

## EMBRACING GREEN EATS: A PRELIMINARY EXPLORATION OF WILLINGNESS TO TRY PLANT-BASED MEAT

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**Abstract.** Demand for plant-based meat (PBM) alternatives is growing steadily in Malaysia, as reflected in the increasing number of these products sold in major grocery stores today. Unlike meat substitutes of the past, this often lacked the taste and appearance of real meat and tended to have an artificial aftertaste. The technological advancements allow PBM to closely resemble actual meat in both taste and appearance nowadays. It serves as an alternative to conventional meat in terms of texture, taste, and appearance. Therefore, this research aims to examine consumers' willingness to try PBM. The study engaged 213 respondents, and the data were analysed quantitatively using descriptive and inferential statistics. The current findings indicate that a majority of the respondents held favourable views on the characteristics of PBM, agreeing that it is a viable dietary alternative. Furthermore, the findings revealed that younger consumers exhibiting higher positive perceptions and readiness to try PBM. These empirical findings provide valuable insights for local government authorities and manufacturers to understand the level of willingness to try PBM and seek to enhance awareness and recognition of PBM as a dietary alternative, complementing existing dietary choices.

**Keywords:** *Plant-Based Meat (PBM), willingness to try, Social Cognitive Theory (SCT), dietary choices, perception*

### Introduction

The notion of healthy diet has been continuously increasing globally due to the growing understanding and awareness of the role of different foods, essential nutrients and food components that contribute to human health (Cena and Calder, 2020). Recently, plant-based meat (PBM) has emerged as a highly concern topic which prompted many consumers to shift their consumption habits (Mahasuweerachai et al., 2023). PBM is viewed as meat alternatives that consist only of plant-based proteins like peas, soy and coconut oil as primary protein sources that have been recognised as having lesser negative health effects associated with overconsuming animal products. With the advancement of technology, PBM is achieved through protein extractions from various plants, which imitate the protein structure of meat and are pasteurized to attain the desired texture. Andreani et al. (2023) affirmed that PBM has higher nutritional content than animal meat products in high fibre, less saturated fat and lower salt. Chen (2024) further supported that consumers' intention to consume PBM was concerned with healthier diet where it can reduce the risk of cancer and cardiometabolic issues. Recent research in 2020 showed a growing trend among Asian respondents from countries like Malaysia, Thailand, Indonesia, and the Philippines, showcasing increased receptivity towards PBM as a novel protein source. However, it's noteworthy that such dietary preferences are not entirely new in various parts of Asia, where mock meat, tofu, and tempeh tofu and tempeh have been around for eons.

## ***Background of the study***

In Malaysia, the tendency to consume PBM as a substitute for traditional meat has steadily grown (Azman et al., 2023). Since 2021, plant-based food alternatives have been made known to the Malaysian market with 68% of consumers had attempted to plant-based alternatives over animal-based food products (Statista Web Portal, 2024). The meat substitutes market in Malaysia has consistently expanded with revenue of US\$ 15.84 million in 2023 compared to US\$14.34 million in 2022 and projected a CAGR growth annually of 8.65% from 2024 to 2028 (Statista Web Portal, 2024). This trend indicates an ongoing improvement in Malaysian's attitudes and perceptions towards PBM. The willingness of Malaysians to consume PBM was due to the increased understanding and acceptance that its ingredients can mimic red meat taste and textures, thereby satisfying their sensory experience (Azman et al., 2023). PBM textural characteristics were due to the combination of plant proteins such as tofu, tempeh, mushrooms, soy proteins and flavouring additives which became the deciding traits in the satisfaction of consumers. The study affirmed that Malaysian acceptance towards PBM is driven by the taste, especially tofu and tempeh which can be prepared as authentic dishes as a standalone ingredient or a complement to traditional meat (Azman et al., 2023).

