

**GREEN PURCHASE INTENTION AMONG YOUNG CONSUMERS:
EXTENDING THE THEORY OF PLANNED BEHAVIOR****Nam Nguyen Kim**ncsnam2014@gmail.com

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ABSTRACT

The objective of this study is to extend the Theory of Planned Behavior (TPB) model to the context of young consumers in Vietnam to examine the intention to purchase green products. The study uses a quantitative method through a survey questionnaire with a 5-point Likert scale, with a sample size of 235 young consumers in Ho Chi Minh City. Cronbach's Alpha reliability analysis, exploratory factor analysis (EFA), and linear regression (OLS) were used, analyzed using SPSS software. The research results show that the scales meet the requirements for reliability, convergence, and validity. Hypothesis testing results show that all hypotheses are accepted at a 5% significance level. In particular, attitude is the strongest influencing factor on the intention to purchase green products, followed by subjective norms, environmental concern, environmental knowledge, and finally perceived behavioral control. The study provides evidence on the suitability of the extended TPB model. The research results provide important managerial implications to promote positive attitudes and social norms as well as environmental concern and environmental knowledge, thereby increasing green consumption intention among young people.

Keywords:

Purchase intention; environment; green products; young consumers; Vietnam.

INTRODUCTION

Climate change and environmental pollution have become pressing global issues, attracting attention from various stakeholders ranging from policymakers to academic researchers. How to mitigate environmental pollution and climate change is a question that many scholars seek to answer. One of the approaches that may help alleviate this phenomenon is the trend toward sustainable consumption. Therefore, in the context of modern consumption trends, promoting green consumption behavior has become an urgent requirement for the sustainable development of each country worldwide. Concepts such as green products have become increasingly important to consumers. There are various interpretations of green products; one commonly accepted view defines green products as those designed, produced, and distributed to minimize negative impacts on the environment, thereby contributing to improved quality of life and the protection of the community's shared ecosystem (Yadav & Pathak, 2016). A gap still exists between awareness and behavior. Researchers have confirmed that the relationship between environmental awareness and actual behavior remains a controversial issue. This poses significant challenges for both researchers and managers in addressing the question of how to better understand the socio-psychological factors influencing young consumers' intention to purchase green products.

There are various theoretical foundations to explain the relationship between cognition and behavior. Among them, typical theories include Ajzen's (1991) Theory of Planned Behavior (TPB), which is a prominent example because this theory is often used to explain intentions to purchase green products. According to TPB, human behavioral intentions are usually formed by multiple factors. The antecedents such as "attitude toward the behavior," "subjective norm," and "perceived behavioral control" are three important components of the TPB model. Previous empirical studies in the field of behavior in general and green consumer behavior in particular have concluded that these three factors all have positive effects on the intention to purchase green products in various contexts, including developing countries (Yadav & Pathak, 2016). Although the TPB model has been used by many studies and its usefulness acknowledged, many researchers argue that TPB may still have certain limitations in fully explaining green consumer behavior, especially when environmental factors are not directly integrated into models related to green consumer behavior. Therefore, researchers have suggested that in the field of green consumer behavior, TPB should be extended by adding environmental-related variables to better explain the phenomenon.

Environmental concern and environmental knowledge are two important variables that significantly influence attitude and subjective norm in the context of green consumption (Yadav & Pathak, 2016; Paul et al., 2016). The results of many previous empirical studies have supported this. In other words, when consumers demonstrate concern for environmental issues or have good environmental knowledge, they tend to form more positive attitudes toward green products when consuming them, which in turn stimulates their purchase intentions. Based on previous empirical findings, researchers have suggested that extending TPB by supplementing antecedent variables related to environmental concern and environmental knowledge is advisable because they play an important role in promoting green purchase intentions (Yadav & Pathak, 2016).

In the context of developing countries such as Vietnam, which has a relatively large young consumer population and a collectivist culture, this represents a potentially strong driver for green consumer behavior. Young consumers are often sensitive to social and environmental issues and are strongly influenced by social norms, social media, and contemporary trends (Yadav & Pathak, 2016). Nevertheless, a review of the literature in Vietnam shows that studies on green consumer behavior focusing on young consumer groups remain rather modest, which constitutes an important gap for further research on the same topic to build an integrated theoretical framework that clarifies the roles of attitude, subjective norm, perceived behavioral control, environmental concern, and environmental knowledge in forming green purchase intentions. To fill this gap, this study aims to focus on analyzing the influence of antecedents such as "attitude," "subjective norm," "perceived behavioral control," "environmental concern," and "environmental knowledge" on the "intention to purchase green products" among young consumers in Vietnam. With the obtained results, the study will provide important managerial implications so that firms and managers have a sound basis to promote green consumer behavior.

