

FACTORS INFLUENCING THE ONLINE SHOPPING BEHAVIOR OF STUDENTS AT TAN TRAO UNIVERSITY

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<http://doi.org...> (Chỉ số do Tạp chí cấp)

ARTICLE INFO

Received: 09/01/2026

Revised: 26/01/2026

Published: 28/02/2026

KEYWORDS

Online shopping behavior;

E-commerce;

University students;

TAM;

TPB;

Tan Trao University.

ABSTRACT

The rapid expansion of the Internet and e-commerce has fundamentally transformed consumer behavior, with online shopping becoming increasingly prevalent among university students. This study aims to identify and assess the influence of key factors on the online shopping behavior of students at Tan Trao University, Tuyen Quang Province, Vietnam. This study aims to identify and assess the influence of key factors on the online shopping behavior of students at Tan Trao University, Tuyen Quang Province, Vietnam. Drawing on an integration of foundational consumer behavior theories, the study develops a multi-factor analytical model using survey data collected from 794 students. The findings reveal that students' online shopping behavior is significantly influenced by several factors, namely: price, convenience, promotional incentives, social influence from reference groups, and emotional factors. These findings not only enrich the theoretical foundation on online consumer behavior within the Vietnamese context, but also provide practical managerial implications for businesses and online retailers in formulating marketing strategies and developing targeted solutions to promote online shopping behavior among young consumers.

1. INTRODUCTION

The rapid proliferation of the Internet and the accelerated development of e-commerce infrastructure have fundamentally transformed consumer behavior across the globe, giving rise to online shopping as a dominant mode of retail consumption. The elimination of temporal and geographical barriers inherent to digital commerce has enabled consumers to access a virtually boundless marketplace at their convenience, thereby reshaping the structural dynamics of traditional retail. Within this broader transformation, university students have emerged as a particularly significant consumer segment, characterized by their high digital literacy, sustained exposure to social media platforms, and a strong propensity to adopt emerging technologies in their daily lives.

In the Vietnamese context, the trajectory of Internet diffusion has been notably rapid. According to the Vietnam Internet Network Information Center (VNNIC, 2012), Vietnam

formally joined the global Internet network on November 19, 1997. By October 2012, just fifteen years after its inception, the number of Internet users had reached 31.1 million, accounting for 35.49% of the national population, positioning Vietnam among the top 18 countries globally by number of Internet users. This growth trajectory has continued in subsequent years, providing a fertile environment for the expansion of e-commerce platforms such as Shopee and TikTok Shop, which have become deeply embedded in the daily consumption habits of Vietnamese youth.

University students, as a distinct consumer cohort, exhibit a unique behavioral profile shaped by the intersection of constrained financial resources, heightened sensitivity to trends, and an acute need for self-expression (Duong Thi Thu Huong, 2022). Their purchasing decisions spanning academic materials, apparel, personal accessories, and food products are characterized by careful price quality evaluation, susceptibility to peer influence, and a strong preference for the convenience afforded by online platforms. The flexibility of online shopping, which permits transactions at any time without disrupting demanding academic schedules, renders it a particularly attractive modality for this demographic.

Despite the growing scholarly interest in online consumer behavior, the extant literature has predominantly focused on general adult populations or broad consumer samples, with comparatively limited attention directed toward university students as a demographically and psychologically distinct group. Theoretical frameworks commonly employed in this domain including the Technology Acceptance Model (TAM), the Theory of Planned Behavior (TPB), and complementary perspectives on consumer trust, perceived risk, and hedonic motivation have yielded valuable insights into the antecedents of online purchase intention; however, their applicability to the student population warrants further empirical investigation, particularly within developing-country contexts.

Accordingly, this study seeks to identify and empirically examine the key determinants of online shopping behavior among students at Tan Trao University, Tuyen Quang Province, Vietnam. The findings are expected to contribute to the theoretical discourse on online consumer behavior while simultaneously offering actionable managerial implications for e-commerce enterprises and online retailers in designing targeted marketing strategies aimed at this consumer segment.