Furthermore, Malaysians' intention to consume PBM stems from diverse cultures and religious beliefs (Drewnowski et al., 2020). Malaysia was known as a vegetarian-friendly country which contributed to the cultural and religious factors among Buddhists and Hindus. This leads to a practice of abstaining from meat consumption for animal welfare which affects their personal dietary choices towards plant-based food alternatives. In the Muslim community, their intention to consume PBM is viewed as a safer option towards concern about fake Halal meat. With Malaysia having the majority of 63.5% of the Muslim population, fake halal meats became a major challenge among the Muslim community that has prompted them to purchase PBM compared than choose other meat substitutes for safer solutions. Hamdan et al. (2023) affirmed that the Islamic perspective towards PBM substitutes can reduce misleading towards Halal concept compared with other meat substitutes as it was made solely from plants effectively addressing the concern on other meat substitutes. Therefore, current research is a preliminary study of willingness to try towards PBM in a local perspective.

## ***Literature review***

### ***Willingness to try***

The willingness to try measures consumers' intent or "motivation" to engage in a hypothetical behaviour (e.g., PBM consumption) (Murillo et al., 2023). The most common drivers of consumers' willingness to try novel food products are positive emotions, sensory attributes, familiarity, knowledge (product information), and education. In contrast, some factors that inhibit consumers' willingness to try products include unfamiliarity with the products or raw materials, cultural preferences, negative emotions, and food neophobia. Firstly, health perceptions determine consumers' attitudes towards PBM, in which participants generally believed meat alternatives are healthier than meat (Begho et al., 2023). Notably, Szenderák et al. (2022) found that plant-based products were perceived as healthier when described as "plant-based" instead of "meat alternatives". For instance, plant-based burgers were perceived as more

nutritious than meat-based burgers under well-informed conditions, indicating that prior knowledge and information positively influence the willingness to try PBM (Szenderák et al., 2022).

Besides, sensory characteristics like the similarity in meat taste, texture, or smell importance inhibited willingness to adopt meat substitutes (De Koning et al., 2020). For example, ratings received from comparing meat products (chicken nuggets) to meat alternatives (vegetarian nuggets) are often similar. However, when comparing meat burgers to plant-based burgers, plant-based burgers were perceived as less juicy and dry (Szenderák et al., 2022). This aligns with studies by Michel et al. (2021) suggesting that meat-eaters seek meat alternatives that resemble meat and thus are perceived similarly to their processed meat counterpart. In contrast, the low acceptance of plant alternatives to animal meat is due to meat substitutes being perceived as unattractive and unfamiliar (Chen, 2022), which aligns with De Koning et al. (2020), stating that those who did not consume plant alternatives to animal meat was due to not liking the taste of it. Ultimately, these factors influence willingness to try. The consumer's perception of PBM significantly impacts their willingness to try it.

### ***Social cognitive theory***

The Social Cognitive Theory (SCT), proposed by Bandura et al. (1977), is widely recognized for providing a significant framework to understand human behavior. SCT delves into the psychosocial factors influencing human thoughts, emotions, and actions, highlighting the relationship among individuals, behaviors, and their environment. SCT emphasizes a dynamic and reciprocal relationship where behavioral, cognitive (personal), and environmental elements constantly interact with one another. Hence, personal and environment factors influence individual behaviour. Environmental factors, which encompass external influences on an individual, play a pivotal role in either promoting or deterring certain behaviors. Similarly, personal factors encompass inherent cognitive and emotional capacities (i.e., self-efficacy, outcome expectations, self-regulation, and reinforcement), which contribute to shaping one's behavior (Bandura, 2002).

