

## Understanding online second-hand consumption among young consumers: A theory of planned behavior perspective

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**Abstract:** This study advances understanding of online second-hand consumption among young consumers by examining the Theory of Planned Behavior (TPB) in a digital platform context within an emerging economy, specifically Vietnam. The research aims to explore how attitudes, subjective norms, perceived behavioral control, and perceived economic benefits jointly influence purchase intention and actual behavior. Data were collected from young Vietnamese consumers with prior experience in online second-hand shopping. Partial Least Squares Structural Equation Modeling was employed to evaluate the research model and test the hypothesized relationships. The findings reveal that perceived economic benefits and perceived behavioral control play a dominant role in shaping both intention and behavior, while subjective norms exert a modest influence on intention. Environmental concern shows a weak association with attitudes and does not translate into purchase intention. Notably, attitudes display limited explanatory power for intention, whereas intention strongly predicts actual purchasing behavior, highlighting an attitude-behavior gap in online second-hand consumption. Consequently, the study offers theoretical insights into how economic value and behavioral feasibility condition sustainable consumption decisions among young consumers. It also provides practical implications for e-commerce platforms to design targeted marketing strategies that emphasize cost-efficiency, shopping convenience, and social approval to foster sustainable consumption.

**Keywords:** *Online second-hand consumption, Perceived economic benefits, Theory of Planned Behavior, Young consumers.*

### 1. Introduction

In the context of globalization and the rapid development of digital technology, sustainable consumption has become a prominent topic, especially as environmental issues are receiving increasing attention. Modern consumer behavior is influenced not only by financial factors but also by social and environmental factors. One of the key trends in sustainable consumption is the purchase of second-hand goods through digital platforms, such as e-commerce websites, second-hand marketplaces, or mobile applications. Buying second-hand items not only offers financial savings to consumers but also contributes to environmental protection by reducing waste and minimizing the extraction of resources for new production [1, 2].

According to ThredUP [3], the second-hand clothing market is predicted to double in the next five years to reach \$77 billion, with growth occurring 11 times faster than the broader clothing sector. This reflects a shift in consumer perception, especially among the younger generation, regarding the benefits of sustainable consumption. Recent studies have shown that sustainable consumption behavior, including second-hand purchases, is influenced not only by environmental factors but also by significant economic and social factors [1, 4]. However, while many studies indicate a link between environmental

concerns and second-hand purchasing behavior, few have explored the impact of other factors, such as perceived economic benefits and the influence of social norms on this behavior.

Buying second-hand goods has become a popular trend, especially among the younger generation, who tend to seek cost-effective and sustainable options. This is evidenced by several recent studies [2, 5]. However, this behavior is influenced not only by economic factors but also by strong social influences, such as pressure from friends, family, and the community [6]. In contrast, previous studies have often focused on one or two factors affecting consumer behavior, such as economic benefits or environmental concerns, without providing a comprehensive and systematic examination of all these factors in the context of online second-hand consumption. One theory that can explain sustainable consumer behavior is Ajzen [7]. TPB posits that consumer behavior is influenced by three key factors: attitude, subjective norms, and perceived behavioral control. Studies on sustainable consumption have applied TPB to explain second-hand buying behavior. However, factors such as perceived economic benefits and environmental concerns have not been deeply explored. Specifically, while some studies indicate that economic benefits are a key factor in the decision to buy second-hand goods [8, 9], there is no consensus on how these factors interact with each other and affect consumer behavior.

While previous studies have provided insights into the factors influencing second-hand shopping behavior, most of these studies have focused on a few individual factors, without fully exploring the relationships between cognitive, social, and economic factors. Although some studies have suggested that attitudes and environmental concerns may promote second-hand buying behavior [4, 10], other factors, such as social norms and perceived economic benefits, have not been comprehensively examined. Moreover, in developing economies, where consumers are often driven by financial factors, these studies are even scarcer.

Furthermore, research on these factors in the context of online second-hand shopping has received limited attention. E-commerce platforms are increasingly becoming the primary shopping channels for consumers, particularly among the younger generation. However, few studies have investigated the influence of these factors in the digital environment. Therefore, this study aims to fill this gap by examining the factors that impact young consumers' online second-hand shopping behavior, especially in emerging economies.

This paper aims to investigate the factors influencing young consumers' second-hand shopping behavior on digital platforms, particularly in Vietnam's economy. The study will apply the Theory of Planned Behavior (TPB) to analyze the relationships between cognitive factors (such as perceived behavioral control), social factors (social norms), and economic factors (perceived economic benefits) in the decision to purchase second-hand goods online.

This study is conducted within the context of Vietnam's economy, where young consumers are increasingly concerned with cost-saving and seeking more sustainable options. In recent years, online second-hand shopping has become a popular trend among the younger generation, especially as digital platforms such as Lazada, Shopee, and other applications are rapidly growing. However, the second-hand shopping market is still relatively new and has not been fully explored in this context.

