International Journal of Analysis and Applications

Analyzing Food Purchasing Behavior Helps Improve Consumers' Health on E-Commerce Platforms in Viet Nam

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ABSTRACT. The project aims to understand and analyze the factors influencing food buying behavior to help improve consumers' health on e-commerce platforms. As life gets busier, consumers tend to search for and choose healthy food products online. Understanding this shopping behavior will help businesses and product suppliers on the e-commerce platform better orient their business strategies. This study combines both qualitative and quantitative research methods. Based on data collected from a survey of 400 people, the data was analyzed using SmartPLS 4 software. The collected results are processed through 3 steps: descriptive statistics, measurement model testing, and structural model testing. This study analyzes food buying behavior that helps improve consumers' health on e-commerce platforms. The study results are expected to help identify the main factors affecting purchasing decisions, thereby providing business strategy recommendations for businesses and promoting online healthy food consumption.

1. Introduction

E-commerce in Vietnam is experiencing remarkable development, being recorded as one of the fastest-growing markets in the world. According to the Department of E-commerce and Digital Economy, in 2023, Vietnam will lead Southeast Asia in the field of e-commerce; five major e-commerce platforms as Shopee, Lazada, Tiki, Sendo and TikTok Shop in Vietnam have affirmed the great potential of the market and the readiness of businesses to exploit e-commerce platforms. Consumers are increasingly concerned about their health, especially after the COVID-19 pandemic has changed their shopping habits, promoting food consumption through e-commerce

Received Dec. 21, 2024

2020 Mathematics Subject Classification. 91B42.

Key words and phrases. purchasing behavior; food; improve health; consumer; e-commerce; Vietnam.

https://doi.org/10.28924/2291-8639-23-2025-61

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ISSN: 2291-8639

platforms. This helps reshape the market, creating new opportunities for online retailers to access health and nutrition-related product groups.

The impact of major public health events, such as the COVID-19 pandemic and increased technological information on e-commerce platforms on consumer behavior, has led to many changes in shopping behavior. In particular, it affects consumers' purchasing behavior for healthy foods. Buying behavior is promoted when there is a connection to health problems, and customers will make a purchase decision quickly. According to the Department of E-commerce and Digital Economy, in 2023, Vietnam's e-commerce will grow by 25% and be among the top in the world. Continuing with The Business Research Company's F&B research report released in 2023, the F&B market is expected to scale to more than $9.225 billion by 2027, with an average growth rate of 6.3%.

In Vietnam, the retail landscape is rapidly shifting to omnichannel retail, with consumers rushing to buy essential products, including health foods, for themselves and their families through e-commerce platforms. According to the e-Journal of the Vietnam Association of Economic Sciences (2023), Vietnam's e-commerce growth is forecasted by companies to continue to boom in the coming years and will reach 39 billion USD by 2025.

Food shopping behavior significantly impacts personal and community health, especially when modern consumers prioritize clean, safe, and biologically rich food [60]. The COVID-19 pandemic has further promoted this trend as healthcare awareness through diet increases [59]. E-commerce (e-commerce) has become an important bridge, helping consumers easily access and choose healthy food thanks to product reviews, transparent information, and personalized suggestions. E-commerce meets the community's needs and promotes nutrition awareness and healthy consumption habits.

Some previous studies have suggested that health awareness strongly impacts consumer attitudes and shopping behavior. In a research paper by [61], it is argued that solid knowledge of personal health can play an important role in forming positive attitudes and healthy behaviors. Health-conscious consumers will choose health-conscious products, so health awareness positively impacts attitudes toward consumption [64]. However, there is still a gap in research on the specific impact of product consumers' health awareness in shopping – consumers in Vietnam now tend to prefer shopping on e-commerce platforms more than before, but they are not necessarily sure of their knowledge. Only a few studies have focused on analyzing the aggregation of risks, price, ease of use, and subjective standards related to consumers' health awareness impacting purchasing attitudes. Therefore, the research team believes that the study "Analyzing food buying behavior helps improve the health of consumers on e-commerce

platforms" is necessary for the study. It helps us better understand the factors that affect purchasing decisions and make suitable strategies for businesses to refer to to recommend suitable strategies. It can also be added to the reference so that other studies can view and serve as reference data for the report.

The study will explore the key factors impacting consumers' purchasing decisions on e-commerce platforms. These factors include price, ease of use of the platform, food safety, risk perception, and health-related consumption habits. The goal is to provide recommendations to suppliers across platforms and online retailers to improve the interface, service, quality, and information about the product.

Contributing to raising public awareness of the importance of nutrition and health. Service providers and businesses can build an effective e-commerce platform development strategy. Optimize healthy food delivery services. Raising awareness about nutrition and health is one of the important goals of the research. By improving e-commerce platforms, businesses can provide clear, transparent information about product quality, food uses, and health benefits, raising public awareness about healthy eating. Encouraging consumers to choose healthy foods through e-commerce platforms will help reduce diseases related to unhealthy diets and improve the quality of life for society.

2. Literature Review

2.1. Concept

According to [10], consumer purchasing behavior is a synthesis of activities directly related to searching, earning, purchasing, owning, and using. According to another concept, purchasing behavior is the process of studying how to choose products or services of individual and organizational customer groups to meet the needs and desires of consumers, specifically what consumers want to buy, why they buy products etc. services, why they buy that brand, how they buy, where they buy when to buy, and how much to buy [44], Besides, purchasing behavior is determined by the intention to buy, and intention is the best predictor of behavior [5].

Food is an essential commodity, playing an important role in human life. According to [71] defines "Food as a product that people eat and drink in fresh form or has been preliminarily processed, processed and preserved. Food does not include cosmetics, cigarettes and substances such as pharmaceuticals" .

According to [60], the definition of health awareness generally refers to an individual's willingness to do something good for their health. In other words, health awareness is the extent to which health concerns are considered in an individual's daily activities [13]. In addition,

according to [1], health awareness reflects an individual's thinking about health issues and a willingness to take action to ensure health.

An e-commerce platform is an e-commerce website that allows organizations and individuals, not website owners, to conduct sales or provide services on it [11]. Within the framework of the research, the authors based on the shopping behavior of consumers on e-commerce platforms, so the form of e-commerce platforms that was researched was B2C e-commerce platforms.

2.2. Theoretical Model

The Theory of Reasoned Action (TRA), developed by [27], explains the relationship between attitudes and human behavior. According to this theory, the individual's attitude towards a particular behavior and the surrounding social factors (subjective norms) all influence the intention to perform the behavior, and this intention leads to the actual behavior. TRA emphasizes that attitudes directly impact intentions and indirectly through subjective standards, which help predict behavior based on attitudes, subjective standards, and intentions to act.

The TPB model was proposed by [4] in his study "From Intention to Action: A Theory of Planned Behavior." TPB was developed from TRA, a theory first proposed in 1980 by Martin Fishbein and Ajzen. Behavioral trends are assumed to include the motivating factors that influence behavior and are defined as the level of effort that people try to perform that behavior [5].

The TPB model assumes that a behavior can be predicted or explained by the intentions to perform that behavior. [3] argues that intention is a function of three influencing factors: First, one's attitudes toward the behavior. Second, there are Subjective Norms. Third, Perceived Behavioral Control. In particular, behavioral control cognition refers to human perception of how easy or difficult it is, and behavioral control cognition can change according to different situations and actions [5]. Subjective attitude and norm factors are inherited from the TRA theory. Attitude toward behavior refers to the degree to which a person has a favorable or unfavorable assessment or assessment of the behavior in question [5]. Subjective norms refer to the perceived social pressure to perform or not to perform an act [5].

The Technology Acceptance Model (TAM) presented by [18] is an extended model of TRA with additional factors, including the perception of usefulness, ease of use, and external variables. The Technology Acceptance Model (TAM) was developed from the model of rational action and intended behavior [19] to predict the acceptance of information technology services and systems. The purpose of this model is to predict the acceptability of a tool and determine the modifications that must be included in the system to make it acceptable to users. [18] defines the concept of

perceived usefulness as the degree to which an individual believes that using a particular system will enhance his or her work performance. The perception of ease of use is the degree to which an individual believes that using a particular system will require no physical or mental effort. This model suggests that the acceptability of an information system is determined by two main factors: perceived usefulness and perceived ease of use.

The UTAUT (Unified Theory of Acceptance and Use of Technology) model was proposed by Venkatesh et al. in 2003 to explain the factors that affect users' adoption and use of technology. This model focuses on four main factors: Performance Expectancy, Effort Expectancy, Social Influence, and Facilitating Conditions. These factors are governed by gender, age, experience, and voluntariness. UTAUT has become a valuable tool for researchers and businesses to assess the adaptability of new technologies, thereby building effective implementation strategies.

