

## The Influence of Promotional Programs and Key Factors on E-Commerce Purchasing Behaviour Among Students in Southern Vietnam

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### Abstract:

This study was conducted in the context of the rapid growth of e-commerce, especially following the Covid-19 pandemic, when online shopping became a popular trend among young people. As students increasingly become a potential customer group, businesses need to understand the factors influencing their purchasing behaviour to develop effective marketing strategies. The purpose of this study is to explore the impact of promotional programs and other factors on the purchasing behaviour of students on e-commerce platforms in key areas of Southern Vietnam, helping businesses gain a better understanding of the psychology and shopping habits of this demographic. To carry out the research, the research team conducted a survey and analysis based on 495 carefully selected, most relevant questionnaires. The study utilised both quantitative and qualitative methods. The impact of promotional programs and other factors on students' online purchasing behaviour was then assessed using SmartPLS 4 software. The results show that promotional programs (Buy 1 Get 1 Free, Free Samples, Discount Vouchers), along with factors such as Price, Emotional Value, Usefulness, Risk, and Ease of Use, significantly affect students' purchasing behaviour. This research provides an overview of students' online shopping behaviour in key areas of Southern Vietnam, offering managerial implications to improve marketing strategies for online businesses in Vietnam.

**Keywords:** promotional programs, purchasing behaviour, e-commerce, students, Southern Vietnam.

**JEL Classification:** M31, M37, D12, L81, O33.

## Introduction

After two years of the Covid-19 pandemic, Vietnam's economy has shown many positive signs. However, global economic fluctuations, along with several domestic challenges, have had some negative impacts on economic and trade development. Despite these issues, according to estimates from the Vietnam E-commerce Association, the e-commerce sector in Vietnam has maintained a growth rate of over 25%, reaching a scale of more than 20 billion USD.

According to data from Metric, business-to-consumer (B2C) e-commerce transactions in Vietnam in 2023 reached VND 498.9 trillion, with five major e-commerce platforms (Shopee, Lazada, Tiki, Sendo, TikTok Shop) accounting for VND 232.2 trillion, representing 47%. Among these, Hanoi and Ho Chi Minh City are key areas, with e-commerce revenue in Hanoi reaching VND 76,665 billion, representing a 33% market share and 44% growth, while Ho Chi Minh City reached VND 51,230 billion, representing a 22% market share and 31% growth. The top-selling categories were Beauty, Home & Lifestyle, and Women's Fashion. Vietnam has the highest online shopping growth rate in Southeast Asia. It is forecasted that revenue and sales volume on online B2C retail platforms will continue to grow strongly, potentially reaching VND 650 trillion by 2024.

This rapid growth has led to significant changes in consumer purchasing behaviour, especially among younger groups. In Vietnam, students - a dynamic and young consumer group - are becoming an important target market in e-commerce due to their diverse shopping needs and high internet access. According to the Vietnam E-commerce Whitebook 2023, the number of online shoppers is estimated to be 61 million, with students accounting for 17%, mainly in Ho Chi Minh City, the key area in southern Vietnam. Shopee is the most preferred e-commerce platform in wholesale and retail, accounting for 81% of market share.

Promotional programs are considered one of the key factors influencing students' purchasing behaviour on e-commerce platforms. According to statistics from the Vietnam E-commerce Whitebook 2023, 51% of consumers stated that promotional programs directly influenced their purchasing decisions. In addition, factors such as usefulness, ease of use, and perceived risk also play a role in shaping consumer purchasing behaviour.

Previous studies have also shown that promotional programs have a significant impact on consumer purchasing decisions. Specifically, in a study on the influence of promotional programs on customer shopping behaviour (Mishra et al., 2024), the authors concluded that promotional programs are crucial in attracting consumers, having a statistically significant and positive impact on customer purchasing behaviour. Other studies (Suryani & Syafarudin, 2021; Arsta & Respati, 2021) have drawn similar conclusions. However, there is still a gap in research regarding the specific impact of promotional programs on students - a consumer group with an increasing trend of online shopping habits. Particularly, there has been little research focused on analysing the combined effects of factors such as perceived risk, usefulness, or ease of use in relation to promotional programs on this group's purchasing behaviour. Therefore, the research team believes that the study "*The Impact of Promotional Programs and Other Factors on Purchasing Behaviour on E-commerce Platforms Among Students in Key Areas of Southern Vietnam*" is necessary. It will not only deepen the understanding of the purchasing motivations of students but also provide valuable information for businesses to optimize their marketing strategies and plans.

## 1. Literature Review

### 1.1. Concept

#### Concept of Promotion Program

Promotions are activities carried out by businesses to provide customers with attractive incentives, such as discounts, vouchers, or programs supporting sales staff and retail agents. These activities are often conducted through direct solicitation or persuasion, with the goal of encouraging customers to purchase products or use services. Promotional programs serve as a form of communication between consumers and suppliers. Sellers attempt to persuade buyers to use their products or services through promotional activities.

Akbar et al. (2020) suggested that retail promotion strategies not only help increase sales and encourage purchases but also attract more customers, expand the potential customer base, and enhance brand image. This contributes to strengthening relationships with current customers and retaining them. Additionally, promotional programs help spread positive messages to family, friends, and those around.

Nakarmi's (2018) research indicated that coupons, price discounts, and buy-one-get-one-free offers influence shoppers' purchasing decisions at the point of sale. This provides insight into shoppers' attitudes toward promotional tools, helping customers become more aware of products, services, or companies, while also

enhancing the business's reputation with the public. This marketing method also has the potential to generate customer interest and loyalty.

### Concept of Online Shopping

Online shopping is a form of e-commerce that allows consumers to purchase goods or services directly from sellers via the Internet using a web browser. George's (2004) research suggests that online buying behaviour refers to the frequency with which consumers conduct transactions over the Internet. In this study, the author approaches online shopping from the perspective that "online shopping is the act of purchasing goods or services through the Internet".

### Concept of E-Commerce Platforms

On September 25, 2021, Decree 85/2021/NĐ-CP was issued, which includes regulations related to the definition of e-commerce platforms according to current legal documents as follows: "An e-commerce platform is a website that allows individuals, organizations, and merchants, who are not the owners of the website, to conduct part or all of the process of buying and selling goods and services. According to this decree, e-commerce platforms do not include websites for online securities trading."

### Concept of Purchasing Behaviour

Consumer buying behaviour has been studied across various marketing fields, not limited to traditional in-store shopping. Notable studies include green marketing (Nguyen et al., 2016), luxury brands and products (Beuckels & Hudders, 2016), B2B transactions (Wei & Ho, 2019), as well as online shopping behaviour (Sundstrom et al., 2019). According to Ajzen (1991), consumer intention is an indicator of the extent to which individuals are willing to perform a specific behaviour, which in this study will be translated as online purchasing behaviour.

According to Kotler (1999), consumer buying behaviour encompasses the activities an individual undertakes during the purchasing process, and they have the right to use or dispose of the product or service.

Ridwan's (2022) research emphasizes that consumer buying behaviour is a crucial factor in product marketing strategies that businesses need to understand. Factors such as location, price, and service quality all influence customers' purchasing decisions, suggesting that company leaders should focus on various aspects of consumer behaviour, particularly the decision-making process.

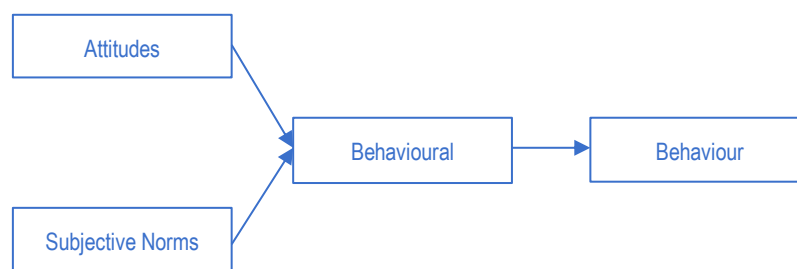
Lim et al. (2016) note that online purchase intentions and online buying behaviour require further exploration. In summary, consumer buying behaviour reflects how individuals decide to use or discard a product or service.

## 1.2. Theoretical Model

### Theory of Reasoned Action - TRA

Ajzen & Fishbein (1975) introduced the Theory of Reasoned Action (TRA) with the goal of predicting intention, a psychological factor that plays a central role in determining human behaviour. TRA predicts how individuals will behave based on their attitudes and intentions to perform a behaviour. The intention to perform a behaviour is based on estimates including attitude toward the behaviour, subjective norms, and behavioural intention. According to the theory, the intention to perform a specific behaviour (behavioural intention) precedes the actual behaviour. TRA emphasizes that behavioural intention is the key factor, as stronger intentions increase the motivation to perform the behaviour, thereby enhancing the likelihood that the behaviour will be carried out.

