

**Sustainability Awareness, Price Sensitivity, and Willingness to Pay Premium
for Eco-Friendly Packaging among Gen Z**



THESIS

By

Muhammad Anas Syauqi Roverdi

22111009

Thesis Supervisor:

Dety Nurfadilah, S.E., MBA

BACHELOR OF BUSINESS ADMINISTRATION

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**SUSTAINABLE AWARENESS, PRICE SENSITIVITY, AND
WILLINGNESS TO PAY PREMIUM FOR ECO-FRIENDLY PACKAGING
AMONG GEN-Z**

Prepared by:

Muhammad Anas Syauqi Roverdi (22111009)

A THESIS

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CERTIFICATE OF APPROVAL

Name & Student ID : Muhammad Anas Syauqi Roverdi

Topic : Sustainability Awareness, Price Sensitivity, and Willingness to Pay Premium for Eco-Friendly Packaging among Gen Z

We hereby declare that this Thesis is from student's own work, has been read and presented to Institut IPMI Board of Examiners, and has been accepted as part of the requirements needed to obtain a Bachelors of Business Administration Degree and has been found to be satisfactory.

Jakarta, 27 August 2026

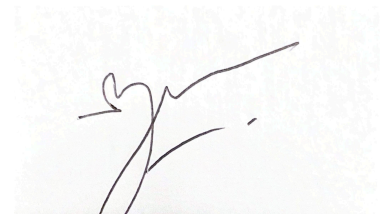
Examined by,



Dety Nurfadilah B.Ifb., MBA



Cut Sjahrifa, S.E., M.Si



Dr. Liza Agustina Maureen
Nelloh, S.E., M.M., CDM

Acknowledged by,



Prof. Dr. Christina Whidya Utami MM., CLC., CPM (A)
Vice Rector of Academic and Student Affairs

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Also, this work is being submitted in partial fulfillment of the requirements for the Bachelors of Business Administration degree and has not previously been accepted in substance for any degree and is not being concurrently submitted in candidature for any degree.

Jakarta, 27 August 2026



Muhammad Anas Syauqi Roverdi

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ABSTRACT

Even though there is an increasing concern about the sustainability of packaging, the transition to sustainable packaging has not been easily embraced because of the conflicting preferences of consumers and economic factors. This study investigates the impact of sustainability awareness, price sensitivity, brand trust and family socialization on the willingness of Generation Z consumers to pay premium for sustainable packaging, and how price sensitivity influences the relationship between sustainability awareness and willingness to pay. The research method used in this study was quantitative with a structured questionnaire which was distributed to 179 respondents of Generation Z who were chosen using purposive sampling technique in Java Island, Indonesia. Partial Least Squares Structural Equation Modeling (PLS-SEM) was used to analyze data using SmartPLS. Interestingly, sustainability awareness, brand trust and family socialization were found to have significant negative effects on willingness to pay premium, whereas price sensitivity had the strongest negative effect among all the predictors. The price sensitivity was also shown to have a significant and negative moderating effect between sustainability awareness and willingness to pay, meaning that the negative effect is stronger among more price-sensitive consumers. Such results indicate that economic factors are more influential than psychological and social factors in driving Gen Z consumers' financial commitment to sustainable packaging, highlighting a persistent attitude–behaviour gap in this generation in the context of emerging markets.

Keywords: sustainability awareness, price sensitivity, brand trust, willingness to pay, family socialization

CHAPTER 1.

INTRODUCTION

1.1. Description Background

The increasing issue of pollution, especially through plastic waste, has emerged as one of the most urgent worldwide issues in recent decades. The common application of non-biodegradable substances in bags adds to environmental pollution, such as land pollution and the destruction of marine ecosystems. This has seen sustainability move from being a merely minor issue to a major core one in policy-making, as well as in the consumer market, and has led to the demand of alternatives that are sustainable. Indonesia is one such situation where this problem is crucial. Being one of the world's largest sources of plastic waste, the country produces about 7.8 million tons of plastic waste each year, and about 4.9 million tons is estimated to be improperly handled (World Bank, 2021). Moreover, it is said that approximately 201.1 – 552.3 kton/year of the world's marine plastic waste is generated in Indonesia, which is one of the largest sources of plastic pollution in the ocean (World Bank, 2021; IUCN, 2025).

As a result, there is growing awareness of people and more aggressive government intervention, including plastic bag reduction initiatives in contemporary retail outlets and a national goal of reducing marine plastic waste by 70% by 2025 (Kementerian Lingkungan Hidup dan Kehutanan, 2020). Practically, plastic bag fees in large cities have proven to decrease plastic bag usage by 30-55 percent in retail locations utilizing them, stated by (KLHK, 2019). Such advances have helped to hasten the marketing of eco-friendly products such as reusable and sustainable packaging as a potential alternative to single-use plastics.

Eco-friendly packaging refers to the use of recyclable, reusable, biodegradable, or sustainable packaging materials designed to reduce environmental impact and minimize packaging waste. That's why the application of eco-friendly packaging has become as important for businesses as the growing of environmentally aware consumers tends to be selective toward products that implement sustainability values (Wandosell, 2021). For businesses, packaging that is environmentally friendly

can be seen as a marketing strategy that can help enhance brand's reputation, build customer trust, and offer them a competitive edge in the market. In many cases, sustainable packaging initiatives are seen as socially responsible and environmentally friendly, and this can positively impact consumers' buying choices. Furthermore, with the rising demand for sustainable products, many companies have turned to eco-friendly packaging for their marketing and branding efforts, as it can appeal to consumers with an awareness of sustainability issues Kozik-Kołodziej (2026).



Figure 1.1 Cassava Eco-Friendly Innovation

Sources : Yumico Id

Businesses are increasingly moving towards eco-friendly packaging practices for example, Yumico.ID implement an innovation of eco-friendly packaging made entirely from cassava-based materials as an alternative to single-use plastic bags. Another example is from Starbucks, who use recyclable paper straws, reusable cups, and packaging materials solely to reduce the use of single-use plastic waste. However, consumer awareness and environmental awareness behavior are relatively low in smaller cities and traditional market areas (Yulius et al., 2024; Angriani et al., 2021; Tambun & Nastiti, 2025). Many traditional markets still heavily rely on

single-use plastic packaging due to its affordability and convenience. Despite rising environmental awareness, (Tambun & Nastiti, 2025) observed that participation in traditional markets to reduce the use of single-use plastic was still low. Besides, there is a tendency to have environmental awareness about sustainable products mainly among consumers who are located in urban areas and among modern consumers who buy in retail shops, whereas consumers in smaller cities will still think through the practicality and low prices (Dewi, 2023). Moreover, another study conducted by Syauki (2023) also showed that awareness of green products is growing, but Indonesian consumers' green purchasing behavior is not consistent for various reasons, including economic and behavioral. Since the willingness to pay premium for eco-friendly packaging is a key factor to know, particularly among Gen-Z.

According to Deloitte (2024), Gen Z consumers are more likely to favor brands and products that reflect their sustainability values and environmentally responsible practices. Furthermore, Gen Z consumers are more likely to be skeptical of businesses' sustainability efforts and are drawn to brands that take active steps to create sustainable initiatives, such as green packaging. That's why Gen-Z consumers also represent a consumer segment that demonstrates higher awareness of environmental issues, stronger engagement with sustainable consumption trends, and greater exposure to eco-friendly products and packaging practices, making them highly relevant to the investigation of willingness to pay premium for eco-friendly packaging. Yet, despite a relatively high level of awareness of their environment, Gen Z still has to consider economic factors when buying. Before the willingness to pay more for eco-friendly packaging products, many Gen Z consumers are still checking affordability, product value, and competitiveness of the price.

Price sensitivity is also one of the most important factors leading to this gap since eco-friendly products are viewed as higher in price compared to traditional ones. In the emerging markets, consumers are more interested in the aspects of affordability, which constrains willingness to pay (WTP) for green products (Saragi, 2025; Ryoo & Kim, 2023; Yang, 2024). Price sensitivity is particularly applicable among Gen-Z, where there are variations in purchasing power and income. Despite the trend towards sustainability, a substantial number of consumers are not willing to

pay a premium to buy environmentally friendly products. In past research, the price sensitivity has been proven to negatively impact the green purchase intention, especially with younger consumers (Saragi, 2025; Suganda et al., 2021). This implies that economic factors still have a major influence on consumer behavior.

Besides being a sustainably aware and price-sensitive consumer, brand trust has become a very important aspect that affects consumer choice. Within the realm of environmentally friendly products, consumers tend to become hesitant about the authenticity of claims about the environment, or, in other words, greenwashing. This makes trust important in lessening the perceived risk and confidence in product quality. The studies indicate that brand trust elevates consumer readiness to pay more to environmentally friendly products significantly (Kovács and Keresztes, 2022; Riskos et al., 2021). In addition, believable eco-labeling and open sustainability communications have been identified to build brand confidence and have a positive effect on purchasing behaviour (Kumar, P., Polonsky 2021).

However in the case of younger consumers, specifically Gen-Z, a different significant factor should be taken into consideration- family socialization. As opposed to older consumers, not all people in Gen Z are financially independent yet and are greatly influenced by parents or family members in their consumption habits. Family socialization is the process by which parents and family shape attitudes, values and consumption trends of children. Past research has indicated that family is influential in the pro-environmental behavior and consumption patterns at a young age (Ofori et al., 2025).

The role of parents in the context of sustainable consumption may be to influence the environmental awareness of children, the attitude to products with a positive environmental impact, and even the readiness to spend money in the future. When children are exposed to environmentally friendly practices in the family, they will tend to have similar values and preferences (Grønhøj & Thoetersen, 2017). Hence, family socialization plays a vital role in explaining the consumption pattern among Gen Z consumers since parents can usually affect or directly determine the purchasing behavior of their children.

Eco-friendly packaging is among other eco-friendly products and a research object that is very relevant and practical in Indonesia. Reusable packaging has increasingly been promoted with the introduction of plastic reduction measures in retail outlets. Nevertheless, the adoption by consumers is not uniform, indicating that various variables, such as purchaser awareness of sustainability, sensitivity to price, brand loyalty, and family impact, influence the choice to purchase.

Theoretically, this study is built on the Value-Belief-Norm (VBN) theory and the Theory of Planned Behavior (TPB) that describe the effects of environmental awareness on behavioral intentions and actions (Ajzen, 1991; Stern, 2000). But all these theories are based mainly on individual decision-making. This study expands these frameworks by adding family socialization to suit the aim of explaining the social and contextual factors affecting the behavior of younger consumers. Though the value of sustainable consumption has increased, there is a lack of studies that have also tested sustainability awareness, price sensitivity, brand trust, and family socialization to determine its effect on willingness to pay premium, especially among Gen Z consumers in Indonesia. Thus, the present research tries to examine how these factors impact the willingness of consumers to pay for eco-friendly packaging and employs Partial Least Squares Structural Equation Modeling (PLS-SEM) to analyze the relationships between sustainability awareness, brand trust, family socialization, price sensitivity, and willingness to pay premium for eco-friendly packaging among Generation Z consumers.