According to SCT, individuals evaluate the potential outcomes of their actions. If someone believes that trying PBM could lead to positive outcomes such as improved health, reduced environmental impact, or culinary enjoyment (i.e., positive perception), they may be more willing to try it. Moreover, if individual feels confident in their ability to incorporate PBM into their diet and prepare it in a delicious and satisfying way, they may be more willing to try it. Conversely, if they anticipate negative outcomes, such as unpleasant taste or social stigma, they may be hesitant (i.e., negative perception) (Chen, 2022). When they doubt their cooking skills or fear they won't enjoy the taste, they may be less likely to experiment with plant-based alternatives. Similarly, environmental factors play a significant role in the production and consumption of PBM alternatives (Heijnk et al., 2023). The growing popularity of PBM has led to increased awareness and advocacy for animal rights and welfare issues. By choosing plant-based options instead of traditional meat products, consumers contribute to a decrease in the demand for animal products, thereby reducing the number of animals subjected to factory farming conditions, confinement, and slaughter (Begho et al., 2023). Hence, the level of willingness to try PBM is increased due to the environment concern and desire for sustainability.

In view of some previous empirical evidence supporting SCT in explaining individual behaviour (Guo et al., 2023; Bartsch et al., 2020; Vandrevalla et al., 2022). SCT elements such as individual belief system, and environment concern were employed to examine the willingness to try behavior toward PBM in current preliminary study.

## **Materials and Methods**

The current research population consisted of consumers from different generations (i.e., Baby Boomers, Generation X, Y, and Z) in the local context. The decision to target various age groups in the current study is crucial, as different age groups may exhibit varying levels of familiarity, acceptance, and preferences regarding PBM products. Moreover, each age group may have unique motivations, concerns, and barriers when it comes to adopting plant-based diets. Both convenience and snowball sampling methods were utilized to distribute the questionnaires in the current study. Participants in the survey were asked to forward the questionnaire to others whom they deemed appropriate to participate in the study. The questionnaires were distributed online using social media platforms such as WhatsApp, Facebook, WeChat, and Instagram. The sample size was 213, with a 90% response rate. The present research employed a quantitative approach involving the use of a questionnaire to gather information regarding consumers' willingness to consume PBM. The measurement items in the questionnaire were derived from related studies (Chen, 2022; Lindeman and Väänänen, 2000; Steptoe et al., 1995) and modified according to the needs of the study. The data were analyzed quantitatively using descriptive and inferential statistics (i.e., T-test and One-way ANOVA).

## **Results and Discussion**

### ***Internal consistency***

The internal consistency was conducted using Cronbach Alpha, which uses the alpha value as an indicator of the degree of reliability. The alpha criterion provides an estimate of reliability based on the inter-correlations of the observed indicator variables, as a more conservative measure of internal consistency reliability (Hair Jr et al., 2021). The previous literature demonstrated the acceptable alpha level at 0.890 (Chen, 2022). Similarly, the alpha value for current study was 0.851. The current research comprised of 116 females and 97 males. Next, the age between 18 and 28 years comprises 56 respondents (26.29%). This is followed by 43 respondents (20.19%) in the age range of 29 to 39 years. Next, the number of respondents in the age range of 40 to 49 years included in this study is 35 respondents (16.43%). Besides, the age group of 50 to 59 years consists of 36 respondents (16.90%). Lastly, the age group for 60 years and above consists of 43 respondents (20.19%). Thirdly, 4 respondents (1.88%) were classified as being in primary school, 35 respondents (16.43%) were categorized as being in secondary school, 173 respondents (81.22%) were identified as being in tertiary studies, and 1 respondent (0.47%) was listed as being under self-education for their education level.

Among these respondents, 184 (86.38%) respondents said that they had heard of plant-based meat and 124 (58.22%) respondents said that they had knowledge about

plant-based meat. However, only 119 (55.87%) respondents had tried plant-based meat before. The proportion of respondents without the knowledge about plant-based meat and who had never tried plant-based meat was smaller compared to those who had knowledge and had tried PBM before. The sample profile of the respondents is outlined in *Table 1*. *Table 2* shows the mean scores and standard deviation values of the measurement items of perceptions towards PBM different perspectives.