Figure 1. Theory of Reasoned Action (TRA) Model



Source: Ajzen & Fishbein (1975)

### Theory of Planned Behaviour - TPB

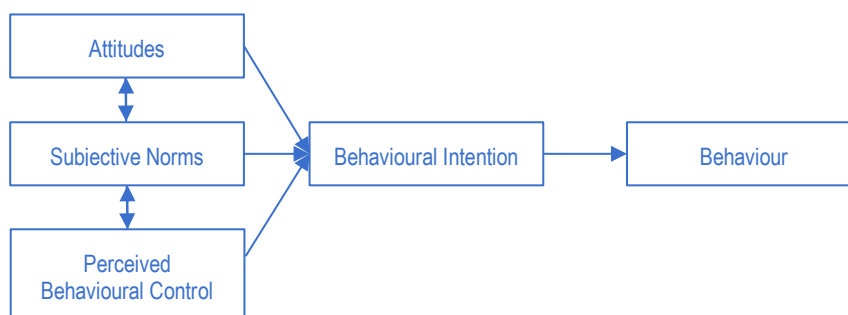
These factors collectively determine an individual's intention to perform a particular behaviour, thereby influencing whether the behaviour is likely to be carried out.

The Theory of Planned Behaviour (TPB) was developed based on the foundation of the Theory of Reasoned Action (TRA). Ajzen's (1991) TPB posits that the intention to perform a behaviour is influenced by three main factors: attitude toward the behaviour, subjective norms, and perceived behavioural control. This theory extends the Theory of Reasoned Action (Ajzen & Fishbein, 1975) by addressing its limitations, particularly the assumption that human behaviour is entirely governed by rational thought.

The three core components of the Theory of Planned Behaviour are: Attitude toward the behaviour, which refers to an individual's evaluation of the outcomes of performing a behaviour (Ajzen, 1991), or the extent to which the individual judges the behaviour as positive or negative. Consumer attitudes influence their intention (Ajzen & Fishbein, 1975). Subjective norms refer to the perceived social pressure or expectations from others to engage in or avoid the behaviour (Ajzen & Fishbein, 1975). Ajzen (1991) expanded on the concept of subjective norms by suggesting that individuals form behavioural intentions after considering the support of influential people and recognizing that many others also engage in the same behaviour. Research has shown a positive correlation between subjective norms and behavioural intentions. Perceived behavioural control, introduced by Ajzen (1985) to refine the TRA model, reflects the individual's self-assessment of the ease or difficulty of performing a behaviour.

The TPB model is applied to study the relationships between beliefs, attitudes, behavioural intentions, and actual behaviour. These beliefs serve as predictors of the intention to perform a specific behaviour. Trust, for instance, is considered one of the main barriers preventing consumers from shopping online. If trust is not established, online transactions cannot occur. Therefore, customer trust in online sellers is the foundation for online shopping to take place.

Figure 2. Theory of Planned Behaviour (TPB) Model



Source: Ajzen (1985)

### 1.3. Hypotheses

#### Price

According to Kotler & Armstrong (2018), price is the amount of money customers pay to acquire a specific product. Price perception refers to the assessment of fairness in pricing set by companies. In their research, Nuraeni & Harsoyo (2024) identified that price is one of the key factors influencing customers' purchasing decisions. Consumers often consider previous prices, competitor prices, and cost of sales in this evaluation. Supported by studies of Kusnanto et al. (2023), Suratno & Aйдawati, (2017) and Waskito & Witono (2014), they have similarly stated that price perception influences the purchase intention of green products. According to Suparna (2015), indicators of price perception include consumer considerations about purchasing products, price-quality ratio, price competitiveness, and price-benefit suitability.

Price is the sum of all values given by customers to benefit from having or using a product or service (Kotler & Armstrong, 2018). According to Dharmmesta & Irawan, (2005) price is the amount of money (plus a few items if possible) needed to get a combination of goods and their services. According to Tjiptono (2005), Prices are monetary units or other measures including other goods and services exchanged in order to obtain ownership rights or users of goods and services. Based on some of the above understanding, it can be concluded that the price is the overall value of goods and services provided in the form of money

Shah et al. (2021) highlighted that correctly determining the price not only impacts customers' product choices but also influences where and which brand they will purchase from. Kim et al. (2023) stated that consumers are price-conscious and view e-commerce as a useful shopping tool because it allows them to pursue products and

services at lower prices. Thus, customer expectations regarding prices are being lowered in the offline environment but must still be based on how customers perceive the usefulness of websites. Therefore, it can be hypothesized that perceived lower prices in the online environment will positively influence perceived usefulness.

H1: Price has a positive impact on students' intention to shop on e-commerce platforms.

H2: Price has a positive impact on perceived usefulness when engaging in shopping.

H3: Product price has a positive impact on students' purchasing behaviour on e-commerce platforms through shopping intention

#### Emotional Value

Perceived emotional value is associated with the feelings of affection, love, connection, and passion. It is recognized that consumers will perceive the emotional value to products, promotions, environment, brands, and celebrities (Thomson, 2006; Dwivedi et al., 2018). Emotional value measures the perceived utility that consumers associate with a product or service's ability to elicit an emotional or affective state (Sheth et al., 1991). Emotional value is influenced by the benefits consumers derive from the goods or service (Sweeney & Soutar, 2001; Dörnyei & Lunardo, 2021).

In the study by Chandon, Wansink, & Laurent (2000) it was demonstrated that consumers' emotional value increases when they receive non-monetary promotions, such as gifts. Therefore, emotional value is a crucial factor influencing customers' purchasing decisions. According to research by Bei & Chiao (2001), emotional value is the consumer's assessment of the overall excellence or superiority of a product. In the online environment, emotional value is expressed through perceived product and service quality, which affects attitudes or purchase intention (Hansen et al., 2004). Consequently, the hypothesis suggests that perceived emotional value in the online environment impacts perceived usefulness.

H4: Emotional value positively influences students' intention to shop on e-commerce platforms.

H5: Emotional value positively influences perceived usefulness when engaging in shopping.

H6: Emotional value positively influences students' purchasing behaviour on e-commerce platforms through shopping intention

#### Discount Vouchers

Discount vouchers are a form of promotional incentive offered to consumers during shopping. These vouchers can be provided in two forms: physical vouchers or electronic vouchers, allowing customers to receive discounts on similar products in future purchases. According to the research by Oly & Tung Moi (2005), customers are willing to change their preferences or shopping intentions to take advantage of discount vouchers. In the studies by Ahmad et al. (2015) and Abdi (2015), it was observed that manufacturers often use discount voucher incentives to effectively engage with consumers. Various studies have highlighted the impact of discount vouchers as a promotional tool, with authors such as Nevo & Wolfram (2002), Raghubir (1998), Leone & Srinivasan (1996), Ding et al (2020) and Taylor (2001) contributing to this topic. These studies show that unexpected discount vouchers can increase the purchase rate of the associated product, and customers are likely to buy items they did not intend to purchase due to the influence of promotional offers during shopping.

H7: The form of promotion using discount vouchers positively influences students' purchasing behaviour on e-commerce platforms through shopping intention

#### Buy 1 Get 1 Free

The "Buy One Get One Free" (BOGO) promotion is an advertising tool used by businesses to stimulate consumer demand. This promotion is particularly useful in clearing out inventory and promoting new products. According to studies by Abdi (2015) and Ahmad et al. (2015), many customers are attracted to this promotion because they do not have to pay for the additional product, which is perceived as a gift from the business.

It is one of the most frequently used consumer sales promotion to persuade a customer to make a purchase in the sense that if the customer buys a product, the consumer gets a free product; by using this method, the consumer is easily persuaded to make a purchase because there is no additional cost. Since there is no additional cost, the consumer frequently cannot ignore such an excellent offer (Ofosu-Boateng & Agyei, 2020; Chandra et al., 2018).

H8: The Buy 1 Get 1 Free promotion positively influences students' purchasing behaviour on e-commerce platforms through shopping intention

#### Giving Free Samples

Samples are a smart way to introduce or promote a product for free to customers without spending much money. Lammers (1991) defined free samples as a technique to persuade customers to test a product. A free sample alerts consumers to a new product, helping to create demand. Samples are the representation of your product because they must be in huge quantities to give the targeted market a fantastic experience of it. When product demand rises, you should stop giving away free samples (Ofosu-Boateng & Agyei, 2020). This suggests that the free samples promotion influences consumer purchase intention, as they may increase their purchase quantity beyond their initial intentions to maximize their perceived benefits.

H9: The promotion method of giving free samples positively affects purchasing behaviour on e-commerce sites among students, through purchase intention.

#### Perceived Usefulness

Perceived usefulness is a concept that refers to the extent to which an individual perceives a system to be effective and beneficial in improving their job performance (Davis, 1989). According to Raed (2023), Tran & Nguyen (2022), Acharya et al (2022) online shopping is superior to traditional shopping because of its capabilities for searching product information, placing online orders, and home delivery services, all of which help customers save time. Online search tools allow users to easily find suitable products and services, while traditional shopping often consumes more time and resources.