1.2. Research Problems

Although the support of sustainability has increased and more and more people in Indonesia have access to eco-friendly packaging, there is a question mark on the readiness of people to pay in order to acquire them. Although the level of environmental awareness has been enhanced, it remains uncertain whether the level of awareness is enough to affect the real purchasing behaviors, especially when consumers have to take into consideration the price factor and the issue of reliability of the eco-friendly assertions. Many consumers see affordability and financial aspects as key criteria in their decision-making when buying. Highly price-sensitive

consumers are more likely to be price-sensitive and to avoid products if they perceive them as too expensive, even if they understand the environmental benefits provided by eco-friendly packaging. This presents a challenge for businesses when it comes to promoting consumer uptake of sustainable products, as being aware of sustainability doesn't necessarily mean businesses are willing to pay more for these products.

Past research suggests that an increase in sustainability awareness results in greater pro-environmental attitudes and behaviors, such as green purchasing decisions (Joshi and Rahman, 2015; Shang et al., 2024). More informed consumers regarding environmental concerns will see eco-friendly products as more valuable and will be more ready to invest their financial resources in them (Handayani et al., 2026; Geng et al., 2023). Yet, regardless of the growing awareness, the actual buying behavior does not necessarily conform to the environmental attitudes. This tendency is referred to as the attitude–behavior gap, implying that consumers might demonstrate interest in being more sustainable and do not develop it into concrete buying behavior (Zíka, V., Olšová, 2025)

However, despite the increasing sustainability awareness among Gen-Z, previous studies still show that many consumers remain unnoticed toward product prices and affordability when purchasing eco-friendly products (Singh et al., 2022; Alenazi, 2025; Firdaus, 2023; Oesman, 2021; Dwivedi et al., 2025). This indicates that sustainability awareness alone may not fully explain consumers' willingness to pay premium for eco-friendly packaging, particularly among Gen Z consumers.

1.3. Research Questions

1. How does sustainability awareness influence consumers' willingness to pay premium for eco-friendly packaging among Gen-Z?
2. How does price sensitivity influence consumers' willingness to pay premium for eco-friendly packaging among Gen-Z?
3. How does brand trust influence consumers' willingness to pay premium for eco-friendly packaging among Gen-Z?
4. How does family socialization influence consumers' willingness to pay premium for eco-friendly packaging among Gen-Z?

5. How does price sensitivity moderate the relationship between sustainability awareness and willingness to pay premium among Gen-Z?

1.4. Research Objectives

This study aims to analyze the influence of sustainability awareness, price sensitivity, family socialization, and brand trust on consumers' willingness to pay premium for eco-friendly packaging among Gen-Z, as well as to examine the moderating role of price sensitivity in the relationship between sustainability awareness and willingness to pay.

1. To analyze the effect of sustainability awareness on consumers' willingness to pay premium for eco-friendly packaging among Gen-Z.
2. To analyze the effect of price sensitivity on consumers' willingness to pay premium for eco-friendly packaging among Gen-Z.
3. To examine the effect of brand trust on consumers' willingness to pay premium toward eco-friendly packaging among Gen-Z.
4. To analyze the effect of family socialization on consumers' willingness to pay premium for eco-friendly packaging among Gen-Z.
5. To examine the moderating role of price sensitivity in the relationship between sustainability awareness and willingness to pay premium among Gen-Z.

1.5. Significance of Research

1.5.1. Academic Benefits

The study contributes to the theoretical use of behavioral models, incorporating both economic and relational aspects into the consumer decision-making process. Although the classical models focus on the importance of attitudes and values, recent research points to the fact that external constraints, including financial ones, have a strong impact on real purchasing behaviour. In this context, price sensitivity is an important factor, as it reflects consumers' evaluation between environmental benefits and monetary costs. There is evidence that increased price sensitivity may lower the propensity of consumers to purchase green products,

especially in price-sensitive markets (Lehmann and Sheffi, 2020; Ryoo and Kim, 2023).

Besides, this study will be valuable to the literature by introducing a new factor, socialization in the family, as an influential factor, especially when it comes to younger consumers like Gen Z. Past studies have shown that family is an important influence on environmental values and consumption patterns of individuals at an early age. The role of parents and practices in the house can largely impact the formation of pro-environmental attitudes and future consumption behavior (Grohnhoj and Thøgersen, 2017; Moschis, 2012). This variable enables the study to go beyond the individual-level factors of research to incorporate social factors.

Lastly, this study fills a research gap related to setting the context of Indonesia as an emerging market. Much of the current research on sustainable consumer behavior has been carried out in the developed economies, and this restricts its generalizability. Research indicates that consumers in emerging markets have different behavioral patterns because of economic constraints and differences in their environmental awareness (Mathur, 2025; Kutaula et al., 2024). Thus, the paper gives a more detailed and context-oriented insight into the joint effects of sustainability awareness, price sensitivity, brand trust, and family socialization on willingness to pay for premium eco-friendly packaging to younger consumers among Gen-Z.

1.5.2. Practical Benefits

To begin with, the results of this study can help companies to come up with better green marketing strategies. Knowing the impact of sustainability awareness on consumers' willingness to pay, companies will be able to create specific communication plans, which will highlight environmental benefits and the values of their products. Past research has demonstrated that raising awareness about the environmental impact and expressing sustainability qualities can have a positive impact on consumer buying behavior and readiness to spend on green products (Oluwafemi and Oluwadamilola, 2025; Zaidi et al., 2022). Hence, educational campaigns and open sustainability communications can be used by businesses to boost consumer engagement.

Second, given that price sensitivity is critical in determining willingness to pay, organizations can implement pricing strategies that are affordable and favorable at the same time. The high price sensitivity is also found to be one of the significant challenges to green purchasing behavior, especially in developing and price-sensitive markets (Shah & Yang, 2022; Wickremeratne, 2020). Therefore, companies can look at creating value-based pricing, discounts, or communicating long-term environmental benefits to decrease consumer resistance to environmentally-friendly products.

Third, the findings of this study are useful in creating consumer confidence in eco-friendly products. The importance that brand trust has in lessening consumer skepticism cannot be overstated, particularly when there are greenwashing issues at play. Consumers are more likely to accept price premiums and/or engage in sustainable consumption behavior when they think that a brand is credible and committed to sustainability (Alam et al., 2023). This means that businesses must aim at being transparent, having believable eco-labeling, and applying uniform sustainability behaviors in order to boost consumer confidence.

Lastly, the research has useful implications for policymakers and government institutions. The knowledge of the determinants of willingness to pay may help formulate policies to promote sustainable consumption, including environmental campaigns, subsidies, or plastic use regulations. Previous studies have shown that consumer behavior can be significantly changed, with environmental awareness and the development of pro-environmental norms, in order to adopt green products (Shah & Yang, 2022). Thus, policymakers will be able to create more efficient interventions that will decrease plastic waste and encourage alternative solutions that are environmentally friendly.

1.6. Scope and Limitations

This study focuses on the research conducted to find out the influencing factors of consumers' willingness to pay premium for eco-friendly packaging among Generation Z consumers. The study specifically examines the impact of awareness, trust in the brand, and socialization in the family on willingness to pay premium for sustainable packaging, considering price sensitivity as a moderating variable. This study only includes respondents of Generation Z who can make or influence a purchase decision for products with eco-friendly packaging. Besides, this study is mainly based on consumers' perception and behavioral intent towards eco-friendly packaging products, but not on actual purchase behavior.

There are also some limitations of this study. First, the conclusions of the research are limited to Gen-Z consumers, meaning that results might not apply to consumers of other generations. Second, the study addresses only those selected variables, such as sustainability awareness, price sensitivity, brand trust, family socialization, and willingness to pay, that might be influencing consumers' willingness to pay premium for eco-friendly packaging, which are not considered in the research model. Third, the study is based on self-reported data collected from questionnaires could result in self-reported bias or discrepancies between respondents' reported intentions and actual purchasing actions. Finally, the research is carried out in Java Island, and thus, the results might not be applicable to other populations or market conditions.

1.7. Thesis Structure

This thesis consists of five chapters as a systematic process with details as follows:

Chapter 1: Introduction outlines what needs to be done prior to commencing a search. It also has several sections containing an introduction, a list of problems, research questions, goals, the scope of the study, and research limitations. Chapter 2: Literature Review. In the present part, this was focused on a theoretical review, in order to guide the research. Furthermore, it illustrates the idea, setting, examples, and results of previous research. A collection of books, journals, newspapers, and other

information. A literature review is the information from which sources will be used for the study.

Chapter 3: Methodology, the processes for conducting the research are outlined in this section. It is interesting in the study methodology, especially in the step-by-step analysis of the data. A further key aspect will be the analytical indicators and hypotheses that will be used. Further, the analytical indicators and hypothesis of the study will be discussed. Included. This section, chapter 4, Finding, Analysis and Discussion, gives the results of the data gathered from the questionnaire given to the Generation Z respondents. It starts with a description of the respondent demography and characteristics, then it proceeds to an estimation of the measurement (outer) model using convergent validity, discriminant validity and construct reliability. The chapter then moves to the evaluation of the structural (inner) model which includes the assessment of multicollinearity, coefficient of determination (R^2), effect size (f^2), and the result of the path coefficients and the hypothesis testing for each of the proposed hypotheses.

This section, Chapter 5: Conclusion and Recommendations, explains and interprets the whole chapter as well as the results of Chapter 4 in the context of the research objectives, theory, and earlier studies. Each hypothesis is discussed separately and the reason behind the results obtained is explained, including cases in which the results found were not in line with the initial hypothesis. The connection of the findings with the general context of sustainable consumption behavior of generation Z in Indonesia is also presented in this chapter along with the implications that are theoretically and practically derived from the findings of the study.

CHAPTER 2. LITERATURE REVIEW

2.1. Theory

2.1.1. Value Belief Norms Theory (VBN)

Paul C. Stern developed the Value-Belief-Norm theory to implement pro-environmental behavior as a result of the interaction of values, beliefs about the environment, and personal norms. The theory explains that people's environmental behaviors are a product of a causal sequence starting with their values that leads to their environmental beliefs, their awareness of the consequences of their environmental actions, their feelings of responsibility, and finally their personal moral norms that drive their environmental actions. Those who perceive that environmental issues pose threats to important values and who perceive that their behaviors have the potential to solve those threats are more likely to experience a moral obligation to engage in sustainable behavior than are other individuals (Stern et al., 1999).

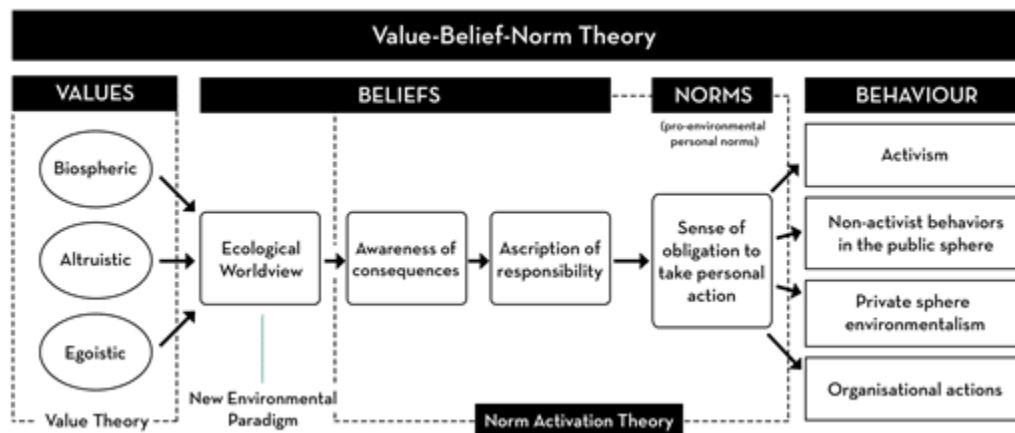


Figure 2.1 VBN Theory Framework

Sources : Stern (2000)

The VBN theory brings together a number of theoretical frameworks, such as Schwartz's Value Theory, the New Environmental Paradigm (NEP), and Norm

Activation Theory. In the VBN framework, values are seen as the base of environmental behaviours as they define how people understand environmental problems and sustainability issues. Stern (2000) found that people who have higher biospheric and altruistic values are more environmentally concerned and more supportive of sustainable consumption patterns. The environmental beliefs, in turn, affect the personal norms, or the personal moral responsibility to engage in environmentally friendly behavior.