II. LITERATURE REVIEW

Online shopping behavior among university students is shaped by multiple interrelated factors, encompassing technological platform characteristics, individual psychology, economic value perception, service experience, and social context. A systematic examination of these factor groups provides the theoretical foundation for constructing a research model appropriate to the characteristics of young consumers in the e-commerce environment.

The first group of factors concerns the characteristics of the shopping platform, including website interface, perceived usefulness, information security, and the reputation of the e-commerce platform. These factors have been identified as critical antecedents in the formation of initial consumer trust among young users (Ge, 2022; Islam, 2021). When users perceive a platform as transparent, secure, and reliable, positive attitudes and online purchase intentions tend to be significantly reinforced.

At the level of individual psychology, dispositional trust and familiarity with online transactions have been demonstrated to exert a positive influence on students' actual purchase

intentions (Jadhav & Khanna, 2016). Concurrently, perceived risk associated with online transactions constitutes a factor of considerable influence on consumers' decision-making processes in the digital environment (Ge, 2022; Islam, 2021). These two factors operate through opposing mechanisms, whereby trust functions as a facilitator while perceived risk tends to inhibit purchase intention.

Price and promotional policies occupy a particularly important position in the motivational structure underlying students' shopping behavior. Given their constrained financial circumstances, this demographic typically exhibits a heightened sensitivity to price and a pronounced responsiveness to discount schemes and promotional offerings on e-commerce platforms (Dung et al., 2026). Perceived product value, constructed through the balance between costs incurred and benefits received, also plays a decisive role in the purchasing choices of this group (Ghazalle & Lasi, 2021; Jun & Yan, 2024).

Shopping convenience represents a cluster of factors that students place particularly high value on, especially within the context of demanding academic and daily schedules. The ease of placing orders, product delivery, and flexible return policies have been identified as factors capable of enhancing satisfaction levels and reinforcing purchase intentions among young consumers (Divya et al., 2025).

The quality of reference information and customer support services also exerts a systematic influence on students' decision-making processes. Reviews from previous users and the quality of after-sales customer service are frequently employed by students as trusted information sources to mitigate perceived risk in online shopping (Silva & Nascimento-e-Silva, 2023; Cuong & Tran, 2024). The diversity and security of electronic payment methods have likewise been identified as factors positively associated with payment intention and transaction completion (Quân, 2021).

Finally, social influences and individual characteristics contribute to observable differentiation in students' online shopping behavior. The influence of social media and online interactions has the capacity to shape group-oriented shopping tendencies and affect product selection processes (Alam, 2018). Personal characteristics and lifestyle patterns generate meaningful variation in the ways students approach shopping activities, as evidenced by the divergence between those who prioritize hedonic, entertainment-driven experiences and those who engage in shopping for purely utilitarian purposes (Osman et al., 2010).

III. RESEARCH METHODOLOGY

This study employs a mixed-methods approach combining qualitative and quantitative techniques. The qualitative phase was conducted during the exploratory stage to identify and refine observable variables through systematic literature review and expert consultation. The quantitative phase was subsequently applied to validate the measurement scale and assess the extent to which each factor influences students' online shopping behavior. The measurement instrument comprises five independent variables and one dependent variable, encompassing a total of 27 observed items. All items were measured using a five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). The sample size was determined using Slovin's formula, resulting in a survey of 794 students at Tan Trao University through convenience sampling.

Data were processed using SPSS version 26.0 in two sequential steps: assessing the reliability of the measurement scale via Cronbach's Alpha coefficient, followed by computing the

mean score of each factor to reflect students' evaluative responses toward the variable groups included in the research model.

IV. RESEARCH RESULTS

4.1 Sample characteristics

Table 1 provides a summary of the sample characteristics:

Table 1: Sample characteristics.