Recent studies have also highlighted the positive impact of perceived usefulness on consumers' shopping intentions. Specifically, Ren et al. (2022) concluded that perceived usefulness is one of the key factors significantly influencing consumer decision-making. Subsequent research (Raed et al., 2023; Cioc et al., 2023; Shanmugavel & Micheal, 2022; Silva et al, 2022; Tsai et al, 2022) has also supported this conclusion.

H10: Perceived usefulness positively influences students' purchasing behaviour on e-commerce platforms through shopping intention.

#### Ease of Use

According to Davis (1989), perceived ease of use is defined as the extent to which a customer perceives a system to be simple, user-friendly, and quick to navigate. Indicators of ease of use include transparency and clarity, guidance on promotional programs, promotional formats, step-by-step features that are user-friendly, and the ability to easily compare different promotional formats on e-commerce sites while shopping online. Past studies have shown that perceived ease of use not only enhances perceived usefulness but also has a positive impact on consumers' purchase intentions (Moon et al., 2022; Park & Kim, 2023; Akdim et al, 2022; Liesa-Orús et al, 2023). Research by Saleem et al. (2022) suggests that ease of use can be a direct determinant of perceived usefulness. Many previous studies have also hypothesized that ease of use affects perceived usefulness and purchase intentions, investigating the reasons why consumers purchase a specific brand (Shah et al., 2021; Tam et al., 2023; Peng & Yan, 2022). Therefore, it can be hypothesized that both perceived usefulness and ease of use impact purchase intentions.

H11: Ease of use positively influences students' purchase intention on e-commerce platforms.

H12: Ease of use positively influences perceived usefulness during online shopping.

H13: Ease of use positively influences students' purchasing behaviour on e-commerce platforms through purchase intention

#### Perceived Risk

Perceived risk refers to the concerns that consumers have when making purchasing decisions, arising from the uncertainty or potential negative consequences that may occur after purchasing and using a specific product (Jordan et al., 2018). When conducting transactions and buying and selling through e-commerce, users often worry about unforeseen risks. According to the study by Aljukhadar et al. (2010), one of the main concerns is issues related to the security of individual websites. In the context of technological development, the increase in fraudulent schemes aimed at stealing personal and confidential information heightens consumers' skepticism about the safety of e-commerce. Additionally, when shopping online, customers cannot directly observe, touch, test, or sample the products due to the distance between the seller and the buyer. Therefore, if customers decide to carry out

transactions online, this can be seen as their trust in the application or online shopping service provider, allowing them to accept a certain level of risk. Furthermore, some common risks when shopping online include products being damaged during transportation, products not matching the images on the application, or products not meeting the requirements stated on the platform (Prayoga et al., 2023). Previous studies (Lou et al., 2022; Tran & Nguyen, 2022; Gupta et al., 2024) have indicated that perceived risk reduces consumers' intention to purchase online.

H14: Perceived risk negatively influences students' purchasing behaviour on e-commerce platforms through purchase intention

#### Purchase Intention and Behaviour

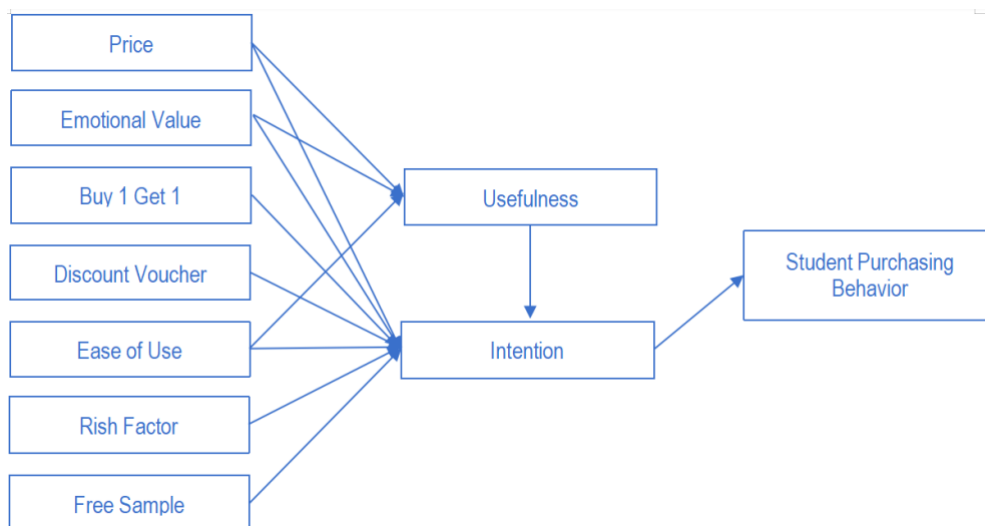
This study proposes that purchase intention is the primary factor to be considered. Intention occurs in the pre-purchase stage and focuses on key elements that influence customer behaviour (Armitage & Conner, 2001). To predict consumer behaviour, it is essential to understand attitudes, evaluations, and the underlying factors that ultimately lead to purchase intention (Ajzen & Fishbein, 1977). In the study of Pavlou (2003), online purchase intention is understood as the degree to which consumers are willing to purchase a product through an online store. Purchase behaviour has been researched across various marketing fields beyond traditional in-store purchases, such as green marketing (Yadav & Pathak, 2017), luxury brands and products (Uluturk & Asan, 2024), B2B transactions (Bilro et al., 2023), and online shopping (Tyrväinen & Karjaluoto, 2022; Zhou & Tong, 2022). According to the Theory of Planned Behaviour (TPB), a person's purchase intention determines their actual purchasing behaviour (Ajzen, 1991). Intention reflects an individual's willingness to perform a particular behaviour (Yadav & Pathak, 2017). Intention encompasses motivational factors that influence personal behaviour.

H15: Purchase intention positively influences students' purchasing behaviour on e-commerce platforms

#### 1.4. Research Model

Based on the review of previous research studies, new exploratory research, and consultations with advisors, the authors have proposed a research model consisting of 8 observed variables and 1 causal variable. The primary objective is to study “The Impact of Promotional Programs and Other Factors on E-Commerce Shopping Behaviour of Students in Key Areas of Southern Vietnam.” The proposed research model illustrates the relationship between the independent variables and the dependent variable through the causal variable as follows:

Figure 3. Research model



#### 2. Research Methodology

To investigate the impact of promotional programs and other factors on the purchasing behaviour of students on e-commerce platforms in the key Southern region of Vietnam, the group of authors conducted research using two methods: qualitative research and quantitative research. 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, facilitating the assessment of the impact and significance of the main variables in the study sample.

The qualitative research method was used as a basis for developing measurement scales and questionnaires during the quantitative research phase. After thorough exploration, the group of authors inherited previous studies and developed measurement scales for 8 independent variables (Price, Emotional Value, Discount Vouchers, Buy 1 Get 1 Free, Free Samples, Usefulness, Risk, Ease of Use), one causal variable (Purchase Intention), and the dependent variable (Purchasing Behaviour). Quantitative data was collected by the authors through questionnaires distributed via email and various social media platforms. The questionnaire included multiple-choice questions using a 5-point Likert scale, allowing 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 also minimizing random errors and other confounding factors. After discussion, the group of authors applied the convenience sampling method with an estimated sample size of 495 participants. The survey targeted students aged 18 and above who are shopping on e-commerce platforms and living in the Ho Chi Minh City area. After collection, the data was cleaned and analysed using SmartPLS 4 software.

The analysis methods will include: Descriptive statistics, measurement model testing, and structural model testing.

### 3. Research Results

#### 3.1. Descriptive Statistics

To collect data, a survey questionnaire was sent to students aged 18 and older who shop on e-commerce platforms and live in Ho Chi Minh City, across various academic years and genders. The online survey collected 520 responses. After filtering out invalid surveys and cleaning the data, 495 valid survey responses were obtained.

According to Table 1, out of the 495 surveys, males account for 30.1% with 149 responses, while females account for 69.9% with 346 responses. This indicates a significant gender disparity in the survey sample. This gender difference may reflect varying shopping behaviours and responses to promotions and other factors between males and females.

The majority of respondents are second-year students, comprising 57% of the sample. This may suggest that second-year students have a higher demand for shopping, especially when discount codes are available. They may be more familiar with e-commerce platforms after their first year and begin to have more shopping needs for both academic and personal purposes.

Based on the research results, the income bracket of 2-5 million VND has the highest representation at 37.4%, equivalent to 185 responses. This is the average income range for the surveyed students. The next largest group is the 5-7 million VND bracket, representing 30.1% with 149 responses. The under 2 million VND bracket has 86 responses, accounting for 17.4%. The 7-10 million VND bracket has 9.5% with 47 responses, and the income bracket above 10 million VND has the lowest representation at 5.7% with 28 responses. There is a significant income disparity among students. The highest income group (above 10 million VND) represents a small proportion compared to the lower income groups. This indicates that promotional programs may have a significant impact on the shopping behaviour of lower-income students due to the savings these programs provide.