This model helps explain the acceptance and use of e-commerce platforms to buy health-promoting foods. Factors such as expected effectiveness (buying food to improve health), expected effort (ease of using e-commerce platforms), social influence (recommendations from friends and relatives about online purchases), and favorable conditions (infrastructure and support from marketplaces) all impact people's buying behavior.

2.3. Hypotheses and research model

2.3.1. Price

A price is a unit of goods, services, or assets expressed in money. In a market economy, prices depend on the supply and demand of goods and markets. The price of the same type of goods is suitable for spending and has a lower price than other places; the level of decision to choose goods will be high[40]; [14]. According to [45]; [41], price is defined as the amount of money a customer has to pay to get a product.[80];[41] Argue that price is the cognitive balance consumers perceive between a service's benefits and the monetary cost of using that service. Pricing strategies, discounts, and promotions are critical in influencing consumer behavior and fostering brand loyalty, prompting businesses to scrutinize pricing strategies [14]. When shopping online, price has a positive effect when customers notice that the benefits they receive are more than the costs they pay. Therefore, the price affects the consumer's purchase intention or shopping behavior. The hypothesis proposed is:

H1: Price has a positive impact on shopping behavior on e-commerce platforms.

2.3.2. Easy of use

According to [19], Perceived ease of use is defined as the extent to which a user feels that the system is easy, convenient, uncomplicated, and does not require much effort to learn or operate. Previous studies have shown that ease of use is also found to influence trust, and when

shopping online on e-commerce platforms, consumers feel that the activities are performed quickly and conveniently [39]; [2]. The easier use of the mobile app will positively impact purchase intent through the mobile app. According to [47], a study of e-wallet user satisfaction found that ease of use positively and significantly impacts online purchase behavior. Research by [77] concluded that perceived ease of use positively affects online shopping behavior. Therefore, the proposed hypothesis is that ease of use affects purchase behavior.

H2: Ease of use positively impacts shopping behavior on e-commerce platforms.

2.3.3. Risk Perception

According to the study by [16] and [55] , cognitive risk refers to the nature and extent of risk consumers perceive when contemplating a purchase decision. According to [9], when consumer-perceived risk is high, consumers' online purchase intent is low, and when consumer-perceived risk is low, consumers' online purchase intent is high. Online shopping on e-commerce platforms has a higher risk perception than traditional shopping because buyers do not directly interact with the seller but only interact with the product through images, videos, and reviews of products and services [66]. [25] emphasizes the impact of perceived risk on consumer objection to purchasing behavior, emphasizing the importance of understanding consumer perception to mitigate risk in online shopping. Therefore, the study proposes the following hypothesis:

H3: Risks hurt shopping behavior on e-commerce platforms.

2.3.4. Subjective Norms

Subjective norms are the impact of important people such as friends, colleagues or relatives on behavioral intentions. Subjective norms also positively influence purchase intention through social media [65]. According to [33], the subjective norm is the influence of the surrounding reference group and the policies of the government and the mass media of media. The results show that subjective norms factors positively affect shopping intentions on Vietnamese business websites. At the same time, [12] also concluded that subjective norms significantly impact Vietnamese consumers' shopping intentions. From there, the proposed hypothesis is:

H4: Subjective norms positively impact shopping behavior on e-commerce platforms.

2.3.5. Health Consciousness

According to [54], it is determined that consumers' health awareness is an important determinant of consumers' attitudes towards buying food. Furthermore, studies have also explored the relationship between health awareness and purchasing behavior among specific consumer groups. The study by [6] examined the food-purchasing behavior of Chinese university students, while [73] focused on young consumers and their purchasing intent toward food. Both

studies highlight the importance of health consciousness and its positive impact on consumer attitudes and behaviors toward food products. Furthermore, the regulatory role of health consciousness has been studied in food purchase intentions. The literature shows that health consciousness is the main factor influencing consumer attitudes, intentions, and behaviors toward purchasing health-promoting foods [20];[26].

H5: Health consciousness positively impacts purchase intention on e-commerce platforms.

H6: Health consciousness has a positive impact on purchasing attitude.

2.3.6. Food Safety

According to [72], food safety is recognized in processing and handling food from the cultivation process to the time the food is delivered to consumers to prevent diseases that may occur from food. [51] affirmed that food hygiene and safety are consumers' top concerns today; this concern is associated with the problem of using chemicals in breeding and processing. The study by [53], delved into consumers' intention to purchase clean-label products in Taiwan, highlighting the importance of food certification and consumer purchase intent. Food products that are certified safe by reputable bodies often win a positive attitude from consumers compared to other products. Besides, [82] conducted a comparative study of Generation X, Y, and Z in food purchasing behavior during the pandemic, shedding light on the change in consumer behavior across different generations. Therefore, the proposed hypothesis is:

H7: Food safety has a positive impact on purchasing attitude.

2.3.7. Attitude

According to [7], attitude is an important determinant of an individual's tendencies and has a positive relationship with behavior. According to [27], attitude is the degree to which an individual makes positive or negative judgments about behavior. Studies have shown that when consumer attitudes are more optimistic, purchase intent tends to improve [15]. Many studies have shown that attitudes have the same relationship with purchase intention [64]; [41]. So, the proposed hypothesis is:

H8: Purchasing attitude positively impacts purchase intention on e-commerce platforms.

2.3.8. Purchase Intention and Behaviour

According to [27], intention is the factor that motivates an individual to be willing to perform behavior in the future. Research by [12] and [41], demonstrates that purchase intention positively affects the purchase behavior of electronic products (Home Appliances) via online transactions. Consumer behavior is influenced by factors such as green marketing initiatives, green brand awareness, and semi-social relationships with social media influencers [23];[84]. The

relationship between purchase intention and purchase behavior is an important aspect of a consumer's decision-making process. Purchase intention is defined as the likelihood or probability that a consumer intends to engage in purchasing behavior [15]. So, the proposed hypothesis is:

H9: Purchase intention positively affects purchasing behavior on e-commerce platforms.

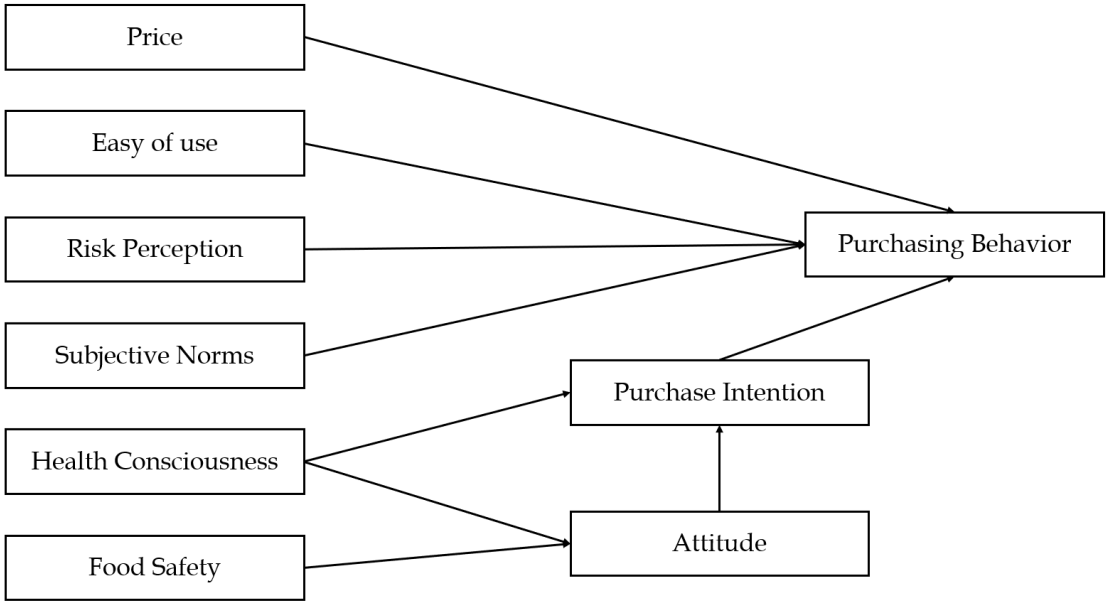

Figure 1. Proposed research model

3. Research Methodology

The authors conducted qualitative and quantitative research to investigate how analyzing food purchasing behavior helps improve consumers' health on e-commerce platforms in Vietnam. The selection of the quantitative research method allows for precise measurement of the relationships between variables. This can lead to highly reliable conclusions that can be broadly applied in both theory and practice. Additionally, the objectivity of quantitative data ensures the accuracy of the research results in the Journal of Applied Economic Sciences 216, facilitating the assessment of the impact and significance of the main variables in the study sample.