In the following sections, the paper will provide a detailed presentation of the basic theory of sustainable consumer behavior and the TPB model. Subsequently, the paper will describe the research methodology, including hypothesis development and data collection methods. The research findings will be analyzed and tested using statistical methods to clarify the relationships between factors influencing young consumers' second-hand shopping behavior. Finally, the paper will provide conclusions and recommendations for future research and practical applications in the field of sustainable consumption.

## 2. Literature Review and Hypothesis Development

### 2.1. Perceived Behavior Control

Perceived behavioral control (PBC) refers to an individual's perception of the ease or difficulty of performing a particular behavior [7]. When an individual possesses adequate resources to execute a behavior, PBC exerts a significant influence on the likelihood of behavioral performance [11]. As a

crucial component of the Theory of Planned Behavior (TPB), PBC has been empirically validated to positively influence consumers' purchase intentions, particularly in the context of secondhand consumption, as demonstrated in studies by Stolz [2], Borusiak, et al. [12] and Yan, et al. [13].

Based on this theoretical foundation, we propose the following hypothesis:

*H<sub>1a</sub>: Perceived behavioral control has a positive influence on consumers' intention to buy secondhand products.*

The Theory of Planned Behavior posits that the influence of perceived behavioral control on consumer behavior operates indirectly through purchase intention. However, in their extended research, Armitage and Conner [14] concluded that, in addition to its indirect effect through purchase intention, perceived behavioral control also exerts a direct influence on consumer behavior. The direct effect of perceived behavioral control on consumer behavior was also examined in the study by Ayar and Gürbüz [15]; however, it did not demonstrate a significant impact on consumers in Turkey. Nevertheless, building upon the established understanding of the relationship between perceived behavioral control and consumer behavior, and within the context of studying secondhand consumption behavior, the authors propose the following hypothesis.:

*H<sub>1b</sub>: Perceived behavioral control has a positive influence on consumers' second-hand buying behavior.*

## 2.2. Environmental Concern

In recent years, growing environmental awareness has significantly increased consumer interest in secondhand consumption [16, 17]. According to Slaton, et al. [18] motivations related to environmental sustainability can influence consumer attitudes. Within this context, secondhand consumption is regarded as a manifestation of environmental concern, as these products are believed to conserve resources, slow the accumulation of fashion waste, and contribute to a circular consumption cycle in the industry [1]. Studies by Slaton and Pookulangara [19], Friske, et al. [20] and Silva, et al. [21] further indicate that individuals develop positive attitudes toward purchasing recycled or secondhand products when they are concerned about environmental issues or sustainability.

Based on these theoretical foundations and empirical findings, we propose the following hypothesis:

*H<sub>2a</sub>: Environmental concern has a positive influence on consumers' intention to buy secondhand products.*

## 2.3. Subjective Norm

Subjective norm represents one of the three key determinants of individual consumption intention according to the Theory of Planned Behavior (TPB). According to Nuryanto [22] and Simanihুরু and Toni [23], subjective norms can be understood as social influences that affect an individual's behavior. These influences can originate from one's closest social circle, such as family and friends, mentors, or the surrounding environment. The acceptance of external influence demonstrates social conformity, as individual behavior remains inherently embedded within the broader social community context, thereby establishing subjective norms as a crucial determinant of behavioral intention [24]. Previous empirical studies have consistently demonstrated that social influence significantly impacts consumer purchase intentions [6, 25]. These findings collectively underscore the pivotal role of subjective norms in consumer decision-making processes.

Based on this theoretical and empirical foundation, we propose the following hypothesis:

*H<sub>3a</sub>: Subjective norm has a positive influence on consumers' intention to buy secondhand products.*

## 2.4. Product Quality

According to Kotler and Keller [26], product quality represents the combination of product characteristics that demonstrate the ability to satisfy customer needs, whether stated or implicit. Product quality further encompasses attributes such as design or packaging that enhance product appeal and persuade customers to purchase. The study by Sinnandavar, et al. [27] emphasized that product quality significantly influences consumer decisions, a finding consistent with the research of Turunen and Pöyry [28] and Yan, et al. [13] in the context of secondhand product consumption behavior.

Furthermore, within the context of secondhand purchasing behavior, Amatulli, et al. [29] discovered that product quality enables consumers to perceive these products as more affordable or, in other words, to recognize better value for money [30], consequently influencing purchase decisions.

Based on these established findings, we propose the following hypothesis:

*H<sub>2a</sub> Product quality has a positive influence on consumers' intention to buy secondhand products.*

### 2.5. Perceived Economic Benefits

Perceived economic benefits represent a financial dimension of secondhand shopping, encompassing consumers' desires to spend less, seek reasonable prices, hunt for discounted items, and optimize their budgets Guiot and Roux [8]. Guiot and Roux [8] further emphasize the price-related satisfaction consumers derive from secondhand purchases, the sense of fulfillment from acquiring desired items without sacrificing other essential needs due to favorable pricing. According to Park and Lin [9], secondhand sales have grown substantially in recent years, with economic factors being the most commonly cited reason for this trend, a conclusion consistent with findings from Latifah, et al. [31], Styvén and Mariani [5] and Stolz [2].