**Table 1.** Respondents' profile.

Variable	Frequency (N)	Percentage (%)
Gender		
Female	116	54.5
Male	97	45.5
Age		
18-28	56	26.3
29-39	43	20.2
40-49	35	16.4
50-59	36	16.9
>60	43	20.2
Education level		
Primary school	4	1.9
Secondary school	35	16.4
Tertiary studies	173	81.2
Self-education	1	0.5
Ever heard of PBM		
Yes	184	86.4
No	29	13.6
Knowledge about PBM		
Yes	124	58.2
No	89	41.8
Ever tried PBM		
Yes	119	55.9
No	94	44.1

**Table 2.** Descriptive statistics of perception measurement items with the highest mean.

Variable	Frequency [N] (Percentage [%])						
	SA	A	NAND	D	SD	M	Std. Dev.
I think PBM care for more animal welfare. It has been produced in a way that animals have not experienced pain.	72 (33.8)	73 (34.3)	41 (19.2)	18 (8.5)	9 (4.2)	3.85	1.11
I think PBM is high in nutrition.	25 (11.7)	64 (30)	71 (33.3)	45 (21.1)	8 (3.8)	3.25	1.01
I believe that PBM can help me manage weight control. It is low in calories.	37 (17.4)	62 (29.1)	53 (24.9)	39 (18.3)	22 (10.3)	3.25	1.24
I think PBM is in trend.	24 (11.3)	60 (28.2)	64 (30)	46 (21.6)	19 (8.9)	3.11	1.15

*Note: SA=Strongly Agree; A=Agree; NAND=Neither Agree Nor Disagree; D=Disagree; SD=Strongly Disagree; M=Mean; Std. Dev. Standard Deviation.*

### **Environment and animal welfare**

The result indicates a total of 68.07% of respondents, with 33.80% strongly agreed and 34.27% agreed with the statement that PBM could promote animal welfare by reducing the harm, suffering and death to sentient animals used in livestock industry while 19.25% respondents expressed a moderate viewpoint perspective on this matter.

In general, respondents gave this statement a mean score of 3.85 (std. deviation=1.11), showing a tendency towards high agreement, but it still falls within the moderate range. They understand that PBM is generally free from animal products and thus can avoid the animals to experience pain.

### ***Benefits and nutritious***

In term of the benefits and nutritious of PBM, the findings indicate a total of 41.79% of respondents, with 11.74% strongly agreed and 26.76% agreed, believed that PBM is high in nutritional value by offering more nutrient density while still consuming meat. The mean score of 3.25 (std. deviation=1.01), indicating that the respondents perceive PBM's nutritional value to have a moderate level.

### ***Trends***

The result shows a combined 39.5% of respondents, with 11.3% strongly agreed and 28.2% agreed that PBM is currently trendy while 30.05% of respondents stand for moderate perspectives on this statement. However, a total of 30.52% of respondents, with 8.92% strongly disagreed and 21.6% disagreed with the current trend of the PBM. Generally, respondents gave this statement a mean score of 3.11 (std. deviation=1.15). This provides evidence that the respondents perceive the trend of PBM to be moderately significant.

### ***Weight management***

The results show that a total of 99 respondents (46.5%), with 37 strongly agreeing (17.4%) and 62 agreeing (29.1%), perceive that PBM can help them manage weight control and is low in calories. In contrast, 61 respondents, with 39 disagreeing (18.3%) and 22 strongly disagreeing (10.3%), do not believe that PBM is effective in weight management or low in calories. The mean score of the statement is 3.25 (std. deviation=1.24), indicating the respondent holds a moderate stance on this statement.

