International Research Journal of Multidisciplinary Scope (IRJMS), 2026; 7(1): 609-622 IRJMS

Original Article | ISSN (O): 2582-631X DOI: 10.47857/irjms.2026.v07i01.07995

Sustainable Food Choices: Understanding the Adoption of Modern Vegetarian Meals

Nhu Thi Quynh Nguyen[1]*, Nguyen Van Nguyen[2], Dat Minh Nguyen[3]

[1]Tra Vinh University, 126 Nguyen Thien Thanh Street, Hoa Thuan Ward, Vinh Long Province, Vietnam, [2]College of Economics and Law, Tra Vinh University, 126 Nguyen Thien Thanh Street, Hoa Thuan Ward, Vinh Long Province, Vietnam, [3]Faculty of Management, Ho Chi Minh City University of Law, 02 Nguyen Tat Thanh Street, Xom Chieu Ward, Ho Chi Minh City, Vietnam. *Corresponding Author's Email: nhuntquynh@huit.edu.vn

Abstract

Modern vegetarian meals (MVM) have attracted a large number of urban residents in Vietnam. However, no research has explored the intention to choose MVM, which has created a large gap in theory. Therefore, this study focuses on exploring the motivations behind the continued intention to choose MVM. Data was collected through a direct survey of 349 participants. Analysis of the Partial Least Squares Structural Equation Modeling indicates that the benefits of MVM are significant predictors of the continued intention to choose MVM, mediated by global motives toward MVM. This study makes many meaningful contributions to plant-based consumption theory. Firstly, the key contribution of this study lies in demonstrating that the Behavioral Reasoning Theory effectively predicts behavioral intention. More importantly, the findings reveal that psychological health benefits (PsyH) have a statistically significant influence on attitude towards MVM, subjective norms, and perceived behavioral control. This represents a novel contribution, as PsyH has rarely been examined in previous quantitative studies based on these theoretical frameworks. In practical terms, this study provides the foundations for developing more comprehensive communication, education policies, and interventions to promote MVM choice in the community. The main research limitation includes a convenient sample selection method and a focus on MVM instead of other forms of vegetarian choices.

Keywords: Animal Welfare, Environment Benefit, Health Benefit, Plant-Based, Sustainable.

Introduction

Vegetarianism is increasingly being recognized, in many parts of the world, as a way of eating that may support both personal health and ecological welfare. Past research suggests that shifting toward a plant-based diet could bring a range of benefits that are not only for human well-being but also for animal welfare and the planet itself. These findings seem to echo the rising concern about sustainability and the search for diets that can realistically meet that demand (1, 2). In recent years, what many now call modern vegetarian meals (MVM) has begun to pick up real momentum. They aren't quite the same as the more traditional vegetarian meals people might think of; instead, MVM aims to provide well-rounded nutrition by combining vegetables, grains, legumes, seeds, and other plant-derived protein sources. They often use contemporary cooking approaches and borrow flavors from many culinary traditions. Compared with older styles of vegetarian cooking, where dishes were sometimes quite simple, today's vegetarian cuisine pays far more attention to variety, presentation, and the overall dining experience. This idea is reflected in *The Modern Vegetarian*, which presents a range of creative, plant-based recipes tailored to the tastes and expectations of modern diners (3). In Vietnam, although vegetarian culture has existed for a long time in religious communities, the emergence of MVM is a new phenomenon, especially popular in big cities (such as Ho Chi Minh City - HCM) (4). Along with that, the market also recorded a strong development of plant-based alternative products, such as plant-based meat and plant-based milk (5). The emergence of MVM has created a new awareness of vegetarianism, contributing to the promotion of a new generation of consumers, not only because of religious beliefs but also because of the ideals of happiness and sustainable living. This also creates new opportunities and challenges for the development of the plant-based food market in Vietnam to meet the increasing needs of consumers. However, so far, there is still very little

(Received 03rd September 2025; Accepted 28th December 2025; Published 19th January 2026)

academic research in Vietnam approaching MVM as a new personal and social consumption phenomenon. Therefore, this study was conducted to explore the factors influencing the continued intention of Vietnamese consumers to choose MVM. By applying Behavioral Reasoning Theory (BRT) and the Theory of Planned Behavior (TPB), the study explores the role of reasons in the continued intention to choose MVM through the mediation of global motives. Expanding this theoretical framework will bring a lot of value in building a theoretical model that is relevant to the contemporary Vietnamese context, while providing practical implications for policymaking to promote this healthy and sustainable eating behavior in the community. In terms of theoretical background, TPB (6) is considered a framework for predicting consumer behavior. According to TPB, attitude, subjective norms, and perceived behavioral control play important roles in shaping intention to perform the behavior (6). However, TPB also has limitations (7). To overcome this, BRT was developed (8).

In BRT, the process of analyzing human reasoning is important because it helps people to be able to explain the influence of specific contextual factors on their behavioral intentions. According to BRT, reasons can affect global motives and intentions because they help individuals justify and defend their actions. In BRT, reasons are defined as contextual subjective factors that people use to explain their behavior, while global motives are defined as fundamental factors that have a consistent influence on intentions in a series of different fields. Therefore, attitudes, subjective norms, and perceived behavioral controls are considered to belong to this group of global motives, since they are estimated at a broad level of abstraction and have significantly predicted intentions in many studies (6).

In the context of current research, the reasons are expected to provide a deeper understanding of consumers' MVM selection behavior. In this study, reason is defined as the subjective and specific factors that people use to justify their behavior (9). The most commonly cited advocacy reasons in previous studies on vegetarianism relate to health, the environment, and animal welfare (10). Previous studies have shown that the reason affects global motives (11, 12). Explaining this, when a person has many strong reasons to perform an act, the more likely he or she is to (i) have a good attitude about it (because they have convinced themselves with rational reasons), (ii) feel that others expect them to perform the behavior as well (because they believe that other important people will support and agree that this action is correct when they hear these reasonable reasons), (iii) have a strong sense of control in the performance of the behavior (because solid reasons, expected benefits, will help them become more confident, feel they have the ability, and conditions to do it). Other studies in the context of sustainable consumption have similar findings (13-16). From there, it is expected that the combination of TPB and BRT in this study will help improve the ability to interpret behavioral intention.

