0.06	0.033	1.795	0.036
	H9	0.008	0.022	0.387	0.349
	H10	0.041	0.025	1.604	0.054
	H11	0.003	0.007	0.408	0.341

Notes: PCSR, Perceived CSR; HC, health consciousness; PF, price fairness; PI, purchase intention of vegan food products; SAT, satisfaction.

Discussion

The research objective for this study is to assess how perceived CSR influence the purchase intention of Malaysian consumers in vegan food products, by introducing different mediating factors in order to determine the right strategy to attract more consumers to purchase and consume the vegan food products. Although the research model has low predictive power, which may be explained by the smaller sample size and the challenge of obtaining a generalised response from the current sample, the result of the study is discussed as it is based on the context of the population covered by the current sample. From the result of the analysis, six hypotheses were accepted and five were rejected. In the following subsection, the results of every hypothesis will be discussed to justify the acceptance or rejection of the hypothesis.5.2

From the analysis result, perceived CSR have an insignificant effect towards the purchase intention of vegan food products (H1). This finding is consistent with Jha et al. (2022) and Kim & Bhalla (2022)'s findings, while not conforming to the results from Dean (2004) and Assiouras, Ozgen & Skourtis (2013). Mohd Isa et al. (2018) and Kim & Ramos (2017) pointed out that consumers may feel sceptical towards the CSR initiatives by companies and think that companies have other motives behind the initiatives. Hence, consumers may not be directly influenced by their perceived CSR in their buying intention. More sincere participation by the food companies in CSR initiatives is needed to build a positive reputation and acceptance by consumers.

The perceived CSR shows a significant positive effect on satisfaction (H2) and price fairness (H3) towards vegan food. This outcome conforms to the study results from Carvalho et al. (2010) and Yuen et al. (2016) for satisfaction and Habel et al. (2016) for price fairness. From this outcome, we can deduce that consumers generally feel positive about CSR initiatives, and that makes them feel good and develop a sense of satisfaction and a sense of fairness in the company (Jha et al., 2022).

Both satisfaction and price fairness also show significant positive effects towards the purchase intention of vegan food (H4 & H5). As consumers feel the price is fair and are satisfied with the company or product, they will be encouraged to purchase the products from the company. This finding confirms the result by Jha et al. (2022) and Schiffman and Kanuk (2007). The

strong loading of these two factors with perceived CSR and purchase intention also resulted in both being significant mediators to strengthen the relationship between perceived CSR and purchase intention (H7 & H8).

However, we don't observe the same result for the sequential mediation with satisfaction and price fairness upon the relationship between perceived CSR and purchase intention (H10).

This result is contradictory to the findings of the previous study by Jha et al. (2022). This result may be caused by the difference in demographic profile in the current study. Khan et al. (2022) pointed out that Malaysian consumers are generally more price-sensitive towards the food they consume. This condition may be magnified with the demographic profile of this study, with a higher population of respondents in the lower or lower-middle income groups. With the availability of vast choices of food products in Malaysia that can satisfy Malaysian consumers, they may not be able to have a strong link between satisfaction and price fairness.

What is surprising is the insignificant relationship between health consciousness and the purchase intention of vegan food products (H6). This finding is contrary to findings by Raff, Ligabara & Chiliya (2024). This probably shows less correlation of dietary control in health in the perception of vast Malaysian consumers, which also explains why Malaysia is the most obese country in ASEAN, and the rise of NCD rate among the Malaysian population. In Malaysia, eating is culturally important in daily life as a social activity. Malaysians hold pride in their traditional food culture, with its richness and variety due to the blending of multiple cultures. Malaysian cuisine, which is known for its intense flavour and richness, is often high in calories, fats and

sugar. This may pose a great concern in the Malaysian community, and more efforts are needed to educate Malaysians on proper diet control in order to maintain health. The same trend is observed in the role of health consciousness as a mediator (H9) and sequential mediator with price fairness (H11) in the relationship between perceived CSR and purchase intention of vegan food products.

Conclusion

As explained in cognitive consistency theory, the perception of high price in vegan food products remains the highest cause of the lower purchase intention of vegan food among Malaysian consumers. Perceived CSR alone cannot drive the purchase intention of vegan food. Price fairness and satisfaction are still the dominant factors influencing Malaysians' food choices. The idea of selling vegan food at a more premium price may not be accepted by the Malaysian community as of now. The CSR initiative can only be added as additional value for better competitiveness. Strategies and action plans must be implemented to emphasise the importance of dietary control in forming a healthier community. Effort from the government and food companies plays vital roles in raising awareness and encouraging Malaysians' access to affordable, healthy vegan food.