The VBN theory is a very commonly applied theory in research concerning sustainable consumption and environmentally responsible purchasing behavior. The theory is relevant to this study as the consumer's willingness to pay premium for eco-friendly packaging could be affected by their environmental values and beliefs about sustainability. Sustainability awareness is related to consumers' perception of the importance of eco-friendly packaging for the protection of the environment and, consequently, their willingness to buy sustainable products. Moreover, family socialization and brand trust can reinforce consumers' beliefs and norms about sustainable consumption behaviors. Hence, the theoretical underpinning of Value-Belief-Norm theory is suitable to explain the relationship between the sustainability awareness and willingness to pay premium for eco-friendly packaging among Generation Z consumers.

It must be emphasized that this study does not directly test the entire sequential causal chain advocated by VBN Theory, Values → beliefs → awareness of consequences → ascription of responsibility → personal norms → behavior. Rather, in this research VBN is treated as a conceptual lens to support the theoretical importance of environmental values and awareness for sustainable consumption outcomes. Sustainability Awareness is part of the Beliefs and Awareness of Consequences stages of the VBN framework, where consumers become aware of the environmental effects of packaging waste. Family Socialization and Brand Trust are seen as external reinforcing factors which can influence or reinforce the beliefs and personal norms mentioned in VBN, but not

as formal stages of the theory. In fact, Price Sensitivity is not even part of VBN Theory, because VBN was not formulated to consider economic or financial constraints.

2.1.2. Theory Planned Behavior Theory (TPB)

Icek Ajzen extended the Theory of Reasoned Action to the Theory of Planned Behavior, which explains human behavior in terms of intentions. According to the theory, behavior is the most important factor to be determined by the individual's intention, which is shaped by three factors: attitude toward behavior, subjective norms, and perceived behavioral control. Attitudes towards a behavior, social support, and perceived control or ability are all positively associated with behavior performance by the individuals (Ajzen, 1991).

In this Theory of Planned Behaviour, attitude towards behaviour is the positive or negative evaluation of a person in relation to a specific behaviour. Subjective norm is the social pressure perceived by the individuals from significant others like family, friends, or society, and perceived behavioral control is the ease or difficulty of performing the behavior as perceived by the individual. The three components together influence the behavioral intent, which in turn determines the actual behavior.

Theory of Planned Behavior

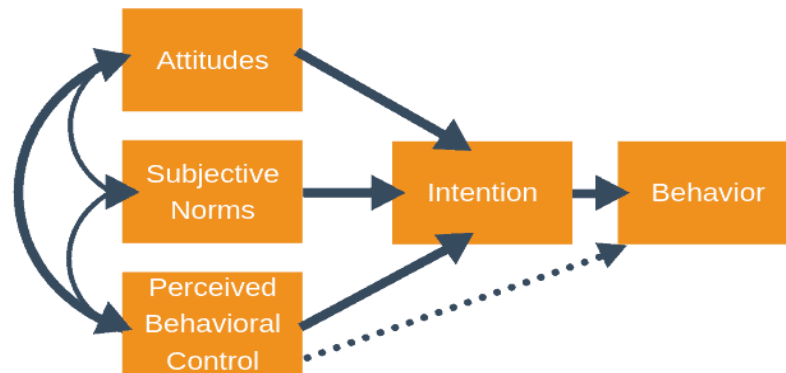


Figure 2.2 *TPB Theory Framework*

Sources : Ajzen (1991)

The Theory of Planned Behavior is frequently used in research on consumer behavior, sustainable consumption, and environmentally responsible consumption decisions. Based on this study, awareness of sustainability can be a factor that impacts consumers' attitudes towards eco-friendly packaging, and family socialization is a factor that can affect consumers through social norms and environmental values that they acquire from their family. Furthermore, consumers' sensitivity to price might be an indicator of their perceived control over the purchase, as they might assess whether they can afford to pay more for environmentally friendly packaging products. The brand trust can also build consumers' confidence in sustainable products and environmental claims. As a result, these factors can affect the willingness of Generation Z consumers to purchase packaging products that are environmentally friendly. It is important to note that this study is not an actual test of the formal structural pathways of the Theory of Planned Behavior that normally connect Attitude, Subjective Norm, and Perceived Behavioral Control to Behavioral Intention, and then to actual Behavior. Therefore, TPB is used in this study as a conceptual lens

to support the theoretical relevance of the selected variables that can be used to explain the consumer behavior toward eco-friendly packaging.

2.1.3. Sustainability Awareness

Sustainability awareness means the knowledge and concern of consumers about the environment and how their consumption activities would affect environmental sustainability. Sustainability awareness is synonymous with the knowledge among consumers about environmental protection, waste reduction, and sustainable consumption practices. Customers who are highly sustainability conscious are more likely to be concerned with the environmental impacts of their buying behavior and are more inclined to be supportive of environmentally friendly products. As discovered by Kabaka et al. (2023), environmental awareness plays a significant role in shaping the buying behavior of Generation Z consumers, especially towards products that have a sustainable and environmentally friendly nature. On the same note, Wang et al. (2024) clarify that environmentally conscious consumers are more likely to exhibit positive attitudes towards the eco-friendly packaging because they tend to perceive the sustainable packaging as helpful in preserving the environment. This implies that the aspect of sustainability consciousness is a significant factor in influencing consumer attitudes and behaviors towards the purchase of environmentally friendly packaging and products.

With respect to the environmental friendliness of packaging, the concept of sustainability gains even more significance, as people become more and more concerned with such environmental problems as plastic pollution and excessive waste of packaging. Consumers are becoming more aware of the environmental impact caused by non-recyclable packaging materials and single-use plastics. Consequently, some consumers are starting to favor products in recyclable, reusable, or biodegradable packaging options. Generation Z consumers tend to be highly concerned with sustainable packaging since they view environmentally friendly packaging as a contribution to the reduction of environmental harm and the maintenance of sustainability. Similarly, Hapsari et al. (2026) discovered that more environmentally conscious consumers would be more inclined to support

environmentally friendly practices in e-commerce activities, in terms of supporting eco-friendly packaging practices in e-commerce operations. These findings could suggest that sustainability awareness can influence consumers to develop more sustainable consumption behavior. Sustainability awareness is also linked with the perceptions of consumers with regard to the value of environmentally friendly packaging products. More environmentally conscious consumers are more likely to view sustainable packaging as providing long-term environmental and social advantages. This means that the environmentally friendly consumer tends to be more supportive of products with a packaging material that is eco-friendly, even at a high price. According to Laurensia et al. (2026), environmental concern and sustainability awareness positively correlated with the willingness of the consumers to support sustainable packaging products among Generation Z consumers.

In addition, Lopes Amaral et al. (2025) clarify that environmental awareness will help to shape a positive attitude towards environmentally friendly packaging and sustainable consumption behavior. Thus, the awareness of sustainability not only impacts the attitude towards the environment but also influences purchasing intentions and support of consumers toward environmentally-friendly packaging products. Sustainability awareness is a key factor in influencing the way consumers assess the value of eco-friendly packaging. More sustainability-aware consumers tend to be more ready to pay extra costs as they are of the opinion that the additional costs associated with environmentally friendly packaging are worthwhile for environmental conservation and long-term sustainability. Conversely, consumers who are less aware of sustainability might emphasize convenience and affordability, as opposed to focusing on the environment. In turn, the awareness of sustainability can be regarded as one of the most significant aspects that will affect the willingness of Gen Z consumers to pay more to receive environmentally-friendly packaging.

2.1.4. Price Sensitivity

Price sensitivity can be defined as how much consumers are subject to the price of the product. High price-sensitivity consumers can be characterized more by their consideration of affordability, and are often more skeptical when shopping for

high-priced products. Low price-sensitive consumers will be more accommodating to bear extra costs in order to obtain products that offer higher perceived value and benefits. Bhatta et al. (2021) suggest that price-sensitive consumers are likely to compare prices carefully and may avoid products that they perceive as expensive. Equally, as explained by Chen et al. (2021), consumers tend to be limited in their desire to support eco-friendly packaging because of the price factor, especially when the cost of eco-friendly packaging is higher than that of conventional products. Even though there are positive attitudes of many consumers towards environmental sustainability, actual purchasing decisions are still strongly affected by product affordability.

Herrmann et al. (2022) stated that consumers can be conceptually inspired to use eco-friendly packaging, but when the prices of the new options are higher, consumers tend to become less willing to use such new options. Similarly, Fianda et al. (2022) established that consumers are more likely to favor eco-friendly packaging products when the difference in the prices of the sustainable and conventional packaging products is reasonable and affordable. These results suggest that price is one of the strongest deterrents that affect the uptake of environmentally friendly packaging products. Price sensitivity is also directly linked to the willingness of consumers to pay a certain amount of money in order to purchase eco-friendly packaging. Less price-sensitive consumers tend to be more accepting of premium prices as they see sustainable packaging as a product that offers other environmental and social advantages. Conversely, highly price-sensitive consumers are more likely to focus on the short-term financial aspects than on the long-term environmental benefits. Yan et al. (2025) noted that price sensitivity has an adverse impact on the willingness of consumers to pay more to obtain green express packaging even in the context of growing environmental awareness among consumers. Moreover, as described by Alenazi (2025), highly price-sensitive consumers are less inclined to convert sustainability awareness into actual buying behavior when environmentally friendly packaging is linked to higher costs. Thus, price sensitivity can have a considerable impact on the readiness of consumers to use sustainable packaging products.

Price sensitivity is significant in the determination of whether consumers are willing to incur extra prices in order to buy eco-friendly packaging. Highly price-sensitive consumers normally tend to be more concerned with affordability and cost efficiency, so they tend to avoid purchasing products with environmentally friendly packaging if they consider the prices too high. Conversely, low price-sensitive consumers would attach more value to environmental and sustainability values. Price sensitivity, therefore, can be regarded as one of the key factors affecting the willingness of Gen Z consumers to pay to use eco-friendly packaging (Chen et al., 2021; Herrmann et al., 2022; Yan et al., 2025).

2.1.5. Brand Trust

Brand trust is the confidence consumers have when a brand is considered to be reliable, credible, and capable of delivering on its promises consistently. Brand trust is deemed to be a significant factor that drives consumers to spend money on purchasing products because consumers are more likely to buy products they believe to be honest and reliable. Guerreiro and Pacheco (2021) state that brand trust reflects the belief of consumers that a brand can deliver products and claims that can be aligned with the expectations and values of the consumers. Similarly, Ha, M-T (2021) states that consumers who have elevated levels of trust in a brand tend to have greater confidence in making a purchase decision since trust diminishes uncertainty and perceived risk. This shows that a brand could play a critical role in determining the trust, perceptions, and attitudes that buyers hold for goods provided by an organization, especially on sustainable value-based grounds.