The qualitative research method was used to develop measurement scales and questionnaires during the quantitative research phase. After thorough exploration, the group of authors inherited previous studies and developed measurement scales for six independent variables (Price, Ease of Use, Risk Perception, Subjective Norms, Health Consciousness, and Food Safety), two causal variables (Attitude, Purchase Intention), and the dependent variable (Purchase Behavior). The authors collected quantitative data through questionnaires distributed

via email and various social media platforms. The included questionnaire, multiple-choice questions using a 5-point Likert scale, allows participants to express their level of agreement, ranging from "strongly disagree" to "strongly agree." The choice of sampling method in quantitative research plays a crucial role. A proper sampling method ensures the representativeness of the study sample, thereby increasing the reliability and accuracy of the results.

If the sample is not representative, the conclusions drawn from the research may be biased, leading to incorrect or inappropriate decisions. Moreover, selecting the appropriate sampling method helps optimize resources and time while minimizing random errors and other confounding factors. After discussion, the authors applied the convenience sampling method with an estimated sample size of 400 participants. After collection, the data was cleaned and analyzed using SmartPLS 4 software. The analysis methods will include Descriptive statistics, measurement, and structural model testing.

4. Research Results

4.1. Descriptive Statistics

To collect the data, a survey questionnaire was sent to consumers above 18 years old who shop for health-enhancing foods on e-commerce platforms and live in Ho Chi Minh City. After collecting, filtering out invalid surveys, and cleaning the data, 400 valid survey responses were obtained.

According to Table 1, out of 400 surveys, women accounted for 58.5% with 234 responses, while men accounted for 41.5% with 166 responses. This suggests a gender gap, but it is not significant. This gender difference may reflect different shopping behaviors and reactions to interest in other health-enhancing foods between men and women. Most respondents were 18-25, accounting for 69.3% of the sample. This may indicate that young people have high health consciousness.

Based on the study's results, the income bracket of 5-10 million VND and less than 5 million VND did not have a large gap of 41.8%, equivalent to 167 answers and 30.8%, equivalent to 123 answers, respectively. This is the average income range of the survey. The next group is the group of 10-15 million VND, accounting for 21% with 84 answers. The income bracket of over 15 million VND had 26 answers, accounting for 6.5%. There is a significant difference in income between over 15 million VND and other income brackets. The highest income bracket (over 15 million VND) accounts for a small proportion compared to the low-income group. This indicates that the behavior of buying foods that help improve health is mainly in the age of 18-25 and has an income bracket of above and below 5 million.

Table 1. Description of the research sample

Personal Information	Details	Quantity	Percentage(%)
Gender	Male	166	41,5
	Female	234	58,5
Age	18 to 25 years old	277	69,3
	26 to 35 years old	76	19,0
	36 to 45 years old	35	8,8
	Above 46 years old	12	3,0
Income	Under 5 Million	123	30,8
	5 - 10 Million	167	41,8
	10 - 15 Million	84	21,0
	Above 15 Million	26	6,5
Purchase frequency	Under 3 times	172	43,0
	From 3 to 5 times	136	34,0
	More than 5 times	92	23,0

4.2. Measurement Model Evaluation

According to [34], to evaluate the quality of the observed variable, the Outer Loading Coefficient ≥ 0.7. The results of Table 2 show that all the observed variables are of high quality with a range of 0.736 - 0.912 and are retained in the study model.

Table 2. Outer Loadings

	AT	EU	FS	HC	PB	PI	PR	RP	SN
AT1	0.823								
AT2	0.769								
AT3	0.815								
EU1		0.777							
EU2		0.848							
EU3		0.793							
FS1			0.824						
FS2			0.865						
FS3			0.824						
HC1				0.865					
HC2				0.828					
HC3				0.828					
PB1					0.760				
PB2					0.797				
PB3					0.870				
PI1						0.850			
PI2						0.747			
PI3						0.812			
PR1							0.863		
PR2							0.813		
PR3							0.823		
PR4							0.736		
RP1								0.862	
RP2								0.876	
RP3								0.907	
RP4								0.912	
SN1									0.801
SN2									0.819
SN3									0.776

In Table 3, the reliability evaluation has a coefficient that will range from 0 to 1, and the resulting scales of Cronbach's Alpha >=0.7 [20] and Composite reliability >=0.7 [34] are at the optimal level. It shows that all factor structures have good reliability when the coefficients of both scales are more significant than 0.7. As for convergence, we will rely on the average variance index of AVE > 0.5 to measure it, and the results show that the convergence guarantee value is reached [39]. According to this result, all the concepts mentioned in terms of convergence achieve a specific value and reliability.

Table 3. Reliability and convergence test

Factor	Cronbach's alpha	Composite reliability	Average variance extracted
AT	0.725	0.844	0.644
EU	0.731	0.848	0.650
FS	0.788	0.876	0.702
HC	0.793	0.878	0.707
PB	0.736	0.851	0.656
PI	0.725	0.846	0.647
PR	0.825	0.884	0.656
RP	0.913	0.938	0.791
SN	0.716	0.841	0.638

In Tables 4 and Table 5, the discriminating scale is evaluated using the HTMT ratio and the Fornell-Larcker criterion. For Table 4, the HTMT indices in the scale are all =< 0.9, which shows that the scale achieves differentiation [37]; along with that, the HTMT ratio ranges from 0.058-0.900, confirming the differentiation of the scales. Table 5, Fornell-Larcker is a standard strictly satisfied under all conditions. All structures with different relationships are groups of components outside the diagonal. The differential value requires the diagonal elements to be greater than the non-diagonal elements.

Table 4. HTMT

	AT	EU	FS	HC	PB	PI	PR	RP	SN
AT									
EU	0.660								
FS	0.749	0.743							
HC	0.524	0.684	0.557						
PB	0.814	0.696	0.755	0.532					
PI	0.773	0.563	0.677	0.486	0.894				
PR	0.885	0.649	0.747	0.534	0.738	0.687			
RP	0.058	0.113	0.126	0.159	0.212	0.115	0.066		
SN	0.776	0.770	0.789	0.656	0.895	0.900	0.786	0.140	

Table 5. Fornell-Larcker

	AT	EU	FS	HC	PB	PI	PR	RP	SN
AT	0.803								
EU	0.480	0.806							
FS	0.576	0.567	0.838						
HC	0.394	0.522	0.443	0.841					
PB	0.596	0.512	0.577	0.411	0.810				
PI	0.561	0.412	0.511	0.373	0.655	0.804			
PR	0.685	0.506	0.604	0.440	0.581	0.532	0.810		
RP	-0.041	-0.093	-0.110	-0.137	-0.179	-0.096	-0.058	0.890	
SN	0.559	0.557	0.593	0.496	0.651	0.648	0.608	-0.111	0.799

4.3. Structural Model Evaluation

The structural model that includes the value of f^2, the VIF coefficient, and all path indicators, R^2 and Q^2 has been analyzed based on the influence dimension, which gives statistical significance and their magnitude. A bootstrapping test was performed, and a total of 5000 iterations were used to obtain t-statistics for the data, the confidence interval, and the urgency of the relationships in it.

According to Table 6, the estimation of the path coefficient is based on the regression of each dependent variable and the predicted variable [34]. If there is a multi-collinear phenomenon in independent variables, it will lead to the failure to ensure the path coefficients. The VIF results also show that the association of prediction factors does not violate the assumption of multilinearity because all coefficients are within the acceptable range, i.e., VIF = 1.016 – 2.304 < 5, so the model will not violate this phenomenon.

The value of R squared denotes the degree to which independent variables are explained to a dependent variable. R^2 will fluctuate from 0 to 1; the closer to 1, the higher the explanation for the dependent variable, and the closer to 0, the lower the explanation for the dependent variable. According to the results of Table 6, the variables that play a dependent role are AT, PI, PB, R^2 adj AT is 0.352, so independent variables such as FS and HC explain 35.2% of the variation of the AT-dependent variable, and the remaining 64.8% are not explained because other factors have not been included in the model. R2 adj PB is 0.563, so independent variables such as EU, PI, and PR explain 56.3% of the variation of PB-dependent variables in the model and 43.7% are not explained due to other factors that have not been evaluated. R2 adj PI is 0.338, so independent variables such as AT and HC explain 33.8% of the variation of PI-dependent variables in the model and 66.2% are not explained due to other factors that have not been evaluated.

