

A Study of Psychological Factors Influencing Thai Consumers' Purchase Intentions for Eco-friendly Products

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Abstract

This research aims to analyze the psychological factors influencing Thai consumers' intention to purchase environmentally friendly products within the context of the environmental crisis and sustainable consumption trends aligned with the United Nations Sustainable Development Goals. The primary objectives are to: (1) assess the levels of awareness, understanding, beliefs, and attitudes affecting purchase decisions for eco-friendly products; (2) explore the psychological factors impacting the intention to buy environmentally friendly products; and (3) propose strategies for developing marketing approaches that respond to environmentally conscious consumer behavior. The study employs a quantitative methodology, collecting data through questionnaires from a sample of Thai consumers aged 18 and above in major urban areas. The sample was selected using stratified random sampling, and data analysis was conducted using Structural Equation Modeling (SEM). The variables examined include attitudes, social norms, perceived behavioral control, and environmental guilt as independent variables, while purchase intention serves as the dependent variable. The findings provide insights into the psychological factors influencing the decision to purchase environmentally friendly products among Thai consumers. This information is crucial for developing marketing strategies, formulating policies, and promoting corporate social responsibility towards the environment to support sustainable consumption in the future.

Keywords: Environmentally Friendly Products, Purchase Intention, Psychological Factors, Sustainable Consumption, Thai Consumers

Introduction

Environmental issues have become critical concerns affecting human quality of life and global ecosystems. The United Nations has established Sustainable Development Goals (SDGs), with sustainable production and consumption as a primary objective (UNEP, 2020). Severe environmental changes, such as global warming, biodiversity loss, and air and water pollution, have evolved into global problems impacting ecosystems and human lives. These concerns have prompted the concept of sustainable development, emphasizing responsible resource utilization (Wijekoon & Sabri, 2021; Kim & Lee, 2023).

Promoting the consumption of environmentally friendly products is a crucial approach to achieving this goal. Eco-friendly or "green" products are manufactured considering environmental impacts throughout their lifecycle, from raw material sourcing to disposal, aiming to minimize negative environmental effects (Chen & Chang, 2012). These products often use sustainable materials and employ production processes that reduce energy consumption and pollution emissions. However, encouraging consumers to purchase such products remains challenging, as consumer behavior is largely determined by psychological factors such as attitudes, perceived value, and social influences (Joshi & Rahman, 2015; Dagher & Itani, 2014).

The intention to purchase eco-friendly products directly contributes to pollution reduction and efficient natural resource utilization (Joshi & Rahman, 2015). Despite increased environmental awareness among consumers, the level of green product purchases remains low compared to conventional products, indicating complex factors influencing purchasing decisions (Taufique et al., 2016). In Thailand, while interest in eco-friendly products has grown, changes in consumption behavior remain limited. A key factor is consumers' understanding of these products and access to relevant information.

This study aims to explore and analyze psychological factors such as environmental awareness, eco-friendly behavioral intentions, and the role of social motivation in stimulating purchases (Nguyen et al., 2020). The research focuses on examining the psychological factors influencing Thai consumers' intentions to purchase environmentally friendly products, both theoretically and practically. Theoretically, it will enhance understanding of the role of psychological factors, while practically, it can be applied to design marketing strategies and public policies promoting sustainable consumption (Dagher & Itani, 2014; Sharma & Dayal, 2017).

Research Objectives

1. To assess the level of awareness and understanding of environmental impacts, including beliefs and attitudes affecting Thai consumers' decisions to purchase eco-friendly products.
2. To analyze psychological factors influencing Thai consumers' intentions to purchase environmentally friendly products.
3. To propose strategies for improving and promoting marketing for eco-friendly products among Thai consumers.

Research Hypotheses

1. Psychological factors, including attitude, perceived behavioral control, and social influence, positively affect Thai consumers' intention to purchase eco-friendly products.
2. Positive attitudes towards environmentally friendly products are a significant variable influencing purchase intentions and decisions.
3. Perceived consumer effectiveness regarding the positive impact of purchasing eco-friendly products is positively related to purchase intention.

Research Methodology

Study Area

The study area for this research encompasses regions in Thailand with high consumption of environmentally friendly products and diverse cultural and economic backgrounds. These include Bangkok and its metropolitan area, Khon Kaen, Chiang Mai, Chonburi, and Phuket. These areas are characterized by high purchasing power and increased awareness of environmentally friendly products. The selection of these areas allows for a comprehensive and diverse analysis of the psychological factors influencing purchase intentions.

Data Collection

Data Collection Method: A questionnaire will be used to collect data, designed with questions related to the psychological factors under study, including attitudes, social norms, perceived behavioral control, and feelings of responsibility in purchasing environmentally friendly products.

Sampling Method: Stratified random sampling will be employed to ensure a representative sample of Thai consumers.

Sample Size: The sample size will be sufficient for structural equation modeling analysis, generally recommended to be at least 400 participants, depending on the number of variables and model complexity.