Building upon this empirical evidence, we propose the following hypothesis:

*H<sub>2b</sub> Perceived economic benefits have a positive influence on consumers' intention to buy secondhand products.*

Additionally, beyond influencing the intention to purchase secondhand goods, perceived economic benefits have been demonstrated in several studies to also exert a direct impact on consumer behavior, bypassing the mediating role of intention. Secondhand products are inherently characterized by their lower price points compared to new items. In the study by Nugroho, et al. [32] the authors empirically confirmed that price significantly affects consumers' purchasing behavior. This assertion had previously been substantiated by Zainal [33], Isbahi [34] and Anwar and Satrio [35]. Based on this evidence, the author proposes the following hypothesis:

*H<sub>2c</sub> Perceived economic benefits have a positive direct effect on consumers' secondhand purchasing behavior.*

### 2.6. Attitude

Attitudes have consistently been regarded as fundamental to understanding behavior, with Allport [36] describing the attitude concept as "the most distinctive and indispensable concept in contemporary social psychology." Understanding consumer attitudes holds paramount importance for marketers, social psychologists, and management researchers because "attitudes are considered to correlate strongly with behavioral intentions, which in turn serve as reasonable predictors of actual behavior" [37]. In other words, attitudes typically represent relatively stable and enduring predispositions that lead consumers to behave in particular ways [38]. Consumers generally purchase products and brands toward which they hold positive attitudes [39] and, conversely, consumer purchase choices reflect their favorable attitudes toward products.

The attitude-behavior relationship extends beyond mere correlation to include shared antecedents. As demonstrated in Kumar and Kaushal [39] study examining distinct factors influencing both consumer attitudes and purchase intentions, all factors affecting purchase intentions similarly influence consumer attitudes. Building on this theoretical foundation, we propose the following hypotheses regarding factors influencing both purchase intentions and consumer attitudes:

*H<sub>1a</sub> Perceived behavioral control has a positive effect on consumers' attitudes toward buying secondhand products*

*H<sub>2b</sub> Environmental concern has a positive effect on consumers' attitudes toward buying secondhand products*

*H<sub>3b</sub> Subjective norm has a positive effect on consumers' attitudes toward buying secondhand products*

*H<sub>4b</sub> Product quality has a positive effect on consumers' attitudes toward buying secondhand products*

*H<sub>5c</sub> Perceived economic benefits have a positive effect on consumers' attitudes toward buying secondhand products*

Furthermore, according to the Theory of Planned Behavior (TPB), attitude is the most influential among the three core factors affecting behavioral intentions. Chang and Watchravesringkan [40] found

that actual sustainable purchasing behaviors were significantly influenced by attitudes toward environmentally friendly apparel. Additionally, Seo and Kim [41] demonstrated that positive attitudes toward secondhand products strongly predict secondhand fashion purchase intentions, a finding consistent with Lee and Huang [42] research. These results collectively confirm attitude's significant influence on behavioral intentions. Based on this evidence, the authors propose:

*H<sub>6</sub>: Attitude has a positive effect on consumers' intention to buy secondhand products*

