
THE IMPACT OF ENVIRONMENTAL QUALITY AWARENESS, GREEN TRUST, AND GREEN SELF-EFFICACY ON ENVIRONMENTAL ATTITUDE AND GREEN PURCHASE BEHAVIOR



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Abstract

Many individuals are aware of the importance of protecting the environment, yet the gap between environmental awareness and green purchasing behavior still exists. This research aims to analyze the influence of environmental quality awareness, green trust, and green self-efficacy on environmental attitude and green purchase behavior, as well as test the role of environmental attitude as a mediator. This research uses a quantitative approach. The research utilizes primary data. The sampling technique used in this research is purposive sampling. Data collection using the survey method with the distribution of questionnaires online. The questionnaire was created using Google Forms and shared via Instagram and WhatsApp. The sample used consisted of 200 respondents who had purchased Philips LED lamps in 2024. This research used structural equation modeling (SEM) as the data analysis technique and AMOS as the analysis tool. Green trust and green self-efficacy have a positive and significant impact on environmental attitude. Environmental quality awareness and green self-efficacy have a positive and significant impact on green purchase behavior. Environmental attitude has not been able to mediate the influence between variables in this research.

Keywords: Environmental Quality Awareness, Green Trust, Green Self-Efficacy, Environmental Attitude, Green Purchase Behavior

INTRODUCTION

Growing concerns over global warming and environmental pollution have intensified over the years. As environmental issues become more prominent, consumers are increasingly aware of ecological challenges, while the growing emphasis on responsible supply chains has encouraged businesses to adopt more sustainable practices (Kahraman, 2019). Environmentally conscious consumers have become more vocal about the degradation of natural ecosystems and are gradually modifying their consumption patterns to reduce their environmental impact (Kazmi, 2021). This heightened awareness has also increased demand for environmentally friendly products and brands (Panda, 2020). The preference for green products reflects a key characteristic of contemporary consumer behavior, where purchasing decisions increasingly consider environmental consequences. Consequently, environmental marketing should extend beyond the use of labels such as *green*, *eco-friendly*, or *environmentally friendly*. Instead, communication strategies should emphasize genuinely sustainable manufacturing processes that embody authentic green values throughout brand communication (Kazmi, 2021).

Environmental sustainability has become one of the most pressing challenges facing humanity and the planet. Recognizing this urgency, the United Nations introduced the 17 Sustainable Development Goals (SDGs) as a global framework for achieving sustainable development. These goals include: (1) No Poverty; (2) Zero Hunger; (3) Good Health and Well-being; (4) Quality Education; (5) Gender Equality; (6) Clean Water and Sanitation; (7) Affordable and Clean Energy; (8) Decent Work and Economic Growth; (9) Industry, Innovation and Infrastructure; (10) Reduced Inequalities; (11) Sustainable Cities and Communities; (12) Responsible Consumption and Production; (13) Climate Action; (14) Life Below Water; (15) Life on Land; (16) Peace, Justice and Strong Institutions; and (17) Partnerships for the Goals (sdgs.bappenas.go.id, 2023).

Among these global priorities, affordable and clean energy has become a strategic concern in Indonesia. One practical example is the adoption of LED lighting as an environmentally friendly technology. According to Indonesia's Ministry of Energy and Mineral Resources, LED lamps are highly energy-efficient, consuming up to 90% less electricity than conventional incandescent bulbs. They are also environmentally preferable because they contain no mercury and emit no ultraviolet (UV) radiation (esdm.go.id, 2012). From a safety perspective, LED lamps generate minimal heat and remain relatively cool during operation, thereby reducing the risks of fire and other heat-related hazards (Deil, 2019). Nevertheless, consumers' decisions to adopt LED lighting ultimately depend on whether they demonstrate environmentally responsible purchasing behavior, commonly referred to as green purchase behavior.

A recent bibliometric analysis indicates that research on green purchase behavior remains an active and expanding field. The steady increase in publications indexed in the Scopus database between 2017 and 2023 reflects sustained scholarly interest in this topic. Indonesia has also emerged as one of the leading contributors to green purchase behavior research (Megatama, 2024). These findings suggest that investigating green purchase behavior continues to be highly relevant, particularly in supporting the global sustainability agenda outlined in the Sustainable Development Goals.

Previous studies have argued that favorable consumer attitudes do not consistently translate into actual behavior (Carrington, 2014), a phenomenon that is particularly evident

in the context of environmental issues (Sharma, 2019). Many individuals expect others to address environmental problems rather than assuming personal responsibility (Carrington, 2010). Likewise, Young (2010) reported that nearly 30% of self-identified environmentally conscious consumers did not purchase biodegradable products. Jaini (2020) further observed that consumers often lack a comprehensive understanding of the importance of purchasing environmentally friendly products. Instead, they tend to prioritize personal benefits over environmental well-being (Jaini, 2020). These findings highlight the importance of identifying the fundamental determinants of green purchase behavior to better explain the persistent attitude–behavior gap.

The attitude–behavior gap remains one of the most widely discussed issues in environmental consumer research. Although individuals may express positive attitudes toward environmental protection, these attitudes are not always reflected in their purchasing decisions (Sharma, 2019). This inconsistency is particularly common in sustainable consumption. Similarly, Do Paço (2013) found that environmental concern and awareness alone were insufficient to encourage green purchase behavior. Sinnappan (2011) also demonstrated that consumers who claimed to hold pro-environmental values frequently failed to translate those values into actual purchasing behavior.

Most previous studies examining green purchase behavior have relied on the Value-Belief-Norm (VBN) Theory (Stern, 2000) and the Theory of Planned Behavior Ajzen (1991) as their primary theoretical foundations. Ahmad (2022), however, was among the first researchers to incorporate Attribution Theory to explain the underlying determinants of consumers' environmentally responsible purchasing behavior. This study also introduced environmental quality awareness as an antecedent of both environmental attitude and green purchase behavior, offering a perspective that had received limited attention in earlier research. Although several studies (Chen et al., 2014; Goh, 2016; Khan, 2010; Khan, 2019; Malik, 2017) investigated the influence of environmental awareness on human behavior, they did not explicitly consider the role of environmental quality awareness. Furthermore, examining the mediating role of environmental attitude in the relationships between environmental quality awareness and green purchase behavior, green trust and green purchase behavior, as well as green self-efficacy and green purchase behavior, represents a novel contribution to the existing body of literature.