Variables	Frequency	%
Year of Study		
1st year	126	16%
2st year	406	51.5%
3st year	214	27.2%
4st year	42	5.3%
Field of study		
Teacher Training	521	66.9%
Medicine and Pharmacy	39	5%
Culture and Tourism	35	4.5%
Economics and Business Administration	184	23.6%
Preferred time for online shopping		
Early morning (6:00 AM–8:00 AM)	10	1.3%
Late morning (10:00 AM–1:00 PM)	73	9.3%
Afternoon (2:00 PM–4:00 PM)	72	9.2%
Evening after 9:00 PM	629	80.2%

The survey sample comprises 794 students enrolled in various faculties at Tan Trao University. Second-year students represent the largest group with 406 respondents (51.5%), followed by third-year students with 214 respondents (27.2%), while first-year and fourth-year students account for 126 (16%) and 42 (5.3%) respondents, respectively. This distribution indicates that the sample is primarily drawn from students who have already adapted to the university environment and begun to establish independent consumption habits; consequently, they are more likely to engage in e-commerce activities than first-year students, who are still adjusting to academic and social changes. At the same time, the limited participation of fourth-year students can be explained by their academic priorities, as they typically focus on internships and thesis completion, which reduces their availability to take part in surveys.

Findings regarding online shopping time indicate a strong preference for late evening hours, with 629 students (80.2%) reporting that they most frequently shop after 9:00 PM, whereas daytime periods such as late morning (10:00 AM–1:00 PM) and afternoon (2:00 PM–4:00 PM) account for only 9.3% and 9.2%, respectively, and early morning (6:00 AM–8:00 AM) remains marginal at 1.3%. This pattern is consistent with the typical daily schedule of university students, in which daytime hours are largely reserved for academic activities, thereby limiting opportunities for online shopping, while the evening provides greater discretionary time and higher engagement with digital platforms. As a result, online purchasing behavior tends to cluster in the late evening, when students are more relaxed and active on social media and e-commerce applications; therefore, from a managerial perspective, retailers and marketers should

prioritize this time frame when designing promotional campaigns in order to improve reach and increase purchase likelihood among student consumers.

4.2. Reliability testing of the scale by Cronbach's Alpha

To evaluate the reliability and convergent validity of the measurement scales used in this study, we employed Cronbach's Alpha as a measure of internal consistency, which examines the degree to which observed variables within the same construct are correlated with one another. Based on the criteria suggested by Nunnally and Bernstein (1994), a scale is considered acceptable when the Cronbach's Alpha coefficient is greater than 0.7, and when each observed variable has an item total correlation exceeding 0.3. These criteria allow the researchers to assess the adequacy of the measurement items while also identifying and removing those that do not meet the required standards before conducting further analyses. The results of the reliability testing for the constructs, including perceived tangibility, perceived ease of use, perceived risk, trust, price, subjective norms, and online purchase intention, are summarized in Table 1.

Table 2. Reliability Statistics and Item-Total Statistics

Items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Cronbach's Alpha
<i>Perceived usefulness. N= 4</i>					
HI1	11.84	6.116	0.800	0.856	0.897
HI2	11.84	6.114	0.823	0.848	
HI3	12.06	6.509	0.682	0.900	
HI4	11.76	6.298	0.783	0.863	
<i>Perceived ease of use. N= 4</i>					
SD1	11.73	6.252	0.806	0.883	0.911
SD2	11.85	6.226	0.736	0.908	
SD3	11.74	6.107	0.838	0.871	
SD4	11.70	6.140	0.819	0.878	
<i>Perceived risk. N= 4</i>					
RR1	11.06	6.551	0.806	0.900	0.920
RR2	11.14	6.590	0.823	0.894	
RR3	10.99	6.392	0.808	0.900	
RR4	11.07	6.568	0.829	0.892	
<i>e-Trust. N=4</i>					
TT1	10.64	5.281	0.741	0.889	0.903
TT2	10.56	5.219	0.772	0.878	
TT3	10.55	5.069	0.830	0.857	