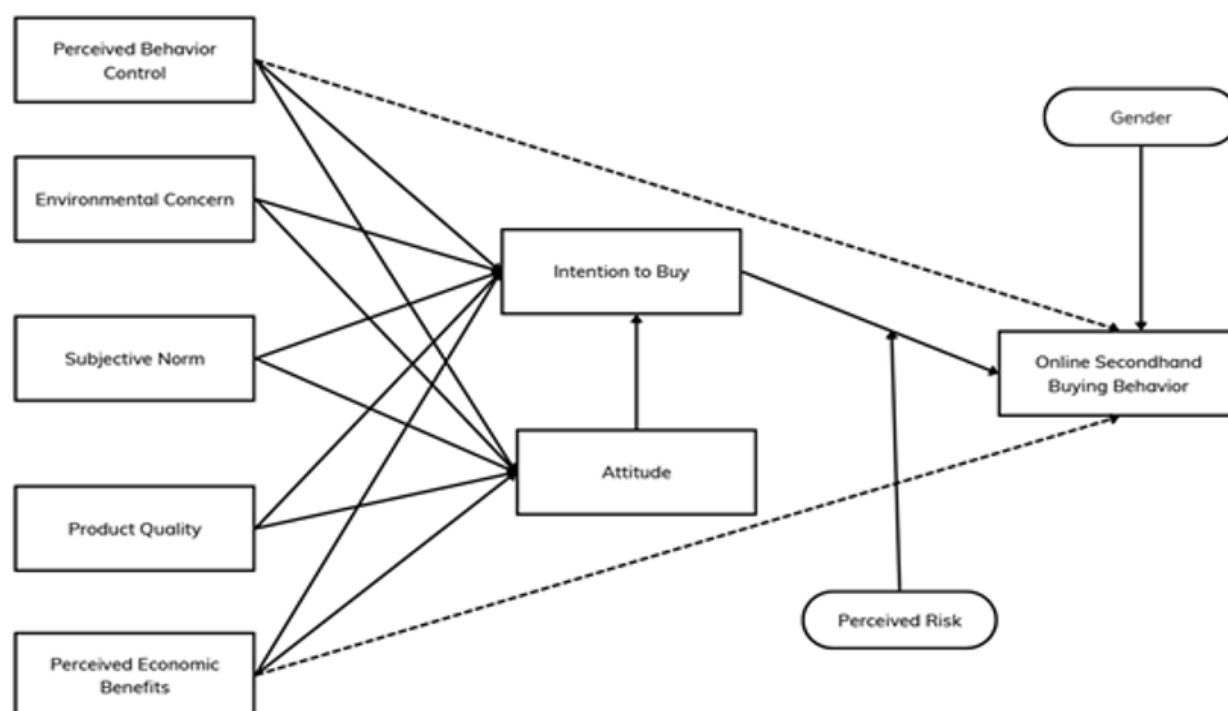
### 2.7. Intent to Buy

According to the Theory of Planned Behavior (TPB), intention is a strong predictor of behavior. The strongest intention-behavior correlation occurs when both are measured under identical conditions regarding these elements [43]. Consequently, general intentions predict general behaviors, while specific intentions determine specific behaviors Conner [43]. Madan and Yadav [44] asserted that intention is a factor closely associated with and directly influences an individual's actual behavior. This relationship has also been demonstrated across various fields, such as in the online retail sector by Indiani and Fahik [45] and in the hospitality industry by Indiani, et al. [46].

Within the context of secondhand product purchasing behavior research, the author proposes hypotheses regarding the influence of purchase intention on secondhand shopping behavior:

*H<sub>7</sub>: Purchase intention influences online secondhand shopping behavior*

Based on the assumptions outlined above, Figure 1 presents the finalized proposed research model.



**Figure 1.**  
Proposed research model.

### 3. Research Methodology

This paper adopts a quantitative research method combined with a theoretical model to investigate the factors influencing the second-hand buying behavior of young consumers on digital platforms. Data was collected through a structured survey to analyze cognitive, economic, and social factors related to second-hand shopping behavior. Data analysis tools include reliability analysis, regression analysis, and

structural equation modeling. The study uses Ajzen [7] to develop the research model, in which the factors affecting the intention and behavior of second-hand shopping are identified as perceived behavioral control (PBC), environmental concern (EC), social norms (SN), product quality (PQ), and perceived economic benefits (PEB). Hypotheses were developed and tested to assess the relationships between these factors and second-hand shopping behavior.

Data was collected via an online survey with a structured questionnaire measuring the factors affecting second-hand shopping behavior, including perceived behavioral control, environmental concern, social norms, product quality, and perceived economic benefits. The questionnaire uses a 5-point Likert scale, ranging from "Strongly Disagree" to "Strongly Agree," and was adapted to suit the context of online second-hand consumption in Vietnam, with reference to previous studies. The survey participants were young consumers aged 18 to 35 who use online shopping platforms, particularly those that offer second-hand goods. The targeted sample size is expected to be between 300 and 400 individuals to ensure representativeness and high reliability. The selection criteria for participants include being between the ages of 18 and 35, having purchased second-hand goods online at least once, and voluntarily participating in the survey with full information on the factors influencing their second-hand shopping behavior.

The data collection process involves designing the questionnaire based on theoretical factors that have been validated in previous research. The questionnaire was pre-tested with a small group (20-30 individuals) to ensure clarity. It was then distributed through online platforms such as Google Forms or SurveyMonkey, with a completion time of approximately 10-15 minutes. The collected data will be cleaned and validated before analysis. Data analysis will employ statistical methods such as reliability analysis, average variance extracted (AVE) analysis to evaluate the convergence of measurement scales, and structural equation modeling to examine the relationships between the factors in the model. Hypothesis testing will be conducted using linear regression analysis and bootstrapping methods to assess the impact of the factors on second-hand shopping behavior.

## 4. Research Results

### 4.1. Validity and Reliability Assessment

The validity and reliability of the model were rigorously assessed using multiple criteria. The outer loadings evaluation results demonstrated that all observed variables had coefficients exceeding 0.7, consistent with the recommendation by Hair, et al. [47]. This indicates robust relationships between the observed variables and their corresponding latent constructs. These findings confirm that all observed variables are suitable for inclusion in the model, ensuring content validity.

**Table 1.**  
Reliability and validity testing.

Construct	Item	Outer loading	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Perceived Behavior Control	PBC1	0.867	0.796	0.799	0.880	0.710
	PBC2	0.842				
	PBC3	0.818				
Environmental Concern	EC1	0.863	0.870	0.883	0.911	0.719
	EC2	0.867				
	EC3	0.880				
	EC4	0.778				
Subjective Norm	SN1	0.712	0.734	0.738	0.833	0.556
	SN2	0.710				
	SN3	0.808				
	SN4	0.750				
Product Quality	PQ1	0.883	0.873	0.886	0.913	0.723
	PQ2	0.871				
	PQ3	0.860				
	PQ4	0.784				
Perceived Economic Benefits	PEB1	0.757	0.752	0.766	0.841	0.571
	PEB2	0.799				
	PEB3	0.752				
	PEB4	0.712				
Intention to Buy	INT1	0.790	0.831	0.832	0.888	0.664
	INT2	0.794				
	INT3	0.847				
	INT4	0.826				
Attitude	ATT1	0.864	0.781	0.787	0.873	0.696
	ATT2	0.851				
	ATT3	0.785				
Online Secondhand Buying Behavior	OSBB1	0.832	0.864	0.872	0.902	0.647
	OSBB2	0.737				
	OSBB3	0.806				
	OSBB4	0.823				
	OSBB5	0.821				
Perceived Risk	PR1	0.872	0.866	0.886	0.908	0.712
	PR2	0.882				
	PR3	0.789				
	PR4	0.829				

