

THE LIFESTYLE, PERCEIVED VALUE, INNOVATION MANAGEMENT, SOCIAL CONTEXT, AND PURCHASE INTENTION AFFECTING THE CONSUMER LOYALTY OF PLANT-BASED PROTEIN FOOD PRODUCTS AMONG VEGETARIAN CONSUMERS IN BANGKOK AND ITS VICINITY

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Abstract

The importance lies in understanding how lifestyle choices, perceived value, innovative management practices, social influences, and purchase intention impact the perceived quality of plant-based protein food products among vegetarian consumers in Bangkok and its vicinity areas. This study aims to: 1. To investigate the variables, lifestyle patterns, innovation management in plant-based protein foods, perceived value, social contexts, purchase intention, and consumer loyalty of plant-based protein food products among vegetarian consumers in Bangkok and its vicinity. 2. The influence of variables, lifestyle patterns, innovation management in plant-based protein foods, perceived value, social contexts, purchase intention that affect the consumer loyalty of plant-based protein food products among vegetarian consumers in Bangkok and its vicinity. This research was qualitative research methods, with a sample of 400 Thai vegetarian individuals and 20 plant-based food industry experts. The research findings indicate that lifestyle, consumer perceived value, social context, innovation management for plant-based food, purchase intention of plant-based food, and loyalty among Thai vegetarian consumers are all high. These factors significantly influence loyalty toward plant-based food, as demonstrated by the developed 2L2ISV Model. Qualitative data suggests that assuring the value of plant-based foods is crucial for cultivating loyalty among consumers, with strategies focusing on nutritional benefits and environmental advantages. These findings can inform government policies to support food entrepreneurs and promote consumer loyalty to plant-based foods.

Keywords: Lifestyle, Perceived Value, Innovation Management, Social Context, Purchase Intention, Consumer Loyalty.

INTRODUCTION

In recent years, there has been a remarkable global (Amankwah-Amoah, Khan, Wood, & Knight, 2021) surge in the consumption of plant-based protein food products. This trend is fueled by a multitude of factors, including heightened health consciousness, mounting environmental concerns, and growing ethical considerations. Particularly noteworthy is the pronounced embrace of this trend among vegetarian consumers who are actively seeking alternatives to conventional animal-based protein sources. Bangkok, the vibrant capital city of Thailand, and its surrounding areas constitute a dynamic marketplace characterized by a diverse populace. Notably, there exists a significant contingent of vegetarian individuals within this population. Given this backdrop, it becomes increasingly crucial for businesses operating

within the food industry to grasp the factors that shape the perceived quality and desirability of plant-based protein food products among these consumers. The global rise in plant-based protein food consumption, driven by health, environmental, and ethical concerns, is particularly evident among vegetarian consumers in Bangkok and its vicinity. This research aims to understand the factors influencing the perceived quality of plant-based products among this demographic (Adomako, Amankwah-Amoah, Tarba, & Khan, 2021), include lifestyle, perceived value, innovation management, social context, and purchase intention. By examining these factors, the study seeks to inform businesses on how to effectively cater to the preferences of vegetarian consumers and capitalize on the growing demand for plant-based alternatives in the region. (O. Wang, Perez-Cueto, Scarpa, & Scrimgeour, 2024)