Table 1. Description of the research sample

Personal Information	Details	Quantity	Percentage (%)
Gender	Male	149	30,1%
	Female	346	69,9%
University Year	1 <sup>st</sup> Year	75	15,2%
	2 <sup>nd</sup> Year	282	57%
	3 <sup>rd</sup> Year	124	25,1%



Personal Information	Details	Quantity	Percentage (%)
	4 <sup>th</sup> Year	14	2,8%
Income	Under 2 million VND	86	17,4%
	From 2 to 5 million VND	185	37,4%
	From 5 to 7 million VND	149	30,1%
	From 7 to 10 million VND	47	9,5%
	Above 10 million VND	28	5,7%
E-commerce Platforms for Shopping	Shopee	211	42,6%
	Lazada	146	29,5%
	TikTok	138	27,9%

### 3.2. Measurement Model Evaluation

Through the assessment of the measurement model, factors including CX, DSD, GG, HI, HV, MT, YD, and YD consistently show Cronbach's Alpha coefficients exceeding 0.8, indicating high internal consistency reliability. For the factors DT, GC, and RR, Cronbach's Alpha coefficients above 0.7 are considered good indicators. In the study, as shown in Table II, the Composite Reliability coefficients range from 0.778 to 0.882, reflecting high reliability across all factors. Moreover, all items exhibit outer loadings above the threshold of 0.545, indicating significant contributions of their respective factors. With outer loading coefficients exceeding 0.7, these variables are considered meaningful and acceptable. This ensures that the factors measured consistently maintain reliability.

Convergent validity, evaluated through the Average Variance Extracted (AVE), confirms that the selected factors converge well in PLS-SEM analysis. The AVE values in the study exceed 0.5, demonstrating that the scale ensures convergent validity and achieves good convergence. Discriminant validity, crucial for differentiating between factors, is assessed using the HTMT ratio and the Fornell-Larcker criterion. An HTMT ratio below 0.9 indicates adequate discriminant validity. Analysis shows HTMT and Fornell-Larcker criteria values ranging from 0.237 to 0.799, confirming satisfactory discriminant validity between all factors. Additionally, the Fornell-Larcker criterion, comparing the square root of AVE (diagonal elements) with the correlations between factors (off-diagonal elements), is met in all examined cases with no exceptions. This criterion verifies that the variance of each factor is greater than its correlations with other factors, supporting discriminant validity.

These evaluations collectively confirm the reliability, convergent validity, and discriminant validity of the measurement model, ensuring robustness in the study's factors.

Table 2. Evaluation of composite reliability

Factor	Composite reliability (CR)	Cronbach's alpha (CA)	Average variance Extracted (AVE)	Outer loading
CX	0.847	0.834	0.602	0.711 - 0.842
DSD	0.882	0.859	0.639	0.749 - 0.849
DT	0.795	0.792	0.545	0.720 - 0.772
GC	0.780	0.780	0.602	0.767 - 0.785
GG	0.840	0.825	0.588	0.735 - 0.843
HI	0.789	0.786	0.609	0.751 - 0.807
HV	0.821	0.821	0.583	0.758 - 0.773
MT	0.817	0.812	0.570	0.728 - 0.777
RR	0.778	0.777	0.599	0.749 - 0.792
YD	0.871	0.871	0.659	0.796 - 0.834

Table 3. HTMT

Factor	CX	DSD	DT	GC	GG	HI	HV	MT	RR	YD
CX										
DSD	0.299									
DT	0.379	0.332								
GC	0.328	0.314	0.417							
GG	0.546	0.324	0.398	0.467						
HI	0.341	0.320	0.330	0.337	0.349					
HV	0.562	0.350	0.512	0.493	0.589	0.454				
MT	0.393	0.252	0.375	0.459	0.436	0.237	0.517			
RR	0.379	0.378	0.439	0.372	0.349	0.384	0.509	0.411		
YD	0.589	0.558	0.543	0.542	0.588	0.495	0.778	0.564	0.523	

Table 4. Fornell Larcker

Factor	CX	DSD	DT	GC	GG	HI	HV	MT	RR	YD
CX	0.776									
DSD	0.267	0.799								
DT	0.308	0.281	0.738							
GC	0.267	0.266	0.331	0.776						
GG	0.476	0.288	0.332	0.406	0.767					
HI	0.279	0.272	0.265	0.265	0.287	0.780				
HV	0.469	0.308	0.416	0.395	0.493	0.367	0.764			
MT	0.332	0.223	0.302	0.368	0.370	0.198	0.427	0.755		
RR	-0.307	-0.347	-0.345	-0.289	-0.286	-0.301	-0.408	-0.328	0.774	
YD	0.508	0.496	0.454	0.448	0.508	0.412	0.658	0.479	-0.431	0.812

### 3.3. Structural Model Evaluation

One of the main limitations of quantitative research based on survey data is the representativeness of the sample compared to the population. Due to time and resource constraints, this study utilized a sample of 495 participants, which introduces certain limitations in generalizing the research results. To address this issue, the authors used Bootstrapping techniques to resample with replacement based on the collected data, aiming to create a larger research sample.

Evaluating multicollinearity is a necessary step to test the relationships between variables in the research model. Absence of multicollinearity is indicated when the Variance Inflation Factor (VIF) is less than 5. In this study, VIF values range from 1.000 to 1.543, suggesting no multicollinearity issues in the model.

The R-squared (R2) values range from 0% to 100%, with higher R2 indicating a more accurate predictive model. According to Table V, the adjusted R2 for HV is 43.2%, meaning 43.2% of the variance in HV is explained by the factors CX, DSD, GC, GG, MT, DT, HI, RR, and YD. This indicates that these factors are good predictors of HV. Cohen (1988) evaluates f2 values as 0.02, 0.15, and 0.35, corresponding to small, medium, and large effect sizes. The f2 values in Table V show that the independent variables have small to large effects on the dependent variable in the research model, except for RR, which has no significant effect.

Q2 values greater than 0.02 indicate the model's predictive capability, as mentioned previously. To test statistical significance at the 5% threshold, the authors used t-values greater than 1.96. The Bootstrapping results indicate that the factors CX, DSD, GC, GG, MT, DT, HI, RR, and YD have significant and statistically meaningful effects on HV at approximately the 5% level ( $p < 0.05$ ). Additionally, CX, DSD, and GC are statistically significant for HI at the 5% level ( $p < 0.05$ ). Based on these results, the authors accept hypotheses H1 to H15.

Table 5. Structural model testing

	Original sample (O)	VIF	T statistics	P values	f2	Result
CX -> HI	0.186	1.127	3.713	0.000	0.036	Accept
CX -> YD	0.191	1.419	5.594	0.000	0.059	Accept
DSD -> HI	0.178	1.126	3.619	0.000	0.033	Accept
DSD -> YD	0.237	1.249	4.590	0.000	0.104	Accept
DT -> YD	0.131	1.314	4.052	0.000	0.030	Accept
GC -> HI	0.168	1.126	3.171	0.002	0.029	Accept
GC -> YD	0.112	1.365	3.330	0.001	0.021	Accept
GG -> YD	0.134	1.543	3.599	0.000	0.027	Accept
HI -> YD	0.133	1.220	4.101	0.000	0.033	Accept
MT -> YD	0.182	1.335	5.405	0.000	0.057	Accept
RR -> YD	-0.075	1.352	2.100	0.036	0.010	Accept
YD -> HV	0.658	1.000	16.616	0.000	0.764	Accept
R2 adjYD = 0.559; R2adjHV = 0.432; R2 adjHV = 0.145; Q2HI = 0.128; Q2HV = 0.369; Q2YD=0.532						

Note: Analysis based on Table 6.

When considering YD as a mediating variable, the factors GG, HI, MT, CX, DSD, DT, and GC all have a positive impact on HV, with Beta coefficients of 0.088, 0.087, 0.120, 0.070, 0.156, 0.086, and 0.074 respectively. Additionally, the factor Risk also impacts purchasing behaviour, but with a negative effect (Beta = -0.049). Furthermore, all P-values are less than 0.05. These findings indicate that the students' purchase intentions mediate the influence of discount vouchers, perceived usefulness, buy-one-get-one promotions, emotional value, ease of use, free sample offers, and pricing on their purchasing behaviour on e-commerce platforms.