According to Hair, et al. [48], scale reliability testing focused on two indices: Cronbach's Alpha and Composite Reliability. However, Hair, et al. [48] argue that traditional reliability assessment using Cronbach's Alpha has several limitations, as it may overestimate or underestimate scale reliability. Therefore, the Composite Reliability coefficient (rho a) is considered more appropriate and preferable in this context [49].

The Composite Reliability (rho\_a) evaluation results in Table 1 showed that the nine measurement scales developed in this study had rho\_a values ranging from 0.738 to 0.886, all below 0.95, indicating no redundancy among observed variables [48]. Moreover, all values exceeded the 0.7 threshold, meeting reliability requirements and confirming good scale consistency.

Next, the convergent validity of these nine scales was evaluated based on the Average Variance Extracted (AVE) analysis results, also presented in Table 1. The results show that the PQ scale demonstrated the strongest convergence with an AVE of 0.723, while the SN scale showed the weakest convergence (0.556). Nevertheless, all scales had AVE values exceeding 0.5, satisfying the research criteria established by Fornell and Larcker [50].

For discriminant validity assessment, the Heterotrait-Monotrait (HTMT) ratio method developed by Henseler, et al. [51] was employed. The analysis results in Table 2 revealed that all scale pairs in the model had HTMT values below 0.85, confirming that the latent constructs share minimal variance and demonstrating adequate discriminant validity [51]. Specifically, the PR-PBC scale pair showed the lowest HTMT value (0.063), followed by PR-OSBB (0.116), SN-PR (0.206), PR-INT (0.249), and PR-EC (0.259), indicating excellent discriminant validity.

**Table 2.**  
Discriminant validity (HTMT).

	ATT	EC	INT	OSBB	PBC	PEB	PQ	PR	SN
ATT									
EC	0.497								
INT	0.603	0.534							
OSBB	0.410	0.344	0.683						
PBC	0.693	0.449	0.650	0.589					
PEB	0.693	0.513	0.800	0.545	0.498				
PQ	0.662	0.507	0.609	0.364	0.325	0.798			
PR	0.344	0.259	0.249	0.116	0.063	0.585	0.590		
SN	0.419	0.608	0.660	0.542	0.626	0.539	0.390	0.206	

#### 4.2. Evaluation of the Structural Model

The author assessed multicollinearity among the nine measurement scales through the Variance Inflation Factor (VIF) analysis. According to Hair, et al. [49], VIF values of 5 or higher indicate significant multicollinearity that could distort structural model results, while values between 3 and 5 signal moderate concern. Conversely, VIF values below the threshold of 3 suggest minimal or no multicollinearity issues.

The analysis results in Table 3 revealed that, with the exception of variable PR1 (VIF = 3.043, slightly exceeding 3), all other observed variables across the nine measurement scales demonstrated VIF values below 3. The lowest VIF value was observed for PEB4 (1.385), while PR2 showed the highest VIF value approaching 3 (2.989). Although PR1's VIF exceeded 3, it remained within the 3-5 range and was therefore deemed acceptable for inclusion in the study.

**Table 3.**  
Collinearity statistics results.

	VIF		VIF		VIF
ATT1	1.789	OSBB1	2.013	PQ1	2.508
ATT2	1.815	OSBB2	1.690	PQ2	2.536
ATT3	1.436	OSBB3	1.981	PQ3	2.087
EC1	2.481	OSBB4	2.350	PQ4	1.795
EC2	2.293	OSBB5	2.294	PR1	3.043
EC3	2.473	PBC1	1.808	PR2	2.989
EC4	1.840	PBC2	1.689	PR3	1.816
INT1	1.619	PBC3	1.612	PR4	1.684
INT2	1.722	PEB1	1.495	SN1	1.413
INT3	2.120	PEB2	1.428	SN2	1.425
INT4	1.927	PEB3	1.547	SN3	1.679
		PEB4	1.385	SN4	1.508

### 4.3. Hypothesis Testing

To evaluate the hypothesized relationships in the theoretical model, hypothesis testing was conducted using p-values derived from the structural model results. The dependent variable in this analysis was Online Secondhand Buying Behavior (OSBB), with independent variables including PQ, PBC, EC, SN, PEB, and mediating variables INT and ATT. Following statistical conventions and guidelines by Hair, et al. [49] a p-value less than 0.05 indicates statistical significance at the 95% confidence level.