Lifestyle (Lashley & Rowson, 2010) a pivotal role in shaping the decisions and behaviors of individuals, including their dietary preferences, which directly impact the consumer loyalty of plant-based protein food products among vegetarian consumers in Bangkok and its vicinity. Within the context of lifestyle choices, vegetarianism emerges as a significant factor influencing the consumption patterns of plant-based protein food products. Vegetarianism goes beyond mere dietary habits; it embodies a set of broader values and beliefs concerning health, environmental sustainability, and animal welfare. In Bangkok and its surrounding areas, where diverse cultural and socioeconomic backgrounds prevail, understanding the lifestyle patterns of vegetarian consumers becomes paramount. These consumers' daily routines, dietary practices, recreational activities, and social interactions offer valuable insights into their motivations, values, and aspirations, particularly regarding their adoption of a plant-based diet. Concerns about the adverse health effects associated with meat consumption, coupled with ethical considerations regarding animal welfare, drive individuals towards adopting vegetarianism (Grissemann, Plank, & Brunner-Sperdin, 2013). Additionally, the increasing awareness of environmental issues prompts consumers to view plant-based diets as a sustainable alternative to conventional meat-centric diets. Cultural and social factors also play a significant role in shaping the lifestyle patterns of vegetarian consumers (Hu, Wang, Zhou, Gao, & Zhu, 2023) in Bangkok. Cultural traditions, familial customs, and peer influences influence individuals' dietary preferences and lifestyle choices, including their adoption of a vegetarian diet. For instance, Buddhism, which is prevalent in Thai culture, often encourages followers to embrace vegetarianism based on principles of non-violence and compassion towards all living beings. Furthermore, social networks and community support groups provide avenues for vegetarian consumers to connect with like-minded individuals, share experiences, and gather information about plant-based protein food products (C. Wang et al., 2023).

Perceived value (Sarfo, Zhang, O'Kane, & O'Kane, 2024) constitutes a cornerstone in the realm of consumer behavior, exerting a profound influence on the decision-making processes of individuals and shaping their attitudes and behaviors towards products or services. Particularly for vegetarian consumers, the perceived value of plant-based protein food products assumes multifaceted dimensions, encompassing various aspects that collectively contribute to their overall assessment and evaluation. One of the primary dimensions through which vegetarian consumers perceive the value of plant-based protein food products is their nutritional quality. Given the emphasis placed on health and well-being within the vegetarian lifestyle, consumers

are inherently concerned with the nutritional composition of the foods they consume. Plant-based protein food products are often evaluated based on their content of essential nutrients such as protein, vitamins, minerals, and dietary fiber. Products that offer a balanced nutritional profile are likely to be perceived as more valuable by vegetarian consumers, as they align with their dietary requirements and health goals. Taste represents another critical dimension influencing the perceived value of plant-based protein food products among vegetarian consumers. Despite the growing popularity of plant-based diets, taste remains a paramount consideration for consumers when making food choices. Vegetarian consumers seek products that not only offer nutritional benefits but also deliver a satisfying and enjoyable eating experience. Therefore, plant-based protein food products must meet the expectations of taste and flavor to garner favorable perceptions and acceptance among vegetarian consumers.

Innovation management (Anugerah, Muttaqin, & Trinarningsih, 2022) encompasses proactive strategies and practices adopted by food businesses to develop, produce, and promote plant-based protein food products. It includes innovative approaches in product formulation, packaging, distribution, and marketing. The innovation are crucial for shaping consumer perceptions and preferences, driving market acceptance and adoption of plant-based protein products. Businesses (Arquero, Fernández-Polvillo, & Jiménez-Cardoso, 2024) invest in research to create products that mimic traditional animal-based foods while offering unique nutritional benefits. They also focus on sustainable packaging materials and innovative designs to enhance visibility and communicate value. Distribution channels are optimized using technology and data analytics to reach a wider audience, including vegetarian consumers in Bangkok. Marketing strategies leverage digital platforms and storytelling techniques to highlight sustainability and health benefits, fostering brand loyalty. Investigating the impact of innovation management helps businesses refine practices, drive industry growth, and meet consumer demands, ultimately contributing to the sustainable growth of the plant-based food industry.

Social context (Rodrigo, Pérez-Arechaederra, Palacios, & Romero, 2022) encompasses cultural norms, social trends, media influence, and peer interactions that shape individuals' attitudes and behaviors towards food consumption. In Bangkok and nearby areas, cultural diversity influences acceptance of plant-based diets, while global trends towards health and sustainability drive interest in plant-based foods. Media portrayal and peer influence further impact consumer perceptions. Understanding and leveraging these social dynamics are crucial for businesses to tailor marketing strategies and product offerings, fostering acceptance and adoption of plant-based protein food products among consumers (Shao & Ünal, 2019).