References

1. Ab. Hamid, M. R., Sami, W. & Mohmad Sidek, M. H. (2017). Discriminant Validity Assessment: Use of Fornell & Larcker criterion versus HTMT Criterion. *Journal of Physics: Conference Series*, 890.
2. Ali, J. (2023). Does mandatory corporate social responsibility expenditure affect the financial performance of food and agribusiness firm? Evidence from India. *European Business Review*, 35(4), 520-533.
3. Alniacik, E., Moumen, C., & Alniacik, U. (2020). The moderating role of personal value orientation on the links between perceived corporate social performance and purchase intentions. *Corporate Social Responsibility and Environmental Management*, 27(6), 2724– 2734.
4. Analytic steps (2021). An overview of descriptive analysis. Available from: <https://www.analyticssteps.com/blogs/overview-descriptive-analysis> (accessed 17th May 2025)
5. Anselmsson, J., Bondesson, N., & Johansson, U. (2014). Brand image and customers' willingness to pay a price premium for food brands. *Journal of Product & Brand Management*, 23(2), 90-102.
6. Bianchi, E., Bruno, J. M., & Sarabia-Sanchez, F. J. (2019). The impact of perceived CSR on corporate reputation and purchase intention. *European Journal of Management and Business Economics*, 28(3), 206–221.
7. Bigne, E., Alvarado, A., Aldas, J., & Curras, R. (2011). Efectos de la responsabilidad social corporativa percibida por el consumidor sobre el valor y la satisfaccion con el servicio. *Revista Europea de Direccion y Economía de la Empresa*, 20(4), 139–160
8. Boffa, A., & Schreilechner, L. (2022). Consumer Perception of Corporate Social Responsibility in the Vegan Food Industry (Dissertation).
9. Bowen (1953). “Social Responsibilities of the businessman”, pp. 4-7
10. Carvalho, S. W., Sen, S., de Oliveira Mota, M., & de Lima, R. C. (2010). Consumer reactions to CSR: A Brazilian perspective. *Journal of Business Ethics*, 91(SUPPL 2), 291–310.
11. Chamburi, N. et al. (2023). Exploring consumer attitudes and behavior towards sustainable health related food choices. *British Food Journal*, 126(2), 920-937.
12. Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences* (2nd ed.) Lawrence Erlbaum Associates.
13. CSR Malaysia (2021). Yeo's Helping Hands Provides RM1 Million Food Aid for 28,000 B40 Families In Malaysia. Available from: <https://csrmalaysia.org/yeos-helping-hands-provides-rm1-million-food-aid-for-28000-b40-families-in-malaysia/>. (Assess 5th July 2025)

14. Dawkins, J., & Lewis, S. (2003). CSR in stakeholder expectations: And their implication for company strategy. *Journal of Business Ethics*, 44(2), 185–193.
15. Dias, S. B., Jelinek, H. F., & Hadjileontiadis, L. J. (2024). Predictive model out-of-sample predictive power estimation via the comparison of the prediction root mean squared error (RMSE) between the PLS-SEM and the naive linear regression model (LM) benchmark. (Version 1). PLOS ONE.
16. Ebrahimi, P., Salamzadeh, A., Soleimani, M., Khansari, S. M., Zarea, H., & Fekete-Farkas, M. (2022). Startups and consumer purchase behavior: Application of support vector machine algorithm. *Big Data and Cognitive Computing*, 6(2), 34.
17. Faul, F., Erdfelder, E., Buchner, A. & Lang, A.G. (2009). Statistical power analyses using G*Power 3.1: Tests for correlation and regression analyses. *Behaviour Research Methods*, 41(4), 1149-1160.
18. Food Navigator Asia (2019). Is ASEAN Vegetarian-Friendly? Available from <https://theaseanpost.com/article/asean-vegetarian-friendly> (assessed 30 December 2024)
19. Franke, G. & Sarstedt, M. (2018). Heuristics versus statistics in discriminant validity testing: a comparison of four procedures. *Internet Research*, 29(3), 430-447.
20. Gan, W.; Boo, S.; Seik, M. & Khoo, H. (2018). Comparing the nutritional status of vegetarians and nonvegetarians from a Buddhist Organisation in Kuala Lumpur, Malaysia. *Malaysian Journal of Nutrition*. 24 (1), 89-102.
21. Habel, J., Schons, L. M., Alavi, S., & Wieseke, J. (2016). Warm glow or extra charge? The ambivalent effect of corporate social responsibility activities on customers' perceived price fairness. *Journal of Marketing*, 80(1), 84–105.
22. Habib, M. D. et al. (2024). Diet or lifestyle: Consumer purchase behavior of vegan retailing. A qualitative assessment. *Journal of Retailing and Consumer Services*. 76.
23. Hansemark, O. C., & Albinsson, M. (2004). Customer satisfaction and retention: The experiences of individual employees. *Managing Service Quality: An International Journal*, 14(1), 40–57.
24. Harun, A., Prybutok, G., & Prybutok, V. (2018). Do the millennials in the USA care about the fast food industry's involvement in corporate social responsibility? *Young Consumers*, 19(4), 358–381.
25. Hassan, M., Hassan, S., Nawaz, M. S., & Aksel, I. (2013). Measuring customer satisfaction and loyalty through service fairness, service quality and price fairness perception: An empirical study of Pakistan mobile telecommunication sector. *Science International*, 25(4), 971–980.