After outlining the main theories that support this study, the next step is to develop the research hypotheses. First of all, attitudes towards MVM (AT) reflect individuals' favourable evaluations of MVM. The relationship between attitudes and behavioral intentions has been affirmed in TPB theory (6). In this study, the continued intention to choose MVM (INT) reflected the individual's willingness to continue making MVM choices. Based on TPB and previous research (17), the author puts forward the following research hypothesis:

H1: AT has a positive impact on INT.

Secondly, social norms refer to the general standards for behavior, established by and for members of a social group (18). Social norms include descriptive norms (DN) and injunctive norms (IN) (19-21). In this study, DN reflects the individual's perception that the people around them are choosing MVM; IN, which is also called subjective norms (SN), reflects the individual's perception of the expectations of others about the individual's choice of MVM.

In the context of eating in general, consumers tend to imitate the behavior of those around (22). Previous research (23) showed that DN affects participants' food choices and preferences. Other research (24) compared these two types of norms in the context of healthy and unhealthy eating, showing that DN were more effective than IN in influencing participants' behavior. The above bases support the hypothesis that when individuals perceive that others are choosing MVM, they will tend to continue to choose MVM

because they believe that vegetarianism is becoming a trend and that crowd selection is the right choice, bringing many benefits. From there, the author proposes the following research hypothesis:

H2: DN has a positive impact on INT.

In addition, SN, which is also called IN (what others approve, support, and encourage), will help the individual connect with others and be liked (19). According to TPB (6), the more socially supported and encouraged the behavior, the higher the intention to perform the behavior. Moreover, it has been shown that IN are positively related to healthy eating intentions (25). From the above bases, the author puts forward the following research hypothesis:

H3: SN has a positive impact on INT.

Thirdly, PBC reflects the ease with which modern vegetarian meal choices are made, capturing whether consumers feel it is easy to get a suitable MVM. TPB shows that the better the control of cognitive behavior, the higher the intention to perform the behavior (6). Additionally, it has been shown that PBC positively influences the intention to adopt a plant-based diet (26). From the above bases, the author puts forward the following research hypothesis:

H4: PBC has a positive impact on INT.

Another point is that the World Health Organization states that "Health is a state of complete physical, mental, and social well-being, not merely the absence of disease or infirmity." (27). This definition has since been considered an international standard for health. According to this definition, health includes aspects of physical health and psychological and social health. Physical health has been defined as the level of maintaining and improving cardiovascular strength, flexibility, and strength (28). The physical health benefits of vegetarianism have been shown in many studies. Properly planned vegetarianism can provide health benefits, help prevent and cure certain diseases, vegetarianism helps reduce the risk of cardiovascular diseases, diabetes, cholesterol, blood pressure, cancer, and mortality (29-32). Other research shows that many people turn to vegetarianism to improve their physical health, to cure diseases, and to prevent diseases (33). Therefore, in this study, the physical health benefits (PhyH) reflect the individual's perception of the benefits that vegetarianism can bring to their body, such as helping them improve their physical health, cure and prevent diseases.

The interest in both physical and psychological recovery is particularly pronounced on a global scale, especially after the COVID-19 pandemic (34, 35). According to WHO, psychological health is: "a state of health in which each individual realizes his or her own potential, is able to cope with normal stresses in life, can work productively, and can contribute to the community." (36). Therefore, in this study, psychological health benefits (PsyH) reflect an individual's perception of the psychological health benefits that vegetarianism provides, such as a state of psychological well-being, coping well with stress, managing relationships well, and having a positive outlook on self and life.

The psychological health of vegetarians is a unique phenomenon to study. Vegetarians say the psychological rewards of vegetarianism have overcome the difficulties that vegetarianism brings. Specifically, through discussions with vegetarians, the authors found that by becoming vegetarians, respondents said they felt happy that they had done something meaningful for the environment and animals, helping them to become consistent with the ethical values they pursued. Vegetarianism has led to a sense of self-pride, a sense of freedom from dependence on meat, and an over-indulgent lifestyle to enjoy peace and lightness in the mind. Together, these experiences have contributed to a sense of shared happiness. The findings in the authors' discussions with vegetarians are also consistent with the results of previous (37). Participants said being vegetarian is a core part of their identity, helping them achieve a deeper connection with themselves and the world, increasing their sense of altruism and pro-social behavior. Vegetarianism has indeed affected individuals on many levels, from identity, cognition, emotions, to behavior, to be a powerful driver of personal healing and growth. Other studies, once again, provide evidence to support these conclusions, such as vegetarians have been shown to have higher levels of life satisfaction (38, 39) and less stress and less anxiety than meat eaters (40, 41).

In addition, the special point of VBM is that vegetarian dishes are prepared from natural, fresh ingredients and seasonal agricultural products, limiting industrial spices and chemicals to create

flavors, thus ensuring balanced nutrition and preserving the natural flavor. In addition, modern processing techniques create many attractive and innovative dishes, overcoming the prejudice of boredom and monotony to bring a delicate dining experience that helps purify the body and relax the mind (3, 42, 43), improving both physical and psychological health. Moreover, the BRT, along with previous studies (11, 12, 16) support the causal relationship between the reasons (benefits) and global motivations (AT, SN, and PBC). From the above bases, the author puts forward the following research hypothesis:

H5a, b, c: PhyH has a positive impact on AT, SN, and PBC.

H6a, b, c: PsyH has a positive impact on AT, SN, and PBC.

Climate change is one of the major challenges that the world and Vietnam are facing today, which has spurred efforts to change human behavior to protect the environment (44). In particular, reducing meat consumption is a useful way to reduce greenhouse gas emissions and protect the environment. The literature has shown that plant-based foods are less environmentally damaging and help use resources more efficiently than animal-based products (45-47). In this study, environmental benefits (EB) refer to what people believe they might gain for the environment by choosing MVM, such as lowering air or water pollution and making better, more efficient use of resources. In the context of increasing social awareness of the negative impacts of environmental pollution and climate change on the health and sustainable development of society, evidence of vegetarianism helping to protect the environment can have a positive effect on the community's attitude towards vegetarianism. In addition, BRT (8) and previous studies (11, 12, 16, 48) have shown that reasons have an influence on global motives. From the above bases, the author puts forward the following research hypothesis:

H7a, b, c: EB has a positive impact on AT, SN, and PBC.