REVIEW OF LITERATURE

Attribution Theory

Attribution Theory was originally developed by Heider (1958) to explain why particular events, situations, or outcomes occur and to understand the consequences of perceived causality (Weiner, 2000). Weiner as cited in Ahmad (2022) described attribution as a cognitive–emotional process through which individuals interpret and assign meaning to events in their surroundings. The theory suggests that people naturally seek explanations for the causes of observed behaviors and outcomes (Chakraborty, 2019). Owing to its ability to explain how individuals form causal judgments and the behavioral consequences of those judgments, Attribution Theory has been widely applied in marketing research (Calder, 1977). According to this theory, behavioral outcomes are influenced by two categories of attributions: dispositional (internal) and situational (external) factors (Folkes, 1988). In the present study, Attribution Theory provides the theoretical foundation for explaining the

relationships among environmental quality awareness, green trust, green self-efficacy, environmental attitude, and green purchase behavior. From this perspective, environmental quality awareness, green trust, and green self-efficacy represent internal (dispositional) attributes that are expected to foster positive environmental attitudes, which subsequently encourage green purchase behavior.

Triple Bottom Line

The Triple Bottom Line (TBL) framework serves as an additional theoretical foundation for this study because of its emphasis on environmental sustainability. Environmental quality awareness primarily reflects the *planet* dimension by encouraging greater concern for environmental preservation and sustainable resource management. Individuals with a high level of environmental quality awareness are generally more committed to protecting natural resources and promoting sustainable practices. Green trust contributes not only to the *planet* dimension but also to the *profit* dimension. Consumers who trust environmentally responsible products and companies are more likely to support them, thereby generating economic benefits for organizations committed to sustainability. Green self-efficacy aligns closely with the *people* dimension, as it strengthens individuals' confidence in engaging in environmentally responsible actions that contribute to social well-being. Individuals with stronger green self-efficacy are typically more proactive in protecting the environment, ultimately supporting healthier communities and long-term social sustainability. Likewise, environmental attitude supports all three dimensions of the TBL framework. It contributes to the *planet* by encouraging environmental conservation, benefits *people* by improving quality of life through reduced environmental degradation, and enhances *profit* by increasing consumer demand for environmentally friendly products and services. Finally, green purchase behavior reinforces both the *planet* and *profit* dimensions, as purchasing environmentally friendly products helps protect the environment while simultaneously creating economic opportunities for companies that embrace sustainable business practices.

Green Purchase Behavior

Green purchase behavior refers to consumers' preference for and consumption of products that are environmentally friendly or manufactured using sustainable materials and production processes (Leonidou, 2010). It represents consumers' willingness to purchase specific brands, products, or services in response to their environmental concerns (Y. S. Chen dkk., 2014). Green purchase behavior encourages both businesses and society to pursue sustainable production and consumption by balancing supply and demand while addressing ecological and social well-being. This behavior is primarily reflected in consumers' purchasing decisions for environmentally safe products that promote resource conservation and avoid excessive packaging or hazardous materials that may harm human health and ecosystems (Tan, 2011). Ultimately, green purchase behavior involves selecting recyclable and environmentally sustainable products while avoiding products that may negatively affect the environment and society (Mostafa, 2007).

Environmental Quality Awareness

Environmental awareness is commonly defined as an understanding of how human activities affect the natural environment. It encompasses both a cognitive component based on environmental knowledge and an affective component related to perceptions and environmental concern (Kollmuss, 2002). Panni, as cited in Kaufmann (2012) found that

individuals with greater awareness of environmental and social issues are more likely to engage in pro-social and pro-environmental behaviors.

Environmental awareness also reflects an individual's recognition of environmental problems and commitment to environmental conservation Joshi (2015);. Boztepe (2012). More specifically, Rosli as cited in Ahmad (2022) defined environmental quality awareness as an individual's recognition of the impact of environmental performance on human health, ecosystem vitality, and the socio-economic sustainability of a nation. Individuals with high environmental quality awareness are more likely to adopt environmentally responsible lifestyles, including conserving energy, recycling waste, and consuming biodegradable products. Likewise, Ottman (2017) argued that environmentally conscious individuals generally recognize the importance of protecting the natural environment.

Green Trust

Trust refers to the degree of confidence that another party will behave in an expected and reliable manner (Hart, 1997). Rousseau (1998) described trust as a willingness to accept vulnerability based on positive expectations regarding another party's intentions or behavior. Similarly, Ganesan (1994) defined trust as the willingness to rely on another party based on expectations of its competence, reliability, and benevolence. This concept reflects an individual's willingness to depend on an entity—such as a person, company, brand, or product—because of confidence in its ability, dependability, and integrity (Hart, 1997). Chen (2010) further conceptualized green trust as consumers' willingness to rely on a product, brand, or company based on beliefs regarding its environmental credibility, environmental performance, and commitment to environmental responsibility.

Green Self-Efficacy

The concept of self-efficacy was introduced by Bandura as cited in Ahmad (2022) and refers to an individual's belief in their capability to perform actions necessary to achieve desired outcomes. Within the environmental context, green self-efficacy represents an individual's confidence in their ability to undertake environmentally responsible actions and successfully achieve environmental goals (Chen, 2015).

Self-efficacy theory suggests that self-efficacy is a strong predictor of both attitudes and behaviors. Individuals with higher levels of self-efficacy generally demonstrate superior performance and stronger commitment toward achieving their goals (Bandura, 1993). Previous studies have consistently shown that self-efficacy positively influences individual performance (Gist, 1992). Moreover, individuals with greater self-efficacy tend to possess stronger confidence in their ability to generate, evaluate, and implement ideas effectively (Keith, 2008).

Environmental Attitude

From a broader perspective, Chan as cited in Do Paço (2013) defined environmental concern as an individual's disposition or attitude that influences behavior in ways that may either support or undermine environmental protection. This perspective seeks to explain how consumers' concern for environmental issues shapes their purchasing preferences.

Milfont as cited in Tan (2011) described environmental attitude as a psychological tendency that influences individuals' beliefs and evaluations regarding the environment. Attitude has long been recognized as a key determinant of human behavior (Peter, 2010). More specifically, environmental attitude reflects an individual's feelings, evaluations, and commitment toward environmental protection (Jung, 2014). Existing literature consistently

identifies environmental attitude as an important predictor of behavior (Saleki, 2019). Chan as cited in Ahmad (2022) argued that environmental attitude is a significant determinant of consumers' ecological behavior. Supporting this view, Ottman (2017) found that individuals with positive environmental attitudes are generally more willing to modify their purchasing and consumption behaviors and are even prepared to pay a premium for environmentally friendly products.