Table 6. Intermediate hypotheses

	Original sample (O)	T statistics	P values	Result
GG -> YD -> HV	0.088	3.275	0.001	Accept
HI -> YD -> HV	0.087	3.785	0.000	Accept
CX -> HI -> YD	0.025	2.543	0.011	Accept
MT -> YD -> HV	0.120	4.683	0.000	Accept
DSD -> HI -> YD	0.024	2.790	0.005	Accept
RR -> YD -> HV	-0.049	2.023	0.043	Accept
GC -> HI -> YD	0.022	2.350	0.019	Accept
CX -> YD -> HV	0.126	4.919	0.000	Accept
DSD -> YD -> HV	0.156	5.281	0.000	Accept
DT -> YD -> HV	0.086	3.724	0.000	Accept
GC -> YD -> HV	0.074	3.260	0.001	Accept

## 4. Discussion

### 4.1. Discussion of Research Results

This study aims to identify the influence of promotional programs and other factors such as perceived usefulness, perceived risk, perceived ease of use, and price on the shopping behaviour of students on e-commerce platforms. The research model is presented within a framework to assess the impact of each factor on customer shopping intentions and behaviours. The research results identified eight factors that positively influence student shopping behaviour, ranked in increasing order of influence: "Price," "Free Sample Gifts," "Usefulness," "Discount Vouchers," "Buy One Get One Free," "Emotional Value," "Perceived Ease of Use," and "Intention." Additionally, "Perceived Risk" was identified as a negative factor affecting student shopping behaviour.

The authors assessed the impact level of these factors using the PLS-SEM method. The results show that among the factors, "Intention" is the most important in determining when customers make a purchase decision ( $\beta = 0.658$ ); the higher the purchase intention, the quicker, easier, and more convenient the shopping behaviour becomes.

Next is the factor "Perceived Ease of Use," which has a significant impact immediately after "Intention" ( $\beta = 0.237$ ). This confirms that ease of use is a crucial positive factor in influencing students' purchase intentions and shopping experiences on e-commerce platforms. If customers perceive that purchasing requires little effort, the likelihood of buying will increase (Shakir & Adzhar, 2024). The results align with previous studies (Cho & Sagynov, 2015; Moon & Lee, 2022; Cioc et al., 2023).

The factor "Emotional Value," ranked third ( $\beta = 0.191$ ), emphasizes the importance of emotions in consumers' decision-making processes, consistent with research on the role of emotions and online reviews in consumer purchase intentions (Ruiz-Mafe et al., 2018).

The next factors, "Buy One Get One Free" ( $\beta = 0.182$ ) and "Discount Vouchers" ( $\beta = 0.134$ ), demonstrate that the use of promotional programs increases the likelihood of purchases on e-commerce platforms, in line with the research of Ratu & Tulung (2022).

"Usefulness" ( $\beta = 0.133$ ) also contributes to promoting students' shopping behaviour, facilitating a smoother and more positive experience. These results are similar to previous studies by Ventre & Kolbe (2020), Acharya et al., (2022) and Alsyouf et al., (2023).

Promotional programs like "Free Sample Gifts" ( $\beta = 0.131$ ) help build customer trust in new products, and "Price" ( $\beta = 0.112$ ) attracts and encourages consumers' purchasing decisions.

The factor "Perceived Risk" ( $\beta = -0.075$ ) negatively impacts students' purchase intentions and consumers in general, as they worry about issues like information leakage, products not matching descriptions, and shipping risks during major promotional campaigns (Lou et al., 2022; Tran & Nguyen, 2022). Previous research on recycled product purchase intentions by Hein (2022) also showed that perceived risk has a significantly negative impact on purchase intention. The results of this study align with previous research (Jorden et al., 2018); however, the current findings contradict earlier discoveries where perceived risk was found to have an insignificant impact on online purchase intention (Abou et al., 2020; Ventre & Kolbe, 2020; Jadil et al., 2022). Furthermore, they oppose the results of Li & Setiowati (2023) in their study on electric vehicle purchase intentions, where perceived risk was shown to have a positive impact on purchase intention.

To improve consumers' shopping experience, businesses and platforms can enhance customer security and safety, creating a secure and comfortable shopping environment. This helps build trust and loyalty for future purchases. Therefore, the study confirms the generalizability and assesses the impact level of various factors on the shopping intentions and behaviours of students in key areas of Southern Vietnam.

### 4.2. Managerial Implications

#### For businesses operating e-commerce sites

After identifying and arranging the order based on the level of impact of the independent variables on the dependent variable. The authors will propose a management direction from low to high, specifically as follows: "Price", "Free samples", "Usefulness", "Discount voucher", "Buy 1 get 1 free", "Emotional value", "Ease of use", "Intention" and "Risk".

First, the factor "Price" has the least impact, however, maintaining reasonable, transparent and competitive prices is extremely important. Businesses need to provide clear price lists, along with flexible payment options, and especially, eliminating hidden costs will help increase students' confidence when shopping. In addition, setting attractive prices, combined with regular discount programs and special promotional events will help attract and maintain students' attention.

Second, the factor "Giving away free samples" is assessed to have a positive impact on students' shopping behaviour on e-commerce sites. The group encourages businesses to give away free samples to enhance the customer experience. Businesses should implement free sample programs to build trust and encourage customers to try products before buying.

Third, the factor "Usefulness" is assessed to have a positive impact on students' shopping behaviour on e-commerce sites. Businesses need to increase the usefulness factor (HI) of promotional programs. Businesses need to ensure that their products and services meet the actual desires of students. Providing detailed product information, clear instructions for use, and a commitment to quality will help students clearly see the value they receive from the promotion.

Fourth, the "Discount Voucher" factor is considered to have a positive impact on students' shopping behaviour on e-commerce sites. Providing discount vouchers is an effective strategy to promote shopping behaviour. Businesses should utilize communication channels such as email, social networks, and mobile applications to distribute vouchers, ensuring that students can easily access and use them. The "refer friends to receive vouchers" campaign can also increase the spread and expand the customer base. At the same time, businesses can also combine discount vouchers with other promotions to create attractive incentive packages.

Fifth, the "Buy 1 Get 1 Free" factor is considered to have a strong and positive impact on students' shopping behaviour on e-commerce sites. The "buy 1 get 1 free" program not only increases sales but also encourages students to try new products. Businesses should apply this strategy to key products or newly launched products, to quickly attract attention and increase purchase rates.

Sixth, the "Emotional Value" factor is assessed to have a positive impact on students' shopping behaviour on e-commerce sites. Businesses need to build marketing campaigns that emphasize emotional value, creating connections and positive emotions for students. This can be achieved through building promotional campaigns with unique shopping activities, and at the same time, it is necessary to tell attractive brand stories, design products and services that create a friendly and close feeling, and provide an enjoyable shopping experience to stimulate students' positive emotions.

Seventh, the "Ease of Use" factor is the factor with the highest impact, second only to "Intention". Therefore, optimizing the user experience when using promotions on e-commerce platforms is extremely necessary. Businesses need to ensure that information about promotions is presented clearly and easily understood. The process of using promotional codes or discount vouchers should be designed to be simple and intuitive. Providing detailed and easy-to-follow instructions on e-commerce websites and applications will help customers easily apply incentives without encountering difficulties.

Eighth, the factor "Intention" is considered to be the factor with the greatest impact on shopping behaviour on e-commerce platforms of students in the key area of Southern Vietnam. To promote purchase intention, businesses need to create attractive and truly valuable promotions. Marketing strategies such as online advertising, email marketing, and collaboration with celebrities can help increase awareness and stimulate purchase intention of students. Finally, the "Risk factor" is considered to have a negative impact on students' shopping behaviour on e-commerce sites. Businesses need to minimize risks for consumers when participating in promotional programs. Minimizing risks will help students feel more secure when shopping. Provide clear information about product delivery, return and warranty policies so that students feel secure when making purchases. In addition, it is necessary to ensure transparency in terms and conditions of promotional programs and personal information to avoid misunderstandings and increase trust

#### For E-commerce platforms

To attract students to shop on e-commerce sites, specific promotions and strategies can be applied to create appeal and suit the needs of this customer group. Below are some detailed solutions:

- Discounts exclusively for students: E-commerce platforms can have programs that provide special discount codes for students with a discount of 10-30% on the total order value. At the same time, e-commerce platforms can also cooperate with universities to provide preferential cards for students to use on the platform.
- Cashback Program: When students make a purchase on an e-commerce platform, a portion of the money will be refunded to their account, which can be used for future purchases. In addition, platforms can integrate additional functions such as accumulating reward points from each order, then redeeming points for gifts or coupons.

- Refer-a-friend program: Rewarding when referring more friends to shop on e-commerce sites. Students will receive discount codes or gifts when referring friends to register and shop on the e-commerce platform. Create competitions to encourage students to refer friends, with attractive prizes for those who refer the most.
- Programs for seniors and freshmen: Offer special offers to seniors to help them prepare for graduation and find a job. Create welcome gift packages for new students with necessary items for the new school year.