Finally, animal welfare (AW), in this study, reflects an individual's belief in the benefits that vegetarianism brings to animals, saving animals from having to live and be killed in fear and pain. This view is in line with the World Organisation's definition of animal welfare (49). The movement to protect animals in the community, with the active participation of the Vietnamese citizens, has continuously taken place in recent years (50), showing a drastic change in the perception and attitude of the modern generation towards animal welfare, the environment, and humane lifestyles. This contributes to promoting ethical consumption behavior in general and vegetarianism in particular as an ethically and ecologically responsible choice in the Vietnamese community. In addition, BRT (8) and previous studies (11, 12, 16, 51, 52) have shown that reasons have an influence on global motives. From the above bases, the author puts forward the following research hypothesis:

H8a, b, c: AW has a positive impact on AT, SN, and PBC.

Based on theory and practice, this study applies BRT and TPB to develop the relationships from H1-H8, which are integrated to build a more comprehensive conceptual framework presented in Figure 1.

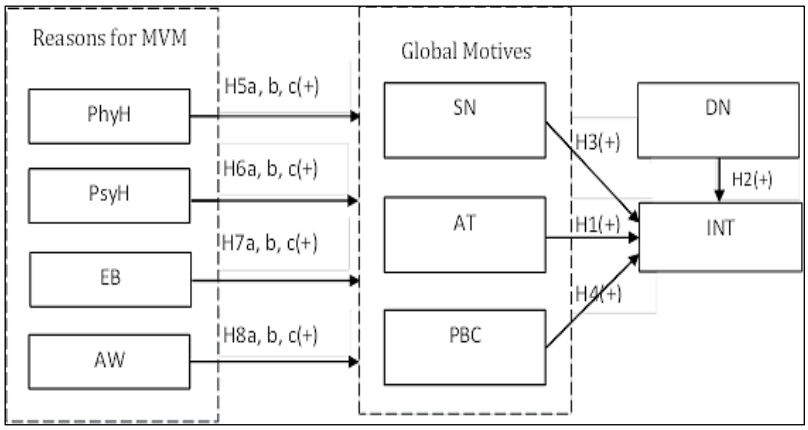

Figure 1: Conceptual Framework

Methodology

The representativeness of the sample in relation to the target market has been carefully considered. As noted in prior literature, representative samples of vegetarians are difficult to obtain because vegetarian status is self-defined, highly flexible, and lacks an established sampling frame (53). Consistent with these methodological constraints, the present study employed convenience sampling. The respondents were residents of Ho Chi Minh City, the biggest and most ideal city in Vietnam for vegetarianism, aged over 18, who had chosen modern vegetarian meals (MVM) within the last three months. Data collection was conducted across a diverse set of vegetarian restaurants, shops, malls, and supermarkets offering MVM, each capturing different consumer groups and consumption contexts. This approach enhances the heterogeneity of the sample and helps reflect a broad range of consumer experiences within the city's vegetarian population.

The questionnaire employs a five-point Likert scale, ranked from 1 ("totally disagree") to 5 ("strongly agree") for all items of the scale. The PhyH scale was adjusted from the Health scale (54) consisting of three items, and three more items were added in this study (e.g., MVM helps balance nutrition); The PsyH scale is adjusted from the Flourishing Scale (55) consisting of eight items (e.g., Choosing MVM helps me to expand my social network in a meaningful way); The EB scale is adjusted from the Environmental Beliefs Scale (17) including three items, and one more item was added in this study (e.g., Opting for MVM to support environmental protection); The AW scale was adjusted from the Animal Welfare scale (56) consisting of two items, and two additional items were added in this study (e.g., Choosing MVM is a way to cultivate love for animals); The AT scale was adjusted from the attitude scale (57) consisting of four items, and one more items was added in this study (e.g., MVM is a healthy meal); The DN scale was adjusted from the descriptive norms scale (58) consisting of three items, and two additional items were added in this study (e.g., I have noticed that MVM is becoming increasingly popular in my community); The SN scale was adjusted from the injunctive norms (58) consisting of three items, and two additional items were added in this study (e.g., an increasing number of people believe that individuals should occasionally choose MVM); The PBC scale is adjusted from the Perceived Behavioural Control scale (59) consisting of three items, and two additional items are added in this study (e.g., I can afford MVM); The INT scale is adjusted from the Intention to eat a vegetarian lunch scale (60) consisting of three items, and one more item was added in this study (e.g., I plan to continue to replace some meat-based meals with MVMs in the near future).

Before the main survey was carried out, a small round of preliminary work was done to check whether the research model and the measurement scales made sense in the local context. Two group discussions were held with ten consumers who were familiar with MVM. These sessions helped reveal how people actually understood certain terms, whether any items sounded confusing, and whether the questions reflected how consumers in Vietnam talk about MVM. In addition to the consumer groups, ten experts in consumer behavior and nutrition were consulted. Their comments were used to adjust the wording of some items and to confirm that the constructs were appropriate for the study. After these revisions, the questionnaire was considered ready for the quantitative phase.

Data Analysis

The quantitative research with the cross-sectional method was used in this study. The collected data will be processed by the Partial Least Squares Structural Equation Modeling (PLS-SEM) method using SmartPLS 4 software. PLS-SEM is consistent with the exploratory goals of this study under the condition that the sample size is small and the data cannot satisfy the standard normal distribution (61). The evaluation of the measurement model and structural model was conducted based on established recommendations (62).

Results

A total of 415 survey questionnaires were distributed, collecting 365 questionnaires, equivalent to a response rate of 88 %. After filtering the questionnaires that satisfied the conditions, the total number of valid questionnaires obtained was 349. This 349 sample size satisfies the minimum sample size requirement (63).

The demographic profiles of the survey participants show that most are female (68 %),

which is consistent with previous research. In addition, most of the participants' diet was mainly meat-based, which was consistent with the urban lifestyle and flexible vegetarian trend (39). Vegetarians who are mostly vegetarians for health choose to replace some meat-based meals with vegetarian meals instead of pursuing a long-term strict vegetarian diet, which is found in people who are mostly vegetarians for ethical reasons (10). Furthermore, the majority of participants are individuals aged 18 to 47, indicating that young and early middle-aged adults have rapidly adopted the trend of modern vegetarian meals.

Reliability Assessment of the Measurement Model

The results of the PLS-SEM analysis presented in Table 1 indicate that all constructs demonstrate good reliability, with outer loadings, Cronbach's alpha, and composite reliability values exceeding the threshold of 0.7.

