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Consumers' Perceptions Towards Purchasing Organic Food in Klang Valley, Malaysia

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Abstract: Organic food in Malaysia remains a specialized market, despite its global growth driven by health, safety and environmental benefits. This industry is expanding rapidly, fueled by growing consumer awareness of wellness and environmental sustainability. It has developed into a promising sector with considerable revenue and strong growth potential. This study aims to examine consumers' perceptions of purchasing organic food in Klang Valley, Malaysia. Data were collected from 201 respondents through convenience sampling, targeting both mall shoppers and online consumers in Klang Valley. The research focused on four independent variables: organic food accessibility, green advocacy, social norms and organic food production. Factor analysis revealed that all four variables have an underlying relationship with consumers' perceptions of purchasing organic food. Among these variables, green advocacy was identified as the most significant factor influencing consumers' perceptions. In contrast, organic food production showed no significant relationship in determining factors affecting consumers' perceptions of purchasing organic food. This indicates that while consumers value green practices, the production aspect may not be a decisive factor for their purchasing decisions. The study's findings provide crucial insights for marketers and producers of organic food. By understanding consumer perceptions, they can develop targeted strategies to engage with their audience more effectively. Nonverbal communication methods, such as promoting sustainable practices and emphasizing health benefits, can play a critical role in connecting with consumers. These findings also encourage producers to align their marketing strategies with the factors that matter most to consumers, helping to promote the growth of the organic food market in Malaysia further.

Keywords: Consumer Perceptions; Consumer Behavior; Purchasing Behavior; Consumer Attitude; Organic Food; Malaysia.

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1. Introduction

The organic food industry in Malaysia is currently experiencing major development due to a growing consumer perception of wellness and environmental sustainability. Based on the study conducted by Ahmad Suhaimi *et al.* (2016), Malaysia has evolved into a specialised industry that generates an annual revenue of approximately RM10 million, with an expected yearly growth rate of 12.4%. In 2017, the organic packaged food sector in Malaysia, a category within the organic food business, experienced a 4% increase in current value, resulting in sales of RM10 million according to Euromonitor in 2018. This results the demand for organic food is undergoing substantial growth, especially in the consumption of vegetables, poultry and meat produce (Lian & Yoong, 2019). Consumers are even more confident to purchase organic foods due to government programs and certifications. So, the consumers are trying to purchase organic food due to their perception that it is a healthier and more sustainable choice compared to conventionally produced food. However, the middle-class sector constitutes the largest portion of the population, as indicated in the Malaysia Economic Monitor 2018. A study revealed that the prices of organic food in Malaysia is significantly higher than conventional food, with major price differences ranging from 100% to 300%. This results a barrier for consumer perceptions when purchasing organic food due to affordability issues (Song *et al.,* 2016).

According to Mohamed Haris *et al.* (2018), the amount of organic food that is produced locally in Malaysia is not sufficient to satisfy the growing demand from consumers. The demand for organic food imports from Malaysia is particularly high in Singapore. According to Abdul Aziz *et al.* (2020), the limited supply makes it difficult to satisfy the market demand from both locally and outside countries. The establishment of a local organic food production system that is both sustainable and environmentally friendly is necessary to address the issue of Malaysia's strong reliance on organic food that is imported. It has been estimated by Dardak *et al.* (2009) that approximately sixty percent of the organic food that is consumed in the country is now imported. According to Somasundram *et al.* (2016), Malaysia is extremely reliant on organic products that are imported from other countries, particularly from Europe and those from North America. It has been declared by Datuk Seri Mohamad Sabu, the Minister of Agriculture and Food Security, that they are now employing a proactive strategy to encourage local farmers to adopt organic agricultural practices.

Abdullah *et al.* (2022) stated that the growing awareness of the health benefits and nutritional value towards organic food is leading to a high demand among consumers.

Malaysia is currently at the development phase where the consumer is still low in the awareness of environmentally sustainable when purchasing organic products (Ogiemwonyi *et al.,* 2020). Rock *et al.* (2017) pointed out that there is a lack of substantial evidence to distinguish between conventional farming and organic production in terms of environmental contaminants and food hazards. Taufique *et al.* (2019) stated that the declining sense of family interaction does not have any influence on customer perception towards purchasing organic food. The absence of peer support that encourages purchasing organic food may discourage individual from developing it as a regular routine (Mohd Shahril *et al.,* 2022). Consumers struggle to differentiate genuine organic foods from those falsely labelled which then leads to a decline in consumers perception when purchasing organic food (Safari *et al.,* 2023).