In each component model, there will be a value of R^2 that represents the level of explanation of the independent variables to the dependent variable and, at the same time, a value

of Q^2 that represents the degree of prediction of the independent variable to the dependent variable. [76] have identified Q as an indicator of the overall quality of the component model. Accordingly, if all component models have a $Q^2 > 0$, the overall structural model of the study also achieves the overall quality. [34] gave the levels of Q2 corresponding to the model's forecasting ability as follows: $0 < Q^2 < 0.25$: low level of forecast accuracy; $0.25 \leq Q2 \leq 0.5$: average level of forecast accuracy; $Q^2 > 0.5$: high level of forecast accuracy. Q^2 results in Table 4.6 show Q2 AT = 0.347; Q2 PB = 0.480; Q2 PI = 0.247. Then Q2 PB forecast accuracy is at a low level, and Q^2 AT and Q^2PI are at a moderate level.

According to[14], the f^2 index table is used to assess the importance of the firm, medium, or weak impact of independent variables on dependent variables, which is described as follows:

- If $f^2 < 0.02$, the degree of impact is minimal (or no effect).
- If $0.02 \leq f^2 < 0.15$, the impact level is negligible.
- If $0.15 \leq f^2 < 0.35$: average impact level.
- If $f^2 \geq 0.35$: high impact level. Based on the data in Table 6, the f^2 in the model shows that all variables have a negligible impact on the average impact from 0.021-0.308.

The innovative PLS method uses non-parametric Bootstrap analysis to determine the importance of the coefficients [34]. To assess whether there is a significant deviation of the path coefficients from 0, the t-value is calculated through bootstrapping testing. This study applied the non-parametric bootstrapping technique to 400 observations, with 5000 iterations, to ensure the linear structure model validation requirement.

The original Sample is called the normalized impact coefficient, which is used to compare the order of impact of independent variables in descending order: FS variable with the strongest AT impact ($\beta = 0.499$), AT->PI ($\beta = 0.490$), PI->PB($\beta = 0.342$), SN->PB ($\beta = 0.228$), PR->PB ($\beta = 0.182$), HC->PI ($\beta = 0.180$), HC->AT($\beta = 0.173$), EU->PB ($\beta = 0.143$) these factors positively impact purchasing behavior. In addition, the risk factor also impacts purchasing behavior but hurts RP->PB ($\beta = -0.097$). Thus, the hypotheses H1, H2, H3, H4, H5, H6, H7 and H8 are all accepted. Moreover, P Values are the level of significance of testing t. The comparison threshold of the significance level is 0.05. The results of Table 6 show that all P values of the impacts are below 0.05, so these effects are statistically significant.

Table 6. Structural model testing

	Original sample (O)	VIF	T statistics	P values	f^2	Result
AT -> PI	0.490	1.184	9.202	0.000	0.308	Accept
EU -> PB	0.143	1.554	2.893	0.004	0.030	Accept
FS -> AT	0.499	1.245	9.714	0.000	0.310	Accept
HC -> AT	0.173	1.245	3.467	0.001	0.037	Accept
HC -> PI	0.180	1.184	3.359	0.001	0.041	Accept
PI -> PB	0.342	1.823	7.668	0.000	0.148	Accept
PR -> PB	0.182	1.780	3.816	0.000	0.043	Accept
RP -> PB	-0.097	1.016	2.898	0.004	0.021	Accept
SN -> PB	0.228	2.304	3.795	0.000	0.052	Accept
R^2 adj AT = 0.352; R^2 adj PB = 0.563; R^2adj PI = 0.338						
Q^2 AT = 0.347; Q^2 PB = 0.480; Q^2 PI = 0.247						

Table 7 shows that the intermediate variable acts as a third variable that interferes with the relationship between the other two variables. This relationship is formed in a causal chain, where the independent variable acts on the intermediate variable, and the intermediate variable, in turn, transmits this effect to the dependent variable [51], [58].

According to [51] and [58], the intermediate variable is seen as a third factor interfering with the relationship between two other factors. Accordingly, the independent variable affects the intermediate variable, and the intermediate variable affects the dependent variable. This effect can be called the "Indirect Effect".

For the research paper, there are six separate indirect relationships, including FS -> AT -> PI -> PB, HC -> PI -> PB, HC -> AT -> PI -> PB, FS -> AT -> PI, HC -> AT -> PI, AT -> PI -> PB. After analyzing the Specific Indirect Effects, we can see that the relationships all have a P-value < 0.05, which is statistically significant at 95% confidence [34]. On the other hand, the indirect impact coefficient of the FS-> AT -> PI relationship reaches 0.244, and the AT -> PI -> PB reaches 0.167, which indicates that the AT variable has a more substantial intermediate effect than the PI variable.

Table 7. Intermediate hypotheses

	Original sample (O)	T statistics	P values	Result
FS -> AT -> PI -> PB	0.083	4.306	0.000	Accept
HC -> PI -> PB	0.061	3.216	0.001	Accept
HC -> AT -> PI -> PB	0.029	3.094	0.002	Accept
FS -> AT -> PI	0.244	5.683	0.000	Accept
HC -> AT -> PI	0.085	3.331	0.001	Accept
AT -> PI -> PB	0.167	5.548	0.000	Accept

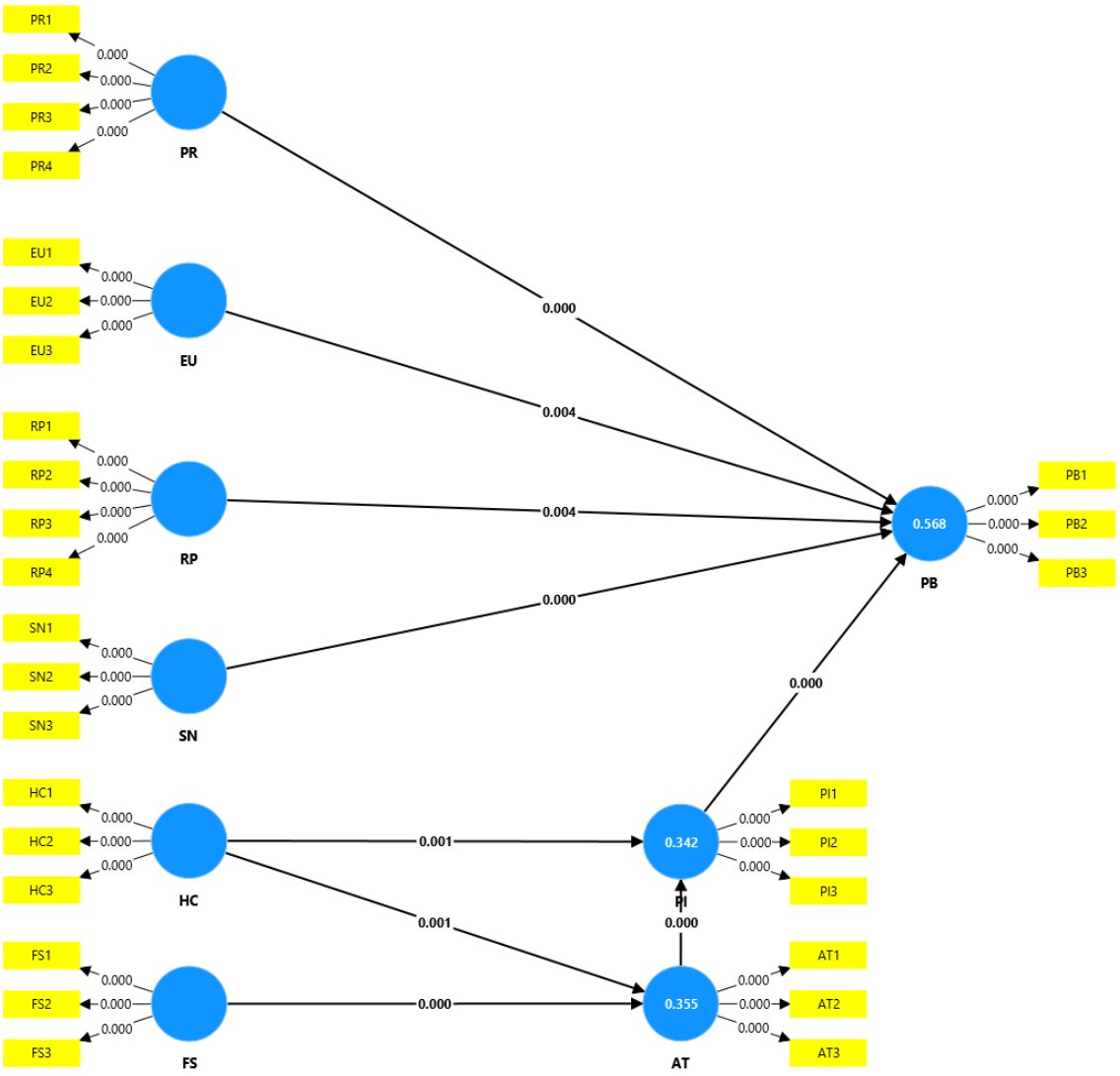

Figure 2. PLS-SEM Measurement Model Results

5. Discussion

5.1. Discussion of Research Results

Factors influencing food buying behavior help improve consumers' health on e-commerce platforms, with six independent variables, two intermediate variables and one dependent variable as the results obtained after the research process. PLS-SEM results in the measurement model conformity assessment show that the scales and components have achieved the scale's reliability through the CR index, the convergence value through the evaluation of the extracted average extraction variance index (AVE) and the off-factor load factor. Evaluating the discriminating value of the scale through the Heterotrait-Monotrait Ratio (HTMT) and Fornell-Larcker indexes, the indices in the study are satisfactory, so the scale achieves a good distinguishing value.