Table 1: Reliability and Validity

Variable/Item	Outer Loadings	Cronbach's Alpha	Composite Reliability (Rho_A)	Average Variance Extracted (AVE)
AT		0.943	0.943	0.815
AT1	0.917			
AT2	0.899			
AT3	0.899			
AT4	0.891			
AT5	0.906			
AW		0.935	0.937	0.838
AW1	0.928			
AW2	0.930			
AW3	0.921			
AW4	0.882			
DN		0.927	0.930	0.776
DN1	0.912			
DN2	0.922			
DN3	0.861			
DN4	0.832			
DN5	0.874			
EB		0.904	0.955	0.769
EB1	0.808			
EB2	0.867			
EB3	0.924			
EB4	0.904			
INT		0.906	0.906	0.781
INT1	0.869			
INT2	0.915			
INT3	0.896			
INT4	0.854			
PBC		0.938	0.945	0.802
PBC1	0.916			
PBC2	0.903			
PBC3	0.931			
PBC4	0.864			
PBC5	0.861			
PhyH		0.923	0.923	0.722
PhyH1	0.815			
PhyH2	0.875			
PhyH3	0.857			
PhyH4	0.852			
PhyH5	0.856			
PhyH6	0.842			
PsyH		0.921	0.921	0.644
PsyH1	0.802			
PsyH2	0.823			
PsyH3	0.812			
PsyH4	0.820			
PsyH5	0.784			

Variable/Item	Outer Loadings	Cronbach's Alpha	Composite Reliability (Rho_A)	Average Variance Extracted (AVE)
PsyH6	0.827			
PsyH7	0.786			
PsyH8	0.764			
SN		0.937	0.942	0.801
SN1	0.938			
SN2	0.910			
SN3	0.910			
SN4	0.858			
SN5	0.855			

Convergent Validity Assessment

The AVE (Average Variance Extracted) index provides information about the convergence value of the scale. A scale is considered to have achieved convergent validity when the AVE reaches 0.5 or higher (61). The PLS-SEM algorithm results, shown in Table 1, suggest that every construct meets the requirements for convergence. Among them, the smallest is PsyH (0.644). Proving that the scales have achieved convergence values.

Discriminant Validity Assessment

As shown in Tables 2 and 3, the PLS-SEM analysis suggests that the constructs likely achieve discriminant validity, since both the Fornell–Larcker criterion and the HTMT index are met. Taken together, these results support the reliability and validity of the measurement model (61).

Table 2: Discriminant Validity—Fornell-Lacker Criterion

	AT	AW	DN	EB	INT	PBC	PhyH	PsyH	SN
AT	0.903								
AW	0.569	0.915							
DN	0.525	0.458	0.881						
EB	0.491	0.512	0.437	0.877					
INT	0.780	0.516	0.634	0.438	0.884				
PBC	0.575	0.567	0.634	0.486	0.655	0.895			
PhyH	0.661	0.639	0.522	0.534	0.581	0.639	0.850		
PsyH	0.643	0.637	0.589	0.552	0.609	0.639	0.723	0.802	
SN	0.516	0.558	0.506	0.494	0.596	0.530	0.637	0.613	0.895

Table 3: Discriminant Validity—Heterotrait-Monotrait (HTMT) Matrix

	AT	AW	DN	EB	INT	PBC	PhyH	PsyH	SN
AT									
AW	0.606								
DN	0.560	0.489							
EB	0.496	0.536	0.446						
INT	0.844	0.561	0.690	0.443					
PBC	0.606	0.602	0.672	0.486	0.706				
PhyH	0.707	0.688	0.563	0.558	0.634	0.683			
PsyH	0.690	0.687	0.637	0.583	0.667	0.682	0.783		
SN	0.546	0.594	0.539	0.497	0.645	0.557	0.683	0.658	

Table 4: VIF—Inner Model Matrix

	AT	AW	DN	EB	INT	PBC	PhyH	PsyH	SN
AT					1.708				
AW	1.966					1.966			1.966
DN					1.860				
EB	1.576					1.576			1.576
INT									
PBC					2.027				
PhyH	2.428					2.428			2.428
PsyH	2.469					2.469			2.469
SN					1.594				

Assessment of Multicollinearity

The results of the PLS-SEM algorithm analysis, as shown in Table 4, indicate that all constructs have VIF < 3. So, it ensures that the model does not have multicollinearity (61).

Evaluation of Relationship Significance

Bootstrapping analysis with 5000 bootstrapping times on SmartPLS 4 software is performed to evaluate the relationships in the structural model. The results of direct effects shown in Table 5 and Figure 2 indicate that all hypotheses are statistically significant (p-value less than 0.05).

Table 5: Hypothesis Testing

	Beta (β)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values	Outcome
AT -> INT	0.510	0.509	0.052	9.739	0.000	supported
AW -> AT	0.143	0.142	0.052	2.773	0.006	supported
AW -> PBC	0.156	0.156	0.043	3.666	0.000	supported
AW -> SN	0.154	0.154	0.051	3.020	0.003	supported
DN -> INT	0.185	0.186	0.046	3.992	0.000	supported
EB -> AT	0.098	0.100	0.048	2.038	0.042	supported
EB -> PBC	0.100	0.101	0.043	2.323	0.020	supported
EB -> SN	0.127	0.129	0.052	2.452	0.014	supported
PBC -> INT	0.164	0.165	0.049	3.384	0.001	supported
PhyH -> AT	0.329	0.328	0.045	7.296	0.000	supported
PhyH -> PBC	0.284	0.283	0.047	5.989	0.000	supported
PhyH -> SN	0.312	0.311	0.052	5.980	0.000	supported
PsyH -> AT	0.260	0.259	0.045	5.812	0.000	supported
PsyH -> PBC	0.279	0.278	0.050	5.547	0.000	supported
PsyH -> SN	0.219	0.218	0.052	4.240	0.000	supported
SN -> INT	0.152	0.153	0.040	3.772	0.000	supported