The incapacity of the organic food industry in Malaysia to meet the demand of both the local and international markets is primarily due to the insufficient number of organic farmers in Malaysia. Therefore, to fulfil the requirements of its consumers, Malaysia is dependent on organic food that is imported from other countries. Despite this, the distribution channels for organic food are severely limited in compared to those of conventional grocery stores. However, because organic food is not easily accessible in the market, there will be a decrease in the quantity of purchases made by consumers, which will lead to a lack of consistency in the quantity of organic food that they consume. It is generally acknowledged that the biggest barrier that prevents consumers from purchasing organic food is the high price of organic food for consumers to purchase. Not only that, the amount of awareness that exists in Malaysia when it comes to the values of environmental sustainability and the benefits that are linked with it for human health is currently low. Additionally, consumers have difficulty differentiating between true organic food and commercially produced organic food, which results in inconsistency in their purchases of organic food. Thus, if consumers do not receive support from their social circle, they may be less likely to make organic food purchases on a regular basis.

Within the scope of this study, there are several questions that need to be addressed. First, what are the factors influencing consumers' perceptions towards purchasing organic food in Klang Valley? Secondly, how can the factors influence consumers' perceptions towards purchasing organic food in Klang Valley? The general objective of this study aims to identify consumers' perceptions towards purchasing organic food in Klang Valley. Specifically, this study aimed to determine the factors influencing on consumers' perception towards purchasing organic food and to identify the influence of the factors on consumers'

perceptions towards purchasing organic food. This study will be beneficial to three different categories of people: those who are involved in marketing, those who are involved in production and those who are consumers. It can be achieved for the producer and the marketer to acquire an understanding of the consumers' perceptions on the purchase of organic food because of the findings, which may be of assistance in the development of marketing strategies and efforts for product development. When everything is taken into consideration, the consumer can understand the significance and value of purchasing organic food to consume their daily meal. Hence, consumers are also able to understand the reasons behind their decision to purchase organic food to promote an environmentally healthier environment.

2. Literature Review

Organic food accessibility refers to the level of convenience that consumers have when purchasing organic food. Lian and Yoong (2019) state that organic food accessibility includes aspects such as the nearby availability of organic food to consumers' residence and the affordability of organic food despite its typically higher pricing compared to conventional options. Ahmad Suhaimi *et al.* (2016) further state that the accessibility of organic food is influenced upon the sufficiency of consumer education and awareness regarding the positive benefits of organic food, as well as the accessibility purchasing organic food through diverse channels such as online platforms, farmers' markets and purchasing directly from farmers. The demand for organic food in Malaysia is rising as customers become more conscious of the possible health and environmental advantages associated with these goods, according to Rakuten Insight in the year 2023. As a result of increasing consumer demand for organic food, the availability of organic food is expanding in supermarkets, specialty stores and online platforms (Lian & Yoong, 2019). The author also claimed that the physical accessibility, affordability and availability of organic food had a direct influence on customers' perception of their ability for purchasing it. However, Malaysia has shown an increase of consumer who reduced their consumption intake due to their constraint income which results in an unhealthy intake pattern and accessible to nutritious food (Mahmood *et al.,* 2022).

The global acknowledgment of organic food's potential health and environmental benefits is increasing. However, its accessibility varies widely among countries, resulting in a complex relationship between physical availability, affordability and consumer perceptions. Vecchio *et al.* (2016) claimed that the accessible accessibility of purchasing organic food can enhance the consumers' positive perception of organic food. Grunert *et al.*

(2019) also confirmed that the availability of easily accessible organic food will increase the consumers' perception towards organic food accessibility which will result in a higher probability of purchasing and overall consumption. Mohamad *et al.* (2023) further claim that better availability of organic food decreases the time and effort required to purchase it, making it more desirable to busy consumers. Limited accessibility to organic food for low-income populations is caused by distribution inequality and pricing concerns. This creates a negative towards consumers' perception and affects the wide availability of organic food consumption. Nevertheless, the issue of affordability continues to be a significant obstacle that could influence consumer perceptions in low-income sectors (Singh & Sharma, 2018). Grunert *et al.* (2019) mentioned that limited accessibility of organic food at supermarkets causes a challenge for consumers towards purchasing organic food, which then acts as an obstacle during their experience when buying groceries. Hence, a limited range of options or a shortage of organic food can lead consumers to perceive organic food to be limited or difficult to access which then decreases the consumers to possibility of purchasing it (Mohd Shahril *et al.,* 2022). Based on prior literatures, the accessibility of organic food significantly influences consumer perception towards purchasing organic food. To improve consumers' perceptions of organic food, stakeholders should focus on overcoming barriers to access and implementing strategies that enhance awareness, education and affordability. This may result to a surge in demand, a growing organic market and a stronger and more efficient food supply for the area. Thus, the following hypothesis was developed:

Hypothesis 1 (H1). Organic food accessibility positively influences consumers perception towards purchasing organic food.