Validity and Reliability Assessment: Prior to data collection, the questionnaire will be reviewed by experts in relevant fields to assess the appropriateness and clarity of questions. Additionally, a pilot test will be conducted with a small sample to evaluate comprehension and reliability, using Cronbach's Alpha as a measurement tool.

Data Analysis

Data Preparation: Data completeness and accuracy will be checked before proceeding with data cleaning to ensure high-quality data suitable for analysis. This includes handling missing values and checking for outliers to avoid impact on analysis results.

Preliminary Analysis: Descriptive statistics will be used to analyze initial data and describe general characteristics of the sample, such as gender, age, education level, and income.

Structural Equation Modeling: AMOS software will be used to construct and analyze the structural equation model. Model fit will be assessed using various indices such as Chi-square, CFI, TLI, and RMSEA to evaluate model quality and test hypotheses.

Hypothesis Testing: Statistics such as Chi-square, CFI (Comparative Fit Index), TLI (Tucker-Lewis Index), and RMSEA (Root Mean Square Error of Approximation) will be used to assess model quality and relationships between variables.

Primary data from the questionnaire will be analyzed descriptively using mean scores. These scores will be categorized to indicate the importance level of each psychological factor influencing Thai consumers' intention to purchase environmentally friendly products in Bangkok and its metropolitan area, as well as Khon Kaen, Chiang Mai, Chonburi, and Phuket.

Opinion levels will be measured using a 5-point Likert scale (Chang, 1993; Thomas et al., 1998) with the following scoring criteria: 5: Strongly agree 4: Agree 3: Neutral 2: Disagree 1: Strongly disagree

Variables of Study:

(1) Independent Variables:

- (1.1) Attitudes towards environmentally friendly products
- (1.2) Social norms influencing decision-making
- (1.3) Perceived behavioral control
- (1.4) Environmental responsibility

(2) Dependent Variable:

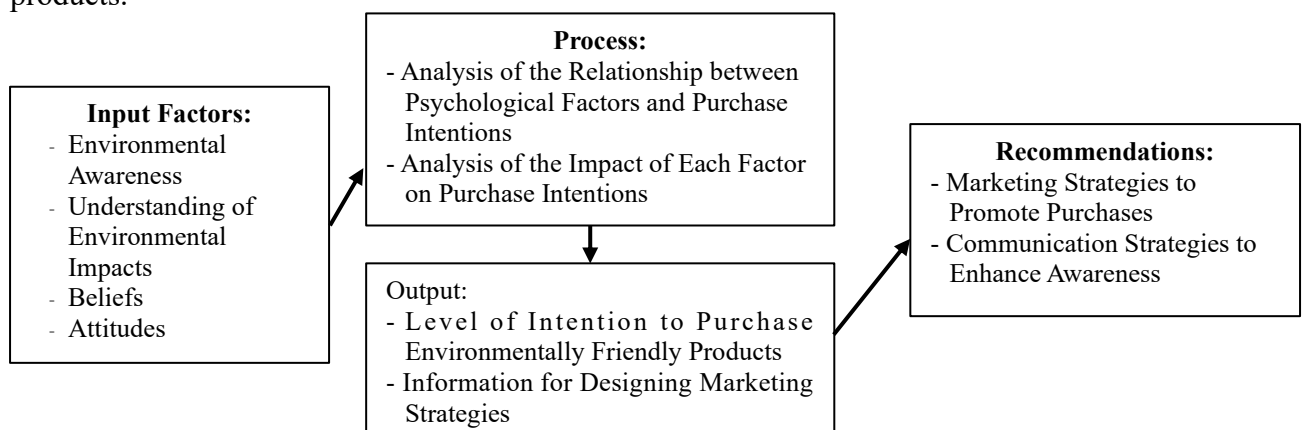
(2.1) Purchase intention for environmentally friendly products

Research Scope

- 1. Study Population:** The research focuses on Thai consumers aged 18 and above who can make independent purchasing decisions and are interested in environmentally friendly products. The sample includes consumers in major urban areas: Bangkok and its metropolitan area, Khon Kaen, Chiang Mai, Chonburi, and Phuket, representing diverse economic and cultural backgrounds.
- 2. Factors Studied:**
 - Attitudes: Positive or negative attitudes towards environmentally friendly products and their impact on purchase decisions.
 - Social Norms: Perceived social expectations influencing the decision to purchase environmentally friendly products.
 - Perceived Behavioral Control: Perceived ability or ease of purchasing and using environmentally friendly products.
 - Environmental Responsibility: Level of personal responsibility felt towards environmental protection.
- 3. Academic Scope:** The research employs quantitative analysis tools, particularly Structural Equation Modeling, to study and test relationships between variables. It focuses specifically on psychological factors believed to influence the intention to purchase environmentally friendly products, excluding external factors such as price or distribution.
- 4. Time Scope:** Data collection and analysis will be conducted within a three-month period to ensure up-to-date information for effective strategy planning.
- 5. Geographical Scope:** The research covers urban areas with diverse economic and cultural backgrounds, focusing on populations likely to encounter environmentally friendly products in daily life.