Structural model conformity assessment, structures and scales do not occur as multicollinear phenomena through the variance magnification factor (VIF). The results of hypothesis testing show that eight factors positively affect and one negative variable to the "Behavior of buying health-promoting food" on the e-commerce floor of consumers through 2 intermediate variables: Purchase Intention - Attitude". The R2 AT= 0.352 index shows that the explanation of "Attitude" is explained by about 35.2% of the dependent variables, the remaining 64.8% depends on other factors that have not been mentioned in this study model, and R2 PI= 0.338 shows that the explanation of "Purchase Intention" is explained by about 33.8% of the dependent variables, The remaining 66.2% depends on other factors that have not been covered in this study model. Generally, the degree of influence f is more significant than 0.02, so the independent variables in the SEM model greatly influence the dependent variable. A Q2 value greater than 0.02 emphasizes the predictability of the previously mentioned model.

The Bootstrapping test experiment and hypothesis testing have six independent variables through 2 intermediate variables, "Purchase Intention" and "Attitude," both of which have an impact on purchase behavior, of which one negative impact variable, "Risk," and five positive impact variables include: "Price," "Ease of use," "Subjective Norms," "Health Consciousness" and "Food safety" in which:

The variable "Food Safety" has the highest impact with $\beta = 0.499$, indicating that the intermediary variable is "Attitude," which has a positive impact on the "Purchase Behavior" on the e-commerce floor of consumers. The more awareness about food safety, the more positive attitudes consumers have toward purchasing behavior. This result is consistent with the previous research paper [33].

The second highest impact variable, "Attitude," with $\beta = 0.490$, shows that the intermediate variable is "Purchase Intention," which has a positive impact on the "Purchase Behavior" on the e-commerce floor of consumers. The more positive the consumers' attitude, the more likely it will lead to their buying behavior. This result is consistent with the previous research paper [59].

The third highest impact variable, "Purchase Intention," is $\beta = 0.342$, positively impacting the "Purchase Behavior" on the e-commerce floor of consumers. The more consumers intend to buy, the more likely it is to lead to their buying behavior. This result is consistent with the previous research paper [61].

The "Subjective Norms" variable has the fourth highest impact with $\beta = 0.228$, positively impacting the "Purchase Behavior" on the e-commerce floor of consumers. The more subjective

the consumer, the more likely it is to lead to their buying behavior. This result is consistent with the previous research paper [38].

The fifth highest-impact "Price" variable, with $\beta = 0.182$, positively impacts the "Purchase Behavior" on the e-commerce floor of consumers. When the price is right, more consumers will want to carry out their buying behavior. This result is consistent with the previous research paper [24].

The sixth highest-impact variable, "Health Consciousness," with $\beta = 0.180$, shows that the intermediate variable is "Purchase Intention," which has a positive impact on the "Purchase Behavior" on the e-commerce floor of consumers. The more consumers know about health consciousness, which will lead to more purchase intentions, the more likely it is to lead to their buying behavior. This result is consistent with the previous research paper [13].

The seventh highest impact variable, "Health Consciousness," with $\beta = 0.173$, positively impacts the "Attitude" on the e-commerce floor of consumers. When consumers have more health consciousness, their attitude will also change, and they will want to carry out their buying behavior more. This result is consistent with the previous research paper [64].

The eighth highest impact variable, "Ease of Use," with $\beta = 0.143$, positively impacts the "Purchase Behavior" on the e-commerce floor of consumers. When a product is easy to use, consumers also have their buying behavior. This result is consistent with the previous research paper [87].

The variable "Risk Perception" ranked in the last position with $\beta = -0.097$, negatively impacting the "Purchase Behavior" on the e-commerce floor of consumers. This result is consistent with a previous research paper [74]. The research paper also shows that there is a positive impact of "Price," "Ease of Use," "Subjective Norms," "Health Consciousness," "Food safety," "Attitude," and "Purchase Intention" to "Purchase Behavior." Besides, "Risk Perception" also negatively affects "Purchase Behavior."

At the same time, the research paper also highlights the important role of 2 mediating variables, namely "Attitude" and "Purchase Intention" in the purchasing behavior of consumers [30]. Thereby, it is further affirmed that through 2 intermediate variables, namely "Attitude" and "Purchase Intention," the factors of "Food Safety," "Attitude," and "Health Consciousness" affect the two intermediate variables, namely "Attitude" and "Purchase Intention," the e-commerce floor of consumers.

The results of the study showed that all hypotheses were accepted. Food safety, purchase awareness, and attitude are appreciated more than the other factors.

5.2. Managerial Implications

Conclude from the results of the analysis and discussion of the research. The authors concluded: "Factors affecting consumers' health-promoting food buying behavior on e-commerce platforms" are arranged in the following order: Food safety, Attitude, Purchase intent, Subjective standards, Price, Health consciousness, Ease of Use, and Risk. Seeing the positive impact of "Price," "Ease of Use," "Subjective Norms," "Health Consciousness," "Food Safety," "Attitude," and "Purchase Intention" to "Purchase Behavior." Besides, "Risk Perception" also negatively affects "Purchase behavior." The authors proposed solutions suitable for sales and other activities based on the study results. This helps businesses and sellers attract more potential customers, boost sales revenue and increase competitive advantage. The authors propose two directions for building governance implications: for businesses and consumers.

Implications for businesses

In the current era of strong e-commerce, businesses need to focus on factors that have a positive impact on the behavior of buying food to improve the health of consumers on e-commerce platforms, such as Food Safety, Attitude, Purchase Intention, Subjective Norms, Price, Health Consciousness, Ease of Use, Risk Perception.

Health safety is the most influential factor. Businesses need to ensure that their products meet safety norms and are transparent in the origin of raw materials and production processes. These things help businesses build trust with customers and differentiate themselves from competitors, bringing peace of mind to their workers. Blockchain technology has become a trend and is increasingly popular in Vietnam; businesses can apply it to track the expiration date and condition of goods and verify the origin of product materials, making it easier for consumers to check information and be more assured when purchasing.

The dedicated and professional service attitude and caring in every business detail give customers a sympathetic look and a sense of being respected. Once customers feel respected, cared for, and listened to, they will return to continue buying products and recommend them to those around them. Businesses should regularly remind and organize training.

Many factors influence consumers' purchase intent. To stimulate customer purchase intent, businesses must continuously improve and deliver high-quality products, fast, trendy customer service, and attractive promotions relevant to the current context. For example, the upcoming "11.11 mega sale" or "Black Friday."

Subjective Norms: Businesses need to exploit the subjective norms of consumers through marketing campaigns that emphasize the benefits of improving the health and safety of food. These campaigns must be designed to be close and easy to understand, helping consumers to be

more aware of the benefits of using health-promoting products. Businesses should use social media channels like Facebook and Instagram to promote their products.

Reasonable pricing is one of the important factors in attracting customers. Businesses can regularly organize large discount programs and events, buy one get one free, buy one get two, give vouchers when buying high-priced products, flash sales, trial prices, and increase the number of sets to create convenience and attractiveness for customers.

Consumers' health consciousness is increasingly enhanced. Therefore, businesses should emphasize product quality and health benefits in advertising campaigns. Make a short video on health-promoting foods with products from businesses or simply update information about the benefits of health-promoting products from businesses.

The ease of use of e-commerce platforms is also a factor that businesses cannot ignore. Businesses should improve the user interface and provide convenient features such as quick product search, detailed product reviews, easy payment to create

Mitigating risk by providing flexible return policies and dedicated, timely customer care will help strengthen trust and drive buying behavior. Businesses should build an effective customer support system, clear return policies, and professional customer care services, ready to solve all customer questions and problems promptly and quickly.

Implications for consumers

It is necessary to focus on food safety. To make a wise purchase decision, consumers should carefully learn about the origin of raw materials, expiration dates, storage, and product quality, carefully read reviews from previous buyers, use evaluation tools and comments, and check information from other places to minimize risks.