Green advocacy is the promotion of environmental conservation, sustainability and the preservation of natural resources through efforts and actions. Green advocacy plays an important role in influencing consumer perceptions and building more trust in environmental concerns (Li *et al.,* 2017). According to Ogiemwonyi *et al.* (2020) mentioned that Malaysia currently at the development phase where the consumer is still low in the awareness of environmentally sustainable when purchasing organic products. Consumers will influence others' perception towards improving the environmental awareness through communication and discussing to understand their views and knowledge (Crucke *et al.,* 2022). Consumers have the intention to purchase organic food but the government should create a green certificate so consumers will be able to identify and trust the credibility of green products in the markets (Cheah & Aigbogun, 2022). According to Li *et al.* (2019), Chinese consumers

are willing to pay a premium price when purchasing organic food to preserve their health also have an in-depth awareness of the importance of environmental conservation. Studies by Curvelo *et al.* (2019) and Paarlberg *et al.* (2005) found that concerns about environmental sustainability, such as reduced pesticide use and soil conservation, motivate consumers to purchase organic food. Singh-Peterson and Lawrence (2015) also supported that consumers that perceive organic food as promoting sustainability through reduced reliance on synthetic fertilizers and pesticides, thereby protecting soil health, biodiversity and water quality. Hence, consumer perceptions can be influenced by green advocacy efforts, although the individual tastes and priorities may differ. Consequently, the following hypothesis was developed:

Hypothesis 2 (H2). Green advocacy positively influences consumers perception towards purchasing organic food.

Social norms are able to influence, shape and motivates other consumers' perception and belief purchasing behaviour (Kim & Seock, 2019). The authors also state that social norms can directly and indirectly influence consumers' perception towards their purchasing behaviour. Through social norms, it can enhance and develop consumers' understanding towards sustainable agriculture by consuming organic food (Ogorevc *et al.,* 2020). According to Testa *et al.* (2019), social norms able to have the influence for consumers' motivation to engage environmental behaviour. The study of Mohd Shahril *et al.* (2022) and Hasan and Suciarto (2020) highlights a positive influence on social norm which consumer are more likely to purchase organic food if they perceive their family, friends, or community doing so. From the findings by Abdullah *et al.* (2022) stated that Malaysian consumer perceive organic food as a healthy and environmentally conscious lifestyle that can enhance their social image and able to motivate their own purchase behaviour. Research by Idris *et al.* (2023) suggests that consumer may be motivated to purchase organic food due to a sense of moral obligation to the environment and animal welfare. From what I can concluded from my reading is that social norms can have a considerable impact on consumer perceptions in purchasing organic food. Hence, consumer perception can be positively changed by developing a positive social norm around organic food, emphasizing its benefits and making it more accessible, leading to increasing adoption of organic products. This led to the hypothesis:

Hypothesis 3 (H3). Social norms positively influenced consumers perception towards purchasing organic food.

Organic food production is a system of agricultural practices that aim to create a sustainable and ethical food system that prioritizes soil health, environmental protection, human health and animal welfare. A study by Somasundram *et al.* (2016) pointed out organic food production is a sustainable farming technique where it is beneficial to both technology and economic fields. The author also found that there has been an increase in consumer knowledge regarding environmental issues and concerns caused by chemicals, which has led to an increased demand towards organic food production. However, organic food in Malaysia remains a niche market that is progressively expanding. Malaysia relies heavily on imported organic products, mainly from Europe and North America (Somasundram *et al.,* 2016). Dardak *et al.* (2009) also stated that Malaysia local organic food industry is still small because it depends on imported organic food as more than 60%. Although there is an increasing demand on organic food, the production of organic food in Malaysia is facing difficulties in keeping up the consumer demand (Stevens, 1946). The author highlighted the issue of insufficient land designated for organic farming, leading to a limited supply of organic food. This creates an obstacle to the sector's ability to satisfy consumer demands and limits its overall potential for development. Moreover, a study by Tiraieyari *et al.* (2017) stated that organic farmers discover it is challenging to reach consumers and establish a reliable supply chain when they have no access to established any resources or marketing support. Therefore, it makes the producer face difficulty to compete with conventional food. This directed to the hypothesis:

Hypothesis 4 (H4). Organic food production positively influenced consumers perception towards purchasing organic food.