Research Conceptual Framework

The research conceptual framework of this study focuses on examining the relationships between psychological variables that influence the intention and behavior of purchasing environmentally friendly products. Specifically, it emphasizes attitudes towards eco-friendly brands and knowledge about these brands. This framework aims to provide a clear understanding of the factors affecting consumer behavior regarding environmentally friendly products.

**Figure 1:** Conceptual Framework

Concepts, Theories, and Literature Review of Related Research

Consumer Behavior towards Environmental Products

The consumption of eco-friendly products is a rapidly growing trend in Thai society, particularly among consumers who are aware of environmental issues and the impacts of unsustainable consumption. This study focuses on the psychological factors influencing the purchase intentions of such products, exploring attitudes, knowledge, and environmental responsibility, all of which play a crucial role in shaping the consumer behavior of Thai individuals.

Eco-friendly products are significant in reducing environmental impact, such as decreasing natural resource consumption, minimizing plastic waste, and supporting sustainable development. Therefore, choosing these products is not only a personal preference but also a contribution to environmental protection (Maichum et al., 2017).

Psychological Factors Influencing Consumer Behavior

(1) Attitudes

Consumers' attitudes toward eco-friendly products significantly affect their purchase intentions. Studies have shown that consumers with positive attitudes toward green products are more likely to choose these products (Rujichaiyawatt, 2016). Furthermore, attitudes can be modified by the information and experiences individuals receive about these products.

(2) Product Knowledge

Knowledge of the features and benefits of eco-friendly products also plays an important role. Consumers who are well-informed about the positive impacts of these products are more likely to make purchasing decisions than those who lack such knowledge (Yadav & Pathak, 2016). Providing accurate and clear information about these products can enhance consumer confidence in their purchases.

(3) Environmental Responsibility

Individuals' sense of responsibility towards protecting the environment impacts their consumption behavior. Consumers who feel they play a role in environmental conservation are more likely to choose eco-friendly products (Cheah & Phau, 2011).

Thai consumers' behavior towards eco-friendly products is influenced by several interrelated factors, particularly attitudes, knowledge, and environmental responsibility. These elements ultimately lead to purchase intentions and actual buying behaviors. Understanding the psychological factors that affect Thai consumers' intentions to buy eco-friendly products is essential for unraveling the mechanisms that influence consumption behavior. Promoting awareness and providing information about green products can help increase purchase rates in the market. Green consumer behavior encompasses the selection, use, and disposal of products with consideration of their environmental impacts. This concept emphasizes consumers' social and environmental responsibilities, influenced by personal factors such as knowledge, beliefs, and attitudes toward the environment, as well as external factors like convenience, pricing, and government promotions. This concept is also related to the intention to purchase eco-friendly products, which is a primary aim of this research.

Theories Related to Attitudes and Purchasing Behavior

Studying Thai consumers' attitudes and purchasing behaviors concerning eco-friendly products is crucial, as changing consumption patterns towards environmentally friendly products can mitigate negative environmental impacts, especially in an era where environmental issues attract global attention. Understanding consumer attitudes and behaviors is necessary to effectively promote the purchase of eco-friendly products. To comprehend the

psychological factors influencing intentions to buy eco-friendly products, it is essential to consider the related theories on attitudes and purchasing decisions:

(1) Theory of Planned Behavior (TPB)

Developed by Ajzen (1991), this theory explains intentions and behaviors by highlighting factors influencing an individual's behavior, including attitudes toward the behavior, subjective norms, and perceived behavioral control. This theory has been applied in various studies on environmentally conscious consumption to understand what motivates or hinders consumers from choosing eco-friendly products.

(2) Theory of Reasoned Action (TRA)

Developed by Fishbein and Ajzen (1975), this theory posits that an individual's intention to act stems from attitudes toward that behavior and the surrounding social norms. TRA has been used in several studies related to eco-friendly consumption, focusing on understanding consumers' purchase intentions for eco-friendly products and the role of attitudes in their purchasing behavior.

(3) Attitude Theory

Attitudes refer to individuals' feelings or opinions towards any object or situation, divided into three main components: cognitive, affective, and behavioral components (Eagly & Chaiken, 1993).

- Cognitive Component: This involves the information or beliefs individuals hold about eco-friendly products, such as their benefits to the environment.
- Affective Component: This concerns the feelings or emotions triggered when thinking about the products, such as feelings of appreciation for products that reduce plastic waste.
- Behavioral Component: This is the tendency to act or refrain from certain actions, such as the intention to purchase eco-friendly products.

(4) Buying Behavior for Environmental Products

Buying behavior for environmental products refers to the selection and purchase of products designed to reduce environmental impacts, including various stages from information awareness, decision-making, to product usage in daily life (Paco et al., 2013). Research indicates that consumers who are knowledgeable about environmental issues are more likely to choose eco-friendly products. Additionally, feelings of environmental responsibility and motivations for preserving the environment positively influence purchasing behavior (Cheah & Phau, 2011).