RESEARCH METHOD

This study employed a quantitative research approach, as quantitative methods are considered more appropriate for examining causal relationships among variables. The object of the study was Philips LED lighting products, while the research subjects consisted of consumers who had used Philips LED lamps and resided in the Special Region of Yogyakarta, Indonesia. Data collection was conducted from the fourth week of August 2024 through the second week of September 2024.

A non-probability sampling technique was adopted to recruit respondents. Primary data were collected using an online survey administered through a structured questionnaire. The questionnaire link, created using Google Forms, was distributed via Instagram and WhatsApp to consumers living in the Special Region of Yogyakarta. The survey was conducted confidentially to protect respondents' privacy and encourage them to provide honest and unbiased responses. Prior to hypothesis testing, the research instrument was evaluated for validity and reliability, as a sound measurement instrument must satisfy both criteria. Subsequently, the proposed hypotheses were examined using Structural Equation Modeling (SEM).

RESULTS AND DISCUSSION

Validity and Reliability Assessment

Table 1.
Validity and Reliability Test Results

Variable	Item	Factor Loading	Status	Construct Reliability	Status
Environmental Quality Awareness (EQA)	EQA1	0,820	Valid	0,852	Reliabel
	EQA2	0,844	Valid		
	EQA3	0,769	Valid		
Green Trust (GTR)	GTR1	0,874	Valid	0,900	Reliabel
	GTR2	0,856	Valid		
	GTR3	0,82	Valid		
	GTR4	0,777	Valid		
Green Self-Efficacy (GSE)	GSE1	0,882	Valid	0,887	Reliabel
	GSE2	0,805	Valid		
	GSE3	0,864	Valid		
Environmental Attitude (EAT)	EAT1	0,895	Valid	0,905	Reliabel
	EAT2	0,847	Valid		
	EAT3	0,876	Valid		
Green Purchase Behavior (GPB)	GPB1	0,857	Valid	0,931	Reliabel
	GPB2	0,893	Valid		

GPB3	0,912	Valid
GPB4	0,849	Valid

Source: Authors' Data (2026)

The validity of the measurement instrument was assessed using AMOS version 24 for all questionnaire items representing each research construct. According to Ghazali (2017), an indicator is considered valid when its factor loading exceeds 0.50. The results demonstrated that all measurement indicators across the five constructs achieved factor loadings greater than 0.50, indicating satisfactory convergent validity.

Reliability was evaluated using Construct Reliability (CR). Ghazali (2017) suggested that a construct is considered reliable when its CR value exceeds 0.70. The findings revealed CR values of 0.852 for environmental quality awareness, 0.900 for green trust, 0.887 for green self-efficacy, 0.905 for environmental attitude, and 0.931 for green purchase behavior. Since all CR values exceeded the recommended threshold, the measurement instrument was deemed reliable and appropriate for subsequent analyses.

Model Development Based on Theory

The structural model developed in this study was derived from the theoretical framework presented. The model comprises three exogenous variables-environmental quality awareness, green trust, and green self-efficacy-one mediating variable, namely environmental attitude, and one endogenous variable, green purchase behavior..

Path Diagram Development

The second stage involved specifying the relationships among the research variables by constructing a path diagram that illustrates the proposed conceptual framework.

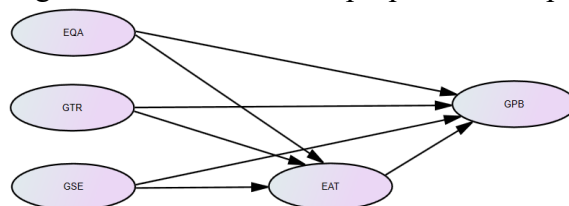


Figure 1.
Path Diagram

Structural Model Specification

The relationships illustrated in the path diagram were subsequently translated into a structural equation model for empirical testing.

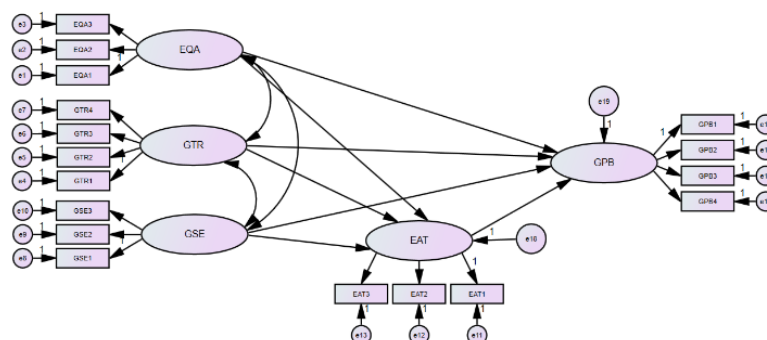


Figure 2.
Structural Equation Model

Input Matrix and Model Estimation

The analysis employed covariance and correlation matrices as the model inputs. The structural model parameters were estimated using the Maximum Likelihood (ML) estimation method. The suitability of the ML estimation procedure was evaluated based on the following assumptions.

Sample Size

The study involved a total of 200 respondents. According to Ghazali (2018), a sample size ranging from 100 to 200 observations is considered adequate for Structural Equation Modeling (SEM). Therefore, the sample size used in this study satisfied the recommended requirement for SEM analysis.

Data Normality Assessment

Data normality was assessed using the critical ratio (C.R.) values for skewness and kurtosis generated by AMOS. Following Ghazali (2017), the data are considered normally distributed when the critical ratio falls within the range of ± 2.58 at the 0.01 significance level.

Table 2.
Normality Test Results

Variable	min	max	skew	c.r.	kurtosis	c.r.
GPB4	1	5	-0,246	-1,419	-1,031	-2,976
GPB3	1	5	-0,409	-2,359	-0,591	-1,706
GPB2	1	5	-0,351	-2,027	-0,386	-1,115
GPB1	1	5	-0,387	-2,233	-0,54	-1,557
EAT3	1	5	-0,376	-2,172	-0,444	-1,283
EAT2	1	5	-0,468	-2,704	-0,489	-1,412
EAT1	1	5	-0,358	-2,069	-0,773	-2,232
GSE3	1	5	-0,124	-0,714	-0,553	-1,596
GSE2	1	5	-0,165	-0,952	-1,096	-3,165
GSE1	1	5	-0,426	-2,461	-0,085	-0,247
GTR4	1	5	0,01	0,06	-0,209	-0,604
GTR3	1	5	-0,038	-0,222	-0,689	-1,988
GTR2	1	5	-0,335	-1,934	-0,756	-2,183
GTR1	1	5	-0,404	-2,331	-0,675	-1,95
EQA3	1	5	0,255	1,472	0,089	0,256
EQA2	1	5	-0,163	-0,938	-0,671	-1,937
EQA1	1	5	-0,415	-2,398	0,047	0,137
Multivariate					8,949	2,49

Source: Authors' Data (2026)

As presented in the table above, the multivariate normality test indicates that the data satisfy the assumption of normality, as the critical ratio value of 2.49 falls within the acceptable range of ± 2.58 .