Consumers should have a positive attitude, be willing to explore when researching information and evaluating products, and read reviews and comments carefully, which will help consumers have a more comprehensive view of the product and lead to a more intelligent purchase decision.

Product quality, customer service, and attractive promotions influence consumers' purchase intentions. They should take a hard look before deciding to buy a product. Hunting for offers through significant shopping events such as "11.11 Shopping Day" or "Black Friday" is also a good opportunity for consumers to shop at low prices with accompanying gifts.

Consumers are often subjective in their product purchase decisions. They should carefully learn about the product's origin and quality and read buyers' reviews before buying. Next is buying on reputable channels, with checking, returning, and refunding policies to ensure benefits.

In terms of prices, consumers should take advantage of purchases through programs and events with significant discounts, buy one get one free, buy one get two, give vouchers when buying high-priced products, flash sales, and trial prices to buy products at reasonable prices.

Health consciousness is an important factor, so consumers should prioritize products that are beneficial to improving health, have safety certifications, have clear import certificates, and ensure quality products from reputable brands and big brands.

For ease of use, consumers should choose platforms with a sound customer support system, an easy-to-use user interface, a good shopping experience, easy-to-solve all problems during the shopping process, and clear return policies.

To minimize risks when shopping, consumers should choose platforms with transparent return policies and timely and professional customer care services, choose shops with favorite labels, have high followers and 5-star reviews, and buy from malls on the floor to minimize risks.

5.3. Limitations of the Study

Although the authors have made many efforts to improve the research paper in the implementation process, this paper also has some limitations, leading to inevitable shortcomings in the research results. The number of survey samples and sample collection methods only focus on synthesizing surveys from Google Forms. There are not many methods for collecting data tables to ensure dataset reliability. The survey sample is still limited, so the sample representativeness is not high. Therefore, the group proposes to expand the scope of research in several countries in the region in order to be able to propose more suitable models and solutions because this is a common topic of the whole world, and the level of interest in this research topic is highly appreciated.

5.4. Suggestions for Future Research

Finally, the authors suggest that future studies should further explore other factors or attributes that may influence the purchasing behavior of foods that enhance consumers' health. The team intends to address these limitations by expanding the sample size to increase reliability and minimize errors. In addition, the scope of the study is limited to focusing on a specific area in Vietnam, such as the North, Central, and South. It is proposed that new elements be added to the research model to increase the persuasiveness of future studies. These will help to give a holistic view and make more effective management recommendations.

6. Conclusions

Although the COVID-19 pandemic has led to a series of negative impacts, it has inadvertently become the perfect environment for the outstanding development of e-commerce and has contributed to strengthening the awareness of improving human health. Creating a

premise for the rapid development of technology opens up opportunities for businesses to operate online on e-commerce exchanges. In order to be able to survive and thrive in this fiercely competitive environment, it is essential to define specific goals clearly. From there, you can propose strategies that are suitable for your business.

With the topic "Analyzing Food Purchasing Behavior Helps Improve Consumers' Health On E-Commerce Platforms In Vietnam," the authors conducted a survey study to understand better the trend of shopping behavior for foods that help improve health. The authors collected a questionnaire with several 400 samples and analyzed it using Smart PLS software. The research paper completed the previously set goals by identifying theories, proposing influencing factors and analyzing measuring the strong or weak impact on people's health-promoting food purchasing behavior. Consumption on the e-commerce floor, in particular, are six independent variables in the model the research team proposed earlier after analysis showed that the results were statistically significant. The conclusion also pointed out that the article's factors are similar to those of previous studies. The study not only gives theoretical importance but also provides additional management implications for companies, helping them to adjust their business strategies to suit the actual tastes and needs of their target customers.

Acknowledgment: We extend our heartfelt gratitude to the reviewers for their insightful feedback and constructive suggestions, which have greatly enhanced the quality of this manuscript. We also thank the experts and participants who contributed to this scholarly survey.

Conflicts of Interest: The authors declare that there are no conflicts of interest regarding the publication of this paper.

References

[1] J. Aertsens, W. Verbeke, K. Mondelaers, G. Van Huylenbroeck, Personal Determinants of Organic Food Consumption: A Review, Br. Food J. 111 (2009), 1140–1167. https://doi.org/10.1108/00070700910992961.

[2] A. Ait Youssef, M. Jaafari, L. Belhcen, Factors Affecting the Online Purchase Intention during COVID-19 Crisis: The Case of Morocco, SSRN (2020). https://doi.org/10.2139/ssrn.3734389.

[3] I. Ajzen, Models of Human Social Behavior and Their Application to Health Psychology, Psychol. Health 13 (1998), 735–739. https://doi.org/10.1080/08870449808407426.

[4] I. Ajzen, From Intentions to Actions: A Theory of Planned Behavior, in: J. Kuhl, J. Beckmann (Eds.), Action Control, Springer, Berlin, Heidelberg, 1985: pp. 11–39. https://doi.org/10.1007/978-3-642-69746-3_2.

[5] I. Ajzen, The Theory of Planned Behavior, Organ. Behav. Hum. Decis. Process. 50 (1991), 179–211. https://doi.org/10.1016/0749-5978(91)90020-T.

[6] H. Ali, M. Li, Y. Hao, Purchasing Behavior of Organic Food among Chinese University Students, Sustainability 13 (2021), 5464. https://doi.org/10.3390/su13105464.

[7] S. Amaro, P. Duarte, An Integrative Model of Consumers' Intentions to Purchase Travel Online, Tour. Manag. 46 (2015), 64–79. https://doi.org/10.1016/j.tourman.2014.06.006.

[8] A. Thanh, E-commerce in 2023 and Trends for 2024, (2024). https://kinhtedothi.vn/thuong-mai-dien-tu-viet-nam-2023-va-xu-huong-2024.html.

[9] A. Arshad, M. Zafar, I. Fatima, S.K. Khan, The Impact of Perceived Risk on Online Buying Behavior, Int. J. New Technol. Res. 1 (2015), 13–18.

[10] R.D. Blackwell, P.W. Miniard, J.F. Engel, Consumer Behavior, 9th ed., South-Western Thomson Learning, Mason, 2002.

[11] Ministry of Industry and Trade of Vietnam, Circular on the Management of E-commerce Websites Selling Goods or Providing Services, (2010). https://thuvienphapluat.vn/van-ban/Thuong-mai/Thong-tu-46-2010-TT-BCT-quan-ly-hoat-dong-website-thuong-mai-dien-tu-117112.aspx.

[12] M. Cahyanaputra, Y. Jimmy, M. Annas, Factors Affecting Purchase Intention and Purchase Behaviour Electronic Products (Home Appliance) in Online Transaction, in: Proceedings of the 4th International Conference of Economics, Business, and Entrepreneurship, 2021. https://doi.org/10.4108/eai.7-10-2021.2316222.

[13] H.J. Cavite, P. Mankeb, C. Kerdsriserm, et al. Do Behavioral and Socio-Demographic Factors Determine Consumers' Purchase Intention towards Traceable Organic Rice? Evidence from Thailand, Organ. Agric. 12 (2022), 243–258. https://doi.org/10.1007/s13165-022-00387-1.

[14] C. Behl, How Do Pricing Strategies, Discounts, And Promotions Affect Consumer Purchasing Behavior And Brand Loyalty?, (2024). https://medium.com/@ChaviBehl/how-do-pricing-strategies-discounts-and-promotions-affect-consumer-purchasing-behavior-and-brand-cf05af678f54.

[15] C. Wang, T. Liu, Y. Zhu, H. Wang, X. Wang, S. Zhao, The Influence of Consumer Perception on Purchase Intention: Evidence from Cross-Border E-Commerce Platforms, Heliyon 9 (2023), e21617. https://doi.org/10.1016/j.heliyon.2023.e21617.

[16] D.F. Cox, S.U. Rich, Perceived Risk and Consumer Decision-Making—The Case of Telephone Shopping, J. Mark. Res. 1 (1964), 32–39. https://doi.org/10.1177/002224376400100405.

[17] G. Daskalakis, I. Mantas, A Comparison of Goodness-of-Fit Measures for Structural Equation Models. J. Appl. Stat. 35 (2008), 1203-1224.

[18] F.D. Davis, A Technology Acceptance Model for Empirically Testing New End-User Information Systems: Theory and Results, Doctoral Dissertation, Massachusetts Institute of Technology, Cambridge, MA, (1985). https://dspace.mit.edu/handle/1721.1/15192.

[19] F.D. Davis, Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology, MIS Q. 13 (1989), 319. https://doi.org/10.2307/249008.