### ***Analysis of influence of demographic characteristics on willingness to consume PBM***

Both T-test and one-way ANOVA were employed to examine whether there are statistically significant differences among the means of two or more unrelated groups. In addition, both the skewness and kurtosis value were at -0.065 and -0.466 respectively. The data was normally distributed and no marked violation of the assumption of T-Test and ANOVA analysis occurred. *Table 3* shows the mean and standard deviation of gender. The mean scores for both male and female groups are slightly above 3.0, indicating positive perceptions and a high willingness to try PBM. Similarly, the mean score of 3.117 for the group with no consumption experience indicated their interest in trying PBM as part of their dietary choices (*Table 4*). A one-way ANOVA was performed to compare the mean scores differences across five age groups (i.e., baby boomer, Generation X, Y and Z). *Table 5* and *Table 6* explains the findings explained that was statistically significant difference between the mean scores of age group of 18-28 and 60 years old and above ( $F(4,209)=[1.383]$ ,  $p=0.034$ ). The mean score of young consumer group (18-28 years old) was significantly higher than those above 60 years old. This suggests that young consumers had higher perceptions and readiness to try the PBM.

**Table 3. Descriptive table of the gender.**

Gender	N	Mean	Std. Deviation	Std. Error	95% confidence interval for mean	
					Lower bound	Upper bound
Willingness to try						
Male	98	3.026	1.036	0.105	2.818	3.230
Female	116	3.138	1.060	0.098	2.949	3.333

**Table 4. Descriptive table of the PBM consumption experience.**

Consumption experience	N	Mean	Std. Deviation	Std. Error	95% confidence interval for mean	
					Lower bound	Upper bound
Willingness to try						
Yes	120	3.062	1.058	0.097	2.871	3.254
No	94	3.117	1.041	0.107	2.904	3.330

**Table 5. Descriptive table of the age group differences.**

Age	N	Mean	Std. Deviation	Std. Error	95% confidence interval for mean	
					Lower bound	Upper bound
18-28	57	3.298	1.153	0.153	2.992	3.604
29-39	43	2.977	1.102	0.168	2.638	3.315
40-49	35	3.071	0.824	0.139	2.789	3.354
50-59	36	3.181	0.943	0.157	2.862	3.499
>60	43	2.849	1.078	0.164	2.517	3.180

**Table 6. Multiple comparison (ANOVA) for age differences.**

Age (I)	Age (J)	Mean	Std. Deviation	Std. Error	95% confidence interval for mean	
					Lower bound	Upper bound
18-28	29-39	0.322	0.211	0.129	-0.095	0.737
	40-49	0.227	0.224	0.3113	-0.216	0.669
	50-59	0.118	0.222	0.597	-0.321	0.556
	>60	0.449	0.211	0.034	0.033	0.866

The objective of this study is to undertake a preliminary investigation and examine the personal and environmental factors affecting willing to try PBM and openness to explore alternative meat options among both current and prospective users. The findings were consistent with previous studies (Yu et al., 2023) indicating that PBM is nutritionally rich. Soy and pea proteins, among others such as wheat gluten, potato, mung bean, and rice proteins, are commonly used ingredients, contributing to the nutritional value of PBM. Particularly, PBM made from soy offers higher dietary fiber, omega-3 fatty acids, and increased levels of essential trace elements including iron, zinc, vitamin B1, vitamin B2, vitamin B6, and folate (Yu et al, 2023). This suggests that PBM is nutritionally dense, thereby heightening the incentive for both male and female respondents to try it, irrespective of their prior experience with it. Nonetheless, around 57.2% of the respondents might view PBM as a viable option for reducing the risk of certain health issues but not as a complete substitute for traditional meat in terms of nutrition. Consistent with Fraeye et al. (2020) findings, it was observed that PBM may lack certain essential nutrients, such as Vitamin B12, typically found in traditional meat. Consequently, respondents expressed their reluctance to consume PBM, often attributing this hesitancy to their perception of it as overly processed, thus assuming it to be less healthy.