3. Material and Methods

This study employed a quantitative research design to measure and identify the factors influencing on consumers' perception towards purchasing organic food. This study had to distribute the questionnaires through an online survey instrument, which is self-administered, was provided for potential research participants using a 'Google form' (a Google LLC online self-administered data collecting tool). The questionnaire consists of 3 sections. All items within the constructs were assessed using a five-point Likert scale with "1" as "Strongly disagree" and "5" as "Strongly agree". The section A of the questionnaire inquires socio-demographic data of the respondents. In section B, four questions were developed to obtain

the consumers' perceptions towards organic food. The four items were adapted from Yazdanpanah and Forouzani (2015), Yazdanpanah *et al.* (2015) and Huang (2023). In section C, sixteen questions were developed and adapted from Hossain and Lim (2016) and Kamboj *et al.* (2023) to obtain the consumers' perception towards purchasing organic food. Three items of green advocacy in consumer perceptions towards purchasing organic food were constructed and adapted from Kamboj *et al.* (2023) and Ajzen (2015). Another five items of social norms in consumers' perception towards purchasing organic food were adapted from Prakash *et al.* (2018) and Konuk (2019). The last four items to measure organic food production of consumers' perception when purchasing organic food based on the studies by Serna Soler (2020).

According to the Department of Statistics Malaysia in the year of 2023, the population of Klang Valley is estimated to be around 8.67 million as of 2023. The Klang Valley was selected as the location for the study due to the frequency of consumers who purchase organic food, primarily because of its easy accessibility and availability in the urban areas. According to Wong and Aini (2017) it was reported that Malaysian consumers predominantly purchase organic food types, including organic fruits, vegetables and meats, in the Klang Valley region. Due to the large population in the Klang Valley, a convenience sample technique was used to approach the respondents. The reason convenience sampling is chosen because is a form of non-probability sampling when respondents are selected based on their accessibility and availability at a particular moment in time who are willing to participate individually. By applying Krejcie and Morgan (1970) method, it is an easy and efficient way for determining the required sample size in the Klang Valley. Therefore, the minimum sample size required should be more than 200 respondents (N>200) to obtain a good data for 5 Likert-scale. This study had obtained 201 respondents and had met the minimum sample size required.

By employing SPSS statistical tool for analysing the data, this study run the factor analysis procedure (Gorsuch, 1983) to determine the underlying relationship of the factors on consumers' perceptions towards purchasing organic food. Meanwhile, this study also run multiple linear regression analysis to identify the influence of the factors on consumers' perceptions towards purchasing organic food. To achieve the research objectives, the model specification for multiple linear regression can be specified as follows:

$$\boldsymbol{CP = a + \beta 1X1 + \beta 2X2 + \beta 3X3 + \beta 4X4 + \varepsilon} \quad (1)$$

Where CP is the consumers' perceptions which known as the dependent variable to attempt and predict or explain based on the independent factors. While $\boldsymbol{a}$ is the intercept which the value of CP when all independent variables are equal to zero. β refers to the regression coefficients provide information about the direction and strength of the relationship between variables between each independent variable (OFA, GA, SN, OFP) and the dependent variable (CP). X1, X2, X3, X4 are the independent variables of organic food accessibility, green advocacy, social norms and organic food production. ε utilize the error term which represents the unexplained variation in the dependent variable (CP).

4. Results and Discussion

Table 1 shows the descriptive statistics of the socio-demographic profile of the respondents. Based on 201 respondents, majority of the respondents were between the ages of 17 to 30, reported at 37.8%, followed by 31 to 45 years old reported at 33.8% and more than 45 years old reported at 28.4%. In terms of gender distribution, females reported at 54.2%, while males reported at 45.8%. Majority of the respondents were Malay which consisted of 84.1%, followed by Chinese with 9.5%, Indian with 5.5% and 1.0% for others. Bachelor's degree held the highest level of education which was more than half of the respondents by 53.7%, followed by diploma holders, which was the second highest by 19.4%, master's degree holders at 11.4%, SPM level at 10.9%, secondary school students at 3.5%, others at 1.0% and primary school students at 0%. To prevent bias in a particular range of income, the household's monthly income had been grouped and collected into 3 different groups which were B40 (less than RM2,500), M40 (RM4,850 – RM10,959) and T20 (more than RM10,960). The percentages of the respondents that were B40 at 41.3%, M40 at 44.8% and T20 at 13.9%. More than half of the respondent was staying in Selangor by 65.2%, followed by Wilayah Persekutuan Kuala Lumpur at 25.4% and Wilayah Persekutuan Putrajaya at 9.5%. Lastly, the respondents were asked about their residential area within the Klang Valley area. The analysis found that most of the respondents resided in a city by 52.7% followed by suburban at 40.3% and rural area at 7.0%.