Outlier Assessment

Multivariate outliers were evaluated using the Mahalanobis Distance generated by AMOS. Following Ghazali (2017), observations with a probability value below 0.01 were considered potential outliers. The critical Mahalanobis Distance was determined using the chi-square (χ^2) distribution based on the degrees of freedom, which corresponded to the total

number of observed indicators. The cutoff value was calculated in Microsoft Excel using the CHIINV function by entering the specified probability level and the number of indicators.

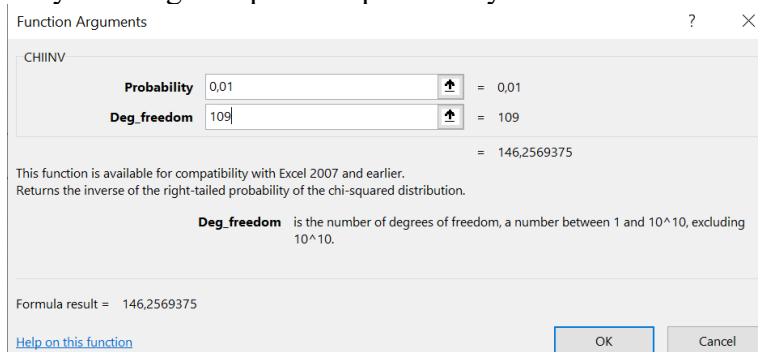


Figure 3.
Outlier Threshold

The calculated cutoff value was 146.256, indicating that observations with Mahalanobis Distance values exceeding this threshold would be classified as multivariate outliers. Table 3 presents the five observations with the largest Mahalanobis Distance values.

Table 3.
Outlier Test Results

Observation number	Mahalanobis d-squared	p1	p2
39	46,01	0	0,034
141	34,369	0,008	0,444
129	33,18	0,011	0,361
169	33,18	0,011	0,168
78	32,267	0,014	0,149

Source: Authors' Data (2026)

As shown in Table 3, the highest Mahalanobis Distance value was substantially below the critical threshold of 146.256. Therefore, no multivariate outliers were identified in the dataset.

Structural Model Identification

The next step involved evaluating the identification status of the structural model. According to Ghazali (2017), a model is considered appropriate for further analysis when it is overidentified, indicated by a positive degree of freedom.

Table 4.
Model Identification

Number of distinct sample moments:	153
Number of distinct parameters to be estimated:	44
Degrees of freedom (153 - 44):	109

Source: Authors' Data (2026)

The AMOS output produced a positive degree of freedom of 109, indicating that the proposed structural model was overidentified and therefore suitable for subsequent SEM analysis.

Goodness-of-Fit Assessment

Evaluating the goodness of fit is a fundamental step in Structural Equation Modeling (SEM) to determine how well the proposed model represents the observed data. The goodness-of-fit statistics are presented in Table 5 and Figure 4:

Table 5.
Goodness Of Fit

Goodness of Fit	Cut-off value	Result	Status
Chi-Square	Little	279,918	Not Fit
Significant Probability	≥ 0.05	0	Not Fit
CMIN/DF	< 2.0	2,568	Not Fit
GFI	≥ 0.90	0,865	Marginal Fit
RMSEA	$0.03 \leq RMSEA \leq 0.08$	0,089	Not Fit
AGFI	≥ 0.90	0,811	Marginal Fit
NFI	≥ 0.90	0,918	Fit
CFI	≥ 0.90	0,948	Fit
TLI	≥ 0.90	0,935	Fit

Source: Authors' Data (2026)

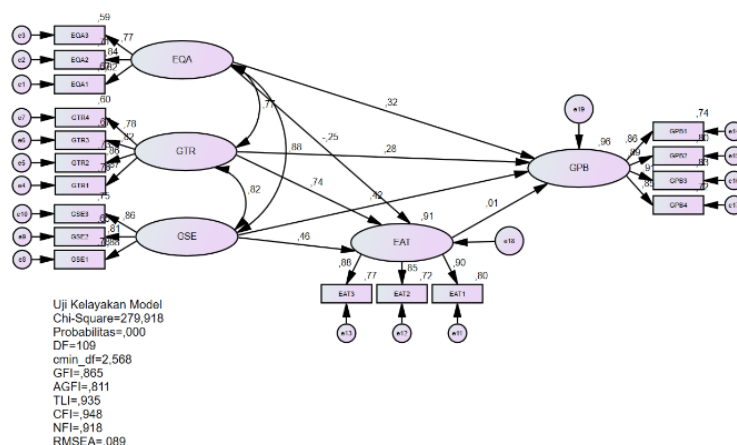


Figure 4.
Goodness of Fit

The results indicate that the proposed model satisfied five of the nine goodness-of-fit criteria. Three indices (CFI, TLI, and NFI) demonstrated an acceptable model fit, whereas GFI and AGFI indicated a marginal fit. According to Ghazali (2017), a structural model may still be considered acceptable when one or more key goodness-of-fit indices satisfy the recommended criteria. Therefore, the proposed model was regarded as sufficiently adequate for hypothesis testing.

The Comparative Fit Index (CFI) reached 0.948, exceeding the recommended threshold of 0.90, indicating a good model fit. Likewise, the Tucker–Lewis Index (TLI) achieved a value of 0.935, while the Normed Fit Index (NFI) reached 0.918, both surpassing the recommended cutoff of 0.90 and demonstrating satisfactory model fit.

The Goodness-of-Fit Index (GFI), which evaluates the overall correspondence between the proposed model and the observed covariance matrix, produced a value of 0.865. Although this value did not reach the recommended threshold of 0.90, it falls within the acceptable range for a marginal fit. Similarly, the Adjusted Goodness-of-Fit Index (AGFI) yielded a value of 0.811, indicating a marginal level of model fit according to the criteria proposed by Ghazali (2017).

Model Interpretation and Modification

When a structural model fails to achieve an acceptable fit, modifications may be undertaken by adding theoretically justifiable relationships, introducing additional variables when appropriate, or removing unnecessary variables. Arbuckle recommends that model modification should be guided by the Modification Indices provided in the AMOS output while remaining consistent with the underlying theoretical framework. In the present study, the proposed model demonstrated an acceptable level of fit; therefore, no model modifications were required.