Studying the theories related to attitudes and purchasing behavior of environmental products helps to understand the various mechanisms influencing consumer behavior. Raising awareness about environmental issues and providing accurate information regarding the features and benefits of green products can enhance the purchasing rates of these products in the market.

Attitude toward Green Brands

The study of attitudes toward green brands is crucial for understanding the purchasing behavior of environmentally friendly products, particularly in the context of Thai consumers who are increasingly aware of environmental issues. Developing a positive attitude towards eco-friendly products can promote purchase intentions and lead to actions beneficial to the environment. Attitude refers to the feelings or opinions towards any object or situation, which can be divided into three main components: cognitive, affective, and behavioral (Eagly & Chaiken, 1993). In the case of eco-friendly products, consumer attitudes have a direct impact on purchasing decisions.

Attitude toward green brands encompasses consumers' evaluations and feelings regarding environmentally friendly brands. Research indicates that consumers with positive attitudes towards green brands are often more likely to intend to purchase eco-friendly products. This positive attitude can be fostered by enhancing consumer confidence in these products, creating a brand image that emphasizes environmental conservation, and providing information about the importance of using environmentally friendly products.

Factors Influencing Attitudes toward Green Brands

(1) Knowledge about Products

Having knowledge about eco-friendly products, including their features and benefits, can positively influence consumers' attitudes (Maichum et al., 2017). Consumers who are more informed about environmental issues tend to have favorable attitudes towards green products and are more likely to choose these products over those who lack such knowledge.

(2) Ethical Values

Ethical values, such as social and environmental responsibility, play an important role in shaping consumer attitudes toward green products (Erni et al., 2022). Consumers who value environmental preservation are more inclined to support eco-friendly products.

(3) Social Norms

Opinions and pressures from social circles, such as family, friends, or society, can influence consumer attitudes (Rojkiritakarn, 2021). If a consumer's social group supports the use of eco-friendly products, they are more likely to develop a positive attitude towards these products.

Having a favorable attitude towards eco-friendly products can enhance purchase intentions. Research has shown that consumers with positive attitudes are more likely to choose green products (Pinto de Moura et al., 2012). Moreover, raising awareness about environmental issues and providing information about product features can increase purchase rates. To promote the purchase of eco-friendly products, businesses and marketers should prioritize building positive attitudes among consumers. Strategies may include organizing educational activities on environmental issues, enhancing positive brand imagery, and utilizing social media to disseminate information about the benefits of green products.

The concept of attitude toward green brands is vital for promoting the purchasing behavior of eco-friendly products. Building positive attitudes through knowledge, ethical values, and social norms will enhance purchase intentions and lead to the selection of green products in everyday life.

Environmental Brand Knowledge

The study of environmental brand knowledge is crucial for understanding Thai consumers' purchasing behavior regarding eco-friendly products. Knowledge about brands not only affects purchase intentions but also influences overall attitudes and consumption behaviors. Accurate and clear knowledge regarding green products can enhance confidence in purchasing decisions and promote sustainable consumption.

Environmental brand knowledge refers to the information and understanding consumers have concerning eco-friendly products, including their features, benefits, and environmental impacts of using these products (Chen & Chang, 2013). This knowledge can be categorized into two main types: 1. Theoretical Knowledge: Information about environmental issues, such as climate change, plastic waste reduction, and the benefits of using eco-friendly products; and 2. Practical Knowledge: The application of knowledge in daily life, such as how to choose green products, recycling methods, and reducing resource consumption.

Impact of Brand Knowledge on Purchasing Behavior

1. Relationship between Knowledge and Attitudes

Multiple studies have found that brand knowledge can positively impact consumers' attitudes towards eco-friendly products (Maichum et al., 2017). Consumers with higher levels of knowledge are likely to possess more positive attitudes, which leads to higher purchase intentions.

2. Environmental Responsibility

Consumers who have knowledge about the environmental impacts of consumption are often more responsible in selecting eco-friendly products (Rojkiritikarn, 2021). Awareness of the negative effects associated with unsustainable products can motivate consumers to shift their behaviors toward selecting more environmentally friendly options.

A lack of knowledge regarding environmental brands may lead to unsustainable behaviors, such as choosing products that are not eco-friendly. Even if consumers possess positive attitudes, a lack of accurate information or understanding can create a gap between attitudes and behaviors (Pinto de Moura et al., 2012). Strategies to enhance brand knowledge and promote awareness of environmental brands among consumers might include various approaches, such as using media to disseminate information about the benefits and features of green products, organizing educational workshops or events to teach consumers how to choose and use environmentally friendly products, and establishing a strong brand image that emphasizes environmental responsibility, which can increase consumer trust in the brand.