THEORETICAL FOUNDATION

A key theoretical framework for explaining behavioral intention is Ajzen's (1991) Theory of Planned Behavior (TPB). According to TPB, the intention to perform a behavior is predicted by three factors: attitude toward the behavior, subjective norm, and perceived behavioral control (PBC). In the context of green consumption, attitude reflects the degree of positive or negative consumer sentiment toward purchasing environmentally beneficial green products; subjective norm refers to the social pressures of key people influencing the decision to purchase green products; and PBC refers to beliefs about the ease or difficulty of performing the act of purchasing green products (Yadav & Pathak, 2016; Paul et al., 2016). Many previous studies have successfully applied the TPB in the field of green consumption and have all noted the positive and significant impact of these three factors on the intention to purchase green products, especially attitude and subjective norms (Yadav & Pathak, 2016).

Despite the usefulness of the TPB, studies suggest that the original TPB model is still limited in explaining the psychological antecedents beyond attitude and subjective norms, especially in the context of green consumption behavior, which is linked to awareness and emotions regarding environmental issues. Based on this, researchers have proposed expanding the TPB by adding environmental-related antecedent variables such as environmental concern and environmental knowledge. These are the variables considered important factors when it comes to the field of green consumption (Yadav & Pathak, 2016; Paul et al., 2016). Specifically, the variable "environmental concern" reflects the level of anxiety, emotion, and responsibility of individuals regarding environmental issues, while the variable "environmental knowledge" refers to awareness of the causes, consequences, and solutions to environmental problems, as well as the impact of environmentally harmful consumer behavior (Paul et al., 2016).

Attitude and Green purchase intention

Attitude towards behavior is understood as the degree to which an individual positively or negatively evaluates the consumption of green products. For young consumers, their positive attitude is formed when they believe that buying green products provides benefits compared to the associated costs or inconveniences. Many empirical studies in the context of green consumption show that attitude is a strong predictor of purchase intention (Paul et al., 2016; Yadav & Pathak, 2016). Accordingly, when consumers have a favorable assessment of environmentally friendly products, they tend to express a stronger intention to purchase these products (Paul et al., 2016). Young consumers often have a high level of information reception, a tendency towards social concern, and are easily influenced by personal values. Positive attitudes can also amplify intention due to the consistency between personal values and desired behavior. Therefore, it is expected that a positive attitude towards green products will lead to a higher level of purchase intention among young consumers. Furthermore, this is also expected to have a stronger direct impact than subjective norms or perceived behavioral controls in

several different contexts. The results of many previous studies support this relationship, such as Yadav & Pathak (2016), Paul et al. (2016). Based on the above, this study proposes the following hypothesis:

Hypothesis 1 (H1): Attitude toward purchasing green products has a positive effect on young consumers' intention to purchase green products.

Subjective norm and Green purchase intention

According to the TPB model, subjective norms reflect an individual's perception of social pressure from important people such as family, friends, or colleagues in performing a specific behavior (Ajzen, 1991). For young consumers, this factor plays a particularly important role due to the need to affirm personal image and strong connections with reference groups (Lee, 2008). Empirical studies by Maichum et al. (2016) and Yadav and Pathak (2016) in emerging markets both confirm that when those around them support environmentally friendly and sustainable lifestyles, young people tend to form stronger intentions to buy green products. Recognition from social networks plays a crucial role for young people because it not only reinforces their beliefs but also motivates them to prioritize environmentally responsible choices. Therefore, for young consumers, social acceptance and the desire to conform to the expectations of a key reference group can be powerful motivators of purchase intention, especially when green behavior is seen as a sign of social value or status (Tarkiainen & Sundqvist, 2005). Based on these arguments, the study proposes the following hypothesis:

Hypothesis 2 (H2): Subjective norm has a positive effect on young consumers' intention to purchase green products.

Perceived behavioral control and Green purchase intention

Perceived Behavioral Control (PBC) reflects an individual's perception of the ease or difficulty of performing a behavior, including factors related to resources, opportunities, and confidence (Ajzen, 1991). In green consumption, PBC is related to practical barriers such as price, convenience, and product availability in the market (Yadav & Pathak, 2016). The studies by Maichum et al. (2016) and Paul et al. (2016) affirmed that when young consumers perceive they have sufficient finances and can access green products easily, their purchase intentions increase substantially. In particular, for youth in developing economies, reducing resource-related barriers is a decisive factor in promoting behavioral intentions (Yadav & Pathak, 2016). Based on this, the study proposes the hypothesis:

Hypothesis 3 (H3): Perceived behavioral control has a positive effect on young consumers' green purchase intention.