As presented in Table 4 and Figure 2, the results revealed statistically significant positive influences on INT among young consumers, ranked in descending order of effect size: Perceived Economic Benefits (PEB  $\rightarrow$  INT,  $\beta=0.354$ ,  $p=0.000$ ); Perceived Behavioral Control (PBC  $\rightarrow$  INT,  $\beta=0.235$ ,  $p=0.001$ ); Subjective Norms (SN  $\rightarrow$  INT,  $\beta=0.175$ ,  $p=0.000$ ); and Product Quality (PQ  $\rightarrow$  INT,  $\beta=0.142$ ,  $p=0.001$ ). These significant relationships suggest individuals are most likely to form secondhand purchase intentions when they perceive economic benefits, feel behavioral control, and experience peer pressure or approval. Conversely, Environmental Concern (EC  $\rightarrow$  INT,  $\beta=0.071$ ,  $p=0.087$ ) showed no statistically significant relationship with INT. Despite theoretical relevance, these variables failed to meet the  $p<0.05$  threshold, indicating environmental concerns currently show no significant influence on secondhand purchase intention formation. Consequently, hypotheses H1a, H3a, H4a, and H5a were supported, while H2a was rejected.

Similarly, factors significantly influencing ATT were ranked as follows: Perceived Behavioral Control (PBC  $\rightarrow$  ATT,  $\beta=0.402$ ,  $p=0.001$ ); Product Quality (PQ  $\rightarrow$  ATT,  $\beta=0.319$ ,  $p=0.000$ ); Perceived Economic Benefits (PEB  $\rightarrow$  ATT,  $\beta=0.170$ ,  $p=0.000$ ); Subjective Norms (SN  $\rightarrow$  ATT,  $\beta=-0.088$ ,  $p=0.034$ ); and Environmental Concern (EC  $\rightarrow$  ATT,  $\beta=0.093$ ,  $p=0.016$ ). These findings demonstrate that all factors influencing young consumers' secondhand purchase intentions also affect their attitudes, albeit to varying degrees and sometimes in opposing directions (e.g., the negative effect of subjective norms). Notably, perceived behavioral control showed the strongest positive effect on attitudes, followed by product quality, economic benefits, and environmental concerns. The marginal impact of environmental concerns suggests they influence attitudes minimally but insufficiently to drive purchase intentions. Thus, hypotheses H1c, H2b, H4b, and H5c were supported, while H3b was rejected.

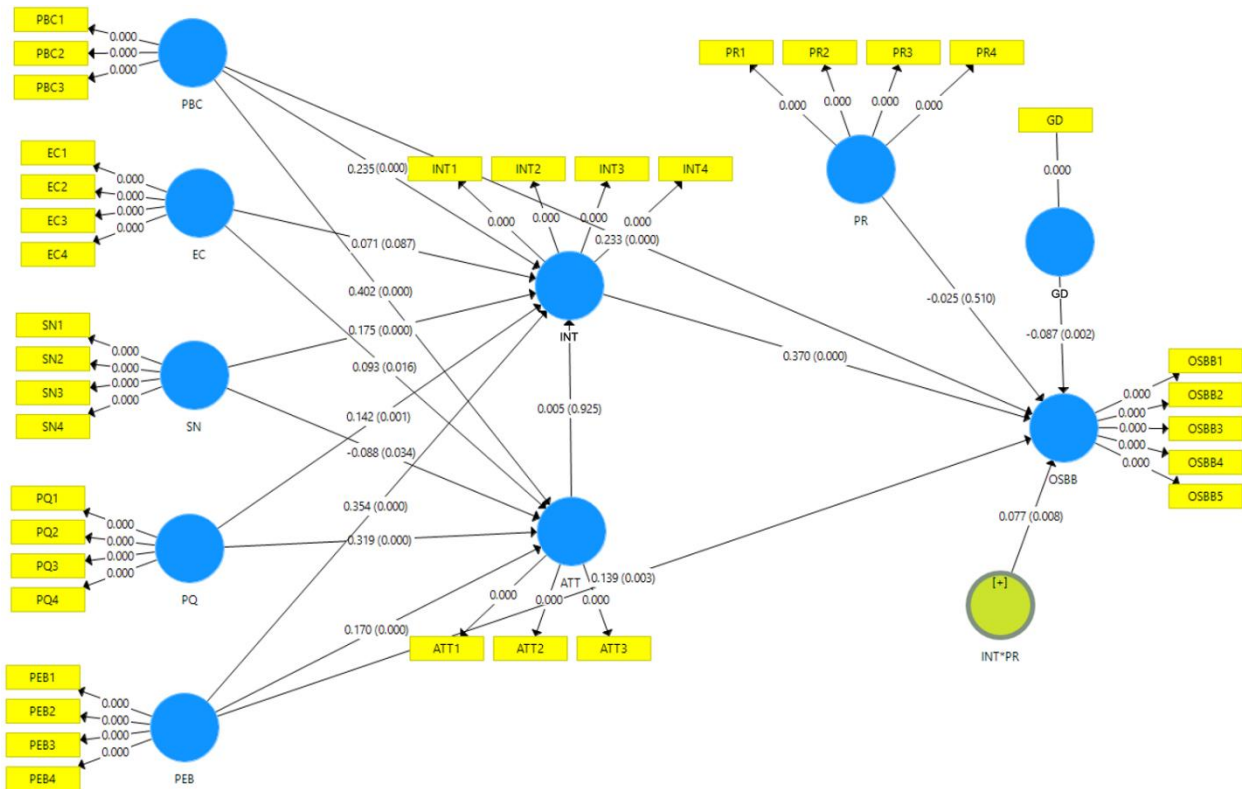
Furthermore, both Perceived Behavioral Control and Perceived Economic Benefits demonstrated a direct impact on the online secondhand purchasing behavior (OSBB) of young Vietnamese consumers, without the mediation of intention (PBC  $\rightarrow$  OSBB,  $\beta=0.233$ ,  $p=0.000$ ; PEB  $\rightarrow$  OSBB,  $\beta=0.139$ ,  $p=0.003$ ). This finding further emphasizes the significant roles of economic benefits and behavioral control perceptions in directly influencing consumer behavior. When consumers perceive substantial economic benefits from online secondhand shopping and feel capable of controlling their actions, they may bypass the intention formation stage and proceed directly to purchase. Consequently, hypotheses H1b and H5b are supported.