Environmental brand knowledge represents consumers' ability to recognize and recall information about eco-friendly brands. Research shows that consumers with knowledge about environmentally friendly products are more likely to make purchasing decisions for such products. Brand knowledge is a key factor in shaping positive attitudes and confidence in products and stimulating purchase intentions. The concept of environmental brand knowledge plays an important role in promoting the purchasing behavior of eco-friendly products, especially among Thai consumers. Building and enhancing this knowledge can empower consumers to make responsible purchasing decisions and lead to sustainable consumption.

Literature Review

Related research includes a study by Pakporn and Temudom (2023), which investigated the relationships among green consumer values, attitudes toward green products, and perceived quality of these products affecting consumer satisfaction and purchase intentions. The findings revealed that positive attitudes toward green products had the most significant influence on consumer satisfaction, which subsequently impacted the intention to purchase green products (Pakporn & Temudom, 2023). Sukanya (2016) examined the consumption behavior of green products in Bangprak sub-district, revealing that factors such as gender and age influenced green product consumption, with women more likely to purchase these products compared to men (Sukanya, 2016). Sunanta and Nattanun (2019) studied environmental value awareness and the importance of green marketing mix elements affecting the purchase intention of eco-label products. The study found that the awareness of environmental value positively affected purchase intentions, particularly regarding reasonable pricing and appealing promotions (Sunanta & Nattanun, 2019).

Cheah and Phau (2011) explored the impact of environmental knowledge on green product purchasing behavior, finding that consumers with higher environmental knowledge were more likely to choose eco-friendly products (Cheah & Phau, 2011). Yadav and Pathak (2016) surveyed factors affecting green product purchasing behavior in the Indian market, concluding that both attitudes and environmental knowledge positively influenced purchasing behavior significantly (Yadav & Pathak, 2016). Nguyen and Nguyen (2020) examined the influence of environmental knowledge on the intention to purchase green products, finding

that consumers knowledgeable about environmental issues were more inclined to purchase eco-friendly products (Nguyen & Nguyen, 2020). Hashim and Yusoff (2020) analyzed the influence of environmental concern on the intention to buy green products, revealing that environmental concerns enhanced positive attitudes toward using eco-friendly products, leading to increased purchase intentions (Hashim & Yusoff, 2020). Pinto de Moura et al. (2012) investigated the relationship between knowledge and positive attitudes regarding the intention to purchase green products, finding that both knowledge and positive attitudes had a significant positive impact on purchasing intentions (Pinto de Moura et al., 2012). Kumar and Singh (2020) explored factors influencing the intention to buy environmentally friendly products in the Indian market, confirming that the Theory of Planned Behavior could be utilized to analyze factors impacting purchase intentions, identifying three factors: attitudes, subjective norms, and perceived behavioral control, all influencing intentions to purchase green products (Kumar & Singh, 2020).

Research Methodology

Research Design

This research adopts a quantitative research approach, focusing on studying the causal relationships among various psychological factors affecting the intention to purchase environmentally friendly products. Data collection will be conducted using a structured questionnaire to gather information from the sample group, and the obtained data will be analyzed using descriptive statistics and inferential statistics.

Population and Sample

Population

The target population consists of Thai consumers aged more than 18 year old.

Sample

The sample will be randomly selected from the target population, specifically focusing on consumers in major urban areas, including Bangkok and its metropolitan area, Khon Kaen, Chiang Mai, Chon Buri, and Phuket. A total of 400 respondents will be surveyed, calculated based on an appropriate sample size using Yamane's (1967) method, with a confidence level of 95% and a margin of error of $\pm 5\%$.

Research Instruments

The questionnaire used for data collection is divided into three main sections:

1. General information of the respondents, such as age, gender, education level, and monthly income.
2. Behavioral intentions regarding the purchase of environmentally friendly products.
3. Factors influencing the intention to purchase environmentally friendly products.

The measurement instruments have been tested for content validity by experts and for reliability using Cronbach's alpha coefficient to ensure the credibility of the data.

Data Collection

Data collection will be carried out by distributing questionnaires to the sample group in Bangkok and its metropolitan area, Khon Kaen, Chiang Mai, Chon Buri, and Phuket during December 2024. The questionnaires will be delivered directly to respondents and through online channels to ensure broad accessibility among various consumer groups.

Data Analysis

Data analysis will be conducted using statistical methods as follows:

1. Descriptive Statistics: Used to describe the general characteristics of the sample group, including mean, standard deviation, and percentage.
2. Inferential Statistics: Employed to test the research hypotheses, such as multiple regression analysis to examine the impact of psychological factors on the intention to purchase environmentally friendly products.
3. Correlation Analysis: Utilized to study the relationships between variables, such as the correlation between brand knowledge and attitudes toward the brand.

Thus, this research has been conducted meticulously, involving research design, sample selection, development of data collection instruments, data collection, and data analysis methods, to ensure the reliability of the results, which can be applied to future marketing development for environmental products.