Hypothesis Testing

Hypothesis testing was conducted to examine the proposed structural relationships among the study variables. According to Ghazali (2017), a structural relationship is considered statistically significant when the Critical Ratio (C.R.) exceeds 1.96 and the p-value is less than 0.05:

Table 6.
Direct Hypothesis Result

Hypothesis	Estimate	S.E.	C.R.	P	Result
H1	-0,340	0,173	-1,969	0,049	Negatif and signifikan (Not Supported)
H2	0,391	0,141	2,763	0,006	Positif and signifikan (Supported)
H3	0,764	0,096	7,928	0,000	Positif and signifikan (Supported)
H4	0,254	0,138	1,841	0,066	Positif and tidak signifikan (Not Supported)
H5	0,519	0,159	3,256	0,001	Positif and signifikan (Supported)
H6	0,419	0,149	2,809	0,005	Positif and signifikan (Supported)
H7	0,012	0,156	0,077	0,938	Positif and not signifikan (Not Supported)

Source: Authors' Data (2026)

The results show that environmental quality awareness had a negative and statistically significant effect on environmental attitude (Estimate = -0.340, C.R. = -1.969, $p = 0.049$). Because the relationship was negative rather than positive as hypothesized, H1 was rejected.

Environmental quality awareness exerted a positive and significant effect on green purchase behavior (Estimate = 0.391, C.R. = 2.763, $p = 0.006$). Therefore, H2 was supported.

The analysis revealed that green trust positively and significantly influenced environmental attitude (Estimate = 0.764, C.R. = 7.928, $p < 0.001$). Accordingly, H3 was supported.

Although green trust showed a positive relationship with green purchase behavior, the effect was not statistically significant (Estimate = 0.254, C.R. = 1.841, $p = 0.066$). Therefore, H4 was rejected.

Green self-efficacy demonstrated a positive and significant influence on environmental attitude (Estimate = 0.519, C.R. = 3.256, $p = 0.001$). Thus, H5 was supported.

The findings further indicate that green self-efficacy positively and significantly affected green purchase behavior (Estimate = 0.419, C.R. = 2.809, $p = 0.005$). Consequently, H6 was supported.

The effect of environmental attitude on green purchase behavior was positive but statistically insignificant (Estimate = 0.012, C.R. = 0.077, $p = 0.938$). Therefore, H7 was rejected.

Table 7.
Indirect Result

Hypothesis	Standardized Direct Effect	Standardized Indirect Effect	Result
H8	0,322	-0,003	Not Supported
H9	0,280	0,010	Not Supported
H10	0,423	0,006	Not Supported

Source: Authors' Data (2026)

According to Bahri (2015), mediation is supported when the standardized indirect effect exceeds the corresponding direct effect. Based on the results, none of the proposed mediating relationships satisfied this criterion.

The standardized indirect effect of environmental quality awareness on green purchase behavior through environmental attitude (-0.003) was considerably smaller than its direct effect (0.322). Therefore, environmental attitude did not mediate the relationship, and H8 was rejected. This finding is consistent with the insignificant mediating pathway, given that environmental quality awareness negatively affected environmental attitude (H1 rejected), while environmental attitude did not significantly influence green purchase behavior (H7 rejected).

The standardized indirect effect of green trust on green purchase behavior through environmental attitude (0.010) was lower than its direct effect (0.280). Accordingly, environmental attitude failed to mediate this relationship, leading to the rejection of H9. Although green trust significantly influenced environmental attitude (H3 supported), environmental attitude did not significantly predict green purchase behavior (H7 rejected).

Similarly, the standardized indirect effect of green self-efficacy on green purchase behavior through environmental attitude (0.006) was substantially smaller than the direct effect (0.423). Therefore, environmental attitude did not mediate the relationship between green self-efficacy and green purchase behavior, and H10 was rejected. This result is attributable to the insignificant effect of environmental attitude on green purchase behavior despite the significant positive effect of green self-efficacy on environmental attitude.

The Effect of Environmental Quality Awareness on Environmental Attitude

The results of Hypothesis 1 indicate that environmental quality awareness has a negative and statistically significant effect on environmental attitude. Therefore, the first hypothesis, which proposed a positive and significant relationship between these variables, was not supported. This finding contradicts previous studies by Rosli (2024), Poškus (2024) dan Ahmad (2022).

The results suggest that greater environmental quality awareness does not necessarily translate into more positive environmental attitudes. Similar findings were reported by Alam (2024). A study conducted in Nigeria also demonstrated that although environmental awareness is essential, it does not always lead to favorable environmental attitudes, highlighting a gap between environmental knowledge and behavioral responses

(Ogiemwonyi, 2020). One possible explanation is that individuals with greater awareness of environmental degradation may become increasingly frustrated, anxious, or pessimistic about society's ability to solve environmental problems. Such feelings may ultimately generate negative attitudes despite high levels of environmental awareness (Parmentier dkk., 2024).

The Effect of Environmental Quality Awareness on Green Purchase Behavior

Hypothesis 2 was supported, indicating that environmental quality awareness has a positive and significant effect on green purchase behavior. This finding suggests that consumers' knowledge of environmental impacts, awareness of environmental quality, and engagement in environmentally responsible practices significantly encourage green purchasing decisions. The result is consistent with previous studies conducted by Carrión (2024), Srisathan (2024), and Ahmad (2022).

The Effect of Green Trust on Environmental Attitude

The findings support Hypothesis 3, demonstrating that green trust positively and significantly influences environmental attitude. Consumers who perceive Philips LED products as reliable, environmentally responsible, and trustworthy are more likely to develop favorable attitudes toward environmental protection. This finding is consistent with the studies of Arundati (2024), Ahmad (2022), and Wei (2017).

The Effect of Green Trust on Green Purchase Behavior

Hypothesis 4 was not supported because green trust exhibited a positive but statistically insignificant effect on green purchase behavior. Although consumers generally trusted Philips LED products and their environmental claims, this trust alone was insufficient to significantly influence their purchasing decisions.

The Effect of Green Self-Efficacy on Environmental Attitude

The results confirm Hypothesis 5, indicating that green self-efficacy positively and significantly affects environmental attitude. Individuals who have greater confidence in their ability to perform environmentally responsible actions tend to exhibit more favorable environmental attitudes. This finding is consistent with previous studies by Qadir (2024), Ahmad (2022) and Ojedokun (2010).

The Effect of Green Self-Efficacy on Green Purchase Behavior

Hypothesis 6 was supported, indicating that green self-efficacy has a positive and significant influence on green purchase behavior. Consumers who are confident in their ability to engage in environmentally friendly practices are more likely to purchase environmentally sustainable products. This finding corroborates previous research by Ahmad (2022), Salehi (2021) and Yusliza (2020).