**Table 4.**  
Path coefficients results.

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values
ATT -> INT	0.005	0.004	0.048	0.095	0.925
EC -> ATT	0.093	0.096	0.038	2.427	0.016
EC -> INT	0.071	0.069	0.041	1.718	0.087
GD -> OSBB	-0.087	-0.085	0.027	3.175	0.002
INT*PR -> OSBB	0.077	0.079	0.028	2.761	0.008
INT -> OSBB	0.370	0.370	0.052	7.125	0.000
PBC -> ATT	0.402	0.397	0.050	8.041	0.000
PBC -> INT	0.235	0.240	0.039	6.001	0.000
PBC -> OSBB	0.233	0.235	0.041	5.676	0.000
PEB -> ATT	0.170	0.170	0.046	3.731	0.000
PEB -> INT	0.354	0.352	0.043	8.202	0.000
PEB -> OSBB	0.139	0.135	0.045	3.078	0.003
PQ -> ATT	0.319	0.317	0.043	7.412	0.000
PQ -> INT	0.142	0.143	0.043	3.290	0.001
PR -> OSBB	-0.025	-0.017	0.038	0.650	0.510
SN -> ATT	-0.088	-0.083	0.042	2.100	0.034
SN -> INT	0.175	0.172	0.047	3.731	0.000

Additionally, further analysis revealed that attitude had no significant effect on purchase intention (ATT → INT,  $\beta=0.005$ ,  $p=0.925$ ), while purchase intention positively influenced actual buying behavior (INT → OSBB,  $\beta=0.170$ ,  $p=0.000$ ). Consequently, H6 was rejected, and H7 was supported.

Regarding the moderating variable PR and control variable GD, results indicated that Perceived Risk moderates the INT-OSBB relationship (INT\*PR→OSBB,  $\beta=0.77$ ,  $p=0.008$ ), suggesting that accurate risk assessment enhances purchase decisions. Additionally, Gender (GD→OSBB,  $\beta=-0.087$ ,  $p=0.002$ ) significantly influences buying behavior, confirming gender differences' controlling role in young consumers' online secondhand purchases.



**Figure 2.**  
Hypothesis testing results.

## 5. Discussion and Implications

### 5.1. Discussion

This study provides comprehensive insights into young consumers' behavior in the secondhand market, supporting the importance of economic and social factors while challenging the conventional role of affective elements in shaping secondhand purchasing behavior in emerging markets.

Regarding secondhand purchase intention, the identified influential factors were Perceived Economic Benefits (PEB), Perceived Behavioral Control (PBC), Subjective Norms (SN), and Product Quality (PQ). Among these, PEB ( $\beta=0.354$ ,  $p=0.000$ ) emerged as the strongest predictor of secondhand purchase intention. These findings confirm that cost-effectiveness remains the central driver in forming young consumers' secondhand purchase intentions, particularly in price-sensitive developing economies, aligning with existing research [2, 5, 16]. The study highlights how price advantages motivate youth toward secondhand markets. Additionally, individuals' perceived control over their purchasing behavior significantly facilitates secondhand purchase intentions, consistent with findings by Borusiak, et al. [12] and Yan, et al. [13]. The remaining factors - SN ( $\beta=0.175$ ,  $p=0.000$ ) and PQ ( $\beta=0.142$ ,  $p=0.001$ ) - showed weaker influences, suggesting contemporary youth are less swayed by others' opinions and consider product quality within limited parameters when making secondhand purchases. This aligns with the secondhand consumption context where consumers seek value propositions [30]. Notably, Environmental Concerns (EC) showed no significant impact on purchase intention ( $p=0.087$ ), indicating youth's secondhand purchasing motives stem primarily from personal considerations rather than social-environmental factors.