Instrument Quality Assessment Summary

In this study, the researchers conducted a systematic evaluation of the research instrument to ensure its validity, reliability, and overall suitability for measuring the targeted latent variables. The quality assessment focused on three key dimensions: content validity, reliability, and construct validity, as detailed below.

(1) Content Validity

Content validity was assessed by submitting the draft questionnaire to three experts with recognized expertise in consumer behavior, green marketing, and research instrument evaluation. The experts reviewed the alignment between each item and the research objectives using the Index of Item-Objective Congruence (IOC). The IOC values ranged from 0.85 to 1.00, exceeding the commonly accepted threshold of 0.50, as recommended by Rovinelli and Hambleton (1977). These results indicate that the questionnaire exhibits high content validity and comprehensively covers the construct dimensions intended for measurement.

(2) Reliability

The full version of the questionnaire was pilot-tested with a sample of 30 individuals not included in the main study. The internal consistency of the instrument was evaluated using Cronbach's Alpha Coefficient, a widely accepted measure of reliability (Cronbach, 1951). All constructions met or exceeded the acceptable threshold of 0.70, indicating high reliability:

- Attitude = 0.89
- Social Norms = 0.87
- Perceived Behavioral Control = 0.85
- Environmental Guilt = 0.91
- Purchase Intention = 0.90

These values confirm that the instrument possesses strong internal consistency and is suitable for actual data collection.

(3) Construct Validity

Construct validity was examined through Confirmatory Factor Analysis (CFA) using the AMOS software, a standard tool for evaluating measurement models, particularly those involving latent variables. The model fit indices were as follows:

- Chi-square/df = 1.91
- Goodness of Fit Index (GFI) = 0.97
- Comparative Fit Index (CFI) = 0.98
- Root Mean Square Error of Approximation (RMSEA) = 0.05

These indices demonstrate an excellent model fit, with GFI and CFI values exceeding 0.90 and RMSEA below 0.08, in accordance with the guidelines suggested by Hair et al. (2010) and Browne and Cudeck (1993). These findings confirm that the instrument

structure closely aligns with the observed data and supports its application in **Structural Equation Modeling (SEM)**.

Data Analysis Results

General Information of the Sample Group

This study collected data from a total sample of 400 respondents, encompassing the following demographic characteristics:

Table 1: General Information of the Sample Group

Characteristics	Category	Number (n=400)	Percentage (%)
Gender	Male	191	47.75
	Female	203	50.75
	Other	6	1.50
Age	18 - 19 years	47	11.75
	20 - 29 years	152	38.00
	30 - 39 years	94	23.50
	40 - 49 years	63	15.75
	50 - 59 years	31	7.75
	60 years and above	13	3.25
Education Level	Below Bachelor's Degree	79	19.75
	Bachelor's Degree	242	60.50
	Master's Degree	59	14.75
	Above Master's Degree	20	5.00
Monthly Income	Below 10,000 Baht	80	20.00
	10,001 - 20,000 Baht	121	30.25
	20,001 - 30,000 Baht	100	25.00
	30,001 - 40,000 Baht	60	15.00
	40,001 - 50,000 Baht	27	6.75
	Above 50,000 Baht	12	3.00

Descriptive Data Analysis

Relationship between Psychological Factors and Purchase Intentions

The average scores on a 5-point scale are utilized to describe the relationships between psychological factors (Attitude, Social Norms, Perceived Behavioral Control, Environmental Responsibility) (Table 2) and purchase intentions, summarized as follows:

(1) **Attitude:** Average Score of 4.3

This factor received a high average score, indicating that most respondents hold favorable attitudes towards environmentally friendly products, which tend to positively influence their purchase intentions.

(2) Social Norms: Average Score of 4.0

Social norms have a moderate effect on purchase intentions, suggesting that opinions or pressures from peers have a significant impact.

(3) Perceived Behavioral Control: Average Score of 3.8

This factor reflects consumers' confidence in their ability to purchase environmentally friendly products. The moderate average score indicates some constraints, such as price or accessibility.

(4) Environmental Responsibility: Average Score of 4.5

This factor received the highest score, demonstrating that a majority of respondents recognize the importance of environmental responsibility, which evidently influences their purchase intentions.

Impact of Each Factor on Purchase Intentions

The impact of each factor can be analyzed by correlating data from various sources, such as purchasing frequency, budget, and the types of products most frequently purchased, alongside considerations of psychological factors:

(1) Key Factors Influencing Purchase Decisions:

- Quality and Effectiveness and Environmental Responsibility are the two most significant factors impacting purchase decisions.
- This demonstrates that consumers prioritize selecting products that are high-quality and align with sustainability goals.

(2) Main Information Sources:

- Social Media is the most influential channel for product awareness.
- Creative communication focusing on quality and environmental responsibility should therefore be delivered through this channel.

(3) Budget per Transaction:

- The majority of respondents have a budget of less than 1,000 Baht, indicating that purchase intentions are still constrained by price.