The Effect of Environmental Attitude on Green Purchase Behavior

The findings reject Hypothesis 7, showing that environmental attitude has a positive but statistically insignificant effect on green purchase behavior. This result is inconsistent with previous studies by Rosli (2024), Ahmad (2022), and Cheung (2019). The findings indicate that favorable environmental attitudes do not necessarily translate into actual purchasing behavior. This observation supports Sharma (2019), who argued that positive attitudes toward environmental issues do not always result in corresponding behavioral actions. Consequently, promoting green living, environmental protection, and environmental awareness alone may not be sufficient to encourage consumers to purchase environmentally friendly products.

The Mediating Role of Environmental Attitude in the Relationship Between Environmental Quality Awareness and Green Purchase Behavior

Hypothesis 8 was rejected because environmental attitude did not mediate the relationship between environmental quality awareness and green purchase behavior. This finding differs from those reported by Rosli (2024), Ahmad (2022), Pořkus (2024), and Carri3n (2024). The absence of mediation is attributable to the negative relationship between environmental quality awareness and environmental attitude, together with the insignificant relationship between environmental attitude and green purchase behavior. These results indicate that although consumers may possess high environmental quality awareness, such awareness does not necessarily translate into green purchasing through the development of positive environmental attitudes. Similar findings were reported by Alam (2024), while Utami (2020) also found that environmental attitudes did not significantly influence green consumer behavior. Differences in population characteristics, geographical context, and cultural background may explain these inconsistencies.

The Mediating Role of Environmental Attitude in the Relationship Between Green Trust and Green Purchase Behavior

Hypothesis 9 was not supported because environmental attitude failed to mediate the relationship between green trust and green purchase behavior. Although green trust significantly enhanced environmental attitude, environmental attitude itself did not significantly predict green purchase behavior. These findings differ from those of Arundati (2024), Laela (2022), and Salehi (2021) similarly reported that attitudes toward purchasing green products did not mediate the relationship between functional values and buying behavior. Variations in demographic characteristics, educational background, and cultural context may contribute to these differing findings.

The Mediating Role of Environmental Attitude in the Relationship Between Green Self-Efficacy and Green Purchase Behavior

The results also reject Hypothesis 10, indicating that environmental attitude does not mediate the relationship between green self-efficacy and green purchase behavior. Although green self-efficacy significantly enhanced environmental attitude, the latter did not significantly influence green purchase behavior. Consequently, environmental attitude was unable to transmit the positive influence of green self-efficacy to consumers' purchasing decisions. This finding is inconsistent with previous studies by Qadir (2024), Ahmad (2022), and Carri3n (2024). Similar evidence was reported by Corboř (2024), who found no mediating role of attitudes toward purchasing green products in the relationship between functional values and buying behavior. Furthermore, Kim (2011) concluded that perceived consumer effectiveness did not strengthen the relationship between environmental attitudes and green purchase behavior. Such discrepancies may be attributable to differences in research settings, sample characteristics, and socio-cultural contexts.

CONCLUSION

Based on the empirical analysis conducted using AMOS version 24 to test the proposed hypotheses among Philips LED consumers, this study concludes that environmental quality awareness has a negative and significant effect on environmental attitude; environmental quality awareness has a positive and significant effect on green purchase behavior; green trust has a positive and significant effect on environmental attitude

but a positive and insignificant effect on green purchase behavior; green self-efficacy has a positive and significant effect on both environmental attitude and green purchase behavior; environmental attitude has a positive but insignificant effect on green purchase behavior; furthermore, environmental attitude does not mediate the relationship between environmental quality awareness and green purchase behavior, the relationship between green trust and green purchase behavior, or the relationship between green self-efficacy and green purchase behavior.

REFERENCES

- Ahmad, F. S., Rosli, N. T., & Quoquab, F. (2021). Environmental quality awareness, green trust, green self-efficacy and environmental attitude in influencing green purchase behaviour. *International Journal of Ethics and Systems*, 38(1), 68–90. <https://doi.org/10.1108/IJOES-05-2020-0072>
- Ajzen, I. (1991). The Theory of Planned Behaviour. *Organizational Behaviour and Human Decision Processes*, 50, 179–211.
- Arundati, R. (2024). The Influence of Green Trust , Ecological Knowledge , Ecological Concern , and Green Attitude on Intention to Buy Green Products in Yogyakarta. *Review of Integrative Business and Economics Research*, 13(4), 474–483.
- Bandura, A. (1993). Perceived Self-Efficacy in Cognitive Development and Functioning. *Educational Psychologist*, 28(2), 117–148.
- Boztepe, A. (2012). *Green Marketing and Its Impact on Consumer Buying Behavior*.
- Calder, B. J., & Burnkrant, R. E. (1977). Interpersonal Influence on Consumer Behavior: An Attribution Theory Approach. *Journal of Consumer Research*, 4(1), 29. <https://doi.org/10.1086/208676>
- Carrington, M. J., Neville, B. A., & Whitwell, G. J. (2010). Why ethical consumers don't walk their talk: Towards a framework for understanding the gap between the ethical purchase intentions and actual buying behaviour of ethically minded consumers. *Journal of Business Ethics*, 97(1), 139–158. <https://doi.org/10.1007/s10551-010-0501-6>
- Carrington, M. J., Neville, B. A., & Whitwell, G. J. (2014). Lost in translation: Exploring the ethical consumer intention-behavior gap. *Journal of Business Research*, 67(1), 2759–2767. <https://doi.org/10.1016/j.jbusres.2012.09.022>
- Carrión-Bósquez, N. G., Ortiz-Regalado, O., Veas-González, I., Naranjo-Armijo, F. G., & Guerra-Regalado, W. F. (2024). The mediating role of attitude and environmental awareness in the influence of green advertising and eco-labels on green purchasing behaviors. *Spanish Journal of Marketing - ESIC*. <https://doi.org/10.1108/SJME-08-2023-0217>
- Chakraborty, U. (2019). The impact of source credible online reviews on purchase intention: The mediating roles of brand equity dimensions. *Journal of Research in Interactive Marketing*, 13(2), 142–161. <https://doi.org/10.1108/JRIM-06-2018-0080>
- Chen, Y. (2010). The Drivers of Green Brand Equity: Green Brand Image , Green Satisfaction , and Green Trust. *Journal of Business Ethics*, 93(2), 307–319. <https://doi.org/10.1007/s10551-009-0223-9>
- Chen, Y. S., Chang, C. H., & Lin, Y. H. (2014). Green transformational leadership and green performance: The mediation effects of green mindfulness and green self-efficacy.