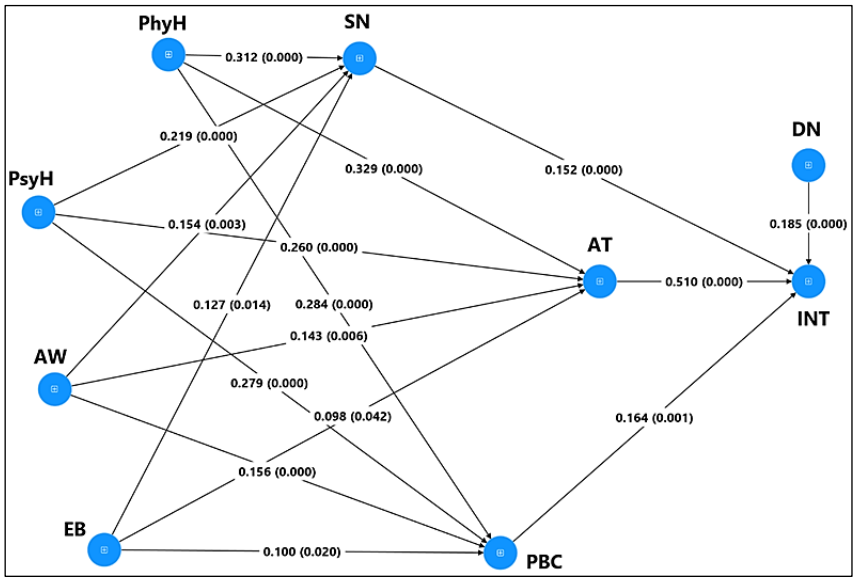

Figure 2: Results of Structural Modelling

Table 6: R-square and R-Square Adjusted

	R-square	R-square adjusted
AT	0.515	0.509
INT	0.714	0.710
PBC	0.497	0.491
SN	0.482	0.476

Table 7: f-Square Matrix

	AT	AW	DN	EB	INT	PBC	PhyH	PsyH	SN
AT					0.531				
AW	0.021					0.025			0.023
DN					0.064				
EB	0.013					0.013			0.020
INT									
PBC					0.046				
PhyH	0.092					0.066			0.077
PsyH	0.056					0.063			0.038
SN					0.051				

The Predictive Power of the Model

The R-square shown in Table 6 indicates that four reasons explain 51.5 % of the variation of AT, 48.2 % of the variation of SN, and 49.7 % of the variation of PBC. In addition, three variables of TPB, along with DN, account for 71.4 % of the variation of the INT.

Assessing the Effect Size

The ƒ-square effect size was employed to evaluate the importance of the independent variables, following established recommendations (61). The PLS-SEM algorithm analysis results presented in Table 7 show that the ATT variable has a strong impact, whereas PBC has the smallest impact on INT. Moreover, the PhyH, PsyH, and AW demonstrate a small impact on ATT, SN, and PBC, while EB has a negligible effect on ATT, SN, and PBC.

Discussion

First, this study applied the BRT and TPB to examine the continued intention to choose MVM among urban residents in Vietnam. The results show that the combination of the aspects of personal and sustainable interests has a significantly impact on forecasting the continued intention to choose MVM through global motives that are AT, SN, and PBC towards MVM. Similar to previous studies in the context of vegetarianism, this study shows the positive impact of global motives on behavioral intentions. The expanded TPB explains 71.4 % of the variance in behavioral intention, which is higher than previous studies (64). Among the constructs, ATT appears to carry the most weight ($\beta = 0.510$, $p < 0.001$), showing the strongest effect on intention (f-square = 0.531) (61). What is especially noteworthy is that, while much of the earlier work focused almost exclusively on subjective norms when explaining behavioral intentions (64), the present results indicate that both SN and DN are likely to play a substantial role in shaping INT. In other words, the continued intention of urban people to choose MVM is influenced by both information about MVM selection trends in the community and the influence of important people on MVM selection.

Secondly, the highlight of the current study is the discovery of a relationship between reasons for MVM (PhyH, PsyH, AW, EC) and global motives (AT, SN, PBC). No previous study has clarified these relationships. Specifically, PsyH and PhyH are two important aspects of health, both of which have effects on AT ($\beta = 0.260$, $\beta = 0.329$, $p<0.000$). This new point shows that urban residents choosing MVM are not only because of physical health benefits, but also because of psychological health benefits. There is rarely a form of meal that satisfies consumers in various physical and psychological healths as vegetarianism. This can be considered a unique feature of MVM. This contributes to confirming the conclusions of previous qualitative studies (37). In addition, similar to previous research (52), this study also shows the positive effect of animal welfare on attitudes. However, unlike previous research (17), this study demonstrates the effect of environmental benefits on attitudes, although this effect is negligible.

Together, the findings in this study suggest that the important role of individual health benefits and sustainability benefits plays an important role in explaining the formation of ATT, SN, and PBC towards MVM (with R-squared values of 0.515, 0.497, 0.482 in order). At the same time, the aspects of social norms (DN and SN), along with other core factors of TPB, have contributed to a better understanding of the continued intention to choose MVM among people in urban areas. Urban

areas play an important role in spreading the trend of sustainable vegetarianism in the community, so the findings in this study have many theoretical and practical implications.

Looking at the results in a wider context, there are some possible links to sustainability when these behaviors appear in a large enough group of people. If the psychological and social factors found in this study lead more individuals to choose MVM, the change could add up over time. Diets with more MVM generally create fewer emissions and use less land and water, and they also tend to support better health. Although this study did not measure these outcomes directly, understanding why people decide to adopt MVM can still add something useful to on-going discussions about how Vietnam might move toward a more sustainable food system.

Conclusion

This study contributes to the theory by combining BRT and TPB with factors associated with personal interests and sustainability values, along with the multi-dimensional influence of social norms. This combination provides a more comprehensive view of the psychological and social dynamics that influence sustainable culinary choices in the context of modern vegetarianism, also showing the value of the BRT and TBP theoretical framework in forecasting behavioral intentions in different contexts. Combining BRT and TPB in the direction of integrating personal and ethical values, along with social norms, can help build more comprehensive theoretical frameworks that more accurately reflect behavioral dynamics in today's diverse culinary context.

More importantly, this study explored a causal relationship between the perception of the psychological health value of MVM and global motives towards MVM (AT, SN, PBC). This is a new point that has not been mentioned before. Together, aspects of physical health and psychological health have shed more light on the influence of health on attitude, subjective norms, and controlled behavior towards MVM.