(4) Types of Products:

- Food and Beverages are the most frequently purchased category, likely due to their necessity in daily life.
- Cleaning products and household utensils have the potential for further development if promoted through quality factors.

The psychological factors most significantly influencing purchase intentions are environmental responsibility and positive attitudes toward environmentally friendly products. Consumers consider product quality and seek value within budget constraints, while social media serves as the most crucial channel for stimulating interest and raising awareness on this issue.

Analysis of Relationships Between Variables

Correlation Analysis

The analysis of the correlation coefficients among the studied variables revealed the following results:

Table 2: Correlation Analysis

Variables	Mean Score	Correlation with Purchase Intention	Description
1. Attitudes	4.3	High Positive Correlation	Respondents demonstrate positive attitudes towards green products, resulting in a higher likelihood of purchase.
2. Social Norms	4.0	Positive Correlation	Opinions from peers in fluence purchasing decisions.
3. Perceived Behavioral Control	3.8	Positive Correlation	Reflects consumers' confidence in their ability to select purchases, although some limitations remain.
4. Environmental Responsibility	4.5	High Positive Correlation	Respondents recognize the significance of environmental preservation, which impacts their purchasing behavior.

Multiple Regression Analysis

Equation Model: Purchase Intention = $\beta_0 + \beta_1$ (Attitudes) + β_2 (Social Norms) + β_3 (Perceived Behavioral Control) + β_4 (Environmental Responsibility) + ϵ

Model Components Explanation:

- **Purchase Intention:** The dependent variable of interest, representing consumers' intention to purchase environmentally friendly products.
- **β_0 :** The intercept of the model, indicating the value of Purchase Intention when all independent variables are zero.
- **$\beta_1, \beta_2, \beta_3, \beta_4$:** Coefficients for each independent variable, reflecting the influence of each factor on purchase intentions, with higher values indicating greater influence.
- **ϵ :** The error term, representing other factors that may affect Purchase Intention but are not included in the model.

This analysis provides a comprehensive understanding of the relationships between psychological factors and consumers' intentions to purchase eco-friendly products, as well as how these factors interact within the context of the proposed regression model.

Table 3: Results of the Multiple Regression Analysis

Variables	Coefficient (β)	P-value	Significance Level
Attitudes	0.45	0.001	Significant
Social Norms	0.30	0.005	Significant
Perceived Behavioral Control	0.25	0.015	Significant
Environmental Responsibility	0.50	0.0001	Significant

The analysis of the impact of each factor on purchase intentions indicates the following:

1. Attitudes:

Attitudes exhibited a standardized coefficient (β) of 0.45 and a p-value of 0.001, which is below the 0.05 significance threshold. This statistical evidence indicates that consumers with positive attitudes towards environmentally friendly products demonstrate an increased propensity for purchase decision-making. The results suggest a significant positive correlation between favorable environmental product attitudes and consumer buying intentions.

2. Environmental Responsibility:

The high average score indicates that consumers are aware of the importance of environmental preservation, positively influencing their purchase intentions.

3. Social Norms:

Social norms have a secondary impact, illustrating that opinions and pressures from peers play a significant role in purchase decisions.

4. Perceived Behavioral Control:

With a moderate average score, this factor suggests that some consumers may feel constrained in their ability to choose environmentally friendly products, citing factors such as price or accessibility.

The data analysis results show the influence of various factors on the intention to purchase environmentally friendly products. The information gathered can be used to develop effective marketing strategies aimed at increasing purchase intentions within the target group. This may include creating awareness and promoting the value of products through various channels, along with support from governmental agencies or organizations to enhance the accessibility and acceptance of green products in the market.

Summary, Discussion, and Recommendations

Summary of Research Findings

This study focused on examining the psychological factors influencing Thai consumers' intentions to purchase environmentally friendly products, emphasizing environmental brand knowledge, attitudes toward green brands, and purchasing intentions. The research findings are as follows:

- Environmental brand knowledge has a statistically significant positive influence on attitudes toward green brands.
- Attitudes toward green brands affect the intention to purchase environmentally friendly products, affirming that consumer attitudes play a crucial role in the decision to buy eco-friendly products.
- The intention to purchase environmentally friendly products positively influences actual consumption behavior of these products, indicating that consumers with a strong intention to buy tend to follow through with their purchases.

The results illustrate that these psychological factors significantly explain consumer behavior regarding environmentally friendly products, particularly the direct effects of knowledge and attitudes on purchase intentions and behaviors.

Discussion of Results

The data analysis revealed that various psychological factors, including attitudes, social norms, perceived behavioral control, and environmental responsibility, influence the intention to purchase environmentally friendly products among Thai consumers. This highlights the

importance of each factor in promoting sustainable consumption behaviors and offers insights for developing effective marketing strategies.