Purchase intention (Yuniaristanto, Sutopo, Hisjam, & Wicaksono, 2024) is crucial for vegetarian consumers in Bangkok and nearby areas, influenced by factors like product availability, promotions, brand reputation, and social influence. Access to plant-based protein foods, effective marketing promotions, trusted brands, and peer recommendations impact consumers' willingness to buy. Additionally, product innovation, packaging, pricing, and convenience also shape purchase intention. Moreover, factors such as product innovation, packaging design, pricing strategies, and convenience also contribute to shaping purchase

intention among vegetarian consumers. Innovative product offerings that cater to diverse dietary preferences, appealing packaging designs that communicate product benefits effectively, competitive pricing strategies that offer value for money, and convenient purchasing options such as online delivery services can all enhance consumers' purchase intention.

OBJECTIVE

- 1) To investigate the variables, lifestyle patterns, innovation management in plant-based protein foods, perceived value, social contexts, purchase intention, and consumer loyalty of plant-based protein food products among vegetarian consumers in Bangkok and its vicinity.
- 2) To examine the influence of variables, lifestyle patterns, innovation management in plant-based protein foods, perceived value, social contexts, purchase intention that affect the consumer loyalty of plant-based protein food products among vegetarian consumers in Bangkok and its vicinity.

METHODOLOGY

Population and Sample:

In this study, the target population comprises Thai vegetarian consumers, totaling 415,400 individuals from various vegetarian groups on online social networks. The sample group selected for analysis consists of 400 members from online vegetarian communities. This sample size is deemed appropriate for statistical analysis methods used in this research, including Chi-square statistics and Structural Equation Modeling (SEM). The study adheres to guidelines suggesting a sample size between 10 to 20 times the number of observed variables to ensure the normal distribution of statistical values.

Sampling Procedure: Due to the lack of precise population figures and the absence of the need for comparisons with other population groups, nonprobability sampling methods were employed. Multi-stage sampling commenced with purposive sampling from various types of vegetarian groups/clubs on online social networks, totaling 415,400 individuals. Quota sampling was then utilized to ensure proportional representation from each group, allowing every group member an equal chance of being selected as a research participant. Finally, simple random sampling was conducted within the groups until the desired sample size was achieved.

Testing the Quality of the Instrument

Content Validity: Content validity was assessed to ensure the questionnaire accurately measured the intended content. Researchers refined the questionnaire with feedback from advisory professors and then had it reviewed by four experts in social research, statistics, and consumer behavior. Each expert rated the questionnaire's content coverage and alignment on a scale of 1 (conforming), 0 (unsure), to -1 (not conforming). The Index of Item-Objective Congruence (IOC) was calculated for each question. Questions with an IOC above 0.50 were deemed content-valid, indicating the overall content validity of the questionnaire.

Reliability: Reliability testing assessed the consistency and stability of the measurement instrument. Researchers first validated the questionnaire with 50 non-sample participants and revised any unclear questions. Item-total correlations were calculated, with acceptable questions having correlations over 0.20. They then computed Cronbach's alpha for internal and external consistency, with a coefficient over 0.70 indicating sufficient reliability. After confirming content validity and reliability, data was collected from a random sample of 400 vegetarian consumers on a plant-based diet.

RESULTS

Results of the study at the lifestyle, perceived value, innovation management, social context, and purchase intention affecting the consumer loyalty of plant-based protein food products among vegetarian consumers in Bangkok and its vicinity. Results of the study of the influence of the lifestyle, perceived value, innovation management, social context, and purchase intention affecting the consumer loyalty of plant-based protein food products among vegetarian consumers in Bangkok and its vicinity. Details of the presentation of data analysis results for each objective are as follows.

Symbols represent the variables studied.

The study identified several latent variables and their corresponding observation variables:

Lifestyle (LIFSTY): This includes three observation variables - Activities (ACTIV), Interest area (INTET), and Opinion side (OPIN).

Value Perceived by Consumers (VALUC): This is measured through four observation variables - Nutritional value (VALU), Emotional value (EMOT), Social value (SOCIA), and Price value (PRIC).

Social Context (SOCCT): This encompasses four observation variables - Learning (LEARN), Imitation (IMITA), Social norms (SNORM), and Guidance (COMM).

Innovative plant-based protein Food Management (INOVT): This is assessed through four observation variables - Product (FOPR), Marketing (MARKE), Product presentation process (PDPRS), and Technology (TECH).