The trend of consuming PBM in Malaysia has seen a notable rise in recent years, mirroring global patterns influenced by various factors such as health concerns, environmental consciousness, and ethical considerations. With an increasing awareness of the health benefits associated with plant-based diets, Malaysians are turning to PBM alternatives as part of a healthier lifestyle. These products often offer lower levels of

saturated fats and cholesterol compared to traditional meat products, appealing to those seeking healthier dietary choices (Yu et al., 2023). By opting for PBM, individuals can reduce their carbon footprint and contribute to sustainable food practices warming (Andreani et al., 2023). In addition, PBM offers a cruelty-free alternative, appealing to individuals who prioritize animal rights and welfare. Malaysian consumers are increasingly turning to PBM following incidents of fraudulent labelling in the halal meat industry. These incidents have created an opportunity for Malaysian consumers to explore and incorporate PBM into their diets as a trusted and ethical alternative. As awareness continues to grow and options become more readily available, it's likely that this trend will continue to gain momentum in the coming years.

Notably, approximately 70% of the respondents highlighted environmental factors and animal welfare concerns as significant drivers influencing the shift towards choosing PBM. Andreani et al. (2023) that PBM production consumes less water, occupies less land, and generates lower greenhouse gas emissions, potentially mitigating global warming effects. Additionally, research by Edenbrandt and Lagerkvist (2021) suggests that providing information labels detailing the carbon emissions associated with meat production can enhance consumers' willingness to purchase environmentally sustainable meat products. Furthermore, Rubio et al. (2020) have highlighted the instances of inhumane treatment within livestock operations, including confining animals in overcrowded facilities and subjecting them to painful procedures like debeaking, dehorning, and castration without adequate pain relief. Such practices underscore the ethical concerns associated with conventional meat production, motivating individuals to seek out alternatives like PBM that offer a cruelty-free option (Rubio et al., 2020).

Moreover, approximately 47% of the respondents expressed a positive perception towards PBM products aiding in weight management due to their low-calorie content. This perception is consistent with claims made by dietitians regarding the health benefits of PBMs, attributed to their high fiber, vitamin, and mineral content, coupled with their low saturated fat levels. Consequently, respondents are inclined to consume PBM as it is believed to assist in weight control and potentially reduce the risk of various health issues, including diabetes, cardiovascular diseases, and other health-related problems (McMacken and Shah, 2017). However, the processing of food products can lead to higher caloric density and may result in the loss of some nutrients and phytochemicals naturally present in plant-based foods (Crimarco et al., 2020). As a result, approximately 53% of the respondents exhibit unwillingness and hesitation to include PBM in their dietary pattern. The inferential statistical findings explain that all male and female respondents, especially those without consumption experience, have a positive perception and willingness to try PBM. Particularly that PBM provide opportunities for culinary experimentation and diversity, appealing to individuals who enjoy trying new foods and flavours. These products can offer a variety of tastes and textures that mimic traditional meats, providing options for those looking to expand their culinary repertoire (Begho et al., 2023; Chen, 2022).

Noteworthy to highlight that ANOVA statistical findings explained the willingness to try PBM (PBM) can vary between generation Z (18-28 years old) and Baby Boomers (more than 60 years old). Firstly, Gen Z, as a younger generation, tends to be more health-conscious and environmentally aware. They are often more open to trying plant-based options due to concerns about personal health and the environmental impact of animal agriculture. Baby Boomers, while increasingly health-conscious, may not



prioritize environmental factors to the same extent. Secondly, Baby Boomers grew up in an era where meat consumption was more prevalent and culturally ingrained (Guo et al., 2023) Traditional dietary habits and preferences may make them less inclined to explore plant-based alternatives. In contrast, Gen Z has grown up in an era marked by increasing exposure to diverse cuisines and health-conscious food trends, making them more receptive to trying new foods (Durukan and Gul, 2019). Thirdly, Gen Z has grown up in the digital age, with easy access to information about the health benefits of plant-based diets and the environmental impact of meat production. They are more likely to be influenced by social media, online influencers, and educational resources advocating for plant-based lifestyles. Baby Boomers may be less exposed to such information or more skeptical of online sources (Lee et al., 2019).