TT4	10.60	5.159	0.787	0.873	
<i>Price. N=3</i>					
GC1	7.76	2.715	0.788	0.895	0.909
GC2	7.66	2.738	0.812	0.875	
GC3	7.71	2.567	0.856	0.837	
<i>Subjective norms. N=4</i>					
CQ1	10.04	5.453	0.797	0.847	0.892
CQ2	10.01	5.719	0.749	0.865	
CQ3	9.83	5.855	0.758	0.862	
CQ4	9.95	5.611	0.743	0.868	
<i>Online Shopping Intention. N=4</i>					
YD1	11.41	5.635	0.860	0.898	
YD2	11.50	5.856	0.828	0.908	
YD3	11.51	5.856	0.817	0.912	0.928
YD4	11.43	5.777	0.826	0.909	

The analysis results indicate that all measurement scales employed in the study satisfy the requirements for reliability, as evidenced by Cronbach's Alpha coefficients ranging from 0.892 to 0.928, which substantially exceed the commonly accepted threshold in methodological research. Specifically, the constructs of perceived usefulness (0.897), perceived ease of use (0.911), perceived risk (0.920), and trust (0.903) demonstrate high levels of reliability; at the same time, the observed variables within each construct exhibit strong item-total correlations, most of which are above 0.7 and several exceeding 0.8. This pattern suggests a high degree of internal consistency, indicating that the measurement items are closely related and adequately capture the underlying constructs, with no evidence of poorly performing items that would require elimination.

Similarly, the scales measuring price (0.909), subjective norms (0.892), and online purchase intention (0.928) also achieve very high reliability, as all corresponding observed variables meet the required thresholds for item-total correlation. These results further confirm the internal consistency and measurement adequacy of the constructs.

Overall, the Cronbach's Alpha analysis demonstrates that all scales possess strong reliability, and no observed variables were removed; therefore, the measurement model is deemed suitable for subsequent analyses.

4.2. Factors influencing the shopping behavior of students at Tan Trao University

Students' satisfaction is assessed based on their perceptions of key components that constitute service quality, including perceived usefulness, perceived ease of use, perceived risk, trust, price, subjective norms, and online purchase intention. These factors are operationalized using a five-point Likert scale, where 1 indicates "very dissatisfied" and 5 indicates "very satisfied." The mean scores are subsequently categorized into specific satisfaction levels as

follows:

- 1.00 – 1.80: Very dissatisfied
- 1.81 – 2.60: Dissatisfied
- 2.61 – 3.40: Neutral
- 3.41 – 4.20: Satisfied
- 4.21 – 5.00: Very satisfied

This approach enables a systematic and quantitative assessment of students' perceptions regarding the factors influencing their online shopping behavior, thereby providing a better foundation for further in-depth analysis and the development of appropriate improvement solutions.

Table 3. Descriptive Statistic

Items	Variables	Mean	Std.Deviation
<i>Perceived usefulness</i>			
HI1	Online shopping enables me to find information quickly	3.89	0.961
HI2	Online shopping allows me to save time	3.98	0.934
HI3	Online shopping helps me avoid unnecessary inconvenience	3.77	0.961
HI4	I can engage in online shopping from any location	4.06	0.934
<i>Perceived ease of use</i>			
SD1	Online shopping facilitates easy payment when placing orders	3.95	0.897
SD2	Online shopping facilitates the comparison of product features	3.83	0.958
SD3	Online shopping enables me to find products that match my preferences	3.93	0.903
SD4	Online shopping enables me to take advantage of promotions	3.97	0.911
<i>Perceived risk</i>			
RR1	I am concerned that product quality may differ from the website description	3.69	0.936
RR2	I am concerned about potential delays in order delivery	3.61	0.914
RR3	I am concerned about the security of my personal information	3.77	0.970
RR4	I am concerned about the risk of product damage during delivery	3.68	0.921
<i>e-Trust</i>			
TT1	Online shopping platforms have a high level of security	3.47	0.854
TT2	I believe that online sellers will honor their commitments (e.g., returns, exchanges, warranties)	3.55	0.847
TT3	I believe that online sellers prioritize customers' best interests	3.57	0.840
TT4	I believe that online sellers provide accurate and reliable product information	3.51	0.850
<i>Price</i>			
GC1	I find it easy to compare prices across products when shopping online	3.81	0.875