Intention to Purchase plant-based protein Food Products (INTEN): This includes two observation variables - Willingness to buy (WIBUY) and Willingness to pay (WILL).

Consumer Loyalty (LOYAL): This is measured through three observation variables - Repeat purchases (REPEA), Commitment (COMMI), and Word of mouth (MOUTH).

These latent variables and their respective observation variables help in understanding the various dimensions influencing consumer behavior and attitudes towards plant-based protein food products.

General Study Findings of the Sample Group

The research findings, out of the 400 questionnaire respondents, the majority were females, accounting for 234 individuals, or 58.50%. In terms of age, 128 respondents fell within the 41-50 age range, comprising 32.50%. Regarding educational attainment, 194 respondents held bachelor's degrees, making up 48.50%. Concerning personal monthly income, 158 individuals earned between 30,001 and 50,000 baht, representing 39.50%. The most common eating pattern described by respondents was occasional consumption of vegetarian, vegan, or Jain meals, with 274 individuals, or 68.60%, indicating this preference. Additionally, 284 respondents, or 71.00%, reported occasional familiarity with plant-based protein food.

1. To investigate the variables, the lifestyle, perceived value, innovation management, social context, and purchase intention affecting the consumer loyalty of plant-based protein food products among vegetarian consumers in Bangkok and its vicinity.

Table 1: Mean standard deviation and interpretation of the level of variables that affect Loyalty of vegetarian consumers in Bangkok and its vicinity. (n = 400)

Variable	\bar{X}	S.D.
Lifestyle)LIFSTY)		
Activities (ACTIV)	4.21	.67
Interest (INTET)	4.09	.72
Opinion (OPIN)	4.15	.75
Average	4.15	.71
Value Perceived by Consumers (VALUC)		
Nutritional value (VALU)	4.10	.73
Emotional value (EMOT)	4.19	.70
Social value (SOCIA)	4.19	.68
Price value (PRIC)	4.02	.72
Average	4.13	.71
Social Context (SOCCT)		
Learning (LEARN)	4.20	.70
Imitation (IMITA)	4.23	.69
Social norms (SNORM)	4.27	.64
Guidance (COMM)	4.22	.69
Average	4.23	.68
Innovative plant-based protein food management (INOVT)		
Product (FOPR)	4.11	.76
Marketing (MARKE)	4.12	.73
Product presentation process (PDPRS)	4.22	.68
Technology (TECH)	4.22	.65
Average	4.17	.71
Intention to purchase plant-based protein food products (INTEN)		
Willingness to buy (WIBUY)	4.27	.69
Willingness to pay (WILL)	4.25	.73
Average	4.26	.71

Variable	\bar{X}	S.D.
Consumer loyalty (LOYAL)		
Repeat purchases (REPEA)	4.20	.73
Commitment (COMMI)	4.15	.69
Word of mouth (MOUTH)	4.14	.72
Average	4.16	.71

Table 1 found that Lifestyle (LIFSTY) is at a high level, with an average of 4.15. The activity (ACTIV), interest (INTET), and opinion (OPIN) aspects are all high, averaging between 4.09 and 4.21. Consumer value (VALUC) is high, averaging 4.13, with nutritional (VALU), emotional (EMOT), social (SOCIA), and price (PRIC) values between 4.02 and 4.19. Social Context (SOCCT) is high, averaging 4.23, with learning (LEARN), imitation (IMITA), social norms (SNORM), and guidance (COMM) between 4.20 and 4.27. Innovation in plant-based protein food management (INOVT) is high, averaging 4.17, with product (FOPR), marketing (MARKE), presentation process (PDPRS), and technology (TECH) between 4.11 and 4.22. Purchase intention (INTEN) is high, averaging 4.26, with willingness to buy (WIBUY) and pay (WILL) between 4.25 and 4.27. Consumer loyalty (LOYAL) is high, averaging 4.16, with repeat purchases (REPEA), commitment (COMMI), and word of mouth (MOUTH) between 4.14 and 4.20.