Table 1. Summary Statistic of Socio-Demographic Profile of the Respondent

Variables	Frequency (n)	Percentage (%)
Age		
17–30	76	37.8
31–45	68	33.8
≥45	57	28.4

Variables	Frequency (n)	Percentage (%)
Gender		
Male	92	45.8
Female	109	54.2
Race		
Malay	169	84.1
Chinese	19	9.5
Indian	11	5.5
Others	2	1.0
Highest Level of Education		
Primary School	0	0
Secondary School	7	3.5
SPM	22	10.9
Diploma	39	19.4
Bachelor's Degree	108	53.7
Master's Degree	23	11.4
Others	2	1.0
Household Income		
≤ RM2,500	83	41.3
RM4,850 – RM7,099	90	44.8
≥ RM10,960	28	13.9
Klang Valley Area		
Wilayah Persekutuan Kuala Lumpur	51	25.4
Wilayah Persekutuan Putrajaya	19	9.5
Selangor	131	65.2
Residential Area		
City	106	52.7
Suburban	81	40.3
Rural	14	7.0

The reliability test for all items is shown in Table 2. According to the results, green advocacy exhibited the highest alpha value, reaching 0.902, indicating its reliability for this study as the alpha value exceeded 0.70. Similarly, organic food accessibility, social norms and organic food production demonstrated high alpha values at 0.737, 0.804 and 0.820, respectively. Consequently, these variables were deemed reliable for this study, meeting the criterion of alpha values exceeding 0.70.

Table 2. Reliability Test

Factors	No. of items	Cronbach's Alpha
Organic food accessibility	4	0.737
Green advocacy	3	0.902
Social norms	5	0.804
Organic food production	4	0.820

Next, this study runs the factor analysis procedure. The value resulted from The Kaiser-Meyer-Olkin (KMO) test was 0.818, as indicated in Table 3. It revealed 81.8% sample adequacy. The Bartlett's test of sphericity indicated a statistically significant correlation between the variables at a significance level of 1%. Thus, the value that resulted from the Bartlett's sphericity test was 0.00 which indicated that the variables fit the basic requirement for factor analysis.

Table 3. KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.818
Bartlett's Test of Sphericity	Approx. Chi-Square	1406.211
	df	120
	Sig.	0.000

To determine the number of components or factors represented by specific variables, it was essential for the eigenvalues to surpass a threshold of 1. Table 4 indicated that the value for organic food accessibility was 5.161, which was greater than 1. Green advocacy, social norms and organic food production had a value greater than 1 which were 2.450, 1.484 and 1.369. Therefore, only the first four components possessed eigenvalues that were equal to or greater than 1.0. The remaining components displayed low quality scores, which were not presumed to accurately reflect the genuine features underlying our set of 16 questions.

Based on Table 4, the total variance of organic food accessibility was 32.258% which can be explained through organic food accessibility in the consumers' perceptions towards purchasing organic food. Organic food accessibility included four sub-variables. Sarijan *et al.* (2021) supported that consumers believed that the price to purchase organic food was higher than conventional produced food which resulted in the difficulty for low-income household in terms of affordability and accessibility to purchase organic food. Green advocacy consisted of 3 sub-variables and had a total variance of 15.311%. According to Zander *et al.* (2015), purchasing organic food can be perceived as a symbolic support green values and promoted environmental sustainability. Peattie (2010) also highlighted that

consumers were motivated to purchase organic food due to their concerns about agricultural environmental deterioration.

Social norms accounted at 9.278% which showed that cultural differences had a positive influence on how organic food was perceived by consumers when purchasing them (Seegebarth *et al.,* 2016). Additionally, Gundala and Singh (2021) supported the hypothesis that social norms significantly impacted consumers' decisions on purchasing organic food. There were 4 sub-variables of organic food production, and it had a total variance of 8.558% which local producers limited range of organic foods could influence how consumers' perceptions towards purchasing organic food at the marketplace. Based on Jaffery and Annuar (2022), organic food production in Malaysia had an insufficient range of availability which led to high dependence on imported organic food.

Table 4. Total Variance Explained

	Initial Eigenvalues			**Extraction Sum of Squared Loadings**			**Rotation Sums of Squared Loadings**		
Component	**Total**	**% of Variance**	**Cumulative %**	**Total**	**% of Variance**	**Cumulative %**	**Total**	**% of Variance**	**Cumulative %**
1	5.161	32.258	32.258	5.161	32.258	32.258	2.806	17.539	17.539
2	2.450	15.311	47.569	2.450	15.311	47.569	2.757	17.232	34.772
3	1.484	9.278	56.847	1.484	9.278	56.847	2.579	16.121	50.893
4	1.369	8.558	65.405	1.369	8.558	65.405	2.322	14.513	65.405
5	0.816	5.101	70.507						
6	0.722	4.514	75.020						
7	0.627	3.916	78.936						
8	0.580	3.626	82.562						
9	0.521	3.255	85.818						
10	0.504	3.150	88.967						
11	0.413	2.580	91.547						
12	0.360	2.251	93.797						
13	0.353	2.208	96.006						
14	0.255	1.597	97.602						
15	0.210	1.315	98.917						
16	0.173	1.083	100.000						