#### 4.3. Limitations of the Study

After completing the research project and obtaining the results as described, the team recognizes that although the research has made significant contributions, there are still some limitations as follows:

First, the use of the convenience sampling method has led to many survey samples not being suitable for the research scope due to online implementation. This has caused some results to not accurately reflect reality, as they depend on the temporary feelings of the survey participants. Second, the choice of subjects and research scope was limited to students in the Southern region, so the survey results are only representative of this area. Third, the survey was conducted over a relatively short period, so the team did not have enough time to analyze and clarify the topic in depth. Fourth, there are limitations related to the research method, as human behaviour and intentions are complex and sometimes beyond the control and awareness of an individual. Therefore, conducting the survey with a questionnaire can only predict students' shopping behaviour to a specific extent.

#### 4.4. Suggestions for Future Research

During the research process, the team identified several limitations and will continue to address them in future studies. The team plans to address these current limitations by expanding the sample size to increase reliability and reduce errors. The scope of the research will also be broadened to include other regions in Vietnam, which will make the results more representative on a national level and allow for comparisons of shopping behaviour across different regions. Additionally, the team will apply experimental methods to improve accuracy and further investigate other effects of promotional programs on students' shopping behaviour on e-commerce sites. These directions will help provide a comprehensive view and offer more effective managerial recommendations.

### Conclusions

This study has clarified the impact of promotional programs and other factors on the purchasing behaviour of students on e-commerce sites in the key areas of Southern Vietnam. By analysing data collected from surveys and interviews, the study has drawn the following important conclusions:

Promotional programs such as "buy 1 get 1 free," "giving free samples," and "discount vouchers," along with factors such as price, emotional value, usefulness, and risk, have a significant impact on the online shopping behaviour of students in the key areas of Southern Vietnam.

These findings provide a comprehensive and in-depth view of students' online consumer behaviour and offer important managerial implications. Online businesses can use this information to optimize their promotional and marketing strategies, thereby improving business effectiveness and attracting the student customer segment more effectively. Understanding the factors influencing students' purchasing decisions will help businesses design appropriate promotional programs, improve service quality, and enhance customer satisfaction.

#### Credit Authorship Contribution Statement

This research paper, titled "The Impact of Promotional Programs and Other Factors on the Online Purchasing Behaviour of Students in Key Areas of Southern Vietnam," involves the following contributions from the authors: Giang Nguyen Thi Phuong: Designed the study, developed the theoretical framework, and led the drafting and revision of the manuscript. She was also responsible for data collection and analysis. Thao Nguyen Thi Thu: Assisted in the development of the research methodology, conducted data analysis, and contributed to the interpretation of results. She also provided feedback on manuscript revisions. Anh Nguyen Thi Thuy: Contributed to the literature review, participated in data collection, and provided significant input during the manuscript drafting process. Dieu Truong Thi Ngoc: Supported the research design, helped with data interpretation, and contributed to revising the manuscript for clarity and coherence. Ha Huynh Bui Ngoc: Assisted with the implementation of promotional programs' impact analysis, contributed to the discussion section, and provided feedback on the manuscript. Tan Thai Dong: Developed the research framework and methodology, provided critical feedback throughout the study, and contributed to the final revisions of the manuscript. All authors have read and approved the final manuscript and are accountable for the integrity of the research.

### Conflict of Interest Statement

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

### References

- [1] Abdi, A. S. (2015). Sales Promotion Tools on Consumer Buying Behaviour: A Case of Shopping Centre In Mogadishu, Somalia (Doctoral dissertation, Doctoral Dissertation, Lincoln University College).
- [2] Abou Ali, A., Abbass, A., & Farid, N. (2020). Factors influencing customers' purchase intention in social commerce. *International Review of Management and Marketing*, 10(5), 63. <https://doi.org/10.32479/irmm.10097>
- [3] Acharya, N., Sassenberg, A. M., & Soar, J. (2022). Consumers' behavioural intentions to reuse recommender systems: Assessing the effects of trust propensity, trusting beliefs and perceived usefulness. *Journal of Theoretical and Applied Electronic Commerce Research*, 18(1), 55-78. <https://doi.org/10.3390/jtaer18010004>
- [4] Ahmad, S. A., Mehmood, W., Ahmed, S. A., Mustafa, M., Khan, M. F. T., & Yasmeen, M. (2015). Impact of Sales Promotion on consumer buying behaviour in Pakistan. *International Interdisciplinary Journal of Scholarly Research*, 1(3), 13-22.
- [5] Ajzen, I. (1985). From intentions to actions: A theory of planned behaviour. In *Action Control: From Cognition to Behaviour* (pp. 11-39). Berlin, Heidelberg: Springer Berlin Heidelberg.
- [6] Ajzen, I. (1991). The Theory of Planned Behaviour. *Organizational Behaviour and Human Decision Processes*. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- [7] Ajzen, I., & Fishbein, M., (1975). Attitude - behaviour relations: A theoretical analysis and review of empirical research. *Psychological Bulletin*, 84, 888-918. <https://doi.org/10.1037/0033-2909.84.5.888>
- [8] Ajzen, I., & Fishbein, M. (1975). *Belief, Attitude, Intention, and Behaviour: An Introduction to Theory and Research*. Boston, USA: Addison - Wesley Press.
- [9] Ajzen, I., & Fishbein, M. (1977). Attitude-behaviour relations: A theoretical analysis and review of empirical research. *Psychological Bulletin*, 84(5), 888. <https://psycnet.apa.org/doi/10.1037/0033-2909.84.5.888>
- [10] Akbar, R., Mahrinasari, MS., Pandjaitan, D. R. H. (2020). The mediating role of brand image in the effect of sales promotion, product quality, and celebrity endorser on purchase intention. *Journal of University of Shanghai for Science and Technology*, 22(10), 272-282. <http://repository.lppm.unila.ac.id/id/eprint/25750>
- [11] Akdim, K., Casalo, L. V., & Flavián, C. (2022). The role of utilitarian and hedonic aspects in the continuance intention to use social mobile apps. *Journal of Retailing and Consumer Services*, 66, 102888. <https://doi.org/10.1016/j.jretconser.2021.102888>
- [12] Aljukhadar, M., Senecal, S., & Ouellette, D. (2010). Can the media richness of a privacy disclosure enhance outcome? A multifaceted view of trust in rich media environments. *International Journal of Electronic Commerce*, 14(4), 130-126. <https://doi.org/10.2753/JEC1086-4415140404>
- [13] Alsyouf, A., Lutfi, A., Alsubahi, N., Alhazmi, F. N., Al-Mugheed, K., Anshasi, R. J., ... & Albugami, M. (2023). The use of a technology acceptance model (TAM) to predict patients' usage of a personal health record system: The role of security, privacy, and usability. *International Journal of Environmental Research and Public Health*, 20(2), 1347. <https://doi.org/10.3390/ijerph20021347>
- [14] Armitage, C. J., & Conner, M. (2001). Efficacy of the theory of planned behaviour: A meta-analytic review. *Br. J. Soc. Psychol*, 40 (4), 471-499. <https://doi.org/10.1348/014466601164939>
- [15] Arsta, I. A. D. P., & Respati, N. N. R. (2021). The effect of sales promotion on purchase decisions mediated by brand image. *American Journal of Humanities and Social Sciences Research (AJHSSR)*, 5(12), 205-215. <https://www.ajhssr.com/wp-content/uploads/2021/12/Y21512205215.pdf>
- [16] Bei, L. T., & Chiao, Y. C. (2001). An integrated model for the effects of perceived product, perceived service quality, and perceived price fairness on consumer satisfaction and loyalty. *Journal of Consumer Satisfaction, Dissatisfaction and Complaining Behaviour*, 14.
- [17] Beuckels, E., & Hudders, L. (2016). An experimental study to investigate the impact of image interactivity on the perception of luxury in an online shopping context. *Journal of Retailing and Consumer Services*, 33, 135-142. <https://doi.org/10.1016/j.jretconser.2016.08.014>