GC2	Online shopping offers more competitive prices than traditional in-store shopping	3.90	0.855
GC3	Online shopping provides attractive promotional discounts	3.86	0.881
Subjective norms			
CQ1	My friends influence my decision to use online shopping services	3.23	0.919
CQ2	My parents influence my decision to use online shopping services	3.27	0.891
CQ3	Media and social networks (e.g.. Facebook. Zalo. TikTok. television...) influence my decision to use online shopping services	3.44	0.853
CQ1	I use online shopping because it is widely used by people around me	3.23	0.919
Online shopping Intention			
YD1	I intend to continue using online shopping services in the near future	3.88	0.887
YD2	I intend to increase my use of online shopping services in the future	3.78	0.868
YD3	I am willing to recommend online shopping services to others	3.77	0.875
YD4	I intend to use online shopping services when the opportunity arises	3.85	0.883

The survey results from 794 students at Tan Trao University reveal that, overall, students hold a relatively positive evaluation of online shopping, with particularly strong perceptions regarding usefulness, ease of use, and price related benefits. Specifically, the mean scores for perceived usefulness and perceived ease of use range from 3.77 to 4.06, suggesting that students highly value the convenience, flexibility, time-saving benefits, and the ease of performing tasks such as searching for products, making payments, and utilizing promotional offers on e-commerce platforms. In addition, the price factor is also viewed positively, with mean scores ranging from 3.81 to 3.90, indicating that competitive pricing, ease of price comparison, and frequent promotional programs serve as key drivers of online shopping behavior. Consistent with these findings, students' online purchase intention is relatively high (3.77-3.88), reflecting a clear tendency to continue and even expand their use of online shopping in the future.

However, the study also reveals several notable limitations related to perceived risk, trust, and subjective norms. Perceived risk remains at a moderate level (3.61-3.77), reflecting concerns about personal data security, product quality discrepancies, and delivery-related issues; at the same time, trust in online sellers is only moderate (3.47-3.57), suggesting that issues of transparency and transaction security have not yet been fully addressed. Moreover, subjective norms exert a relatively modest influence (3.23-3.44), with digital media and social networks having a more pronounced impact on students' purchasing decisions than friends or family.

Based on these findings, it can be indicated that students' online shopping behavior is shaped by a combination of utilitarian, economic, and socio-psychological factors, in which convenience and price act as primary drivers, while perceived risk and limited trust function as significant barriers. This implies that, to capture the student market segment effectively, e-commerce businesses should not only continue to enhance user experience and pricing strategies but also prioritize improving trustworthiness, information transparency, and transaction security, thereby strengthening consumer confidence and fostering sustained online purchase intentions over the long term.

4.3. CONCLUSION

The findings indicate that online shopping behavior and purchase intention among students at Tan Trao University are influenced by multiple factors, including perceived usefulness, perceived ease of use, perceived risk, trust, price, and subjective norms, all of which are generally evaluated from moderate to positive levels. Notably, perceived usefulness, ease of use, and price emerge as the primary drivers, as they reflect clear advantages in terms of convenience, time-saving, and economic benefits, thereby reinforcing students' intention to continue and expand their engagement in online shopping. In contrast, perceived risk and trust remain significant barriers, as students continue to express concerns regarding product quality, data security, and transaction reliability, while subjective norms exert only a moderate influence, with digital media and social networks playing a more prominent role than interpersonal relationships.

These findings suggest that online shopping has become a prevalent trend among students; however, its sustainable development requires simultaneous efforts to enhance trust and mitigate perceived risks through improvements in product quality, information transparency, data security, and delivery services, alongside the development of communication strategies aligned with student behavior. The study is subject to several limitations, including its restricted sampling scope, imbalanced sample structure, and reliance on descriptive analysis without examining causal relationships among variables. Therefore, future research should expand the sample and employ more advanced analytical techniques, such as exploratory factor analysis (EFA) to validate measurement structures and linear regression to assess the magnitude and direction of factor effects, thereby strengthening the reliability and practical implications of the research findings.

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