The scree plot in Figure 1 shows the eigenvalues for 16 factors. The eigenvalues were plotted on the y-axis and the factor numbers were on the x-axis. Based on the figure, the

curve had a noticeable flattening trend between components four and five because the first four components had eigenvalues that were over 1.0 which were organic food accessibility, green advocacy, social norms and organic food production. Thus, the sharp drop between organic food accessibility to organic food production suggested that these four factors underlie our questions and as a result only four factors had been kept.

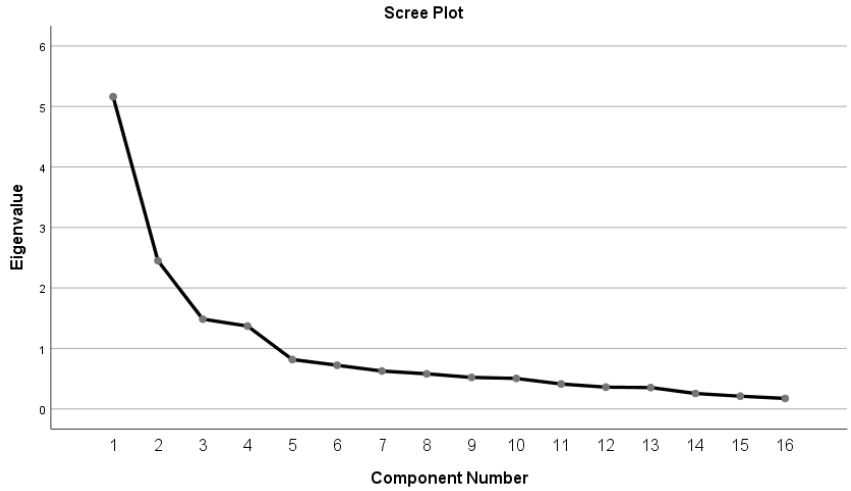

Figure 1. Scree Plot

Table 5 shows the rotated component matrix where it redistributes of factor loadings for each variable to measure precisely one factor that is ideal scenario for understanding the factors. There are 4 components listed, component one is items of social norms, component two are items organic food production, component three are items for green advocacy and items for component four are organic food accessibility. The results are supported by Hair Jr *et al.* (2019), Kline (2023) and Kline (2015) that positive loadings indicate a positive relationship between the variable and the factor.

Table 5. Rotated Component Matrix

	Social norm	**Organic food production**	**Green advocacy**	**Organic food accessibility**
There is easy access to purchase organic food while at home.	0.819			
It is common nowadays to purchase organic based foods.	0.729			
Personal beliefs affect consumers' willingness to pay more for organic food.	0.690			

	Social norm	Organic food production	Green advocacy	Organic food accessibility
Peer pressure influences customers decision to purchase organic food.	0.642			
Cultural values affect customers perceptions to purchase organic food.	0.638			
I think local producers do not meet sufficient quantities of organic food to consumer in Malaysia.		0.853		
I think organic food product lacks promotion in Malaysia.		0.821		
I think local producers do not produce a wide range of organic food in Malaysia.		0.744		
I think agricultural farms in Malaysia should venture into organic farming.		0.714		
I am aware that organic food does not contain any pesticide residue.			0.873	
I am aware that producing organic food will not harm the environment.			0.868	
I am aware organic food have its own degree of protection control for safety.			0.841	
I will skip my meals because I could not afford to buy plentiful of organic food.				0.781
I can afford to eat a balanced meal if I use organic food.				0.777
I am able to purchase organic food often as the market have enough supply.				0.753
I am worried about my food stock running out before I get to eat.				0.624

Note: Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalisation.
Rotation converged in 5 iterations

Next, this study employed the multiple linear regression analysis. Based on Table 6, the R-value of 0.368 shows that there is a slight and positive correlation among organic food accessibility, green advocacy, social norm and organic food production. The R-squared (R^2) value of 0.136 showed that about 13.6% explained the factors of organic food accessibility, green advocacy, social norm and organic food production that influenced consumers'

perceptions in purchasing organic food, while a greater part of about 86.4% was captured by the error term and was not explained in the model.