- Sustainability (Switzerland)*, 6(10), 6604–6621. <https://doi.org/10.3390/su6106604>
- Chen, Y. S., Chang, C. H., Yeh, S. L., & Cheng, H. I. (2015). Green shared vision and green creativity: the mediation roles of green mindfulness and green self-efficacy. *Quality and Quantity*, 49(3), 1169–1184. <https://doi.org/10.1007/s11135-014-0041-8>
- Cheung, M. F. Y., & To, W. M. (2019). An extended model of value-attitude-behavior to explain Chinese consumers' green purchase behavior. *Journal of Retailing and Consumer Services*, 50(April), 145–153. <https://doi.org/10.1016/j.jretconser.2019.04.006>
- Corboș, R.-A., Bunea, O.-I., Triculescu, M., & Mișu, S. I. (2024). Which Values Matter Most to Romanian Consumers? Exploring the Impact of Green Attitudes and Communication on Buying Behavior. *Sustainability*, 16(9), 3866.
- Deil, S. A. F. (2019). 5 Manfaat Pakai Lampu LED yang Mungkin Belum Anda Ketahui. liputan6.com.
- Do Paço, A., Alves, H., Shiel, C., & Filho, W. L. (2013). Development of a green consumer behaviour model. *International Journal of Consumer Studies*, 37(4), 414–421. <https://doi.org/10.1111/ijcs.12009>
- esdm.go.id. (2012). *LED, Lampu Hemat Energi untuk Masa Depan*. esdm.go.id.
- Folkes, V. S. (1988). Recent Attribution Research in Consumer Behavior: A Review and New Directions. *Journal of Consumer Research*, 14(4), 548. <https://doi.org/10.1086/209135>
- Gist, M. E., & Mitchell, T. R. (1992). Gits, Mitchell - 1992 - Self-efficacy A theoretical analysis of its determinants and malleability.pdf. In *Academic of Management Review* (Vol. 17, Nomor 211, hal. 183–21).
- Goh, S. K., & Balaji, M. S. (2016). Linking green skepticism to green purchase behavior. *Journal of Cleaner Production*, 131(June), 629–638. <https://doi.org/10.1016/j.jclepro.2016.04.122>
- Hart, P., & Saunders, C. (1997). Critical Use of Factors and in the Data Trust : Adoption and. *Organization Science*, 8(1), 23–42.
- Heider, F. (1958). *The Psychology of Interpersonal Relations*.
- Isbahi, M. B., Zuana, M. M. M. ., & Mariana, E. R. . (2022). The Technology Strategy in Website Communication Media in Improving Business Activities. *Majapahit Journal of Islamic Finance and Management*, 1(2), 126–138. <https://doi.org/10.31538/mjifm.v1i2.17>
- Jaini, A., Quoquab, F., Mohammad, J., & Hussin, N. (2020). “I buy green products, do you...?”: The moderating effect of eWOM on green purchase behavior in Malaysian cosmetics industry. *International Journal of Pharmaceutical and Healthcare Marketing*, 14(1), 89–112. <https://doi.org/10.1108/IJPHM-02-2019-0017>
- Joshi, Y., & Rahman, Z. (2015). Factors Affecting Green Purchase Behaviour and Future Research Directions. In *International Strategic Management Review* (Vol. 3, Nomor 1–2). Holy Spirit University of Kaslik. <https://doi.org/10.1016/j.ism.2015.04.001>
- Jung, N. Y., Kim, S., & Kim, S. (2014). Influence of consumer attitude toward online brand community on revisit intention and brand trust. *Journal of Retailing and Consumer Services*, 21(4), 581–589. <https://doi.org/10.1016/j.jretconser.2014.04.002>
- Kahraman, A., & Kazançoğlu, İ. (2019). Understanding consumers' purchase intentions toward natural-claimed products: A qualitative research in personal care products.

- Business Strategy and the Environment*, 28(6), 1218–1233.
<https://doi.org/10.1002/bse.2312>
- Kaufmann, H. R., Panni, M. F. A. K., & Orphanidou, Y. (2012). Factors affecting consumers' green purchasing behavior: An integrated conceptual framework. *Amfiteatru Economic*, 14(31), 50–69.
- Kazmi, S. H. A., Shahbaz, M. S., Mubarik, M. S., & Ahmed, J. (2021). Switching behaviors toward green brands: evidence from emerging economy. *Environment, Development and Sustainability*, 23(8), 11357–11381. <https://doi.org/10.1007/s10668-020-01116-y>
- Keith M., H., & Robert A., B. (2008). When Does Entrepreneurial Self-Efficacy Enhance Versus Reduce Firm Performance? *Strategic Entrepreneurship Journal*.
<https://doi.org/10.1002/sej>
- Khan, M. R., & Zia-ud-Din. (2010). *Factors Explaining Green Purchase Intentions with Moderating Effect of Environmental Knowledge: Comparative Evidence from Islamic Perspective*. <https://doi.org/10.2139/ssrn.1595188>
- Khan, N. (2019). Selection of E-learning websites using a novel Proximity Indexed Value (PIV) MCDM method. *Journal of Computers in Education*, 6(2), 241–256.
<https://doi.org/10.1007/s40692-019-00135-7>
- Kim, Y. (2011). Understanding green purchase: The influence of collectivism, personal values and environmental attitudes, and the moderating effect of perceived consumer effectiveness. *Seoul Journal of Business*, 17(1), 65–92.
- Kollmuss, A., & Agyeman, J. (2002). Mind the Gap: Why do people act environmentally and what are the barriers to pro-environmental behavior? *Environmental Education Research*, 8(3), 239–260. <https://doi.org/10.1080/13504620220145401>
- Laela, Asdar, M., Abdul Rahman Kadir, & Dian Parawansa. (2022). Do Green Trust and Attitude Toward Green Products Have Effect on Green Purchase Behavior of Urban Society In Makassar? *Quantitative Economics and Management Studies*, 3(4), 615–629. <https://doi.org/10.35877/454ri.qems936>
- Leonidou, L. C., Leonidou, C. N., & Kvasova, O. (2010). Antecedents and outcomes of consumer environmentally friendly attitudes and behaviour. *Journal of Marketing Management*, 26(13–14), 1319–1344.
<https://doi.org/10.1080/0267257X.2010.523710>
- Malik, C., & Singhal, N. (2017). Consumer Environmental Attitude and Willingness to Purchase Environmentally Friendly Products: An SEM Approach. *Vision*, 21(2), 152–161. <https://doi.org/10.1177/0972262917700991>
- Megatama, P., Widowati, R., & Handayani, S. D. (2024). Towards A Sustainable Future : A Bibliometric Analysis of Green Purchase Behavior Research. *Global Scientific and Academic Research Journal of Economics, Business and Management*, 5645, 75–86.
- Mostafa, M. M. (2007). Gender differences in Egyptian consumers' green purchase behaviour: The effects of environmental knowledge, concern and attitude. *International Journal of Consumer Studies*, 31(3), 220–229.
<https://doi.org/10.1111/j.1470-6431.2006.00523.x>
- Ojedokun, A., & Balogun, S. . (2010). Environmental Attitude as a Mediator of the Relationship between Self-concept, Environmental Self-Efficacy and Responsible Environmental Behaviour among Residents of High Density Areas in Ibadan