The concept of brand trust gains more and more significance in the context of sustainability products because consumers usually assess whether companies actually exercise sustainable practices or just use the ideas of environmental friendliness as a marketing instrument. Green packaging materials are often related to sustainability statements, and people are more skeptical about greenwashing activities. Román-Augusto et al. (2022) attribute the connection between perceiving the brand as credible and environmentally responsible and supporting sustainable products. Similarly, Ashwini and Moodbidri (2026) discovered that brand trust has a positive

impact on the willingness of Generation Z consumers to support sustainable packaging products because trust enhances consumer confidence with regard to environmental claims. These results suggest that brand trust may affect the perceptions of consumers about eco-friendly packaging and sustainable consumption behavior. Brand trust also has an influence on the willingness of consumers to buy products with eco-friendly packaging. When consumers believe in a brand, they are likely to believe that the company is actually doing something towards environmental sustainability by using sustainable packaging materials and environmentally friendly practices. Additionally, well-established brands are often viewed as having a higher quality of the product and a higher environmental value.

Sinchai and Namwat (2025) argue that brand trust has a positive impact on the willingness of consumers to pay for new green food packaging due to trust in the brand. Moreover, as Guerreiro and Pacheco (2021) clarify, more trusting consumers who buy green brands have a better chance of expressing positive intentions to buy a product and support sustainable products despite high prices. Thus, brand trust may reinforce the trust of consumers in the products of environmentally friendly packaging and sustainable brands. Brand trust is a crucial determinant of willingness to pay more for eco-friendly packaging products when compared to willingness to pay. Trustful consumers tend to pay higher prices because they think that the products give plausible environmental advantages as well as dependable quality. Conversely, consumers who have lower trust in a given brand might not be willing to pay higher prices since they are suspicious about the legitimacy of environmental claims. As a result, brand trust might be regarded as one of the significant factors that affect the willingness of Gen Z consumers to pay more to use eco-friendly packaging (Guerreiro and Pacheco, 2021; Román-Augusto et al., 2022).

2.1.6. Family Socialization

Family socialization can be defined as the process by which individuals acquire values, attitudes, and behaviors based on what their family members, especially parents, are capable of doing. Family is also significant in influencing consumer behavior since at a tender age, people are exposed to family values and

patterns of consumption. Sharma and Foropon (2022) found that the family influence has a significant impact on the formation of responsible consumption behavior among younger consumers. On the same note, Yadav et al. (2023) elaborate that environmental concern and sustainable purchasing behavior are shaped by family interactions and parental guidance. It implies that socialization within the family can impact how individuals will view products that are environmentally friendly and sustainable consumption behavior.

Family socialization is strictly linked with the formation of environmental awareness and pro-environmental attitudes in the context of environmental behavior. When a person grows up in a family that makes people environmentally responsible, they are more likely to follow environmentally conscious behavior in his/her everyday life. Grunhjo and Thoersen (2009) determined that the environmentally friendly attitudes of the younger adults are highly influenced by parental behavior and family discussions. This implies that family plays a key role in ensuring sustainability awareness and how individuals can be. Moreover, Lee et al. (2021) have discovered that family support and environmental discussions in households have a positive impact on the intentions of consumers to engage in green purchasing behavior. Thus, family socialization is a significant issue that affects the sustainable consumption behavior of younger generations. Family socialization also affects the attitude of consumers towards environmentally friendly packaging products. Consumers brought up in ecologically conscious families tend to be more conscious of environmental problems and more favorable of environmentally friendly products. Nguyen and Nguyen (2024) state that family values and parental practices are significant determinants of the preferences that Gen Z consumers have for eco-friendly packaging. Similarly, according to Park and Lin (2022), family support and domestic environmental practices can influence consumer perception in terms of the necessity to reduce plastic waste and support products that are environmentally friendly. This implies that family socialization helps in shaping positive attitudes to sustainable packaging consumption.

Family socialization is significant in determining the willingness of consumers to incur extra expenses to purchase products that are environmentally

friendly. Consumers whose family values are environmentally responsible will be more inclined to give environmental benefits a higher priority than price considerations (Hsu et al., 2020; Dharmesti, 2020; Pham et al., 2021).. Consequently, such consumers are more likely to show their readiness to pay more money on purchasing eco-friendly packaging products. Therefore, family socialization can be considered an important factor affecting consumers' willingness to pay premium for eco-friendly packaging among Gen Z consumers.

2.1.7. Willingness to Pay Premium for Eco-Friendly Packaging

Willingness to pay (WTP) is a term used to define the maximum amount of money that a consumer is ready to pay to receive a product or service, or the degree to which consumers are willing to spend a given amount of money in exchange for products or services that will provide value and benefits as per their preferences. While willingness to pay broadly refers to the amount a consumer is prepared to spend on a product or service, willingness to pay *premium* specifically emphasizes a consumer's readiness to pay an additional, higher price for eco-friendly packaging compared to conventional, non-sustainable alternatives. In the study of consumer behavior, willingness to pay is often used to gauge the willingness of consumers to pay premium prices on products that have added benefits, such as environmental and social benefits. Mahmoud et al. (2022) state that willingness to pay is an indicator of how consumers are willing to support environmentally friendly products and sustainable packaging practices by investing their money. On the same note, Dieli et al. (2024) remark that the willingness of consumers to pay is highly dependent on their perceptions as far as environmental sustainability is concerned and the value that such eco-friendly packaging can offer to consumers. This implies that willingness to pay is the acceptance of consumers to extra costs related to sustainable products. Under the conditions of the eco-friendly packs, readiness to pay is a significant parameter of sustainable consumption behavior. Those consumers with a higher willingness to pay tend to be more believing environmentally responsible products even at comparatively higher prices. Sustainable packaging products are usually linked with a premium price due to the fact that the production processes of

sustainable materials and environmentally friendly packaging are usually associated with high costs of operation.

Herrmann et al. (2022) note that when perceived as more sustainable and environmentally friendly, consumers are more likely to express positive willingness to pay towards the packaging alternatives. Similarly, Fianda et al. (2022) discovered that consumers are ready to pay a higher price to purchase eco-friendly packaging products in the case when the consumers perceive the environmental advantage and decreased plastic waste. These results suggest that the willingness to pay is highly linked with the environmental concern and sustainable values of consumers. Perceptions of consumers on the value of the environment and the credibility of the products also influence willingness to pay. When they have the feeling that environmentally friendly packaging helps to make a positive contribution in preserving the environment, consumers will be more willing to pay premium prices. Mahmoud et al. (2022) believe that environmental awareness also significantly increases the willingness of consumers to pay for green packaging, as consumers consider sustainable products to contribute to environmental protection.

Moreover, as explained by Dieli et al. (2024), a consumer who is actively engaged in sustainable consumption behavior is more likely to exhibit greater willingness to pay for sustainable consumption products that are packaged in eco-friendly packaging materials. This implies that the environmental attitudes and awareness of consumers can reinforce their readiness to provide financial assistance to sustainable products. Willingness to pay is a significant factor in determining the actual support by consumers for the products of eco-friendly packaging. Forming more willingness to pay, consumers are more likely to engage in sustainable consumption behaviors and patronize environmentally responsible businesses. Conversely, consumers who are less willing to pay might be more concerned with affordability and not buy products at a high price despite understanding the environmental value of the products. Thus, readiness to pay may be viewed as a significant aspect that can demonstrate the support of Gen Z consumers towards eco-friendly packaging.

2.2. List of Previous Studies

Previous studies serve as an important foundation for understanding developments related to the topic of this study. By reviewing prior research, researchers are able to identify the concepts, variables, and methods that have been applied, as well as recognize variations in findings and existing limitations. Therefore, previous studies play a crucial role in strengthening the theoretical framework, clarifying the position of the current research, and identifying research gaps that require further investigation.

Table 2.1 List of Previous Studies

No.	Author	Research Title	Variable	Research Method	Result
1	Alenazi, S. A. (2025)	Sustainability Awareness, Price Sensitivity, and Willingness to Pay for Eco-Friendly Packaging: A Discrete Choice and Valuation Study in the Saudi Retail Sector	Independent: Sustainability Awareness, Price Sensitivity Dependent: Willingness to Pay (WTP) Moderation: Interaction between Sustainability Awareness and Price Sensitivity Control: Demographics	Quantitative Method Contingent Valuation Method (CVM) Discrete Choice Modeling (DCM) OLS Regression, Logistic Regression, Multinomial Logit Model	The results showed that sustainability awareness has a significant positive effect on willingness to pay, while price sensitivity has a negative effect on WTP. Awareness was found to be a stronger predictor of eco-friendly purchasing behavior compared to price sensitivity, indicating that environmental values can outweigh cost considerations in consumer decision-making.
2	Pham, T. C. A., Le, M. H., & Vu, T. K. O. (2021)	Generation Z Willingness to Pay for Sustainable	Independent Variables: Technical Knowledge,	Quantitative Method Discrete Choice	The results showed that Generation Z consumers are

		Apparel: Influence of Labelling Origin and Eco-Friendly Material	The of Sales Behavior and Dependent Variables: Customer Attitude toward Salespeople (AS) Moderating	Experiment (DCE)	willing to pay a premium for eco-friendly and organic labeled products, with higher willingness influenced by CSR awareness and income level.
3	Tanzares, J., Rahmiati, F., Jokhu, J. R., & Mangkurat, R. S. B. (2024)	The Impact of Willingness to Pay, Environmental Awareness, Consumer Behavior, and Consumer Attitudes Toward Purchase Decisions on Sustainable Packaging in Indonesia	Independent: Willingness to Pay, Environmental Awareness, Consumer Behavior, Consumer Attitude Dependent: Purchase Decision	Quantitative Method PLS-SEM (SmartPLS)	The results showed that willingness to pay and consumer behavior significantly influence purchase decisions, while environmental awareness does not have a significant effect. sales behavior. The positive relationship between Cultural Intelligence and customer qualification skills is found to be stronger among female salespeople than their male counterparts.
4	Firdaus, F. (2023)	Green Product Purchase Decision: The Role of Environmental Consciousness and Willingness to Pay	Independent: Environmental Awareness, Environmental Knowledge, Environmental Attitude Mediating: Willingness to Pay	Quantitative Method	The results showed that environmental consciousness influences willingness to pay, which in turn affects purchase decisions,

			Dependent: Purchase Decision		highlighting the role of WTP as a mediator in green consumption behavior.
5	Barbara Kabaja et al. (2023)	Does Environmental Labelling Still Matter? Generation Z's Purchasing Decisions	Independent: Environmental Labelling, Sustainability Awareness Dependent: Purchasing Decision	Quantitative Method Survey Method Structural Equation Modeling (SEM)	The results showed that environmental awareness and environmental labeling significantly influence Generation Z consumers' purchasing decisions toward sustainable products.
6	Zhen Yan et al. (2025)	Consumer Willingness to Pay for Green Express Packaging in E-Commerce: An Eye-Tracking Experiment Analysis	Independent: Price Sensitivity, Environmental Awareness Dependent: Willingness to Pay for Green Packaging	Quantitative Method Eye-Tracking Experiment Regression Analysis	The results showed that price sensitivity negatively affects consumers' willingness to pay for green packaging, while environmental concern positively influences willingness to pay.
7	Ashwini A. D. Y. & S. M. Moodbidri (2026)	Trust-Enabled Drivers of Gen Z Consumers' Willingness to Pay for Sustainable Packaging: An Extended TRUST-PACT Model	Independent: Brand Trust, Environmental Concern Dependent: Willingness to Pay for Sustainable Packaging	Quantitative Method Survey Method Partial Least Squares Structural Equation Modeling (PLS-SEM)	The findings revealed that brand trust significantly increases Generation Z consumers' willingness to pay for sustainable packaging products.