In addition, this study clarifies the different and complementary roles of social norms (DN and SN) in the formation of behavioral intentions. Few previous studies have combined the evaluation of the impact of these social norm aspects in the context of plant-based nutrition, more specifically, in the context of MVM. This, once again, shows the contribution of this research to the theoretical foundation.

From a managerial perspective, getting people to choose more MVM isn't something that happens just because we say it should. It usually takes several small efforts working together. One thing that can help is to talk about MVM in a way that feels familiar and easy to relate to, how they fit into everyday routines, and how they might make someone feel better physically or mentally, instead of only talking about big ideas like sustainability. Points about the environment or animal welfare can still be mentioned, but they tend to work better when they are connected to real situations rather than presented as abstract benefits.

It also makes a difference when people actually get to taste the food. Simple things like letting students, office workers, or people at busy eating areas try small portions can reduce the hesitation they often have toward vegetarian dishes. These little encounters don't force anyone to commit, but they give them a chance to see what the food is like. When this happens in familiar spots around the city, it slowly builds comfort and makes the idea of choosing MVM feel less unusual, especially in big cities where eating habits shift quickly.

Moreover, information about the growing trend of choosing MVM within the community is as important as the support of important people for MVM. Harnessing this influence, communication strategies could showcase evidence of MVM's popularity through real-world figures and visuals (e.g., how crowded vegetarian fusion restaurants are, or how high the percentage of people opt for MVM). Moreover, family, friends, community influencers, nutritionists, associations, organizations, or forums on nutrition can also join hands to affirm the community's expectation of, support for MVM. The cumulative impact of both DN and SN will increase the intention to choose MVM more effectively.

Although this study was conducted in HCM, Vietnam's most developed and populous city, which is also the most ideal city for vegetarianism, its results could be widely applicable to different geographical areas. This is due to the similarities between the modern vegetarian trend in HCM and other areas around the world.

This study still has some limitations that need to be considered. For one, the participants were all

residents of urban areas in HCM, and because the sample was chosen for convenience, the results may not fully represent other populations. Future research could address this by widening the geographic scope and relying on random sampling, which would likely make the findings more representative. Secondly, the study examines the emerging trend of modern vegetarian meals. Follow-up studies may conduct surveys of vegetarian forms and choices in different settings. Thirdly, this study demonstrates the role of BRT and TPB in predicting behavioral intention rather than actual behavior. Further studies could utilize a longitudinal approach with other theoretical frameworks to better clarify in predicting of actual behavior. Last but not least, this study did not employ conjoint analysis or discrete-choice experiments (DCE), which are suitable for examining trade-offs and willingness to pay. Because the research was designed to investigate psychological and normative determinants under BRT and Social Norm Theory, the survey instrument was not constructed to support a conjoint or DCE structure. Therefore, attribute-level trade-offs between taste, price, and sustainability labels, and convenience could not be assessed. Therefore, future research is encouraged to use conjoint analysis or DCE to quantify consumer trade-offs and willingness to pay for specific attributes of modern vegetarian meals. Applying these methods would provide more detailed insights into attribute preferences and complement the psychological findings of the present study.

Abbreviations

All abbreviations used in this manuscript have been defined in full at their first appearance in the text.

Acknowledgement

The authors would like to thank the support of Tra Vinh University and Ho Chi Minh City University of Industry and Trade in the process of implementing this research.

Author Contributions

Nhu Thi Quynh Nguyen: conceptualization, methodology, data collection, analysis, preparation of the original draft of the manuscript, Nguyen Van Nguyen: review and editing of the manuscript, Dat Minh Nguyen: review and editing of the manuscript. All authors have read and agreed to the published version of the manuscript.

Conflict of Interest

The authors declare no conflict of interest.

Declaration of Artificial Intelligence (AI) Assistance

No generative AI or AI-assisted technologies were used in the preparation of this manuscript.

Ethics Approval

All participants gave verbal or written consent for the use of their information in this publication.

Funding

No funding was received for this research

References

1. Cleland E, McBey D, Darlene V, *et al*. Still eating like there's no tomorrow? A qualitative study to revisit attitudes and awareness around sustainable diets after 10 years. Appetite. 2025;206: 107799. doi:10.1016/j.appet.2024.107799
2. Vinnari M, Vinnari E. A framework for sustainability transition: the case of plant-based diets. Journal of Agricultural and Environmental Ethics. 2014;27(3):369-96. doi:10.1007/s10806-013-9468-5
3. Elia M, Gregson J. The modern vegetarian: Food adventures for the contemporary palate: Kyle Cathie; 2009. https://books.google.com.vn/books?id=1VwTOgAACAAJ
4. Vietnamnomad. Vegetarian dishes in Vietnam. 2025. https://vietnamnomad.com/eat-drink/vegetarian-dishes-in-vietnam/
5. Vegconomist. Vietnam Meat Substitutes Market Report 2022: Growing Demand for Vegan Burgers; 2022. https://vegconomist.com/businesswire/vietnam-meat-substitutes-market-report-2022-growing-demand-for-vegan-burgers/
6. Ajzen I. The theory of planned behavior. Organizational Behavior and Human Decision Processes. 1991;50(2):179-211. doi:10.1016/0749-5978(91)90020-T
7. Conner M, Armitage CJ. Extending the theory of planned behavior: A review and avenues for further research. Journal of Applied Social Psychology. 1998;28(15):1429-64. doi:10.1111/j.1559-1816.1998.tb01685.x
8. Westaby JD. Behavioral reasoning theory: Identifying new linkages underlying intentions and behavior. Organizational Behavior and Human Decision Processes. 2005;98(2):97-120. doi:10.1016/j.obhdp.2005.07.003
9. Westaby J, Versenyi A, Hausmann R. Intentions to work during terminal illness: An exploratory study of antecedent conditions. The Journal of applied psychology. 2005;90:1297-305. doi:10.1037/0021-9010.90.6.1297