### ***Implications***

The findings are generally very encouraging. It shows that majority of the respondents demonstrated positive perception and inclined to show their willingness to try PBM. It provides preliminary insight to the relevant government authorities to champion environmental sustainability. It is crucial for domestic state government authorities to assume pivotal roles in designing pertinent programs for healthier dietary. These initiatives should encompass engaging discussions with government-linked companies to foster local production of plant-based meat, in collaboration with both domestic and overseas PBM suppliers. In addition, it is imperative for the PBM manufacturer to furnish precise and pertinent nutritional information along with comprehensive labelling. Especially, the packaging design that clearly communicates the benefits and attributes of plant-based meat products, including nutritional information, sustainability credentials, and certification logos. This practice is crucial for bolstering consumer confidence in the consumption of PBM (Begho et al., 2023).

Furthermore, incorporating local cultural elements into marketing and promotional efforts can enhance the accessibility and awareness of PBM. Notably, organizing events such as plant-based night markets can serve as effective platforms for engaging local plant-based meat café and vegetarian restaurant owners. Such events facilitate the dissemination of knowledge about plant-based protein and zero wastage practices. PBM products are in its growing stage in local context. Thus, the marketing strategies should focus on raising awareness, building trust, and promoting the benefits of plant-based alternatives. For instance, PBM tasting events and product demonstrations in supermarkets, health food stores, and community events. The consumers will have opportunities to try plant-based meat products which can help overcome their scepticism and negative perception of PBM. It is important to forge the partnerships with restaurants, cafes, and food delivery services to feature plant-based meat options on their menus as well as to collaborate with influencers, nutritionists, and chefs to endorse and create recipes using PBM.

The current research findings also highlight a notable trend that the younger generation demonstrates a greater willingness to embrace PBM. This inclination in dietary preferences among the youth offers valuable insights into future dietary patterns among young population. Consequently, if these trends persist, they could wield considerable influence over the collective health of the local population. To address this emerging landscape, it is imperative for pertinent education institutions and stakeholders in crafting targeted public health interventions tailored specifically to the youngest demographic. They can utilize various channels such as social media, blogs,

and informational videos to disseminate this information. Such collaborative efforts are essential for fostering healthier dietary habits and promoting long-term well-being among the youth (Guo et al., 2023).

### ***Limitations and future research recommendations***

Although this study provides initial insights into the perceptions of local consumers regarding their willingness to try PBM, it is not without limitations. Firstly, the sample size of 213 participants may not fully represent the general population of Malaysia due to imbalances in sociodemographic variables such as gender and education level. Consequently, caution should be exercised when generalizing our findings, and future studies should strive to incorporate a broader range of contextual factors, including social influences and self-efficacy, particularly in applying quasi-experimental research methods to identify the most pertinent variables that predict PBM consumption among Malaysians. Furthermore, future studies ought to consider gathering qualitative data through focus groups and interviews to garner deeper insights into the factors influencing the willingness to try PBM, particularly among younger populations. Additionally, while the current study primarily focuses on descriptive analysis to assess the willingness to try PBM among respondents, employing a more comprehensive statistical approach could yield a predictive model that elucidates the motivational factors driving PBM adoption from a local perspective.

### **Conclusion**

The current study enhances our comprehension of individuals' inclination of willingness to try PBM options. Participants displayed favourable viewpoint towards PBM as dietary substitutes, driven by considerations of nutritional intake, environmental awareness, and evolving food consumption trends. Moreover, differences in the willingness to adopt PBM were observed between younger and older generations, underscoring shifts in dietary behaviours influenced by the accessibility of information through social media platforms and technological proficiency in seeking alternative food choices.

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### **Conflict of interest**

The authors confirm that there is no conflict of interest involve with any parties in this research study.

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