8	Minh-Tri Ha (2021)	Optimizing Green Brand Equity: The Integrated Branding and Behavioral Perspectives	Independent: Green Brand Image, Brand Trust Dependent: Purchase Intention	Quantitative Method Structural Equation Modeling (SEM)	The results indicated that green brand trust positively affects consumers' purchase intentions and strengthens green brand equity.
9	A. Y. A. Fianda et al. (2022)	Eco-Friendly Packaging: Preferensi dan Kesediaan Membayar Konsumen di Marketplaces	Independent: Consumer Preference, Environmental Awareness Dependent: Willingness to Pay for Eco-Friendly Packaging	Quantitative Method Survey Method Descriptive Statistical Analysis	The study found that consumers are willing to pay additional costs for eco-friendly packaging when they perceive environmental benefits and sustainable value.
10	M. A. Mahmoud et al. (2024)	Green Packaging, Environmental Awareness, Willingness to Pay and Consumers' Purchase Decisions	Independent: Green Packaging, Environmental Awareness Dependent: Willingness to Pay, Purchase Decision	Quantitative Method Structural Equation Modeling (SEM)	The results showed that environmental awareness and green packaging positively influence consumers' willingness to pay and purchasing decisions toward environmentally friendly products.

The literature on eco-friendly products and eco-friendly packaging is, in general, limited to environmental awareness and green purchasing behavior, and economic aspects like price sensitivity. Mostly, the studies have been carried out in developed countries or in general consumer populations, not specifically in the study of Generation Z consumers. Besides, some earlier research made use of approaches like Discrete Choice Modeling (DCM), Contingent Valuation Method (CVM), and

regression analysis to estimate consumers' willingness to pay premium for environmentally friendly products. Yet there are only a few studies that combine psychology, social, and economic aspects together in one study. Also, studies on the moderating effect of price sensitivity between the awareness of sustainability and willingness to pay for sustainable packaging are scarce. This study is different from previous studies because it focuses on the components of Generation Z consumers in Indonesia and also uses a research model consisting of sustainability awareness, brand trust, family socialization, and price sensitivity.

2.3. Hypothesis Development

2.3.1. The Effect of Sustainability Awareness on Willingness to Pay Premium for Eco-Friendly Packaging

Sustainability awareness is a relevant aspect that can affect the purchasing behavior of consumers, especially with regard to environmentally friendly products. The more sustainability-aware individuals are, the more they are concerned about environmental issues and will be more inclined to think about the environmental impact of their consumption behavior. Dilkes-Hoffman et al. (2021) report that environmentally conscious consumers are more likely to show positive attitudes towards sustainable packaging and support environmentally responsible consumption behavior. On the same note, Ketelsen et al. (2020) discovered that environmental concern has a positive influence on the willingness of consumers to pay the extra cost to get a sustainable packaging alternative. Consumers who have a higher degree of sustainability awareness tend to be more willing to incur extra costs on products that are packaged in environmentally friendly packaging. According to these arguments, one can say that sustainability awareness may be regarded as a crucial factor that determines the willingness of consumers to pay more to obtain environmentally friendly packaging.

Hypothesis 1: Sustainability Awareness has a positive significant effect on Willingness to Pay Premium for Eco-Friendly Packaging

2.3.2. The Effect of Price Sensitivity on Willingness to Pay Premium for Eco-Friendly Packaging

Studies have shown that price elasticity is a major determinant of the consumer disposition to pay for eco-friendly products. In a study by Herrmann et al. (2022), higher price-sensitive consumers are less likely to be willing to pay a premium on green products, since they are more interested in the financial cost rather than the environmental benefits. In the same manner, Yan et al. (2025) have discovered that price sensitivity poses a negative impact on the willingness of consumers to pay for green packaging due to the fact that consumers still consider price as a key purchasing variable. Hence, more price-sensitive consumers tend to be less inclined to pay an extra price for green packaging products. Also, Biswas and Roy (2016) demonstrated that price-sensitive customers are more likely to have a lower perception of sustainable products at a higher price, which negatively impacts their decision to buy the product. The results of these studies are always pointing out the sensitivity of price as a factor that restrains the capacity of consumers to pay to purchase environmentally friendly packaging.

Hypothesis 2: Price Sensitivity has a negative effect on Willingness to Pay Premium for Eco-Friendly Packaging

2.3.3. The Effect of Brand Trust on Willingness to Pay Premium for Eco-Friendly Packaging

The studies show that brand trust is a key factor in determining the willingness to pay, especially when it comes to eco-friendly products, where credibility is essential. According to a study by Román-Augusto et al. (2022), green trust has a positive influence on consumers' willingness to pay a premium because it lessens skepticism about environmental claims. Consumers have a better perception of the product when they have confidence in the brand, as they are assured of quality and sustainability, even with a higher cost. Equally, Guerreiro and Pacheco (2021) uncovered that consumer belief in sustainable brands boosts their willingness to pay a higher price because it reduces the perceived risk and uncertainty. Moreover, as demonstrated by Konuk (2021), brand trust can greatly enhance consumers' willingness to pay more for environmentally friendly products, as it enhances positive

evaluations and purchase intentions. The findings all point to brand trust as a factor that increases the willingness to pay premium for consumers in various contexts in eco-friendly products.

Hypothesis 3: Brand Trust has a positive significant effect on Willingness to Pay Premium for Eco-Friendly Packaging

2.3.4. The Effect of Family Socialization on Willingness to Pay Premium for Eco-Friendly Packaging

Studies have shown that socialization among families is a significant factor in the determination of consumer attitudes and behavior, such as their readiness to pay to purchase eco-friendly products. The research by Ofori et al (2025) also established a significant impact of parental influence and family discourse on pro-environmental values development that influences sustainable consumption behavior. The people exposed to environmentally friendly practices in the family are likely to seize their environmental preferences and have a higher likelihood of purchasing pro-environmental products. In the same way, Maccoby (2022) found that parents' behavior and communication have a positive impact on children's environmental attitudes and future consumption. Moreover, Lee et al. (2021) demonstrated that early socialization on the family level leads to higher levels of environmental concern and willingness of people to participate in sustainable consumption, such as paying more for environmentally friendly products. These results are always pointing towards the willingness of consumers to pay more money to purchase environmentally-friendly packaging.

Hypothesis 4: Family Socialization has a positive significant effect on Willingness to Pay Premium for Eco-Friendly Packaging

2.3.5. The Moderating Effect of Price Sensitivity on the Relationship between Sustainability Awareness and Willingness to Pay Premium for Eco-Friendly Packaging

Studies prove that the correlation between the sustainability awareness and readiness to pay is not necessarily direct, as it might be affected by economic factors like price sensitivity. Although consumers who are more sustainably minded will be more willing to pay more for environmentally friendly products, this may not hold as much when the consumers are very price sensitive. A study conducted by Prakash and Pathak (2021) established that, despite the positive attitude of the consumers towards sustainable products, price seems to be a major limiting factor that checks real purchasing behavior. On the same note, Bray, Ahmed et al. (2023) found that even the environmentally conscious consumers might fail to translate their attitudes into readiness to pay when the price increases. Moreover, Sultan et al. (2024) demonstrated that the intensity of the correlation between environmental concern and green purchase intention can be decreased by factors related to price, which proves that it has a moderating influence. These results imply that the price sensitivity may impact the strength of sustainability awareness on willingness to pay premium for environmentally friendly products.

Hypothesis 5: Price Sensitivity Negatively Moderates the Effect of the Relationship between Sustainability Awareness and Willingness to Pay Premium for Eco-Friendly Packaging

2.4. Theoretical Framework

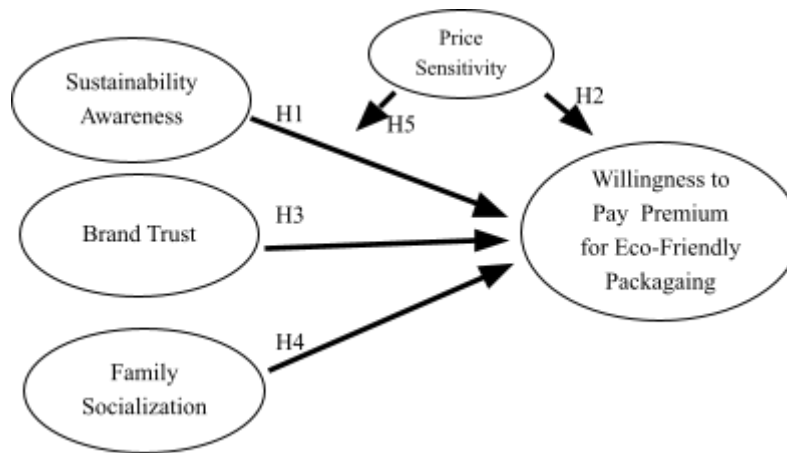


Figure 2.3 *Research Framework*

Source: Modified from the Study by Alenazi, S. A. (2025)

CHAPTER 3.

METHODOLOGY

3.1. Research Design

The research design adopted in this study is a quantitative research design that takes a questionnaire and survey approach. The main reason behind this approach is that the study will examine the consumer preferences and approximate their readiness to purchase eco-friendly packaging depending on the various product characteristics. A Likert Scale will be applied in the questionnaire to study consumer behavior because they replicate actual readiness of consumer buying behaviors where they have to make decisions between different products of differing attributes (Louviere, Hensher, and Swait, 2000; Song et al., 2025). The design is explanatory because it aims at studying the effects of variables like sustainability awareness, price sensitivity, brand trust, and family socialization on consumer decision-making and their willingness to pay (Hair et al., 2022). In this study, the respondents will be shown a level of agreement comprising various combinations of attributes using a Likert scale (price, environmental friendliness, family influence, and brand characteristics). Through the analysis of these options, the research can have an approximate value of the significance of each attribute and the extent to which consumers are prepared to spend on environmentally friendly attributes. Moreover, this method enables the use of econometric methods like PLS-SEM models to evaluate the relationships between variables, as well as to test the moderating nature of price sensitivity in the relationship between sustainability awareness and willingness to pay (Hair et al., 2021; Hair et al., 2022).

This study is conducted using primary data collected using structured questionnaires given to Generation Z consumers. The questionnaire aims to capture the perception and attitude of the respondents on sustainability awareness, price sensitivity, brand trust, family socialization, and willingness to pay premium for sustainable packaging. The data collected will then be analyzed by the Partial Least Squares Structural Equation Modeling (PLS-SEM) method, which is suitable for analyzing the research model, testing moderating effects, and analyzing multiple

variables simultaneously in the research model. Hair et al. (2021) argue that PLS-SEM is a widely used method in marketing and consumer behavior research due to its ability to tackle predictive and exploratory models, and its reliability in behavioral research.

3.2. Population and Sampling

The study population is composed of people of Generation Z who have experience or know about the use of packaging, especially environmentally friendly ones, and can make or have an impact on purchasing decisions. The choice of these groups is because of their growing exposure to environmental problems and the fact that they are relevant in the formation of sustainable consumption behavior in the future. Therefore, such a group is chosen with increased exposure to sustainability issues and is of interest to the research topic. This study will be based on the Gen-Z living in Java Island as its sample. The rationale behind choosing this area is that there is an increasing trend of sustainable awareness in Java Island, including Gen-Z with the increasing level of environmental awareness. This means that the respondents in this region are deemed to be suitable in terms of the consumer preferences in the real market situation.