10. Ruby MB. Vegetarianism. A blossoming field of study. Appetite. 2012;58(1):141-50. doi:10.1016/j.appet.2011.09.019
11. Norman P, Conner MT, Stride CB. Reasons for binge drinking among undergraduate students: An application of behavioural reasoning theory. British Journal of Health Psychology. 2012;17(4):682-98. doi:10.1111/j.2044-8287.2012.02065.x
12. Westaby JD, Probst TM, Lee BC. Leadership decision-making: A behavioral reasoning theory analysis. The Leadership Quarterly 2010;21(3):481-95. doi:10.1016/j.leaqua.2010.03.011
13. Ngo-Thi-Ngoc H, Nguyen-Viet B, Hong-Thach H. Purchase intention for vegan cosmetics: Applying an extended theory of planned behavior model. SAGE Open.2024;14(1):21582440241240548. doi:10.1177/21582440241240548
14. Paul J, Modi A, Patel J. Predicting green product consumption using theory of planned behavior and reasoned action. Journal of Retailing and Consumer Services.2016;29:123-34. doi:10.1016/j.jretconser.2015.11.006
15. Chen MF, Tung PJ. Developing an extended Theory of Planned Behavior model to predict consumers' intention to visit green hotels. International Journal of Hospitality Management. 2014;36:221-30. doi:10.1016/j.ijhm.2013.09.006
16. Le-Anh T, Nguyen MD, Nguyen TT, *et al*. Energy saving intention and behavior under behavioral reasoning perspectives. Energy Efficiency. 2023;16(2):8. https://www.academia.edu/download/98734510/Published_paper.pdf
17. Brouwer AR, D'Souza C, Singaraju S, *et al*. Value attitude behaviour and social stigma in the adoption of veganism: An integrated model. Food Quality and Preference.2022;97:104479. doi:10.1016/j.foodqual.2021.104479
18. Cialdini RB, Trost MR. Social influence: Social norms, conformity and compliance. In: Gilbert DT, Fiske ST, Lindzey G, editors. The Handbook of Social Psychology. 4th ed. New York: McGraw-Hill; 1998. p. 151–92. http://www.mapageweb.umontreal.ca/delasabr/PSY2007/Axe1_PSY2007/Cialdini(98)_SocialNorms%20copy.pdf
19. Cialdini RB, Kallgren CA, Reno RR. A focus theory of normative conduct: A theoretical refinement and reevaluation of the role of norms in human behavior. In: Zanna MP, editor. Advances in Experimental Social Psychology. New York: Academic Press, 1991;24:201–34. doi:10.1016/S0065-2601(08)60330-5
20. Thøgersen J. Social norms and cooperation in real-life social dilemmas. Journal of Economic Psychology.2008;29(4):458-72. doi:10.1016/j.joep.2007.12.004
21. Thøgersen J. Norms for environmentally responsible behaviour: An extended taxonomy. Journal of Environmental Psychology. 2006;26(4):247-61. doi:10.1016/j.jenvp.2006.09.004
22. Sharps M, Robinson E. Perceived eating norms and children's eating behaviour: An informational social influence account. Appetite. 2017;113:41-50. doi:10.1016/j.appet.2017.02.015
23. Robinson E, Fleming A, Higgs S. Prompting healthier eating: Testing the use of health and social norm based messages. Health Psychology. 2014;33(9):1057–64. doi:10.1037/a0034213
24. Mollen S, Rimal RN, Ruiter RAC, *et al*. Healthy and unhealthy social norms and food selection. Findings from a field-experiment. Appetite. 2013;65:83-9. doi:10.1016/j.appet.2013.01.020
25. Yun D, Silk KJ. Social norms, self-identity, and attention to social comparison information in the context of exercise and healthy diet behavior. Health Communication.2011;26(3):275-85. doi:10.1080/10410236.2010.549814
26. Wyker BA, Davison KK. Behavioral change theories can inform the prediction of young adults' adoption of a plant-based diet. Journal of Nutrition Education and Behavior.2010;42(3):168-77. doi:10.1016/j.jneb.2009.03.124
27. WHO. What does "Health" mean to you? 2025. https://www.emro.who.int/about-who/rc60/what-does-health-mean-to-you.html
28. Hettler B. Wellness promotion on a university campus. Family & Community Health. 1980;3(1):77-95. doi:10.1097/00003727-198005000-00008
29. Craig WJ, Mangels AR. Position of the American Dietetic Association: Vegetarian diets. Journal of the American Dietetic Association. 2009;109(7):1266-82. doi:10.1016/j.jada.2009.05.027
30. Tonstad S, Butler T, Yan R, *et al*. Type of vegetarian diet, body weight, and prevalence of type 2 diabetes. Diabetes Care. 2009;32(5):791–6. doi:10.2337/dc08-1886
31. Bradbury KE, Crowe FL, Appleby PN, *et al*. Serum concentrations of cholesterol, apolipoprotein A-I and apolipoprotein B in a total of 1694 meat-eaters, fish-eaters, vegetarians and vegans. European Journal of Clinical Nutrition. 2014;68(2):178–83. doi:10.1038/ejcn.2013.248
32. Fraser GE. Associations between diet and cancer, ischemic heart disease, and all-cause mortality in non-Hispanic white California Seventh-day Adventists. The American Journal of Clinical Nutrition. 1999;70(3):532S–8S. doi:10.1093/ajcn/70.3.532S
33. Fox N, Ward K. Health, ethics and environment: A qualitative study of vegetarian motivations. Appetite. 2008;50(3):422–29. doi:10.1016/j.appet.2007.09.007
34. Rogers S. In 2021, the world searched for healing; 2021. https://blog.google/products/search/year-in-search-2021/.
35. Van Ongevalle J. The pandemic has made mental wellness a public health must. 2021. https://www.weforum.org/stories/2021/07/pandemic-mental-health-wellness-self-care/
36. World Health Organization. Mental health. 2022. https://www.who.int/news-room/fact-sheets/detail/mental-health-strengthening-our-response.
37. Costa I, Gill P, Morda R, *et al*. "More than a diet": A qualitative investigation of young vegan women's