Table 6. Multiple Regression-Model Summary

R-value	R-squared (R^2)	Adjusted R^2	Std. Error of the Estimate	Sig. F Change
〖0.368〗 ^a	0.136	0.118	2.80257	0.000

Note: a. Predictor: (Constant), organic food accessibility, green advocacy, social norms, organic food production
Dependent variable: Consumers' perception

According to Table 7, the analysis indicated that the overall regression model was statistically significant for the data. This is evident from the ANOVA (F-statistic) value of 7.688, with an associated probability value of 0.000 (F = 7.688, p-value <0.05), that was found to be significant at 5% level.

Table 7. ANOVA of Consumers' Perceptions in Purchasing Organic Food

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	241.536	4	60.384	7.688	〖0.000〗 ^b
Residual	1539.459	196	7.854		
Total	1780.995	200			

Note: a. Predictor: (Constant), organic food accessibility, green advocacy, social norms, organic food production. b. Dependent variable: Consumers' perception

Based on Table 8, the range of coefficients between 0 and 1 can provide some initial indications of a potential relationship between the independent and dependent variables. Organic food accessibility significantly influenced consumers' perceptions towards purchasing organic food. This was indicated by the statistically significant coefficient (B = 0.147, p = 0.027) which was positive and significant. Since there was enough evidence to reject H0 at a 5% significant level, the consumers' perceptions in terms of organic food accessibility had a positive impact on the purchasing of organic food. In a simple term, when perceived organic food accessibility increased in for every 1%, there was a 0.147 increased in the chance of consumers purchasing organic food. Abdullah *et al.* (2020) stated that consumers can easily afford to purchase organic food for their balanced meals.

Green advocacy was another significant for consumers' perceptions to purchase organic food. The results in Table 9 show that green advocacy had a positive coefficient (B = 0.212, p = 0.025) which was directly proportional to the consumers' perceptions. These findings provided sufficient evidence to reject H0 at a 5% significant level and consumers'

perceptions in green advocacy was considered a crucial factor to determine the consumers' perceptions in purchasing organic food. The results also showed that when the consumers' perceptions in green advocacy increased by 1%, the purchasing of organic food by the consumers increased by 0.212. According to Ahmad and Juhdi (2010), consumers hold the belief that organic food is healthier compared to conventionally grown food because of its health benefits.

Social norms are also one of the significant predictors of consumers' perceptions to purchase organic food. Social norms (B = 0.135, p = 0.029) had a positive value of coefficient. Since there was enough evidence to reject H0 at a 5% significant level, consumers' perceptions in social norm were positive to the consumers' perceptions in purchasing organic food. It means that when the consumers' perceptions in social norm increased by 1%, the chance of consumers purchasing organic food increased by 0.135. Gundala and Singh (2021) supported the hypothesis that social norms significantly impact consumers' decisions in purchasing organic food. Lian and Yoong (2019) also supported that purchasing organic products can represent a specific social identity that are associated with health awareness, environmentalism and even affluence.

One predictor that did not significantly improve consumers' perceptions of their tendency to buy organic food is organic food production. The result in Table 9 shows that organic food production had a negative coefficient (B = -0.059, p = 0.448) which was not directly proportional to the consumers' perceptions to purchase organic food. Since there was not enough evidence to reject H0 at a 5% significant level, consumers' perceptions in organic food production were negative. It means that when the consumers' perceptions in organic food production increased by 1%, the chance of consumers purchasing organic food decreased by -0.059. Cheng *et al.* (2020) stated that the organic food distribution channels for organic food in Malaysia are still developing, making them less readily available compared to conventional options.

Therefore, only three of the four variables, with a sig value of less than 0.05, are statistically significant. The factors that have substantial value include organic food accessibility (0.027), green advocacy (0.025) and social norms (0.029) (see Table 9). This coefficient table can be used to formulate the final equation, as shown below;

Y (Consumers' Perceptions) = 10.750 (constant) + 0.147 (Organic food accessibility) + 0.212 (Green advocacy) + 0.135 (Social norm) – 0.059 (Organic food production) (2)

The significance ranking for the independent variables is indicated by the Beta value. In this instance, green advocacy (0.179), social norms (0.176), organic food accessibility (0.157) and organic food production (-0.056) are ranked as the most significant.