In this study, a non-probability sampling technique of purposive sampling will be used. The requirements are:

1. The participants belong to Generation Z from 1997 to 2010
2. Have purchased and/or used eco-friendly packaging within last 6 months
3. Reside in Java Island

3.2.1. Sampling Size Determination

In order to get an adequate number of valid responses minimum sample size will be determined by statistical power analysis by using G*Power software to make sure that the study has enough statistical power in detecting the significant relationship between variables.

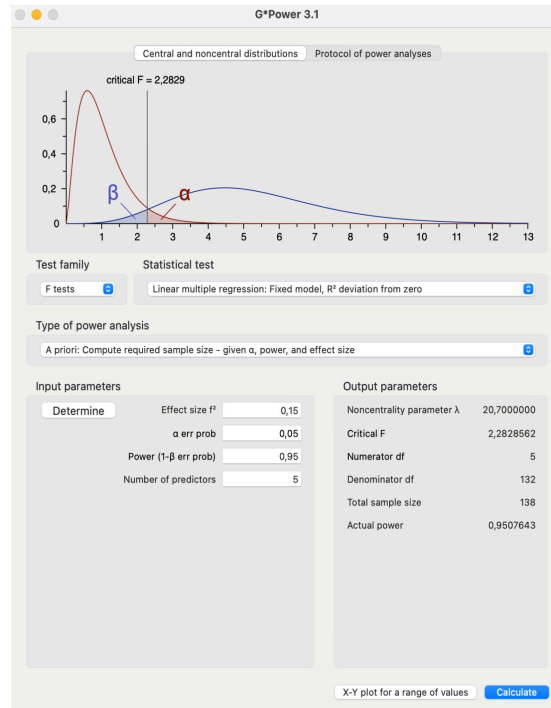


Figure 3.1 G*Power Software

Source: G*Power Software

Based on this calculation, the minimum sample size required to achieve the targeted statistical power is 138 respondents, with an actual achieved power of 0.9507, confirming that this sample size is sufficient to detect the hypothesized relationships with a high degree of confidence. Once the data has been collected, the data will be analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) to explore the relationship between sustainability awareness, price sensitivity, brand trust, family socialization and willingness to pay premium for eco-friendly packaging in Gen Z consumers. The design of this study has estimated the sample size needed. As such, this study will seek to gather answers that will

satisfy or surpass this minimum number to make the findings reliable and valid. Therefore, based on the G*Power calculation, the number of respondents in this study is 138 respondents to ensure sufficient statistical power and improve the reliability and validity of the research findings.

3.3. Data Collection Method

3.3.1. Primary Data

A quantitative data collection approach is adopted in this study by means of administering structured questionnaires. The survey is conducted in the form of primary data, where the respondents are questioned about their likes and preferences, and their readiness to pay the price of eco-friendly packaging is estimated. Data is collected via online survey tools, which facilitate the distribution of questionnaires to respondents in Java Island. Each questionnaire consists of a series of statements related to sustainability awareness, price sensitivity, brand trust, family socialization, and willingness to pay premium for eco-friendly packaging. Respondents are asked to indicate their level of agreement with each statement using a Likert scale ranging from strongly disagree to strongly agree. The questionnaire items are designed based on relevant indicators from previous studies to ensure that respondents are able to express their perceptions, attitudes, and behavioral intentions toward eco-friendly packaging realistically. This approach enables to measure the influence of each variable and analyze consumers' willingness to pay premium for eco-friendly packaging based on respondents' perceptions and evaluations. Pilot testing was conducted to 20 respondents to test or to check for potential problems and ensure that the data is reliable and smooth. The pilot project used the same questionnaire and the results were included from this study.

Table 3.1 Likert Scale Set

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
5	4	3	2	1

To discuss consumer preferences and test the hypothesis relationships between variables, the data collected was analyzed through the statistical method using SEM - PLS.

3.3.2. Secondary Data

The secondary data in this study was collected from various academic and institutional sources related to sustainability, eco-friendly packaging, consumer behavior, and willingness to pay. The secondary data are collected from journals, books, previous research studies, government reports, industry publications, and statistical reports from reputable institutions like the World Bank, KLHK, and other sustainability-related institutions. The theoretical background is supported using these sources, which also used to identify the gaps in the research, research hypotheses, and enhancement of discussion related to sustainability awareness, price sensitivity, willingness to pay premium for environmentally friendly packaging, brand trust, and family socialization of the Generation Z consumers. In addition, secondary data help to understand the current trend and problem of sustainable packaging and consumer behavior in Indonesia and around the world.

3.4. Variables and Definition of Operational Variables

The present research investigates the latent variables that influence consumers' willingness to pay premium for an environmentally friendly package among Generation Z consumers. sustainability awareness (SA), brand trust (BT), and family socialization (FS) are considered exogenous variables. A moderating variable (Price Sensitivity, PS) is included. The endogenous variable is willingness to pay (WTP).

These variables are used to analyze the factors influencing Generation Z consumers' willingness to pay a premium for eco-friendly packaging. There are several openings for the questionnaire, such as:

1. Screening questions:
 - Are you part of Generation Z? (Born between 1997–2010)
 - Have you ever purchased and/or used products with eco-friendly packaging?

- Are you currently residing in Java Island, Indonesia?

2. Demographic questions:

- Gender
- Age
- Java island:
- Educational level
- Income level
- Types of eco-friendly packaging products?

Table 3.2 Variables Definition

Variable	Definition	Code	Items	Scale
Sustainable Awareness	Individual awareness of environmental issues and understand the impact of their consumption behavior on the environment (Hansmann et al., 2020).	SA 1	I am aware of the environmental problems caused by plastic waste.	Likert Scale 1 to 5
		SA 2	I believe eco-friendly packaging helps reduce environmental pollution.	
		SA 3	I consider environmental sustainability when purchasing products.	
		SA 4	I am concerned about the long-term environmental impact of packaging waste before purchasing products.	
Price Sensitivity	As the degree to which consumers are affected by changes in price and their tendency to prioritize lower prices when making purchasing decisions. (Konuk, 2021).	PS 1	I usually compare prices before purchasing products.	Likert Scale 1 to 5
		PS 2	I will not buy products with eco-friendly packaging if they are more expensive.	
		PS 3	Product price strongly influences my purchasing decisions.	
		PS 4	I prefer products with more affordable prices even if they do not use eco-friendly packaging.	
Brand Trust	Willingness of consumers to rely on a brand based on their confidence in its reliability, integrity, and ability to deliver promised value. Guerreiro and Pacheco (2021)	BT 1	I feel its important to support brands that use eco-friendly packaging.	Likert Scale 1 to 5
		BT 2	I consider brands using sustainable packaging are environmentally responsible.	
		BT 3	I feel more confident purchasing products from brands with environmental commitments.	

		BT 4	I believe eco-friendly claims made by trusted brands are credible.	
Family Socialization	Defined as the process through which individuals acquire values, attitudes, and behaviors from family members, particularly in shaping consumption patterns and environmental attitudes. (Ofori et al., 2025)	FS 1	My family encourages environmentally friendly behavior.	Likert Scale 1 to 5
		FS 2	My family influences my purchasing decisions related to sustainable products.	
		FS 3	I learned the importance of environmental responsibility from my family.	
		FS 4	My family supports the use of eco-friendly products and packaging.	
Willingness to Pay Premium for Eco-Friendly Packaging	Refers to the maximum amount of money that a consumer is willing to spend to obtain a product or service Mahmoud et al. (2022)	WTP 1	I am willing to pay more for products using eco-friendly packaging.	Likert Scale 1 to 5
		WTP 2	I consider the environmental benefits when deciding whether a product is worth a higher price.	
		WTP 3	I prefer products with sustainable packaging even if the price is higher.	
		WTP 4	I am willing to support brands that use eco-friendly packaging by paying premium prices.	

3.5. Data Analysis Technique (Structural Equation Model - Partial Least Square)

Structural Equation Modeling (SEM) is a statistical analysis method that is applied to test multifactor and intricate relationships among various variables at the same time. The Partial Least Squares Structural Equation Modeling (PLS-SEM) methodology is adopted in the present work since it is appropriate for predictive research and it does not presuppose normal distribution of data (Hair, et al 2022; Sarstedt et al, 2020). PLS-SEM is especially suitable in cases of comparatively small to medium samples and is aimed at the maximum number of dependent variables explained (Hair et al., 2019). Moreover, PLS-SEM has found applications in marketing and consumer behavior studies because it can deal with complicated models with more than two constructs and indicators (Henseler et al., 2009).

The PLS-SEM analysis consists of two main components: the measurement model (outer model) and the structural model (inner model). The constructs are assessed using the outer model in terms of convergent and discriminant validity and

composite reliability. In the meantime, the inner model compares the correlation of latent variables to each other and verifies the hypotheses offered by evaluating path coefficients and their significance (Hair et al., 2017). In line with the framework of the research, the study explores how sustainability awareness (SA), price sensitivity (PS), brand trust (BT), and family socialization (FS) affect willingness to pay (WTP) and the moderating role of price sensitivity on how sustainability awareness affects willingness to pay. The structural equation used in this study is as follows:

$$WTP = \alpha + \beta_1 SA + \beta_2 PS + \beta_3 BT + \beta_4 FS + \beta_5 (SA \times PS) + \varepsilon$$

In which:

WTP: Willingness to Pay

SA: Sustainability Awareness

PS: Price Sensitivity

BT: Brand Trust

FS: Family Socialization

SA $\times$ PS : Interaction term (moderating effect)

α : Constant value

β : Path coefficients

ε : Error term

The PLS-SEM software is used to analyze the data, and it's possible to estimate both measurement and structural models. This method enables it to determine the direct impacts of independent variables on willingness to pay, and the moderating role of price sensitivity, which will enable a thorough account of consumer behavior when considering the topic of eco-friendly packaging.

3.5.1. Descriptive Analysis

The features of the data collected on respondents are summarized and described using descriptive analysis. This discussion presents a summary of the demographic characteristics of the respondents and their answers to the measured variables in this study, such as sustainability awareness, price sensitivity, brand trust, family socialization, and willingness to pay. Frequencies, percentages, means, and standard deviations are typically used as descriptive statistics that can give a clear picture of the data distribution (Sekaran and Bougie, 2016). In this study, the descriptive analysis is used in order to determine the overall tendencies of the perceptions and attitudes of the respondents towards the use of the eco-friendly packaging. The demographic data analysis incorporates characteristics like age, gender, and place, which contribute to the description of the sample profile. In the meantime, variable indicators are analyzed to find out the average responses and variables of each construct, which gives the preliminary information about the respondents' tendencies.

3.5.2. Evaluation Model (Outer Model)

One model that explains the connection between latent variables and the indicators is known as the measurement model (outer model) (Hair et al., 2017). When assessing the measurement model, various tests are performed to determine the validity and reliability of constructs employed in the study, and these include:

1. Outer Model Evaluation is done to determine the validity and reliability of the model. Outer models, where indicators are reflective, are assessed with convergent and discriminant validity, and indicator block composite reliability (Hair et al., 2019). Construct validity ascertains the extent to which a test measures what it purports to measure. The loading factor is a measure of how much an indicator is correlated with its latent variable. In confirmatory research, the loading factor suggested to be used is higher than 0.70, even though in exploratory research, the value of 0.60 and above is still recommended (Hair et al., 2017). Convergent validity is a measure of how various indicators of the same construct agree. This is

evaluated based on the Average Variance Extracted (AVE), whereby the AVE should have a value above 0.50. This implies that the construct accounts for more than half of the variance of its indicators, thus guaranteeing sufficient convergent validity. Discriminant validity is used to make sure that a construct is really different from others in the model. This may be measured by the Fornell-Larcker criterion and cross-loadings, with each indicator loading higher on its own construct, as compared to other constructs.