26. He, M.; Yu, W. & Han, X. (2022). Bibliometric Review on Corporate Social Responsibility of the Food Industry. Hindawi, *Journal of Food Quality*, 2022, 7858396.
27. Heider, F. (1946). Attitudes and cognitive organization. *The Journal of Psychology*, 21(1), 107–112.
28. Hengboriboon, L., Narueetharadol, P., Ketkeaw, C., & Gebtsombut, N. (2022). The impact of product image, CSR and green marketing in organic food purchase intention: Mediation roles of corporate reputation. *Cogent Business & Management*, 9(1).
29. Islam, J. (2018). Intention towards vegetarian diet in Malaysia as a concern of healthy eating lifestyle. *Universiti Putra Malaysia*.
30. Jha, A.; Kapoor, M.; Kaul, K. & Srivastava, S. (2022). Demystifying the influence of CSR perception on the purchase intention of Generation Z in fast food industry. *LBS Journal of Management & Research*, 20 (½), 1-20.
31. Jungle Insight (2022). Future of plant-based proteins (alternative meats) in Southeast Asia. Available from: <https://www.jungle.vc/resources/future-of-plant-based-proteins-alternative-meats-in-southeast-asia> (assessed 26 December 2024)
32. Just Food (2021). Nestle's new plant-based facility in Malaysia comes on-stream. Available from: <https://www.just-food.com/news/nestles-new-plant-based-facility-in-malaysia-comes-on-stream/?cf-view> (access 24 December 2024)
33. Lee, S., Illia, A., & Lawson-Body, A. (2011). Perceived price fairness of dynamic pricing. *Industrial Management and Data Systems*, 111(4), 531–550. Leonidou, L. C., Leonidou, C. N., & Kvasova, O. (2010). Antecedents and outcomes of consumer environmentally friendly attitudes and behaviour. *Journal of Marketing Management*, 26(13-14), 1319–1344.
34. Loh, H. C. et al. (2022). A bibliometric review and the direction of future vegan-related research: a qualitative approach. *International Journal of Disease Reversal and Prevention*. 4(1) 20pp.
35. Malaysia Business Connection, n.d. Rapidly growing Vegetarian • Vegan market in Malaysia. Available from: https://connection.com.my/en/malaysia_vegetarian_food/ (assessed 26 December 2024)
36. Marin, L., Ruiz, S., & Rubio, A. (2009). The role of identity salience in the effects of corporate social responsibility on consumer behavior. *Journal of Business Ethics*, 84(1), 65– 78
37. Ministry of Health Malaysia (2021). Research and technical support (r&ts) programme strategic plan 2021-2025, First Edition.
38. Ministry of Health Malaysia (2021). The direct health-care cost of noncommunicable diseases in Malaysia.

39. Mohamad Zain, R. et al. (2024). An investigation of the barriers and drivers for implementing green supply chain in Malaysian food and beverage SMEs: a qualitative perspective. *WSEAS Transactions on business and economic*, 21, 2169-2189.
40. Mohamed, Z.; Terano, R.; Yeoh, S. J., & Iliyasu, A. (2017). Opinion of non-vegetarian consumers among the Chinese community in Malaysia toward vegetarian food and diets. *Journal of food products marketing*, 23(1), 80-98.
41. Mohd Isa, S.; Chin, P. N. & Liew, I. (2018). Exploring the role of corporate social responsibility skepticism in ethical purchase intention. *Social Responsibility Journal*, 16 (2), 291-307.
42. Mohd-Sidik, S.; Lekhraj, R.; Foo, C.N. Prevalence, Associated Factors and Psychological Determinants of Obesity among Adults in Selangor, Malaysia. *Int. J. Environ. Res. Public Health* 2021, 18, 868.
43. Nagaraj, S. (2021). Role of consumer health consciousness, food safety & attitude on organic food purchase in emerging market: A serial mediation model. *Journal of Retailing and Consumer Services*, 59.
44. Namkung, Y., & Jang, S. C. (2010). Effects of perceived service fairness on emotions, and behavioral intentions in restaurants. *European Journal of Marketing*, 44(9), 1233–1259
45. Nejati, M., Salamzadeh, Y., & Salamzadeh, A. (2011). Ecological purchase behaviour: insights from a Middle Eastern country. *International Journal of Environment and Sustainable Development*, 10(4), 417-432.
46. Nestle (2021). Nestlé Malaysia Officially Opens First Plant-Based Meals Production Site in ASEAN. Available from: <https://www.nestle.com.my/media/pressreleases/pbms-factory-launch> (Access 26 Dec 2024)
47. Nosi, C., Zollo, L., Rialti, R. and Ciappei, C. (2020), "Sustainable consumption in organic food buying behavior: the case of quinoa", *British Food Journal*, Vol. 122 No. 3, pp. 976- 994.
48. Oberseder, M., Schlegelmilch, B. B., & Murphy, P. E. (2013). CSR practices and consumer perceptions. *Journal of Business Research*, 66(10), 1839–1851
49. Prakash, G., Singh, P.K., Ahmad, A. and Kumar, G. (2023), "Trust, convenience and environmental concern in consumer purchase intention for organic food", *Spanish Journal of Marketing - ESIC*, Vol. 27 No. 3, pp. 367-388.
50. Preacher, K.J., Hayes, A.F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, & Computers* (36) 717–731.
51. Preacher, K.J., Hayes, A.F. (2008). Contemporary approaches to assessing mediation in communication research. *Advanced data analysis methods for communication research* (2) 13-54.