Environmental concern and Green purchase intention

Environmental Concern (EC) reflects an individual's awareness of ecological issues and their willingness to exert effort to address them. For young consumers, EC is considered a factor that drives the intention to purchase green products by forming an emotional attachment to the planet's well-being. The empirical findings of Maichum et al. (2016) and Yadav and Pathak (2016) confirm that higher levels of environmental concern lead to stronger green behavioral intentions, especially in developing countries. This concern serves as an important antecedent variable that increases the explanatory power of the extended Theory of Planned Behavior (TPB) model. Based on this, the study proposes the hypothesis:

Hypothesis 4 (H4): Environmental concern has a positive effect on young consumers' green purchase intention.

Environmental Knowledge and Green Purchase Intention among Young Consumers

One of the important variables related to green consumer behavior is "Environmental Knowledge" (EK). There are various understandings of Environmental Knowledge; one commonly used definition in many studies is: EK is an individual's understanding of the facts, concepts, and relationships related to the natural ecosystem (Fryxell & Lo, 2003; Maichum et al., 2016). In behavioral models of consumption in general and green consumption behavior in particular, EK often serves as a foundational factor that helps consumers identify environment-related attributes, thereby enabling consumers to accurately assess the benefits of green products (Paul et al., 2016). For young consumers, who tend to be relatively well-educated and have good access to information, this may allow them to use environmental knowledge as a tool to overcome ignorance and skepticism, thus increasing their confidence in purchase decisions (Yadav & Pathak, 2016). Empirical studies indicate that environmental knowledge has a positive effect on consumers' purchase intentions. In other words, the TPB-extended theoretical framework expects that those with higher levels of environmental understanding will more directly promote the intention to choose green consumption (Maichum et al., 2016; Paul et al., 2016). Based on this, the study proposes the hypothesis:

Hypothesis 5 (H5): Environmental knowledge has a positive effect on young consumers' green purchase intention.

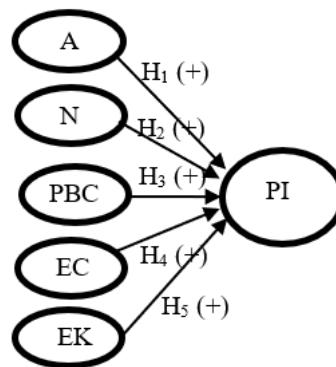


Figure 1: Proposed Research Model

RESEARCH MODEL, HYPOTHESES, AND METHODOLOGY

The objective of this study focuses on developing an extended TPB model in order to test the research hypotheses from H1 to H5. Accordingly, this study employs a mixed-methods approach, combining both qualitative and quantitative research. In particular, the quantitative approach is dominant, utilizing survey data collected through questionnaires. The survey subjects are young consumers (ages 18–25) living and working in Ho Chi Minh City. This target group focuses on university students and young workers employed in firms. The sample was selected using a convenience sampling method with a sample size of 235 consumers used for formal analysis. This sample size was determined based on recommendations for exploratory factor analysis and linear regression with an acceptable confidence level as proposed by Hair et al. (2010). In the study sample, women predominated, specifically with approximately 32.8% being male and 67.2% being female. Additionally, about 75.4% held a bachelor's degree and 24.6% held a postgraduate degree.

This study uses scales referenced from previous studies. Through qualitative research, the scales in this study were adapted from prior empirical studies. Specifically, the attitude scale has 3 observed items, the subjective norm scale has 3 observed items, the perceived behavioral control scale has 4 observed items, the environmental concern scale has 4 observed items, and the environmental knowledge scale has 3 observed items. These scales were measured using a 5-point Likert scale, where 1 denotes “strongly disagree” and 5 denotes “strongly agree.” The scales were referenced and adjusted to fit the Vietnamese context based on the measures developed by Yadav and Pathak (2016), Paul et al. (2016), and Maichum et al. (2016). In addition, the green purchase intention scale, serving as the dependent variable (3 observed items), was also adopted from previous studies. This study also incorporates demographic variables (age, gender, income level, and education) to provide additional information, support descriptive analysis, and ensure sample representativeness. Data for this study were collected through direct surveys conducted at universities and shopping centers. The data analysis procedure includes reliability testing (Cronbach’s alpha, EFA) and linear regression analysis to examine the relationships among variables and the fit of the extended TPB model.