2. Model Measurement is also carried out to test the reliability of the constructs. Reliability testing is done to test the internal consistency of the measurement model. Cronbach's alpha and composite reliability (CR) are used to measure reliability in PLS-SEM. A value of 0.70 is said to be an acceptable value of Cronbach's alpha, but a value of 0.60 or higher can be acceptable in exploratory research (Hair et al., 2017). In PLS-SEM, composite reliability is frequently a better choice because it will give a more reliable estimate of internal consistency, and the recommended value is above 0.70 (Hair et al., 2019). The measures of reliability guarantee the indicators reflect the latent constructs of sustainability awareness, price sensitivity, brand trust, family socialization, and willingness to pay.

3.5.3. Structural Model (Inner Model)

The inner model (structural model) is applied to test the association of the latent variables in the research model. The current analysis will be used to test the hypotheses offered and to investigate the strength and direction of the relationships among the variables. Path coefficients, coefficient of determination (R^2), and significance testing based on bootstrapping processes are used to evaluate the inner model in PLS-SEM (Hair et al., 2017). The tests include:

1. Hypothesis Testing

Hypothesis Testing is conducted to test the direct effects between the independent variables and the dependent variable. This study examines how sustainability awareness, price sensitivity, brand trust, and family

socialization affect willingness to pay. The importance of the relationships is evaluated based on path coefficients (β), t-statistics, and p-values obtained with the help of the bootstrapping method. The t-statistic value is larger than 1.96, and the p-value is less than 0.05, which means that the relationship is significant at the 5% significance level and supports a hypothesis (Hair et al., 2019). Path coefficient (β) shows the direction and strength of the relationship between variables, where a positive value suggests a positive influence and a negative value suggests an inverse relationship.

2. Moderating Testing Effect

Moderating Effect Testing will be done to test the moderating effect of price sensitivity to the relationship between sustainability awareness and willingness to pay. Moderation in PLS-SEM is tested by forming an interaction term between the independent variable and moderating variable (Sustainability Awareness $\times$ Price Sensitivity). This interaction construct is then included in the structural model to assess its effect on the dependent variable. The moderating effect is tested at the level of the significance of the interaction term through the results of bootstrapping. When the interaction term is noteworthy (t-statistic > 1.96 and p-value < 0.05), it means that the moderating variable has a noticeable impact on the strength of the relationship between the independent and dependent variables (Hair et al., 2017). The sign of the interaction coefficient can be used to determine the direction of the moderating effect, meaning whether the moderator enhances or dilutes the relationship.

CHAPTER 4.

FINDINGS, ANALYSIS AND DISCUSSION

4.1. Descriptive Analysis

This sub-chapter describes the profile of the 179 respondents who participated in this study and met the organized screening criteria. The discussion in this sub chapter is divided into two parts: respondent demography, which describes the general background of the respondents in terms of gender, age, city of residence, educational level, and monthly income; and respondent characteristics, which describes the respondents' behavior related to eco-friendly packaging usage.

4.1.1. Demographic Respondents

Table 4.1 Respondent Profile

Profile	Sample (N)	Percentage(%)
Gender		
Male	97	53.2%
Female	71	39.7%
Prefer not to Say	11	6.1%
Total	179	100%
Age		
16 - 20	64	35.8%
21 - 24	56	31.3 %
25 - 28	59	33%
Total	179	100%
City of Residence		
Jakarta	24	13.4%
West Java	34	19%
East Java	34	19%

Central Java	34	19%
Banten	31	17.3%
Yogyakarta	22	12.3%
Total	179	100%
Educational Level		
Senior High School	91	50.8%
Diploma (D3)	28	15.6%
Bachelor's Degree (S1)	57	31.8%
Master's Degree (S2)	3	1.7%
Total	179	100%
Monthly Income		
Below Rp1.000.000	38	21.2%
Rp1.000,000 - Rp3,000,000	75	41.9%
Rp3,000,000 - Rp5,000,000	49	27.4%
Above Rp5,000,000	17	9.5%
Total	179	100%

Source: Authors Data (2026)

The demographic result in terms of gender shows that the majority of respondents were male, presenting for 97 respondents (53.2%), followed by female respondents at 71 (39.7%), while 11 respondents (6.1%) preferred not to disclose their gender. This indicates that the sample was relatively male-dominated, although both genders were reasonably well represented. The respondents' ages are presented in three age categories within the Generation Z age range. The largest number were aged between 16 and 20 (64 respondents, 35.8%) followed by 25–28 years (59 respondents, 33%) and 21–24 years (56 respondents, 31.3%). Compared to the older generations, this is fairly evenly split by age group, meaning the sample reflects a variety of Gen Z consumers from young to old. Based on the city of residence, respondents were scattered in Java Island with some respondents even in Yogyakarta.

West Java, East Java, and Central Java each contributed 34 respondents (19%), respectively, Banten and Jakarta contributed 31 (17.3%) and 24 (13.4%) respondents, followed by Yogyakarta with 22 respondents (12.3%). The distribution of these respondents is fairly representative of respondents from different areas of Java Island as per the scope of sampling for the research. Based on educational level, the majority of respondents were under Senior High School's educational level with 91 respondents (50.8%), followed by 57 respondents (31.8%) who are in S1 (Bachelor's Degree), 28 respondents (15.6%) who were in D3 (Diploma), and 3 respondents (1.7%) who are in S2 (Master's Degree).

The respondents had been mostly at early stages in their studies and careers as shown in this distribution, which is also in line with the study's focus on younger Z consumers. Finally, with regard to monthly income, the respondents who had earned the income ranging from Rp1,000,000 to Rp3,000,000 amounted to 75 (41.9%) with those earning between Rp3,000,000 and Rp5,000,000 at 49 (27.4%). Meanwhile, 38 respondents (21.2%) had income less than Rp1,000,000 per month; and 9.5% (17) of the respondents had income of more than Rp5,000,000 per month. The distribution reflects the typical income profile for the population of Generation Z consumers who are still in school, just starting out in the workforce, and not quite totally financially independent as expected. Overall, the demographic profile shows that the respondents in this study represent a fairly diverse cross-section of Generation Z consumers in Java Island in terms of gender, age, geographic location, educational background, and income level.

4.1.2. Respondents Characteristics

Table 4.2 Respondent Characteristics

Characteristics	Sample (N)	Percentage (%)
Types of Eco-Friendly Frequently Used		
Paper Packaging	41	22.9%
Reusable Shopping Bags	45	25.1%
Biodegradable Packaging	27	15.1%
Glass Packaging	34	19%
Recyclable Plastic Packaging	32	17.9%
Total	179	100%

Source: Authors Data (2026)

Based on the respondents' behavior of eco-friendly packaging frequently used, the majority of respondents was documented using reusable shopping bags, with 45 respondents (25.1%), followed by paper packaging at 41 respondents (22.9%). Glass packaging was reported by 34 respondents (19%), while recyclable plastic packaging was used by 32 respondents (17.9%). Biodegradable packaging was the least frequently used type, reported by 27 respondents (15.1%).

These results show that reusable shopping bags and paper packaging are the most commonly used forms of eco-friendly packaging among the respondents, most likely because of their wider availability and ease of use in daily activities such as grocery shopping. Meanwhile, biodegradable packaging, despite being one of the more environmentally advanced alternatives, shows relatively lower usage, which may reflect limited accessibility or awareness of such products among Generation Z consumers in Java Island.

4.2. Measurement (Outer) Model

Before testing the relationships between variables, the measurement (outer) model was first tested to ensure that the indicators used in this study are accurate and reliable to determine their respective of the constructs, such as Sustainability Awareness (SA), Price Sensitivity (PS), Brand Trust (BT), Family Socialization (FS), and Willingness to Pay (WTP). This is a necessary step in processing in PLS-SEM, as the validity of structural model results depends on the quality of the measurement model (Hair et al., 2019).

4.2.1. Convergent Validity

Convergent validity, examines the range to which indicators of the same construct correlate and collectively explain the variance of that construct, assessed through outer loadings and Average Variance Extracted (AVE).

4.2.1.1. Outer Loadings

Outer loadings are used to determine the extent to which each indicator reflects its corresponding latent construct. An indicator is considered to have a strong loading if the value is above 0.70, while a value of 0.60 or above may still be acceptable in exploratory research (Hair et al., 2017).

Table 4.3 Outer Loading

	BT	FS	PS	SA	WTP	PS X SA
BT 1	0.82					
BT 2	0.776					
BT 3	0.759					
BT 4	0.777					
FS 1		0.828				

FS 2		0.767				
FS 3		0.854				
FS 4		0.818				
PS 1			0.883			
PS 3			0.903			
SA 1				0.823		
SA 2				0.819		
SA 3				0.762		
SA 4				0.761		
WTP 1					0.854	
WTP 2					0.821	
WTP 3					0.85	
WTP 4					0.811	
PS X SA						1

Source: Authors Data (2026)

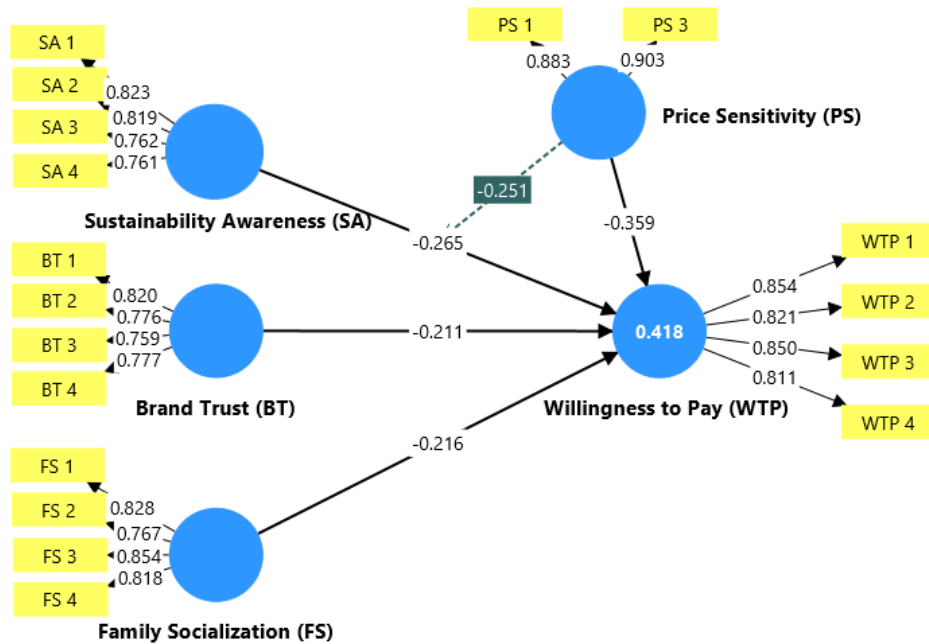


Figure 4.1 Outer Loading Result

Source: Authors Data (2026)

All indicators in Figure 4.1 and Table 4.3 show loading values above 0.70. This includes indicators for Sustainability Awareness, Price Sensitivity, Brand Trust, Family Socialization and Willingness to Pay. These high loadings confirm that each indicator strongly represents its corresponding construct. Two indicators, namely PS2 and PS4, were removed due to their low and negative loading values, which did not meet the required validity threshold. After the removal of these two indicators, all remaining indicators met the validity requirement, with loading values above 0.70. Therefore, the measurement model demonstrates good consistency between the observed indicators and their underlying variables.