- [18] Bilro, R. G., Loureiro, S. M. C., & Souto, P. (2023). A systematic review of customer behaviour in business-to-business markets and agenda for future research. *Journal of Business & Industrial Marketing*, 38(13), 122-142. <https://doi.org/10.1108/JBIM-07-2022-0313>
- [19] Chandon, P., Wansink, B. & Laurent, G. (2000) A Benefit Congruency Framework of Sales Promotion Effectiveness. *Journal of Marketing*, 64, 65-81. <https://doi.org/10.1509/jmkg.64.4.65.18071>
- [20] Chandra, T., Martha, Ng, Chandra, T., & Priyono, P. (2018). The effect of service quality on student satisfaction and student loyalty: An empirical study. *Journal of Social Studies Education Research*, 9(3), 109-131. <https://10.17499/jsser.12590>
- [21] Cho, Y. C., & Sagynov, E. (2015). Exploring factors that affect usefulness, ease of use, trust, and purchase intention in the online environment. *International Journal of Management & Information Systems*, 19(1), 21-36. <https://doi.org/10.19030/ijmis.v19i1.9086>
- [22] Cioc, M. M., Popa, S. C., Olariu, A. A., Popa, C. F., & Nica, C. B. (2023). Behavioural Intentions to Use Energy Efficiency Smart Solutions under the Impact of Social Influence: An Extended TAM Approach. *Applied Sciences*, 13(18), 10241. <https://doi.org/10.3390/app131810241>
- [23] Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 319-340. <https://doi.org/10.2307/249008>
- [24] Dharmmesta, B. S., & Irawan (2005). *Manajemen Pemasaran Modern*. Yogyakarta: Liberty.
- [25] Ding, Y., & Zhang, Y. (2020). Hiding gifts behind the veil of vouchers: On the effect of gift vouchers versus direct gifts in conditional promotions. *Journal of Marketing Research*, 57(4), 739-754. <https://doi.org/10.1177/0022243720916753>
- [26] Dörnyei, K. R., & Lunardo, R. (2021). When limited edition packages backfire: The role of emotional value, typicality and need for uniqueness. *Journal of Business Research*, 137, 233-243. <https://doi.org/10.1016/j.jbusres.2021.08.037>
- [27] Dwivedi, Y. K., Ismagilova, E., Hughes, D. L., Carlson, J., Filieri, R., Jacobson, J., Jain, V., Karjaluoto, H., Kefi, H., Krishen, A. S., Kumar, V., Rahman, M., Raman, R., Schnabel, P. A. R., Rowley, J., Salo, J., Tran, G. A., & Wang, Y. (2018). Setting the future of digital and social media marketing research: Perspectives and research propositions. *International Journal of Information Management*, Volume, 59. <https://doi.org/10.1016/j.ijinfomgt.2020.102168>
- [28] George, J. F. (2004). The theory of planned behaviour and Internet purchasing. *Internet Research*, 14(3), 198-212. <https://doi.org/10.1108/10662240410542634>
- [29] Gupta, K., Wajid, A., & Gaur, D. (2024). Determinants of continuous intention to use FinTech services: The moderating role of COVID-19. *Journal of Financial Services Marketing*, 29(2), 536-552. <https://doi.org/10.1057/s41264-023-00221-z>
- [30] Hansen, T., Jensen, J. M., & Solgaard, H. S. (2004). Predicting online grocery buying intention: a comparison of the theory of reasoned action and the theory of planned behaviour. *International Journal of Information Management*, 24(6), 539-550. <https://doi.org/10.1016/j.ijinfomgt.2004.08.004>
- [31] Hein, N. (2022). Factors influencing the purchase intention for recycled products: Integrating perceived risk into value-belief-norm theory. *Sustainability*, 14(7), 3877. <https://doi.org/10.3390/su14073877>
- [32] Jadil, Y., Rana, N. P., & Dwivedi, Y. K. (2022). Understanding the drivers of online trust and intention to buy on a website: An emerging market perspective. *International Journal of Information Management Data Insights*, 2(1), 100065. <https://doi.org/10.1016/j.heliyon.2022.e10599>
- [33] Jordan, G., Leskovar, R., & Marič, M. (2018). Impact of fear of identity theft and perceived risk on online purchase intention. *Organisation*, 51(2), 146-155. <http://dx.doi.org/10.1016/j.jretconser.2012.03.006>
- [34] Kim, J., Jhang, J., Kim, S., & Styliadis, D. (2023). The impact of Price preciseness, Price reduction, and lay rationalism on travellers' perceptions of deal attractiveness, purchase intention, and choice. *Journal of Travel Research*, 62(7), 1550-1568. <https://doi.org/10.1177/00472875221129255>
- [35] Kotler, P. (1999). *Marketing Management: Analysis, Planning, Implementation and Control* (9th Edition). Prentice Hall College Inc.
- [36] Kotler, P., & Armstrong, G. (2018). *Principles of Marketing* (17th Edition). The University of Minnesota Libraries Publishing.
- [37] Kusnanto, E., Permana, N., & Benardi, B. (2023). Strategic Financial Fluency: Catalyst for Growth in Micro, Small, and Medium Enterprises. *Proceeding of The International Conference on Business and Economics*, 1(2), <https://doi.org/10.56444/icbeuntagsmg.v1i2.1461>



- [38] Lammers, H. B. (1991). The effect of free samples on immediate consumer purchase. *Journal of Consumer Marketing*, 8(2), 31-37. <https://doi.org/10.1108/07363769110034992>
- [39] Leone, R. P., & Srinivasan, S. S. (1996). Coupon face value: Its impact on coupon redemptions, brand sales, and brand profitability. *Journal of Retailing*, 72(3), 273-289. [https://doi.org/10.1016/S0022-4359\(96\)90030-5](https://doi.org/10.1016/S0022-4359(96)90030-5)
- [40] Li, X., & Setiowati, R. (2023). The Influence of Country of Origin, Brand Awareness, Perceived Risk and Brand Image on Purchase Intention on China Wuling Air Electric Vehicles. *Open Journal of Applied Sciences*, 13(5), 618-635. <https://doi.org/10.4236/ojapps.2023.135049>
- [41] Liesa-Orús, M., Latorre-Coscolluela, C., Sierra-Sánchez, V., & Vázquez-Toledo, S. (2023). Links between ease of use, perceived usefulness and attitudes towards technology in older people in university: A structural equation modelling approach. *Education and Information Technologies*, 28(3), 2419-2436. <https://doi.org/10.1007/s10639-022-11292-1>
- [42] Lim, Y. J., Osman, A., Salahuddin, S. N., Romle, A. R., & Abdullah, S. (2016). Factors influencing online shopping behaviour: The mediating role of purchase intention. *Procedia Economics and Finance*, 35, 401-410. [https://doi.org/10.1016/S2212-5671\(16\)00050-2](https://doi.org/10.1016/S2212-5671(16)00050-2)
- [43] Lou, X., Chi, T., Janke, J., & Desch, G. (2022). How do perceived value and risk affect purchase intention toward second-hand luxury goods? An empirical study of US consumers. *Sustainability*, 14(18), 11730. <https://doi.org/10.3390/su141811730>
- [44] Ministry of Industry and Trade, Vietnam E-commerce Report 2023.
- [45] Mishra, M., Kushwaha, R., & Gupta, N. (2024). Impact of sales promotion on consumer buying behaviour in the apparel industry. *Cogent Business & Management*, 11(1), 2310552. <http://dx.doi.org/10.1080/23311975.2024.2310552>
- [46] Moon, J., Shim, J., & Lee, W. S. (2022). Antecedents and consequences of the ease of use and usefulness of fast food kiosks using the technology acceptance model. *Systems*, 10(5), 129. <https://doi.org/10.3390/systems10050129>
- [47] Nakarmi, A. (2018). Effect of Sales Promotion on Consumer Behaviour. <https://core.ac.uk/download/pdf/161423517.pdf>
- [48] Nevo, A., & Wolfram, C. (2002). Why Do Manufacturers Issue Coupons? An Empirical Analysis of Breakfast Cereals. *RAND Journal of Economics*, 33(2), 319-339. <https://bpb-us-w2.wpmucdn.com/web.sas.upenn.edu/dist/3/499/files/2018/09/coupons-2c9dej.pdf>
- [49] Nguyen, T. N., Lobo, A., & Greenland, S. (2016). Pro-environmental purchase behaviour: The role of consumers' biospheric values. *Journal of Retailing and Consumer Services*, 33, 98-108. <https://doi.org/10.1016/j.jretconser.2016.08.010>
- [50] Nuraeni, P., & Harsoyo, T. D. (2024). The influence of environmental awareness, consumption values, and price. Perception on the purchase intention of Avoskin Green Skincare. *East Asian Journal of Multidisciplinary Research*, 3(7). <https://doi.org/10.55927/eajmr.v3i7.9922>
- [51] Ofosu-Boateng, I., & Agyei, S. D. (2020). Effect of customer satisfaction and marketing communication mix on customer' loyalty in the Ghanaian banking industry. *European Journal of Management and Marketing Studies*, 5(4). <https://doi.org/10.46827/ejmms.v5i4.891>
- [52] Oly, N., & Tung Moi, C. (2005). Customers behavioural responses to sales promotion: the role of fear of losing face. *Asia Pacific Journal of Marketing and Logistics*, 17(1), 32-49. <https://doi.org/10.1108/13555850510672278>
- [53] Park, D. Y., & Kim, H. (2023). Determinants of intentions to use digital mental healthcare content among university students, faculty, and staff: motivation, perceived usefulness, perceived ease of use, and parasocial interaction with AI Chatbot. *Sustainability*, 15(1), 872. <https://doi.org/10.3390/su15010872>
- [54] Pavlou, P. A. (2003). Integrating trust and risk with the consumer acceptance of electronic commerce: Technology acceptance model. *Int. J. Electron. Commer*, 7(3), 69-103.
- [55] Peng, M. Y. P., Yan, X. (2022). Exploring the influence of determinants on behaviour intention to use of multiple media kiosks through technology readiness and acceptance model. *Frontiers of Psychology*, Vol.13. <https://doi.org/10.3389/fpsyg.2022.852394>
- [56] Prayoga, B. E. S., Soetjipto, B. E., & Sumarsono, H. (2023). The relationship of entrepreneurial mindset and entrepreneurial passion to entrepreneurial intention through entrepreneurial attitude as an intervening variable. *International Education Trend Issues*, 1(3), 516-530. <https://doi.org/10.56442/ietl.v1i3.337>
- [57] Raed, H., Altaher, A., Barnat, S., Ahmad, H., Halim, M., Hammouri, Q., & Darawsheh, S. (2023). The effect of groups' reference, usefulness perception, and products quality on intention to buy and online shopping decision. *International Journal of Data and Network Science*, 7(3), 1361-1368. <https://doi.org/10.5267/j.ijdns.2023.4.002>