2. To examine the influence of variables, the lifestyle, perceived value, innovation management, social context, and purchase intention affecting the consumer loyalty of plant-based protein food products among vegetarian consumers in Bangkok and its vicinity.

Data analysis was conducted using the Structural Equation Model (SEM) technique with LISREL Version 8.72. The researcher assessed basic statistical assumptions and presented results according to the research objectives for a sample of 400. This included evaluating the normal distribution of empirical variables, correlation between pairs of variables (Observation Correlation Test), overall relationships among variables in the SEM, quality assessment of the measurement model, and results of the structural equation model analysis based on hypotheses. This was followed by analysis and equations of the adjusted structural equation model.

Normal distribution of empirical variables (n = 400)

Evaluate the distribution of the 20 empirical variables analyzed in the structural equation model using the Chi-Square test statistic (χ^2). A statistically significant result at the .05 level indicates non-normal distribution of the variable. Conversely, a non-significant result (P - value > .05) suggests a normal distribution. Details are provided below.

Table 2: Mean (\bar{X}), standard deviation (S.D.), coefficient of variation (CV) as a percentage, minimum value (Min), maximum value (Max), skewness value (Sk), kurtosis value (Ku), and the p-value of the chi-square test statistic (χ^2) for the empirical variables studied, based on a sample size of 400.

variable	\bar{X}	S.D.	% CV	Sk	Ku	χ^2	P - value
ACTIV	4.21	.67	16.06	-2.872	-1.618	1.86	.004*
INTET	4.09	.72	17.71	-2.457	-1.383	7.95	.019*
OPIN	4.15	.75	18.08	-2.933	-1.325	1.36	.006*
VAIU	4.10	.73	17.82	-2.558	-1.994	1.52	.005*
EMOT	4.19	.70	16.87	-2.945	-3.997	24.60	.000*
SOCIA	4.19	.68	16.25	-2.827	-2.192	12.794	.002*
PRIC	4.02	.72	18.09	-2.057	-.933	5.100	.078
LEARN	4.20	.70	16.84	-3.054	-1.837	12.704	.002*
IMITA	4.23	.69	16.49	-3.340	-1.967	15.025	.001*
SNORM	4.27	.64	15.14	-3.253	-2.613	17.408	.000*
COMM	4.22	.69	16.38	-3.169	-1.777	13.201	.001*
FOPR	4.11	.76	18.46	-2.901	-3.121	18.158	.000*
MARKE	4.12	.73	17.82	-2.632	-1.903	1.546	.005*
PDPRS	4.22	.68	16.20	-3.143	-3.380	21.303	.000*
TECH	4.22	.65	15.44	-2.766	-1.959	11.486	.003*
WIBUY	4.27	.69	16.17	-3.601	-1.762	16.070	.000*
WILL	4.25	.73	17.36	-3.879	-1.927	18.764	.000*
REPEA	4.20	.73	17.45	-3.437	-3.089	21.352	.000*
COMMI	4.15	.69	16.78	-2.658	-1.890	1.636	.005*
MOUTH	4.14	.72	17.45	-2.747	-1.957	11.375	.003*

Note: Statistics Chi – Square (χ^2) that is statistically significant (p - value <.05) indicates that there is a distribution Not normal

Table 1 displays the results of checking the normal curve distribution (Normal Score) for the empirical variables studied in the structural equation model. It was found that all empirical variables studied in the model were statistically significant (p < .05). The findings indicate that there is a non-normal distribution for all empirical variables in the model.

Following Kelloway's (1998) concept, which suggests that a large sample size ($n \geq 400$) implies a normal distribution for data measured with a rating scale questionnaire, according to the Central Limit Theorem (Kelloway, 1998). These results may impact the assessment of the model's empirical fit. The chi-square test statistic (χ^2) can pose problems in this regard.