[20] K. Devi, G. Singh, S.K. Roy, J. Cúg, Determinants of Organic Food Purchase Intention: The Moderating Role of Health Consciousness, Br. Food J. 125 (2023), 4092–4122. https://doi.org/10.1108/BFJ-03-2023-0220.

[21] G. Diagourtas, K.E. Kounetas, V. Simaki, Consumer Attitudes and Sociodemographic Profiles in Purchasing Organic Food Products: Evidence from a Greek and Swedish Survey, Br. Food J. 125 (2023), 2407–2423. https://doi.org/10.1108/BFJ-03-2022-0196.

[22] H.T. Dung, A Study on Online Shopping Behavior of Consumers in Quang Binh, (2022). https://tapchicongthuong.vn/nghien-cuu-hanh-vi-mua-sam-truc-tuyen-cua-nguoi-tieu-dung-quang-binh-89933.htm.

[23] D.C. Baltaci, Y. Durmaz, F. Baltaci, The Relationships between the Multidimensional Planned Behavior Model, Green Brand Awareness, Green Marketing Activities, and Purchase Intention, Brain Behav. 14 (2024), e3584. https://doi.org/10.1002/brb3.3584.

[24] D.T.T. Thu, D.T. Cuong, A Study on Factors Affecting Online Shopping Behavior of Students at Industrial University of Ho Chi Minh City, in: Proceedings of the 3rd Young Scientists Conference (YSC2021) – IUH, (2021).

[25] F. Lu, Online Shopping Consumer Perception Analysis and Future Network Security Service Technology Using Logistic Regression Model, PeerJ Comput. Sci. 10 (2024), e1777. https://doi.org/10.7717/peerj-cs.1777.

[26] S. Ferreira, O. Pereira, Antecedents of Consumers' Intention and Behavior to Purchase Organic Food in the Portuguese Context, Sustainability 15 (2023), 9670. https://doi.org/10.3390/su15129670.

[27] M.A. Fishbein, I. Ajzen, Belief, Attitude, Intention and Behavior: An Introduction to Theory and Research, Addition-Wesley, Reading, (1975).

[28] C. Fornell, D.F. Larcker, Evaluating Structural Equation Models with Unobservable Variables and Measurement Error, J. Mark. Res. 18 (1981), 39–50. https://doi.org/10.1177/002224378101800104.

[29] G. Garson, Partial Least Squares: Regression and Structural Equation Models, Statistical Associates Publishers, Asheboro, (2016).

[30] N.T.P. Giang, D.T.B. Tram, L.T.A. Hang, et al. Factors Affecting Vietnamese People's Intention to Buy Health Care Products Online during COVID-19, in: 2022 IEEE 12th Annual Computing and Communication Workshop and Conference (CCWC), IEEE, Las Vegas, NV, USA, 2022: pp. 0302–0309. https://doi.org/10.1109/CCWC54503.2022.9720843.

[31] Google, Temasek & Bain & Company, e-Conomy 2022 Report: Navigating Stormy Seas, Sailing Towards Opportunities. e-Conomy SEA-Google, (2022). https://economysea.withgoogle.com.

[32] H.N.K. Giao, B.N. Vuong, Graduate Textbook on Scientific Research Methods in Business – Updated with SmartPLS, Finance Publishing House, Ho Chi Minh City, Vietnam, (2019).

[33] N.T. Ha, H.D. Luong Thuy, Consumer Behaviour Towards Vietnamese Online Shopping Websites in the Covid-19 Pandemic, VNU J. Sci.: Econ. Bus. 36 (2020), 11-21. https://doi.org/10.25073/2588-1108/vnueab.4342.

[34] J.F. Hair, W.C. Black, B.J. Babin, R.E. Anderson, Multivariate Data Analysis, Prentice Hall, Englewood Cliffs, (2010).

[35] C.M. Hasler, Functional Foods: Benefits, Concerns and Challenges—A Position Paper from the American Council on Science and Health, J. Nutr. 132 (2002), 3772–3781. https://doi.org/10.1093/jn/132.12.3772.

[36] J. Henseler, M. Sarstedt, Goodness-of-Fit Indices for Partial Least Squares Path Modeling, Comput. Stat. 28 (2013), 565–580. https://doi.org/10.1007/s00180-012-0317-1.

[37] J. Henseler, C.M. Ringle, M. Sarstedt, A New Criterion for Assessing Discriminant Validity in Variance-Based Structural Equation Modeling, J. Acad. Mark. Sci. 43 (2015), 115–135. https://doi.org/10.1007/s11747-014-0403-8.

[38] N.T. Hoa, T.T. Tuan, T. Tung, P.Q. Huan, Factors affecting online purchase behaviour in Vietnam, Acad. Account. Financ. Stud. J. 25 (2021), 1-11.

[39] C. Hock, C.M. Ringle, M. Sarstedt, Management of Multi-Purpose Stadiums: Importance and Performance Measurement of Service Interfaces, Int. J. Serv. Technol. Manag. 14 (2010), 188-207. https://doi.org/10.1504/IJSTM.2010.034327.

[40] H.V. Thanh, A Study on Factors Influencing Customers' Decision to Choose AEON Supermarket in Ho Chi Minh City, Thesis, Ho Chi Minh City University of Industry, (2019).

[41] H.N.T. Huyen, L.N. Son, C. Nguyen, Factors Influencing Gen Z's Fashion Product Purchasing Behavior on Mobile Applications in Ho Chi Minh City, J. Sci. Technol. 66 (2023), 56-72. https://doi.org/10.46242/jstiuh.v66i06.4989.

[42] J.R. Sa'ari, W. Koe, The Intention to Consume Organic Food among Millennial Generation, in: Proceedings Knowledge Management International Conference, 2014.

[43] N.D. Khoa, T.V. Khoat, Consumer Buying Behavior at Emart Go Vap Supermarket in the New Normal State, in: Proceedings of the 4th Young Scientists Conference (YSC2022), Industrial University of Ho Chi Minh City, pp. 83-95, (2024).

[44] P. Kotler, G. Armstrong, S. Ang, et al. Principles of Marketing: A Global Perspective, Pearson, (2009).

[45] P. Kotler, Marketing Management, Millenium Edition: Custom Edition for University of Phoenix, Pearson, (2012).

[46] I.K. Milaković, Purchase Experience during the COVID-19 Pandemic and Social Cognitive Theory: The Relevance of Consumer Vulnerability, Resilience, and Adaptability for Purchase Satisfaction and Repurchase, Int. J. Consum. Stud. 45 (2021), 1425–1442. https://doi.org/10.1111/ijcs.12672.

[47] E.P. Lestari, F. Firdaus, N. Nurhayati, et al. The Effect of Perceived of Usefulness and Perceived Ease of Use on Online Purchasing Behavior with E-Wallet User Satisfaction as Intervening: Study on Millennials as E-Wallet Users in Guntur District, Demak Regency, Int. J. Econ. Manag. Account. 1 (2024), 01–15. https://doi.org/10.61132/ijema.v1i2.16.

[48] R.S. Likert, A Technique for the Measurement of Attitudes, Arch. Psychol. 140 (1932), 1-55.

[49] M.H. Thinh, Trends in Online Shopping Behavior of Vietnamese Consumers, (2023). https://tapchicongthuong.vn/xu-huong-hanh-vi-mua-hang-truc-tuyen-cua-nguoi-tieu-dung-viet-nam-104014.htm.

[50] M.U. Majeed, S. Aslam, S.A. Murtaza, S. Attila, E. Molnár, Green Marketing Approaches and Their Impact on Green Purchase Intentions: Mediating Role of Green Brand Image and Consumer Beliefs towards the Environment, Sustainability 14 (2022), 11703. https://doi.org/10.3390/su141811703.

[51] N. Michaelidou, L.M. Hassan, The Role of Health Consciousness, Food Safety Concern and Ethical Identity on Attitudes and Intentions towards Organic Food, Int. J. Consum. Stud. 32 (2008), 163–170. https://doi.org/10.1111/j.1470-6431.2007.00619.x.

[52] O.A. Mihalache, L. Dumitraşcu, A.I. Nicolau, D. Borda, Food Safety Knowledge, Food Shopping Attitude and Safety Kitchen Practices among Romanian Consumers: A Structural Modelling Approach, Food Control 120 (2021), 107545. https://doi.org/10.1016/j.foodcont.2020.107545.

[53] M.-Y. Chang, H.-S. Chen, Understanding Consumers' Intentions to Purchase Clean Label Products: Evidence from Taiwan, Nutrients 14 (2022), 3684. https://doi.org/10.3390/nu14183684.

[54] M. Nguyet, The Explosion of Sustainable Food Consumption Trends, (2024). https://vneconomy.vn/bung-no-xu-huong-tieu-dung-thuc-pham-ben-vung.htm.