Table 8. Coefficient of Consumers' Perceptions Toward Purchasing Organic Food

Model	**Unstandardized Coefficients**		**Standardized Coefficients**		
	B	**Std. Error**	**Beta**	**t**	**Sig.**
(Constant)	10.750	1.447		7.427	0.000
Organic food accessibility	0.147	0.066	0.157	2.236	0.027
Green advocacy	0.212	0.094	0.179	2.254	0.025
Social norms	0.135	0.062	0.176	2.197	0.029
Organic food production	-0.059	0.077	-0.056	-0.760	0.448

Note: a. Dependent variable: Consumers' perceptions (CF)

5. Discussion

Based on the above regression results, we could assume that organic food accessibility, green advocacy and social norms positively influences consumers perceptions towards purchasing organic food. Meanwhile, there is no significant influence between organic food production and consumers' perceptions towards purchasing organic food. Consumers' perceptions towards purchasing organic food are generally positive, driven by concerns about health, safety and the environment. Many consumers believe organic food is healthier due to its perceived lack of pesticide residues and artificial additives. They associate it with better taste, freshness and nutritional value. Organic food might not be readily available in all stores or locations, particularly in rural areas or for low-income communities. This limited access can hinder purchase intent. Therefore, to determine the consumers' perceptions towards purchasing organic food, this survey was conducted in Klang Valley.

The objective of this study is to identify the influence of organic food accessibility on consumers' perceptions towards purchasing organic food, to determine the influence of green advocacy on consumer perception towards purchasing organic food, to identify the influence of social norms on consumer perception towards purchasing organic food in Klang Valley and to identify the influence of organic food production on consumer perception towards purchasing organic food. Likert scale of five points was used to determine the consumers' perception towards purchasing organic food. Around 201 respondents have completed the survey that included consumers' perceptions to purchase organic food in terms of organic food accessibility, green advocacy, social norms and organic food production. The objective of this study has been achieved by carried out by factor analysis and multiple linear regression. According to the findings, consumers perceive towards organic food accessibility were most likely influenced to purchase organic food due to the availability and accessibility to obtain from the supermarket or online purchases. It also showed that social norms have an important role in influencing customer purchasing decisions because of societal identities connected with health awareness, sustainability, as well as extravagant lifestyles. However, green advocacy is the main factors that influence consumer perception to purchase organic food to promote ethical and environmentally friendly farming techniques that are harmless to animals and humans.

6. Conclusion

Consumers in the Klang Valley prioritize organic food accessibility, green advocacy and social norms when purchasing organic food. Those who perceive organic food accessibility tend to have a more favourable perceptions towards organic food purchases in a long-term sustainability and towards food availability and access. Consumers with strong green advocacy holds a strong commitment to environmental protection and sustainability towards perceptions of organic food. Consumers who are influenced by their social circle's attitudes and behaviours regarding organic food are more likely to have a positive perception towards it. This highlights the role of peer pressure, community expectations and social marketing in shaping individual perceptions and potential purchase decisions. Therefore, consumers who are particularly concerned about organic food accessibility holds a strong environmental value and are influenced by the people they surround themselves with are more inclined to choose and purchase on organic food. It is recommended that in the future, additional research on this topic can be considered to examine on specific organic food categories such

as fruits, vegetables, dairy to gain deeper insights into consumer perceptions and purchase drivers within specific markets.

Based on the findings, there are few recommendations that can be suggested based on the findings of the study. Firstly, to improve the accessibility and availability of organic food by expanding the distribution channels for organic food through supermarkets, local stores and online platforms where the consumers from the rural area have the benefit to access wide variety of organic food in Klang Valley. Therefore, the supermarkets should ensure consumer have an equal access to purchase organic food by targeting a low-income family to change their perceptions towards purchase organic food by providing income-based voucher or coupons which will help them to purchase in a more affordable price. This will ensure that the consumers adapt to healthy and nutritious options when purchasing their groceries.

Second, by properly teaching consumers about how their choices about organic food can be beneficial for the environment, you can give them the authority to make choices that lead to a healthier the global community, a more diverse ecosystem and a more sustainable future for everyone. Third, to create and spread community-based programmed that focus on the social parts of purchasing organic food by developing an environment that encourages support and engagement, while promoting the acceptance of sustainable consuming choices which will change the consumer perception to purchase organic food. Finally, Malaysian government should support for activities related to organic farming that encompass subsidies, grants and infrastructure development to encourage farmers to implement organic practices and increase their production capacity of organic food. This development in organic agricultural industry will enhance food security by promoting environmentally friendly farming practices and ensuring equal accessibility and affordability of healthy organic food for the consumer.

There have been a few limitations encountered while conducting this study. First limitations in this study are the fact that it solely covers the Klang Valley area. Hence, subsequent research must aim for a larger group of sample size that encompasses the entire population of Klang Valley and conduct out research at a few different geographical places. Additionally, relying solely on self-collected data may not capture actual purchasing behaviour. Therefore, online survey questions can influence on how they responses to the questions asked which will be leading to bias. Weijters *et al.* (2010) also supported that consumer will have tendencies to choose extreme, neutral, or middle options regardless of

the question which can make the result become bias. Thus, overly complex, or leading questions may also misrepresent consumer true perceptions towards purchasing organic food.

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