For attitudes toward secondhand purchasing, the influential factors were PBC, PQ, PEB, and EC. PBC demonstrated the strongest effect ( $\beta=0.402$ ), showing that perceived behavioral control most

positively shapes attitudes. PQ ( $\beta=0.319$ ) and PEB ( $\beta=0.170$ ) followed, with the weaker economic benefit influence on attitudes (versus intention) revealing that consumers prioritize product quality in attitude formation while moderating economic expectations. Interestingly, EC, though insignificant for intention, weakly influenced attitudes ( $\beta=0.093$ ), suggesting environmental considerations affect perceptions but not decisions. This pattern reveals substantial yet differential factor influences on attitudes versus intentions, showing high attitude-intention correlation [39], with some factors (EC) affecting only attitudes and others (SN) only intentions.

Contrary to prior research [40-42], attitude showed no significant effect on intention ( $p=0.925$ ), suggesting rational and social motivators outweigh affective evaluations in secondhand contexts.

Finally, regarding actual online secondhand buying behavior (OSBB), purchase intention positively influenced behavior ( $\beta=0.370$ ), consistent with TPB and Conner [43]. Risk perception moderated this intention-behavior relationship ( $\beta=0.077$ ): clearer risk understanding enhances the translation of intention into behavior. Notably, PBC ( $\beta=0.233$ ) and PEB ( $\beta=0.139$ ) directly affected OSBB beyond their indirect effects through intention, aligning with Armitage and Conner [14]. Gender differences also significantly influenced OSBB, confirming demographic impacts on secondhand purchasing patterns.

### 5.2. Implications

This study provides insight into sustainable consumer behavior, especially in online second-hand purchases, a trend increasingly popular among young people, particularly in emerging economies. The results indicate that factors such as perceived economic benefits, behavioral control, and social norms are the most important in driving second-hand purchase intentions, while environmental concerns do not have a significant impact. This has important implications for understanding consumer motivations and can help e-commerce platforms design more effective marketing strategies. Previous studies, such as those by Guiot and Roux [8], Park and Lin [9], have shown that economic benefits play an important role in deciding to buy second-hand items. However, this study not only sheds light on the role of economic factors but also highlights the powerful influence of behavioral control perceptions and social norms. Although research by Tunn, et al. [1] and Van Birgelen, et al. [4] shows that environmental concerns can promote sustainable consumption behavior, this study indicates that environmental factors do not have a strong influence on second-hand purchasing decisions. One possible explanation for the lack of influence of environmental concerns is differences in markets and cultures. Developed economies, where environmental concerns are heightened, may see a stronger impact of this factor. Additionally, the lack of concern for the environment may reflect young people's priorities for economic benefits and feasibility in second-hand consumption.

The results of this study can be applied to design marketing strategies and product development for online second-hand platforms, especially targeting young consumers. Platforms can focus on conveying the economic benefits of second-hand purchases while developing tools that make it easier for consumers to feel in control of their shopping behavior. Communication strategies can leverage social pressure from friends and family to encourage sustainable consumption.

One limitation of this study is that it only focuses on young consumers in Vietnam, which may reduce the generality of the study results. Future studies may expand the scope of the study audience and survey other countries, especially developed countries, to better clarify the differences in second-hand consumption dynamics. Furthermore, the study may continue to investigate the role of environmental factors in promoting sustainable consumption, as concerns about environmental protection may increase in the future.

## 6. Conclusion

This study has analyzed the factors affecting young people's second-hand buying behavior on digital platforms, especially in the context of Vietnam's economic development. The results of the study show

that cognitive economic interest (PEB) is the most important factor affecting the intention to buy second-hand items, followed by cognitive behavior control (PBC) and social norms (SN). Meanwhile, environmental concerns did not have a significant impact on second-hand buying behavior, although there was a weak influence on attitudes. In addition, research also shows that attitude is not a direct determinant of purchase intent, but intention has a strong impact on actual behavior. Economic and behavioral control factors not only drive the intention to buy second-hand items but also directly affect consumer behavior. The importance of this study lies in providing insight into sustainable consumer behavior, especially in the context of a growing economy. The goal of the study is to clarify the key factors influencing young people's online second-hand buying behavior, thereby contributing a fresh perspective to the theory of sustainable consumer behavior. The main contributions of the research include the identification of powerful influencing factors such as economic benefits and cognitive behavioral control, and emphasizing the importance of social norms and product quality. These results can help e-commerce platforms design effective marketing strategies to encourage sustainable consumption and meet the needs of young consumers, especially in emerging economies. However, this study also has some limitations. One of the main limitations is that the scope of the study focuses only on young consumers in Vietnam, which may reduce the generality of the study results. Furthermore, although factors such as economic benefits and behavioral control have strong impacts, environmental concerns have not been fully exploited in this study. Therefore, future studies may expand the scope of the study to other countries, especially developed countries, and further study the role of environmental factors in promoting sustainable consumption. In addition, studying other factors such as cultural differences and consumer psychology in different contexts also opens up many interesting research opportunities in the future.

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The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

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