RESULTS AND DISCUSSION

The research results were analyzed using various techniques. First, reliability analysis using Cronbach's Alpha coefficient was applied, showing that all scales in the study—from attitude scale, subjective norms, perceived behavioral control, environmental concern, environmental knowledge, and green purchase intention—had Cronbach's Alpha coefficients greater than 0.7. This indicates that the scales included in the model achieved acceptable reliability. After the reliability analysis of the scales met the requirements, the study proceeded with Exploratory Factor Analysis (EFA). EFA was performed, with results showing a KMO value of 0.841 and Bartlett's test statistically significant at the 5% significance level. This result shows that the data is suitable for exploratory factor analysis. The EFA results show that the observed variables were extracted into six corresponding initial factors. All factor loading coefficients are greater than 0.5 and meet the permissible requirements. The factors explaining the total variance are 80.9%, thus meeting the regulatory requirements. With Cronbach's Alpha and EFA results meeting the required criteria, the study proceeded with OLS regression analysis (see Table 1). The reliability analysis results using Cronbach's Alpha coefficient and exploratory factor

analysis were both satisfactory, so the study will continue with the next analytical procedure, linear regression analysis.

The results of model and hypothesis testing using SPSS indicate that all five research hypotheses are supported at the 5% significance level. This suggests that the extended Theory of Planned Behavior (TPB) model has strong explanatory power in predicting the green purchase intention of young consumers. The adjusted coefficient of determination R^2 reached 43.8% indicating that the independent variables: attitude, subjective norm, perceived behavioral control, environmental concern, and environmental knowledge, collectively explain approximately 43.8% of the variance in purchase intention. This reflects a relatively high level of model fit.

Table 1: Results of EFA and Cronbach's Alpha Analysis

Variables	Items	Factor loadings	Cronbach's Alpha
Attitude (A)	A1	0.878	0.928
	A2	0.911	
	A3	0.877	
Subjective norm (N)	N1	0.839	0.866
	N2	0.831	
	N3	0.855	
Perceived behavioral control (PBC)	PBC1	0.883	0.907
	PBC2	0.879	
	PBC3	0.838	
	PBC4	0.878	
Environmental concern (EC)	EC1	0.757	0.875
	EC2	0.855	
	EC3	0.848	
	EC4	0.868	
Environmental knowledge (EK)	EK1	0.911	0.923
	EK2	0.921	
	EK3	0.917	
Purchase intention (PI)	PI1	0.794	0.883
	PI2	0.787	
	PI3	0.821	

The OLS regression analysis results confirmed that attitude was the factor with the strongest influence on purchase intention, with a standardized beta coefficient ($\beta = 0.304$), followed by subjective norms ($\beta = 0.251$), environmental concerns ($\beta = 0.245$), environmental knowledge ($\beta = 0.139$), and perceived behavioral control as the factor with the weakest influence ($\beta = 0.118$). This ranking suggests that for young consumers, attitudes and social norms are the primary determinants, while environmental factors and behavioral constraints, although statistically significant, have a relatively weaker impact.

The test of the first hypothesis shows that hypothesis H1, which states that attitude positively affects intention, was confirmed with the highest beta coefficient and high statistical significance. This indicates that young consumers are more likely to purchase green products if they perceive the behavior as beneficial, right, and environmentally meaningful. These results are consistent with previous studies by Yadav and Pathak (2016), Yadav & Pathak (2017), and Paul et al. (2016), which show that attitude is always the strongest predictor in TPB models applied to green consumer behavior. These findings suggest that communication strategies should focus on changing individual perceptions, emphasizing personal and environmental benefits, rather than merely adjusting prices or promotions.

Hypothesis H2, which posits that subjective norm positively affects intention, was also confirmed and had the second-strongest effect. Young consumers show sensitivity to the expectations and behaviors of friends, family, social media, and reference groups. When social norms support purchasing green products, their behavioral intentions increase significantly. This result aligns with Yadav and Pathak's (2016) research on the role of subjective norm among young people. This implies that social media campaigns, the use of influencers, and creating green consumer communities may be more effective than focusing solely on one-way messages from firms.

Next, hypothesis H3 (perceived behavioral control affecting intention) was accepted but had the weakest effect in the OLS model. The results indicate that although convenience, affordability, and access to green products have a positive impact, they are not the main decisive factors in young consumers' purchase decisions. This reflects a tendency to prioritize environmental values and social norms over technical or economic barriers, consistent with the characteristics of urban youth (Yadav & Pathak, 2016). Nevertheless, firms still need to reduce price, distribution, and information barriers to support converting intention into actual behavior.