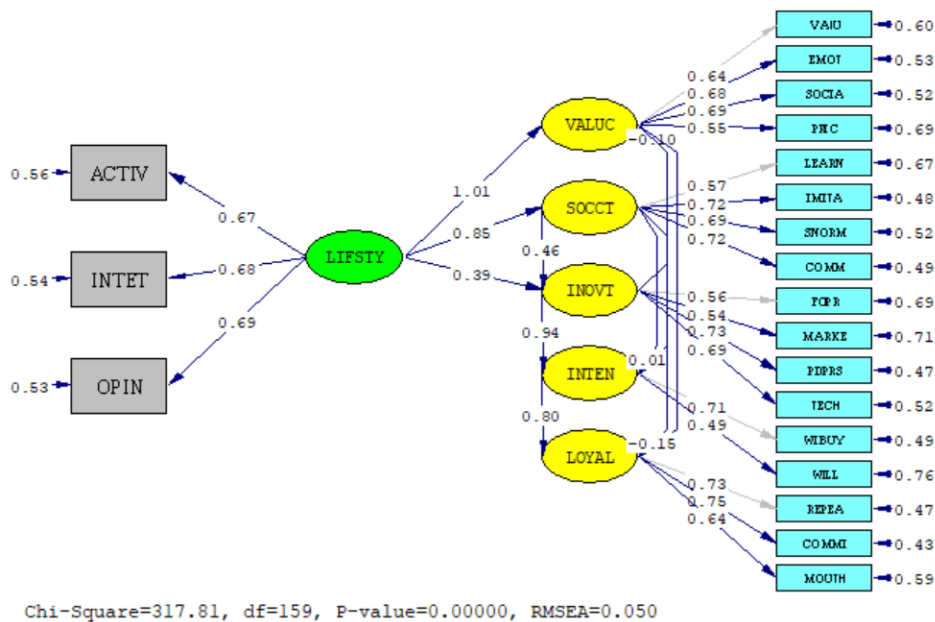
To address this, the researcher resolved the issue by calculating the ratio of chi-square (χ^2) to degrees of freedom (df), which was found to be less than 5.00. This indicates that the model aligns with the empirical results. Although the test statistic χ^2 for the model (Model) shows statistical significance (p-value < .05) (Kanlaya Wanichbanyacha, 2013; Hair, et al., 2006).

Results of analysis of the structural equation model based on the hypothesis (Hypothesis Model).

After conducting a check on the harmony of the Hypothesis Model with the empirical data using the LISREL package, it was determined that the hypothetical model did not align completely with the empirical data as expected, despite being in relatively good condition. The Harmony Index (Fit Index) provided the following results: $\chi^2 = 317.81$, $df = 159$, $p\text{-value} = .00000$, $\chi^2/df = 1.99$, $RMSEA = .050$, $RMR = .022$, $SRMR = .042$, $CFI = .98$, $GFI = .93$, $AGFI = .90$, and $CN = 254.01$. The analysis revealed that $\chi^2 = 317.81$, $df = 159$, $p\text{-value} = .00000$ did not meet the criteria as it remained statistically significant. However, $\chi^2/df = 1.99$, $RMSEA = .050$, $RMR = .022$, $SRMR = .042$, $CFI = .98$, $GFI = .93$, $AGFI = .90$, and $CN = 254.01$ met the specified criteria.

Despite the overall good harmony index, several values, including χ^2/df , $RMSEA$, and $AGFI$, were either equal to or close to the specified criteria. Thus, there is still some uncertainty regarding the estimation of various parameters (Parameter Estimation) in the hypothesized model (Hypothesis Model). Consequently, it is necessary for the researcher to modify the model (Modification Model) to ensure consistency with the empirical data. This may involve allowing the variances of the standard errors (θ) of certain pairs of empirical variables to be related, considering the feasibility of concepts and theories, related research findings, and the potential for discussing the findings resulting from model modifications. The adjusted model (Adjust Model) should aim to achieve harmony with the empirical data. Subsequently, the relationship paths within the model will be scrutinized in detail.

Results of analysis of the adjusted structural equation model (Adjust model)



Model based on research hypotheses (n = 400)

The researcher adjusted the hypothetical model to align it with the empirical data. This adjustment involved allowing the variance of the standard error of two pairs of empirical variables to be related. Prior to adjustment, the degrees of freedom (df) were 159, while after adjustment, they were 156.