- Metropolis, Nigeria. *Ethiopian Journal of Environmental Studies and Management*, 3(2), 111–119. <https://doi.org/10.4314/ejesm.v3i2.59834>
- Ottman, J. A. (2017). The New Rules of Green marketing. *The New Rules of Green marketing*. <https://doi.org/10.4324/9781351278683>
- Panda, T. K., Kumar, A., Jakhar, S., Luthra, S., Garza-Reyes, J. A., Kazancoglu, I., & Nayak, S. S. (2020). Social and environmental sustainability model on consumers' altruism, green purchase intention, green brand loyalty and evangelism. *Journal of Cleaner Production*, 243, 118575. <https://doi.org/10.1016/j.jclepro.2019.118575>
- Parmentier, M.-L., Weiss, K., Aroua, A., Betry, C., Rivière, M., & Navarro, O. (2024). The influence of environmental crisis perception and trait anxiety on the level of eco-worry and climate anxiety. *Journal of Anxiety Disorders*, 101, 102799.
- Peter, J. P., & Olson, J. C. (2010). *Consumer Behavior & Marketing*.
- Poškus, M. S. (2024). Testing the simple model of environmental citizenship in a sample of adolescents. *Humanities and Social Sciences Communications*, 11(1). <https://doi.org/10.1057/s41599-024-03297-7>
- Qadir, F., & Chaudhry, S. A. (2024). Green Entrepreneurial Self-Efficacy And Its Outcomes: The Mediating Role Of The Attitude Towards Entrepreneurship. *the Asian Bulletin of Green Management and Circular Economy*, 4(1), 74–98. <https://doi.org/10.62019/abgmce.v4i1.45>
- Rosli, T., & Rosli, Y. (2024). Current Trends in Malaysian 's Green Purchasing Behaviour in Supporting Green Economy Movement. *Journal of Contemporary Issues and Thought*, 14(1), 47–53.
- Rousseau, D. M., Sitkin, S. B., Burt, R. S., Camerer, C., Rousseau, D. M., & Burt, R. S. (1998). Not So Different After All : a Cross- Discipline View of Trust. *Academy of Management Review*, 23(3), 393–404.
- Salehi, S., Telešienė, A., & Pazokinejad, Z. (2021). Socio-cultural determinants and the moderating effect of gender in adopting sustainable consumption behavior among university students in iran and japan. *Sustainability (Switzerland)*, 13(16). <https://doi.org/10.3390/su13168955>
- Saleki, R., Quoquab, F., & Mohammad, J. (2019). What drives Malaysian consumers' organic food purchase intention? The role of moral norm, self-identity, environmental concern and price consciousness. *Journal of Agribusiness in Developing and Emerging Economies*, 9(5), 584–603. <https://doi.org/10.1108/JADEE-02-2019-0018>
- sdgs.bappenas.go.id. (2023). *SDGs KNOWLEDGE HUB*. sdgs.bappenas.go.id.
- Sh. Ahmad, F., Rosli, N. T., & Quoquab, F. (2022). Environmental quality awareness, green trust, green self-efficacy and environmental attitude in influencing green purchase behaviour. *International Journal of Ethics and Systems*, 38(1), 68–90.
- Shankar Ganesan. (1994). Determinants of Long-Term Orientation in Buyer-Seller Relationships. *Journal of Marketing*, 58(2), 1–19.
- Sharma, N., Saha, R., & Rameshwar, R. (2019). “I don't buy LED bulbs but I switch off the lights”: Green consumption versus sustainable consumption. *Journal of Indian Business Research*, 11(2), 138–161. <https://doi.org/10.1108/JIBR-01-2018-0040>
- Sinnappan, P., & Rahman, A. A. (2011). Antecedents of green purchasing behavior among Malaysian consumers. In *International Business Management* (Vol. 5, Nomor 3, hal. 129–139). <https://doi.org/10.3923/ibm.2011.129.139>

- Srisathan, W. A., Malai, K., Narathawaranan, N., Coochampoo, K., & Naruetharadhol, P. (2024). The impact of citizen science on environmental attitudes, environmental knowledge, environmental awareness to pro–environmental citizenship behaviour. *International Journal of Sustainable Engineering*, 17(1), 1–19. <https://doi.org/10.1080/19397038.2024.2354269>
- Stern, P. C. (2000). Toward a Coherent Theory of Environmentally Significant Behavior. *Journal of Social Issue*, 56(3), 407–424. <https://doi.org/10.1007/BF00640994>
- Tan, B.-C. (2011). The Roles of Knowledge, Threat, and PCE on Green Purchase Behaviour. *International Journal of Business and Management*, 6(12), 14–27. <https://doi.org/10.5539/ijbm.v6n12p14>
- Wei, C. F., Chiang, C. T., Kou, T. C., & Lee, B. C. Y. (2017). Toward Sustainable Livelihoods: Investigating the Drivers of Purchase Behavior for Green Products. *Business Strategy and the Environment*, 26(5), 626–639. <https://doi.org/10.1002/bse.1942>
- Weiner, B. (2000). Reflections and Reviews Attributional Thoughts about Consumer Behavior. *Journal of Consumer Research*, 27(December 2000), 382–387.
- Young, W., Hwang, K., McDonald, S., & Oates, C. J. (2010). Sustainable consumption: green consumer behaviour when purchasing products. *Qualitative Market Research: An International Journal*, 7(3), 228–236.
- Yusliza, M. Y., Amirudin, A., Rahadi, R. A., Athirah, N. A. N. S., Ramayah, T., Muhammad, Z., Dal Mas, F., Massaro, M., Saputra, J., & Mokhlis, S. (2020). An investigation of pro-environmental behaviour and sustainable development in Malaysia. *Sustainability (Switzerland)*, 12(17), 1–21. <https://doi.org/10.3390/su12177083>