The two environment-related variables, environmental concern (H4) and environmental knowledge (H5), both have positive effects on green purchase intention. Young consumers with higher levels of concern and environmental knowledge exhibit more positive attitudes toward green products, leading to higher purchase intentions. These findings align with prior studies showing that attitude plays an important role in explaining behavioral intention (Paul et al., 2016; Yadav & Pathak, 2016). This underscores that environmental education, transparent communication about products' environmental impacts, and clear information on ingredients and product origins are effective long-term strategies.

In summary, the analysis indicates that the extended TPB model, including the three original TPB variables and the two environmental variables proposed in this study, is appropriate and statistically significant in the context of young consumers in Vietnam. This suggests that firms and policymakers should prioritize building positive attitudes and promoting social norms about green consumption before focusing on addressing barriers related to price, accessibility, and shopping convenience.

Table 2: Results of Hypothesis Testing

Direct effect	β	P-value	Decision
A ->PI	0.304	0.000	Accepted
N -> PI	0.251	0.000	Accepted
EC -> PI	0.245	0.000	Accepted
EK -> PI	0.139	0.008	Accepted
PBC -> PI	0.118	0.025	Accepted

CONCLUSION

The objective of this study is to examine the factors affecting young consumers' green purchase intentions by extending the Theory of Planned Behavior. The study's results were processed through OLS regression analysis using SPSS. The results show that the five proposed hypotheses were all accepted. Among all influencing factors, attitude is the variable with the strongest effect on purchase intention, followed by subjective norm, environmental concern, environmental knowledge, and finally perceived behavioral control. These findings are consistent with the results of many previous studies. The results also confirm that among young consumers, who are relatively well-educated, personal values and social norms are the main drivers of green purchase intentions, while factors related to convenience, behavioral barriers, and environmental knowledge play a supporting role.

Theoretically, the study consolidates and extends TPB by integrating two environmental variables — environmental concern and environmental knowledge — into the model, thereby enhancing the model's ability to explain green consumer behavior in a developing urban context. Practically, the results suggest that firms and regulators should focus on building positive attitudes through communication campaigns that emphasize the environmental and personal benefits of green products, while promoting social norms by encouraging community participation, social media, and influencers. In addition, strengthening environmental education and providing transparent information about green products will help improve environmental knowledge and concern, thereby indirectly increasing purchase intentions. At the same time, it is necessary to reduce actual barriers related to price, convenience, and access to green products to support conversion from intention to actual consumption behavior among young consumers.

Nevertheless, this study has some limitations that need to be addressed. First, the study did not consider the effects of mediating or moderating variables, which could further enhance understanding of green purchasing behavior. In addition, the study is limited to young consumers, so generalizability is limited. Future research should address these limitations.

REFERENCES

- 1) Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50, 179-211.

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International Journal of Engineering Technology Research & Management (IJETRM)

Journal Article

<https://ijetrm.com/issue/>

- 2) Fryxell, G. E., & Lo, C. W. (2003). The influence of environmental knowledge and values on managerial behaviours on behalf of the environment: An empirical examination of managers in China. *Journal of business ethics*, 46(1), 45-69.
- 3) Hair Jr, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis* (7th ed.). Englewood Cliffs, NJ: Prentice-Hall.
- 4) Lee, K. (2008). Opportunities for green marketing: young consumers. *Marketing intelligence & planning*, 26(6), 573-586.
- 5) Maichum, K., Parichatnon, S., & Peng, K. C. (2016). Application of the extended theory of planned behavior model to investigate purchase intention of green products among Thai consumers. *Sustainability*, 8(10), 1077.
- 6) Tarkiainen, A., & Sundqvist, S. (2005). Subjective norms, attitudes and intentions of Finnish consumers in buying organic food. *British food journal*, 107(11), 808-822.
- 7) Paul, J., Modi, A., & Patel, J. (2016). Predicting green product consumption using theory of planned behavior and reasoned action. *Journal of retailing and consumer services*, 29, 123-134.
- 8) Yadav, R., & Pathak, G. S. (2016). Young consumers' intention towards buying green-products in a developing nation: Extending the theory of planned behavior. *Journal of Cleaner Production*, 135, 732-739
- 9) Yadav, R., & Pathak, G. S. (2017). Determinants of consumers' green-purchase behavior in a developing nation: Applying and extending the theory of planned behavior. *Ecological Economics*, 134, 114-122.