The adjustment process continued until the adjusted model, termed the Adjusted Model, demonstrated harmony with the empirical data, as assessed by the Harmony Index (Fit Index). The Fit Index values were as follows: $\chi^2 = 253.36$, $df = 156$, $p\text{-value} = .00000$, $\chi^2/df = 1.62$, $RMSEA = .040$, $RMR = .019$, $SRMR = .037$, $CFI = .99$, $GFI = .94$, $AGFI = .92$, $CN = 311.82$. The χ^2 value of 253.36 with $df = 156$ did not meet the criteria for statistical significance ($p\text{-value} > .05$), as per (Alias, Ismail, & Sahiddan, 2015).

However, considering the sensitivity of Test 2 statistic χ^2 to sample size, the ratio χ^2/df was evaluated, yielding a value of 1.62, which met the specified criteria as it was less than 2.00 (Al Zarooni, Awad, & Alzaatreh, 2022). Additionally, $RMSEA (.040)$, $RMR (.019)$, $SRMR (.037)$, $CFI (.99)$, $GFI (.94)$, $AGFI (.92)$, and $CN (311.82)$ all met their respective criteria, as outlined by (Alias et al., 2015), (Castejon, Perez, & Gilar, 2010), (Keyser, Harrington, & Ahn, 2016), (Hanghoo & Rinthaisong, 2018).

Thus, based on these Harmony Index values, it can be concluded that the adjusted structural equation model (Adjusted Model) aligns well with the empirical data, and the parameter estimation in such models is deemed acceptable.

CONCLUSION

The study found that the levels of the variables: lifestyle, social context, innovation management of plant-based protein food products, perceived value, purchase intention, and consumer loyalty among Thai vegetarian consumers were high. The relationship between independent variables and their direct effects on dependent variables in the adjusted model indicated significant statistical influence ($p < .05$) of lifestyle on social context, innovation management of plant-based protein food products, and perceived value.

Additionally, significant statistical influence ($p < .05$) was observed for innovation management, social context, and perceived value on purchase intention. Furthermore, social context, perceived value, and purchase intention significantly influenced ($p < .05$) consumer loyalty among Thai vegetarian consumers. The total effects of external variables on internal variables in the adjusted model showed significant statistical influence ($p < .05$) of lifestyle, social context, innovation management of plant-based protein food products, and purchase intention on perceived value.

Additionally, lifestyle significantly influenced ($p < .05$) consumer loyalty among Thai vegetarian consumers. Based on the research objectives, the researcher developed a model called the 2L2ISV Model (L: Lifestyle, S: Social Context, I: Innovation Management, V: Consumer perceived value, I: Purchase intention, L: Consumer Loyalty) to enhance the consumer loyalty of plant-based protein food products among Thai vegetarian consumers.