- [58] Raghubir, R. (1998). Coupon Value: A Signal for Price? *Journal of Marketing Research*, 35(3). <https://doi.org/10.1177/002224379803500303>
- [59] Ratu, E. P., & Tulung, J. E. (2022). The impact of digital marketing, sales promotion, and electronic word of mouth on customer purchase intention at TikTok Shop. *Jurnal EMBA: Jurnal Riset Ekonomi, Manajemen, Bisnis dan Akuntansi*, 10(4), 149-158. <https://doi.org/10.35794/emba.v10i4.43705>
- [60] Ren, L., Yang, F., Gu, C., Sun, J., & Liu, Y. (2022). A study of factors influencing Chinese college students' intention of using metaverse technology for basketball learning: Extending the technology acceptance model. *Frontiers in Psychology*, 13, 1049972. <https://doi.org/10.3389/fpsyg.2022.1049972>
- [61] Ridwan, M. (2022). Purchasing Decision Analysis in Modern Retail. *AKADEMIK: Jurnal Mahasiswa Ekonomi & Bisnis*, 2(1), 1-9. <https://doi.org/10.37481/jmeh.v2i1.243>
- [62] Ruiz-Mafe, C., Chatzipanagiotou, K., & Curras-Perez, R. (2018). The role of emotions and conflicting online reviews on consumers' purchase intentions. *Journal of Business Research*, 89, 336-344.
- [63] Saleem, M., Kamarudin, S., Shoaib, H. M., & Nasar, A. (2022). Retail consumers' behavioural intention to use augmented reality mobile apps in Pakistan. *Journal of Internet Commerce*, 21(4), 497-525. <https://doi.org/10.1080/15332861.2021.1975427>
- [64] Shah, S. S. H., Aziz, J., Jaffari, A. R., Waris, S., Ejaz, W., Fatima, M., & Sherazi, S. K. (2021). The Impact of Brands on Consumer Purchase Intentions. *Asian Journal of Business Management*, 4(2), 105-110.
- [65] Shakir, A. A. A. A., & Adzhar, N. (2024). Incorporating Multiple Linear Regression in Analysing Factors Influencing Consumers Purchase Intention for Online Shopping in Malaysia. *Journal of Advanced Research in Applied Sciences and Engineering Technology*, 47(1), 257-267. <https://doi.org/10.37934/araset.47.1.257267>
- [66] Shanmugavel, N., & Micheal, M. (2022). Exploring the marketing related stimuli and personal innovativeness on the purchase intention of electric vehicles through Technology Acceptance Model. *Cleaner Logistics and Supply Chain*, 3, 100029. <https://doi.org/10.1016/j.clscn.2022.100029>
- [67] Sheth, J. N., Newman, B. I., & Gross, B. L. (1991). Why we buy what we buy: A theory of consumption values. *Journal of Business Research*, 22(2), 159-170. [https://doi.org/10.1016/0148-2963\(91\)90050-8](https://doi.org/10.1016/0148-2963(91)90050-8)
- [68] Silva, G. M., Dias, Á., & Rodrigues, M. S. (2022). Continuity of use of food delivery apps: An integrated approach to the health belief model and the technology readiness and acceptance model. *Journal of Open Innovation: Technology, Market, and Complexity*, 8(3), 114. <https://doi.org/10.3390/joitmc8030114>
- [69] Sundström, M., Hjelm-Lidholm, S., & Radon, A. (2019). Clicking the boredom away - Exploring impulse fashion buying behaviour online. *Journal of Retailing and Consumer Services*, 47, 150-156. <https://doi.org/10.1016/j.jretconser.2018.11.006>
- [70] Suparna, K. T. (2015). Evaluasi Penerapan Patient Safety Risiko Jatuh Unit Gawat Darurat Di Rumah Sakit Panti Rini Kalasan Sleman [Thesis]. Stikes 'Aisyiyah Yogyakarta.
- [71] Suratno, A., & Aydawati, E. N. (2017). Exploring Students Perception and ICT Use in Indonesian Schools. *Celt A Journal of Culture English Language Teaching & Literature*, 16(2), 177. <https://doi.org/10.24167/celt.v16i2.735>
- [72] Suryani, I., & Syafarudin, A. (2021). The Effect of Sales Promotion on Purchasing Decisions. *Ilomata International Journal of Tax and Accounting*, 2(2), 122-133. <https://doi.org/10.52728/ijtc.v2i2.216>
- [73] Sweeney, J. C., & Soutar, G. N. (2001). Consumer perceived value: The development of a multiple item scale. *Journal of Retailing*, 77(2), 203-220. [https://doi.org/10.1016/S0022-4359\(01\)00041-0](https://doi.org/10.1016/S0022-4359(01)00041-0)
- [74] Tam, T. N., Thi Thu Truong, H., & Le-Anh, T. (2023). Online purchase intention under the integration of theory of planned behaviour and technology acceptance model. *Sage Open*, 13(4), 21582440231218814. <https://doi.org/10.1177/21582440231218814>
- [75] Taylor, K. E. (2001). Summarizing multiple aspects of model performance in a single diagram. *Journal of Geophysical Research: Atmospheres*, 106(D7), 7183-7192. <https://doi.org/10.1029/2000JD900719>
- [76] Thomson, A. M., Perry, J. L. (2006). *Collaboration Processes: Inside the Black Box*. <https://doi.org/10.1111/j.1540-6210.2006.00663.x>
- [77] Tjiptono, F., & Chandra, G. (2005). *Service, Quality and Satisfaction*. Yogyakarta.
- [78] Tran, V. D., & Nguyen, T. D. (2022). The impact of security, individuality, reputation, and consumer attitudes on purchase intention of online shopping: The evidence in Vietnam. *Cogent Psychology*, 9(1), 2035530. <https://doi.org/10.1080/23311908.2022.2035530>

- [79] Tsai, S. C., Chen, C. H., & Shih, K. C. (2022). Exploring transaction security on consumers' willingness to use mobile payment by using the technology acceptance model. *Applied System Innovation*, 5(6), 113. <https://doi.org/10.3390/asi5060113>
- [80] Tyrväinen, O., & Karjaluoto, H. (2022). Online grocery shopping before and during the COVID-19 pandemic: A meta-analytical review. *Telematics and Informatics*, 71, 101839. <https://doi.org/10.1016/j.tele.2022.101839>
- [81] Uluturk, A. S., & Asan, U. (2024). Examining the moderating role of reasons in masstige luxury buying behaviour. *Behavioural Sciences*, 14(1), 67. <https://doi.org/10.3390/bs14010067>
- [82] Ventre, I., & Kolbe, D. (2020). The impact of perceived usefulness of online reviews, trust and perceived risk on online purchase intention in emerging markets: A Mexican perspective. *Journal of International Consumer Marketing*, 32(4), 287-299. <https://doi.org/10.1080/08961530.2020.1712293>
- [83] Waskito, J., & Witono, B. (2014). Environmental Conservation Efforts. *Journal of Economics and Business*, 17(3), 1-16.
- [84] Wei, C. L., & Ho, C. T. (2019). Exploring signalling roles of service providers' reputation and competence in influencing perceptions of service quality and outsourcing intentions. *Journal of Organizational and End User Computing*, 31(1), 86-109. <https://doi.org/10.4018/JOEUC.2019010105>
- [85] Yadav, R., & Pathak, G. S. (2017). Determinants of consumers' green purchase behaviour in a developing nation: Applying and extending the theory of planned behaviour. *Ecological Economics*, 134, 114-122. <https://doi.org/10.1016/j.ecolecon.2016.12.019>
- [86] Zhou, R., & Tong, L. (2022). A study on the influencing factors of consumers' purchase intention during livestreaming e-commerce: the mediating effect of emotion. *Frontiers in Psychology*, 13, 903023. <https://doi.org/10.3389/fpsyg.2022.903023>