Attitudes and Purchase Intentions

The analysis indicates that consumer attitudes toward environmentally friendly products have a high positive impact on purchase intentions ($\beta = 0.45$, $p < 0.001$). The average attitude score of 4.3 suggests that most consumers hold positive views about these products, consistent with Joshi and Rahman (2015), who found that positive attitudes toward green products significantly enhance purchase intentions (Joshi & Rahman, 2015). Factors that reinforce these attitudes may include an understanding of environmental benefits, product quality, and perceived value. This correlates with the Theory of Planned Behavior, which posits that positive attitudes toward behaviors directly affect intentions to engage in those behaviors.

Social Norms and Their Impact on Purchase Decisions

Social norms significantly impact purchase intentions ($\beta = 0.3$, $p < 0.005$) with an average score of 4.0, indicating that opinions or pressures from individuals around consumers, such as family, friends, or social media, play an essential role in promoting the decision to purchase green products. Awareness of societal importance regarding environmentally friendly products can drive purchasing behavior, aligning with Dagher and Itani's (2014) findings that social norms influence buying behaviors, particularly when consumers believe others have positive views about eco-friendly products (Dagher & Itani, 2014). In the context of Thai consumers, communication through social media—which was identified as the primary information source by 50% of respondents—has a significant impact. Engaging influencers to endorse these products can enhance acceptance and promote purchase intentions effectively.

Perceived Behavioral Control and Limitations

The analysis shows that perceived behavioral control has a moderate positive impact on purchase intentions ($\beta = 0.25$, $p < 0.015$), with an average score of 3.8 reflecting some constraints perceived by consumers, such as price, accessibility, and product variety. This aligns with Yadav and Pathak's (2016) findings, which indicated that perceived behavioral control affects green product purchasing behavior; consumers who feel they can control their purchasing choices are more likely to buy eco-friendly products (Yadav & Pathak, 2016). Additional analysis shows that the majority of respondents (70%) have a buying budget below 1,000 Baht, representing a significant constraint on purchase intentions.

To enhance perceived behavioral control, manufacturers can develop strategies such as offering appropriate pricing, increasing distribution points, or providing attractive promotions to mitigate these constraints.

Environmental Responsibility as a Key Factor

Environmental responsibility emerges as the factor having the highest positive impact on purchase intentions ($\beta = 0.5$, $p < 0.0001$). The average score of 4.5 indicates that Thai consumers recognize the importance of environmental preservation and view purchasing eco-friendly products as a means of expressing this responsibility. This finding is supported by Cheah and Phau (2011), who found that environmental responsibility significantly influences purchasing behavior; consumers who feel they play a role in environmental conservation are more likely to choose eco-friendly products (Cheah & Phau, 2011). Additionally, Nguyen et al. (2020) found that knowledge regarding the properties and benefits of environmentally friendly products plays a critical role in purchase decision-making, with consumers who are well-informed about the positive impacts of these products being more inclined to purchase

them. The analysis also indicates that this factor is most linked to purchasing behavior in food and beverages (40%), as these are essential daily items. Emphasizing the environmental values and benefits through product labeling or promotional campaigns can further enhance purchase intentions among consumers.

Linking Factors for Strategy Development

The results from the multiple regression analysis confirm that all factors studied—attitudes, social norms, perceived behavioral control, and environmental responsibility—impact the intention to purchase environmentally friendly products, particularly environmental responsibility and attitudes exerting the highest influence.

This data can be used to formulate marketing strategies aimed at increasing consumer purchase intentions, such as:

1. Promoting Environmental Awareness
 - Organizing campaigns that focus on providing information about the benefits of environmentally friendly products.
 - Creating emotional connections through communications that emphasize the value and importance of environmental conservation.
2. Utilizing Social Media
 - Developing inspirational content through social media influencers.
 - Designing easily shareable content to create trends among targeted audiences.
3. Product Development and Pricing
 - Developing high-quality products that meet consumer needs within accessible price ranges.
 - Offering promotions or discounts to stimulate purchase demand.

Recommendations

1. Recommendations Based on the Research Findings

1.1 Promoting Knowledge of Environmental Brands: Stakeholders should prioritize providing information about eco-friendly products through various channels, such as advertising or educational events, to raise awareness and understanding of the qualities and benefits of these products.

1.2 Developing Products that Meet Consumer Needs: Environmentally friendly products should be developed to ensure high quality and affordability to enhance consumer satisfaction.

1.3 Fostering Positive Attitudes: Efforts should be made to improve consumer attitudes towards eco-friendly products through branding initiatives that emphasize environmental and social responsibility.

2. Suggestions for Future Research

2.1 Expanding the Scope of Study: Future research should encompass a broader range of consumer demographics across different regions or populations with varying characteristics to test the relationships between psychological factors and environmentally friendly consumption behaviors on a larger scale.

2.2 Investigating Other Influential Factors: It is recommended to examine additional factors that may impact purchasing intentions, such as social influences, economic status, or experience with environmentally friendly products, in order to develop a more comprehensive understanding.

2.3 Conducting Longitudinal Studies: Long-term studies are necessary to assess the impact of changes in attitudes and knowledge about environmentally friendly products on purchasing behaviors over time.

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