Reference

- 1) Adomako, S., Amankwah-Amoah, J., Tarba, S. Y., & Khan, Z. (2021). Perceived corruption, business process digitization, and SMEs' degree of internationalization in sub-Saharan Africa. *Journal of Business Research*, 123, 196-207. doi:10.1016/j.jbusres.2020.09.065
- 2) Al Zarooni, M., Awad, M., & Alzaatreh, A. (2022). Confirmatory factor analysis of work-related accidents in UAE. *Safety Science*, 153. doi:10.1016/j.ssci.2022.105813
- 3) Alias, R., Ismail, M. H., & Sahiddan, N. (2015). A Measurement Model for Leadership Skills Using Confirmatory Factor Analysis (CFA). *Procedia - Social and Behavioral Sciences*, 172, 717-724. doi:10.1016/j.sbspro.2015.01.424
- 4) Amankwah-Amoah, J., Khan, Z., Wood, G., & Knight, G. (2021). COVID-19 and digitalization: The great acceleration. *J Bus Res*, 136, 602-611. doi:10.1016/j.jbusres.2021.08.011
- 5) Anugerah, A. R., Muttaqin, P. S., & Trinarningsih, W. (2022). Social network analysis in business and management research: A bibliometric analysis of the research trend and performance from 2001 to 2020. *Heliyon*, 8(4), e09270. doi:10.1016/j.heliyon.2022.e09270
- 6) Arquero, J. L., Fernández-Polvillo, C., & Jiménez-Cardoso, S. M. (2024). Financial literacy in tourism and management & business administration entry-level students: A comparative view. *Journal of Hospitality, Leisure, Sport & Tourism Education*, 34. doi:10.1016/j.jhlste.2023.100474
- 7) Castejon, J. L., Perez, A. M., & Gilar, R. (2010). Confirmatory factor analysis of Project Spectrum activities. A second-order g factor or multiple intelligences? *Intelligence*, 38(5), 481-496. doi:10.1016/j.intell.2010.07.002
- 8) Denicolai, S., & Previtali, P. (2022). Innovation strategy and digital transformation execution in healthcare: The role of the general manager. *Technovation*. doi:10.1016/j.technovation.2022.102555
- 9) Grisseemann, U., Plank, A., & Brunner-Sperdin, A. (2013). Enhancing business performance of hotels: The role of innovation and customer orientation. *International Journal of Hospitality Management*, 33, 347-356. doi:10.1016/j.ijhm.2012.10.005
- 10) Hanghon, P., & Rinthaisong, I. (2018). Confirmatory factor analysis of collaboration model in non-formal higher education management in southern Thailand. *Kasetsart Journal of Social Sciences*, 39(3), 472-477. doi:10.1016/j.kjss.2018.06.012
- 11) Hu, X., Wang, S., Zhou, R., Gao, L., & Zhu, Z. (2023). Policy driven or consumer trait driven? Unpacking the EVs purchase intention of consumers from the policy and consumer trait perspective. *Energy Policy*, 177. doi:10.1016/j.enpol.2023.113559
- 12) Keyser, D., Harrington, D., & Ahn, H. (2016). A confirmatory factor analysis of the evidence-based practice attitudes scale in child welfare. *Children and Youth Services Review*, 69, 158-165. doi:10.1016/j.childyouth.2016.08.005
- 13) Lashley, C., & Rowson, B. (2010). Lifestyle businesses: Insights into Blackpool's hotel sector. *International Journal of Hospitality Management*, 29(3), 511-519. doi:10.1016/j.ijhm.2009.10.027
- 14) Rodrigo, L., Pérez-Arechaederra, D., Palacios, M., & Romero, J. (2022). Organisational commitment in the digital social innovation context: does qualitative comparative analysis add information to linear regression? *Technological Forecasting and Social Change*, 179. doi:10.1016/j.techfore.2022.121613
- 15) Sarfo, C., Zhang, J. A., O'Kane, C., & O'Kane, P. (2024). perceived value of microfinance and SME performance: The role of exploratory innovation. *International Journal of Innovation Studies*, 8(2), 172-185. doi:10.1016/j.ijis.2024.02.003

- 16) Shao, J., & Ünal, E. (2019). What do consumers value more in green purchasing? Assessing the sustainability practices from demand side of business. *Journal of Cleaner Production*, 209, 1473-1483. doi:10.1016/j.jclepro.2018.11.022
- 17) Vongvit, R., Maeng, K., & Chan Lee, S. (2024). Effects of trust and customer perceived value on the acceptance of urban air mobility as public transportation. *Travel Behaviour and Society*, 36. doi:10.1016/j.tbs.2024.100788
- 18) Wang, C., Liu, T., Zhu, Y., Wang, H., Wang, X., & Zhao, S. (2023). The influence of consumer perception on purchase intention : Evidence from cross-border E-commerce platforms. *Heliyon*, 9(11), e21617. doi:10.1016/j.heliyon.2023.e21617
- 19) Wang, O., Perez-Cueto, F. J. A., Scarpa, R., & Scrimgeour, F. (2024). The influence of innovation-adoption characteristics on consumers' trust and purchase intention of innovative alternative proteins: A comparison between plant-based food, cultured food, and insect-based food. *Food Quality and Preference*, 113. doi:10.1016/j.foodqual.2023.105072
- 20) Yuniaristanto, Sutopo, W., Hisjam, M., & Wicaksono, H. (2024). Exploring the determinants of intention to purchase electric Motorcycles: The role of national culture in the UTAUT. *Transportation Research Part F: Traffic Psychology and Behaviour*, 100, 475-492. doi:10.1016/j.trf.2023.12.012