[55] V. Mitchell, Consumer Perceived Risk: Conceptualisations and Models, Eur. J. Mark. 33 (1999), 163–195. https://doi.org/10.1108/03090569910249229.

[56] D. Montano, D. Kasprzyk, Theory of Reasoned Action, Theory of Planned Behavior, and the Integrated Behavioral Model, in: Health Behavior and Health Education: Theory, Research, and Practice, 4th ed., pp. 70–350, (2015).

[57] N. Trương, E-commerce Market Report. Metric Insights, (2024). https://metric.vn/insights/category/metric/ecom-market-research.

[58] P. Nayal, N. Pandey, J. Paul, Covid-19 Pandemic and Consumer-Employee-Organization Wellbeing: A Dynamic Capability Theory Approach, J. Consum. Aff. 56 (2022), 359–390. https://doi.org/10.1111/joca.12399.

[59] C.Q. Nguyen, L.P. Chung, What Determines the Online Shopping Intention of Vietnamese Consumers?, East Asian J. Bus. Econ. 10 (2022), 19–30. https://doi.org/10.20498/EAJBE.2022.10.2.19.

[60] T.T.M. Nguyen, T.H. Phan, H.L. Nguyen, T.K.T. Dang, N.D. Nguyen, Antecedents of Purchase Intention toward Organic Food in an Asian Emerging Market: A Study of Urban Vietnamese Consumers, Sustainability 11 (2019), 4773. https://doi.org/10.3390/su11174773.

[61] N.A.M. Thu, M.K. Nhi, D.K. Huyen, et al. Drivers influencing consumer's attitudes and intentions towards purchasing green products in Ho Chi Minh City, Ho Chi Minh City Open Univ. J. Sci. – Econ. Bus. Admin. 19 (2024), 71–87. https://doi.org/10.46223/HCMCOUJS.econ.vi.19.10.2999.2024.

[62] N.T.P. Dung, A Study on Factors Affecting Customer Satisfaction with the Sales Activities of Bach Hoa Xanh Supermarket in Ho Chi Minh City, Thesis, University of Danang - University of Science and Technology, (2019).

[63] N.T.P. Giang, D.T.B. Tram, L.T.A. Hang, L.M. Nhien, N.B.P. Duy, Factors Affecting Vietnamese People's Intention to Buy Health Care Products Online During COVID-19, in: 2022 IEEE 12th Annual Computing and Communication Workshop and Conference (CCWC), IEEE, Las Vegas, NV, USA, 2022: pp. 0302–0309. https://doi.org/10.1109/CCWC54503.2022.9720843.

[64] P.T. Nhung, V.Q. Tri, H.L.T. Truong, et al. Factors Affecting Online Purchasing Behavior of Organic Food: Study at Danang City, Univ. Danang – J. Sci. Technol. 21 (2023), 1-11, https://jst-ud.vn/jst-ud/article/view/8072.

[65] N.M. Noor, S. Noranee, M.F. Zakaria, N. Unin, M.A.H.M. Suaee, Online Shopping: The Influence of Attitude, Subjective Norm and Perceived Behavioral Control on Purchase Intention, in: Proceedings of the 2020 The 6th International Conference on E-Business and Applications, ACM, Kuala Lumpur Malaysia, 2020: pp. 33–36. https://doi.org/10.1145/3387263.3387266.

[66] J. Park, S.J. Lennon, L. Stoel, On-Line Product Presentation: Effects on Mood, Perceived Risk, and Purchase Intention, Psychol. Mark. 22 (2005), 695–719. https://doi.org/10.1002/mar.20080.

[67] N. Peña-García, I. Gil-Saura, A. Rodríguez-Orejuela, J.R. Siqueira-Junior, Purchase Intention and Purchase Behavior Online: A Cross-Cultural Approach, Heliyon 6 (2020), e04284. https://doi.org/10.1016/j.heliyon.2020.e04284.

[68] T.D. Phan, Functional Food and Self Health Care, Vietnam J. Nutr. Food. 13 (2017), 22-28.

[69] P.T.H. Nga, N.K.Q. Trung, Online Shopping Behavior of Consumers during COVID-19 Outbreak: Evidence in Vietnam, J. Syst. Manag. Sci. 13 (2023), 339-350. https://doi.org/10.33168/JSMS.2023.0522.

[70] P.C.T. Tien, D.Q. Tri, N.T. Luan, Belief of Customers in Social Commerce Performed via Social Networking Sites: An Empirical Study from Ho Chi Minh City, Vietnam Soc. Sci. 214 (2023), 61–80. https://doi.org/10.56794/VSSR.2(214).61-80.

[71] National Assembly of Vietnam, Food Safety Law (Law No. 55/2010/QH12), (2010).

[72] R. Scarpa, M. Thiene, Organic Food Choices and Protection Motivation Theory: Addressing the Psychological Sources of Heterogeneity, Food Qual. Prefer. 22 (2011), 532–541. https://doi.org/10.1016/j.foodqual.2011.03.001.

[73] Y. Su, A. Khaskheli, S.A. Raza, S.Q. Yousufi, How Health Consciousness and Social Consciousness Affect Young Consumers Purchase Intention towards Organic Foods, Manag. Environ. Qual.: Int. J. 33 (2022), 1249–1270. https://doi.org/10.1108/MEQ-12-2021-0279.

[74] C. Synodinos, G.H.S.M.D. Moraes, N.B.D. Prado, Green Food Purchasing Behaviour: A Multi-Method Approach of Generation Y in a Developing Country, Br. Food J. 125 (2023), 3234–3248. https://doi.org/10.1108/BFJ-09-2022-0769.

[75] B.G. Tabachnick, L.S. Fidell, Using Multivariate Statistics, Allyn and Bacon, New York, (2007).

[76] A. Tarkiainen, S. Sundqvist, Subjective Norms, Attitudes and Intentions of Finnish Consumers in Buying Organic Food, Br. Food J. 107 (2005), 808–822. https://doi.org/10.1108/00070700510629760.

[77] D.T.T. Thu, D. Cuong, Research on factors affecting the online shopping behavior of students at the University of Danang - University of Science and Technology, in: Proceedings of the 3rd Young Scientists Conference 2021 (YSC2021), (2021).

[78] N.A.M. Thu, M.K. Nhi, D.K. Huyen, et al. Drivers Influencing Consumer's Attitudes and Intentions towards Purchasing Green Products in Ho Chi Minh City, Ho Chi Minh City Open Univ. J. Sci. Econ. Bus. Admin. 19 (2024), 71–87. https://doi.org/10.46223/HCMCOUJS.econ.vi.19.10.2999.2024.

[79] V. Venkatesh, M.G. Morris, G.B. Davis, et al. User Acceptance of Information Technology: Toward a Unified View, MIS Quart. 27 (2003), 425. https://doi.org/10.2307/30036540.

[80] V. Venkatesh, J.Y.L. Thong, X. Xu, Consumer Acceptance and Use of Information Technology: Extending the Unified Theory of Acceptance and Use of Technology, MIS Quart. 36 (2012), 157. https://doi.org/10.2307/41410412.

[81] N.H. Viet, N.B. Khoa, N.T. Ninh, et al. Organic Food Consumption: A Study of Vietnamese Consumers' Attitudes and Behaviours Towards Organic Meat, J. Econ. Dev. 275 (2020), 67-76.

[82] Wahyuningsih, H. Nasution, Y.H. Yeni, et al. A Comparative Study of Generations X, Y, Z in Food Purchasing Behavior: The Relationships among Customer Value, Satisfaction, and Ewom, Cogent Bus. Manag. 9 (2022), 2105585. https://doi.org/10.1080/23311975.2022.2105585.

[83] C. Wang, T. Liu, Y. Zhu, et al. The Influence of Consumer Perception on Purchase Intention: Evidence from Cross-Border E-Commerce Platforms, Heliyon 9 (2023), e21617. https://doi.org/10.1016/j.heliyon.2023.e21617.

[84] X. Liu, X. Zheng, The Persuasive Power of Social Media Influencers in Brand Credibility and Purchase Intention, Human. Soc. Sci. Commun. 11 (2024), 15. https://doi.org/10.1057/s41599-023-02512-1.

[85] R. Yadav, G.S. Pathak, Intention to Purchase Organic Food among Young Consumers: Evidences from a Developing Nation, Appetite 96 (2016), 122–128. https://doi.org/10.1016/j.appet.2015.09.017.

[86] T. Yamane, Statistics, An Introductory Analysis, Harper and Row, New York, (1967).

[87] Y. Zhao, B. Yang, N. Wang, A Meta-analysis of Online Impulse Buying and the Moderating Effect of Economic Development Level, in: WHICEB 2021 Proceedings, (2021).