relationship to food. Appetite. 2019;143:104439. doi:10.1016/j.appet.2019.104439
38. Janáček J, Šťastný D. Inquiry into high school students' utility function. E&M Economics and Management. 2018;21(3):58–74. doi:10.15240/tul/001/2018-3-004
39. Krizanova J, Guardiola J. Happy but vegetarian? Understanding the relationship of vegetarian subjective well-being from the nature-connectedness perspective of university students. Applied Research in Quality of Life. 2021;16:2221–49. doi:10.1007/s11482-020-09872-9
40. Agarwal U, Mishra S, Xu J, *et al*. A multicenter randomized controlled trial of a nutrition intervention program in a multiethnic adult population in the corporate setting reduces depression and anxiety and improves quality of life: The GEICO study. American Journal of Health Promotion. 2015;29(4):245-54. doi:10.4278/ajhp.130218-quan-72
41. Beezhold B, Radnitz C, Rinne A, *et al*. Vegans report less stress and anxiety than omnivores. Nutritional Neuroscience. 2015;18(7):289–96. doi:10.1179/1476830514Y.0000000164
42. Reinfeld M, Rinaldi B, Karp J. Vegan fusion world cuisine: Vegan fusion; 2024. https://books.google.com.vn/books?id=yE6w0AEACAAJ
43. Bich Phuong. 8 chef-recommended vegetarian restaurants in HCMC; 2025. https://e.vnexpress.net/photo/food-recipes/8-chef-recommended-vegetarian-restaurants-in-hcmc-4850480.html
44. Leiserowitz A, Roser-Renouf C, Marlon J, *et al*. Global warming's six Americas: A review and recommendations for climate change communication. Current Opinion in Behavioral Sciences. 2021;42:97-103. doi:10.1016/j.cobeha.2021.04.007
45. Shepon A, Eshel G, Noor E, *et al*. The opportunity cost of animal based diets exceeds all food losses. Proceedings of the National Academy of Sciences. 2018;115(15):3804-9. doi:10.1073/pnas.1713820115
46. Poore J, Nemecek T. Reducing food's environmental impacts through producers and consumers. Science (New York, NY). 2018;360:987-92. doi:10.1126/science.aaq0216
47. Hayek M, Harwatt H, Ripple W, *et al*. The carbon opportunity cost of animal-sourced food production on land. Nature Sustainability. 2021. https://trophiccascades.forestry.oregonstate.edu/sites/default/files/Hayek2021.pdf
48. Kopplin CS, Rausch TM. Above and beyond meat: the role of consumers' dietary behavior for the purchase of plant-based food substitutes. Review of Managerial Science. 2022;16(5):1335-64. doi:10.1007/s11846-021-00480-x
49. OIE. Introduction to the recommendations for animal welfare. 2018. https://www.woah.org/fileadmin/Home/eng/Health_standards/tahc/2018/en_chapitre_aw_introduction.htm
50. Van Anh. Vietnam works with international community to protect wildlife. 2016. https://vovworld.vn/en-US/current-affairs/vietnam-works-with-international-community-to-protect-wildlife-443100.vov
51. Cliceri D, Spinelli S, Dinnella C, *et al*. The influence of psychological traits, beliefs and taste responsiveness on implicit attitudes toward plant- and animal-based dishes among vegetarians, flexitarians and omnivores. Food Quality and Preference. 2018;68:276-91. doi:10.1016/j.foodqual.2018.03.020
52. Martinelli E, De Canio F. Purchasing veg private labels? A comparison between occasional and regular buyers. Journal of Retailing and Consumer Services. 2021;63:102748. doi:10.1016/j.jretconser.2021.102748
53. Boyle JE. Becoming vegetarian: The eating patterns and accounts of newly practicing vegetarians. Food and Foodways. 2011;19(4):314-33. doi:10.1080/07409710.2011.630620
54. Renner B, Sproesser G, Strohbach S, *et al*. Why we eat what we eat. The Eating Motivation Survey (TEMS). Appetite. 2012;59(1):117-28. doi:10.1016/j.appet.2012.04.004
55. Diener E, Wirtz D, Biswas-Diener R, *et al*. New measures of well-being. In: Diener E, editor. Assessing Well-Being: The Collected Works of Ed Diener. Dordrecht (Netherlands): Springer; 2009. p. 247–66. doi:10.1007/978-90-481-2354-4_12
56. Seffen AE, Dohle S. What motivates German consumers to reduce their meat consumption? Identifying relevant beliefs. Appetite. 2023;187:106593. doi:10.1016/j.appet.2023.106593
57. Povey R, Conner M, Sparks P, *et al*. Application of the Theory of Planned Behaviour to two dietary behaviours: Roles of perceived control and self-efficacy. British Journal of Health Psychology. 2000;5(2):121-39. doi:10.1348/135910700168810
58. Sharps MA, Fallon V, Ryan S, *et al*. The role of perceived descriptive and injunctive norms on the self-reported frequency of meat and plant-based meal intake in UK-based adults. Appetite. 2021;167:105615. doi:10.1016/j.appet.2021.105615
59. Verain MCD, Reinders MJ, Bouwman EP, *et al*. Gradual behaviour change towards meat reduction revisited: Applying the decisional balance scale in a Dutch study. Appetite. 2024;203:107712. doi:10.1016/j.appet.2024.107712
60. Bouwman EP, Bolderdijk JW, Onwezen MC, *et al*. "Do you consider animal welfare to be important?" activating cognitive dissonance via value activation can promote vegetarian choices. Journal of Environmental Psychology. 2022;83:101871. doi:10.1016/j.jenvp.2022.101871
61. Hair JF, Hult GTM, Ringle CM, *et al*. A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM). 3rd ed. Thousand Oaks (CA): SAGE Publications; 2021. https://us.sagepub.com/en-us/nam/a-primer-on-partial-least-squares-structural-equation-modeling-pls-sem/book270548
62. Hair JF, Hult GTM, Ringle CM, *et al*. Partial Least Squares Structural Equation Modeling (PLS-SEM)

using R. Cham: Springer International Publishing; 2021. doi:10.1007/978-3-030-80519-7
63. Hair JF Jr, Sarstedt M, Ringle CM, *et al*. Advanced issues in Partial Least Squares Structural Equation Modeling. 2nd ed. London: SAGE Publications; 2023. https://books.google.co.in/books/about/Advanced_Issues_in_Partial_Least_Squares.html?id=4OK9EAAAQBAJ&redir_esc=y
64. Abebe GK, Haileslassie HA, Ismail MR, *et al*. Factors influencing intentions to transition to plant-based protein diets: Canadian perspective. Food Science & Nutrition. 2024;12:8903–19. doi:10.1002/fsn3.4436

How to Cite: Nguyen NTQ, Nguyen NV, Nguyen DM. Sustainable Food Choices: Understanding the Adoption of Modern Vegetarian Meals. Int Res J Multidiscip Scope. 2026; 7(1): 609-622.
DOI: 10.47857/irjms.2026.v07i01.07995