52. Salaam Gateway, (2021) Malaysia's growing plant-based food market attracts global brands and local startups. Available from: <https://salaamgateway.com/story/malaysias-growing- plant-based-food-market-attracts-global-brands-and-local-startups> (assessed 26 December 2024)
53. Salamzadeh, A., Ebrahimi, P., Soleimani, M., & Fekete-Farkas, M. (2022). Grocery apps and consumer purchase behavior: application of Gaussian mixture model and multi-layer perceptron algorithm. *Journal of Risk and Financial Management*, 15(10), 424.
54. Semuel, H., & Chandra, S. S. (2014). The analysis of corporate social responsibility implementation effects towards price fairness, trust and purchase intention at Oriflame cosmetics product in Surabaya. *Procedia - Social and Behavioral Sciences*, 155, 42–47.
55. Severt, K., Shin, Y. H., Chen, H. S., & DiPietro, R. B. (2020). Measuring the relationships between corporate social responsibility, perceived quality, price fairness, satisfaction, and conative loyalty in the context of local food restaurants. *International Journal of Hospitality and Tourism Administration*, 1–23.
56. Sharma, D., Borna, S., & Stearns, J. M. (2009). An investigation of the effects of corporate ethical values on employee commitment and performance: Examining the moderating role of perceived fairness. *Journal of Business Ethics*, 89(2), 251–260.
57. Smith, N. C. (2003). Corporate social responsibility: Whether or how? *California Management Review*, 45(4), 52–77.
58. The Asean Post (2019). Is ASEAN vegetarian-friendly? Available from: <https://theaseanpost.com/article/asean-vegetarian-friendly> (Access 30 Dec 2024)
59. The Malaysia Reserve (2024), Malaysians spend RM1200 a month dining out. Available from: <https://themalaysianreserve.com/2024/12/30/malaysians-spend-rm1200-a-month-dining-out/> (Access 26 Dec 2024)
60. The Vegan Society, (2024). Ripen by human determination. Available from: <https://www.vegansociety.com/sites/default/files/uploads/Ripened%20by%20human%20determination.pdf> (assessed 30 December 2024)
61. Turker, D. (2009). Measuring Corporate Social Responsibility: A Scale Development Study. *J Bus Ethics* 85, 411–427.
62. Vegconomist (2023) Malaysia's Berjaya Food to Offer Innovative Plant-Based Products Amid Growing Demand. Available from: <https://vegconomist.com/company-news/malaysia-berjaya-food-plant-based/> (assessed 26 December 2024)
63. World Obesity (2024). Global obesity observatory. Available from: <https://data.worldobesity.org/country/malaysia-130/> (Access 26 Dec 2024)

64. Yilmaz, B. (2023). Factors Influencing Consumers' Behaviour towards Purchasing Organic Foods: A Theoretical Model. *Sustainability*, 15(20), 14895.
65. Yoon, Y. S., Lee, J. S., & Lee, C. K. (2010). Measuring festival quality and value affecting visitors' satisfaction and loyalty using a structural approach. *International Journal of Hospitality Management*, 29(2), 335–342.
66. Yuen, K. F., Thai, V. V., & Wong, Y. D. (2016). Are customers willing to pay for corporate social responsibility? A study of individual-specific mediators. *Total Quality Management and Business Excellence*, Taylor and Francis, 27(7-8), 912–926.