4.2.1.2. Average Variance Extracted (AVE)

AVE indicates the average variance explained of indicator items of the construct as compared to the variance of the measurement errors. According to Hair et al. (2017), the construct was valid enough if the AVE value is greater than 0.50 which means that the construct can explain more than half of the variance in the

indicators. Table 4.4 shows the results of assessing the pros and cons of the provision using the AVE.

Table 4.4 *Average Variance Extracted (AVE)*

	AVE	Result
Price Sensitivity	0.798	VALID
Willingness to Pay	0.696	VALID
Family Socialization	0.669	VALID
Sustainable Awareness	0.627	VALID
Brand Trust	0.613	VALID

Source: Authors Data (2026)

The results show that all 5 constructs in this study had values of AVE above the recommended level of 0.50. Price Sensitivity (PS) had the highest score (AVE score = 0.798) followed by Willingness to Pay (WTP) with (AVE score = 0.696), Family Socialization (FS) (AVE score = 0.669), Sustainability Awareness (SA) (AVE score = 0.627) and Brand Trust (BT) (AVE score = 0.613). All the constructs are found to be validated as all the constructs have passed the required convergent validity criteria. Assessing convergent validity results from both outer loadings and AVE, suggested that the measurement model in this study has acceptable convergent validity in that all indicators reliably and consistently represent the latent constructs measured.

4.2.2. Discriminant Validity

Discriminant validity assesses how well each construct is supported by its own unique set of data in the model. Discriminant validity means that the construct reflects a concept that is truly different and not too similar to other constructs that are theoretically different. (Hair et al., 2019).

This study uses two methods to assess discriminant validity.

1. The Fornell–Larcker criterion, and
2. Cross-loading analysis.

4.2.2.1. Fornell-Larcker Criterion

Fornell-Larcker criterion (Fornell & Larcker, 1981) compares the square root of the Average Variance Extracted (AVE) of each construct to its correlations with other constructs in the model. Constructs with sufficient discriminant validity will be those that have a square root of their AVE higher than their correlation with any other construct. This means that the construct has more variance between its indicators than it does between other constructs in the model, which also supports the fact that each construct is empirically different.

Table 4.5 *Fornell-Larcker Criterion*

	Brand Trust	Family Socialization	Price Sensitivity	Sustainability Awareness	Willingness to Pay
Brand Trust	0.783				
Family Socialization	0.073	0.818			
Price Sensitivity	0.087	0.119	0.893		
Sustainability Awareness	0.114	0.171	0.154	0.792	
Willingness to Pay	-0.27	-0.295	-0.453	-0.353	0.834

Source: Authors Data (2026)

The results indicate that the square root of AVE for each construct is greater than its correlations with all other constructs in the model, namely the square root of AVE for Brand Trust (BT) = 0.783, square root of AVE for Family Socialization (FS) = 0.818, square root of AVE for Price Sensitivity (PS) = 0.893, square root of AVE for Sustainability Awareness (SA) = 0.792 and square root of AVE for Willingness to Pay (WTP) = 0.834. For example,

- The square root of AVE for BT (0.783) exceeds its correlations with FS (0.073), PS (0.087), SA (0.114), and WTP (-0.270).

This pattern holds true for all the constructs, with each diagonal value (AVE) being higher than the corresponding off-diagonal correlation values in the row and column across the construct.

4.2.2.2. *Cross-Loading Analysis*

Further tests on the discriminant validity of indicators were conducted at the indicator level by using cross-loading analysis, by comparing the loading value of each indicator to its loading value with the other constructs in the model. The criterion for the test to show adequate discriminant validity is that the loading of indicators on their intended construct is greater than that on any other construct in the model (Hair et al., 2017). The outcomes of the cross-loading analysis are given in Table 4.6.

Table 4.6 *Cross Loading Result*

	BT	FS	PS	SA	WTP	PS X SA
BT 1	0.82	0.073	0.11	0.119	-0.251	-0.103
BT 2	0.776	0.069	0.036	0.093	-0.193	-0.013
BT 3	0.759	0.002	0.06	0.066	-0.204	-0.064
BT 4	0.777	0.084	0.056	0.073	-0.186	-0.059
FS 1	0.137	0.828	0.072	0.22	-0.259	-0.139
FS 2	0.06	0.767	0.178	0.117	-0.188	-0.156
FS 3	0.077	0.854	0.091	0.11	-0.248	-0.048
FS 4	-0.034	0.818	0.071	0.107	-0.257	-0.023
PS 1	0.113	0.14	0.883	0.102	-0.386	0.014
PS 3	0.046	0.076	0.903	0.17	-0.421	0.048
SA 1	0.025	0.105	0.139	0.823	-0.269	-0.087
SA 2	0.142	0.134	0.132	0.819	-0.328	-0.123

SA 3	0.08	0.135	0.146	0.762	-0.286	-0.045
SA 4	0.107	0.178	0.056	0.761	-0.216	-0.131
WTP 1	-0.216	-0.274	-0.36	-0.303	0.854	-0.142
WTP 2	-0.215	-0.267	-0.383	-0.321	0.821	-0.138
WTP 3	-0.248	-0.27	-0.428	-0.27	0.85	-0.136
WTP 4	-0.219	-0.16	-0.33	-0.285	0.811	-0.178
PS X SA	-0.08	-0.106	0.035	-0.12	-0.176	1

Source: Authors Data (2026)

The findings indicate that all indices of this study had higher loadings for their constructs than other constructs.

- For Brand Trust (BT), indicators BT1 through BT4 loaded between 0.759 and 0.820 on Brand Trust, which is considerably higher than their loadings on Family Socialization (0.002–0.137), Price Sensitivity (0.036–0.110), Sustainability Awareness (0.056–0.119), and Willingness to Pay (-0.186 to -0.251).
- Family Socialization (FS), with indicators FS1 – FS4 loading between 0.767 and 0.854 on FS, had the highest loadings on this construct compared to the other constructs.
- The indicators for PS loaded 0.883 and 0.903 on PS, much higher than the loadings for BT, FS, SA, and WTP.
- For Sustainability Awareness (SA), the indicators had loadings ranging from 0.761 to 0.823, all of which loaded higher than the loadings for the other constructs.
- Indicators WTP1 to WTP4 loaded on WTP between 0.811 and 0.854, which is significantly higher than their loadings on BT, FS, PS and SA.
- Price Sensitivity (PS) × Sustainability Awareness (SA), which represents the moderating effect, showed a value of 1.000, which is expected for a single-indicator construct. The loadings on the other constructs were lower BT (-0.080), FS (-0.106), PS (0.035), SA (-0.120), and WTP (-0.176) , confirming that the interaction term is also distinct from the other constructs in the model.

The results show that there is no significant evidence of cross loading overlap onto constructs other than the one measured and that each indicator predominantly measures the construct for which it was created. Thus, a discriminant validity is also confirmed at the level of indicators, in addition to the results of the Fornell-Larcker criterion.

4.2.3. Construct Reliability

Construct reliability measures the internal consistency of the indicators within each construct, assessed through Cronbach's Alpha and Composite Reliability (CR).

1. Cronbach Alpha

Cronbach's Alpha is used for estimating the average inter-correlation among all indicators measuring the same construct which is used to measure the internal consistency of the indicators within a construct. Whenever Cronbach's Alpha values are more than 0.70, it is considered reliable, but it can be considered acceptable when the value is 0.60 or more in exploratory research (Hair et al., 2017).

2. Composite Reliability (CR)

A complementary assessment of internal consistency in PLS-SEM is the Composite Reliability (CR) that provides a more accurate estimation than Cronbach's Alpha because it takes into account the different outer loadings of each indicator instead of assuming that all indicators will be equally loaded on the construct (Hair et al., 2019). A construct is deemed to be reliable when its Composite Reliability is greater than 0.70 (Hair et al., 2017).

Table 4.7 Construct Reliability

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)
Brand Trust	0.791	0.801	0.864
Family Socialization	0.835	0.845	0.89
Price Sensitivity	0.747	0.75	0.887
Sustainability Awareness	0.803	0.815	0.87
Willingness to Pay	0.854	0.858	0.901

Source: Authors Data (2026)

The reliability analysis really shows that all constructs from the variable achieve Composite Reliability and Cronbach's Alpha values above the recommended threshold of 0.70 (Hair et al., 2022). The results suggest that the indicators for each construct present a high level of internal consistency. Constructs such as Willingness to Pay, Family Socialization, and Sustainability Awareness demonstrate particularly strong reliability, reflecting stable measurement across respondents.

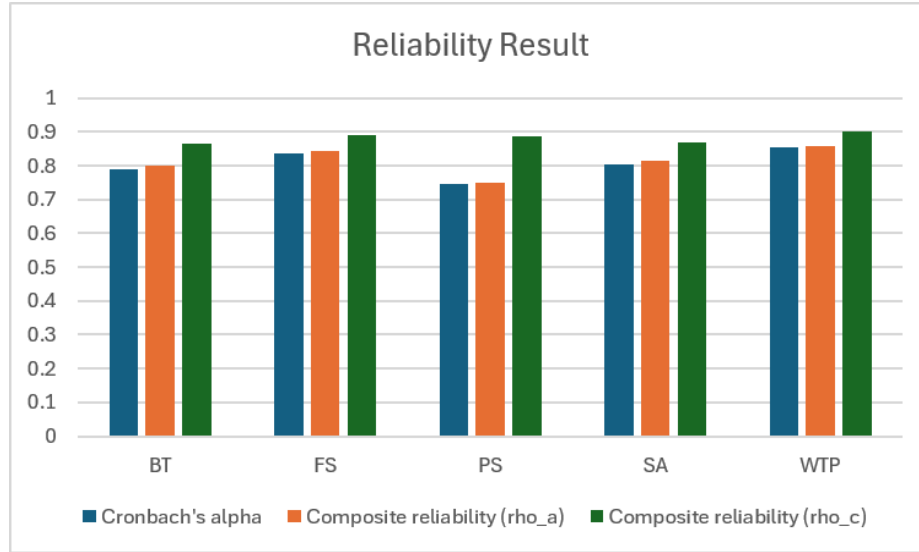


Figure 4.2 Reliability Result

Source: Authors Data (2026)

The construct reliability results confirm that all latent variables in this study are measured consistently and reliably. Together with the results from convergent and discriminant validity findings, these results indicate that the measurement model meets the required quality criteria and is suitable for further evaluation of the structural (inner) model.

4.3. Structural Model Evaluation (Inner Model)

After confirming that the measurement model satisfies the required convergent validity, discriminant validity, and reliability criteria, the next step is to calculate the structural (inner) model. The structural model is used to examine the relationships between the latent variables in this study. The first step in interpreting the structural relationships between constructs is to make sure that there are no multicollinearity problems that might bias the estimation of path coefficients. Thus, the evaluation of the structural (inner) model in this study is started with Multicollinearity Assessment (VIF Test) and then followed by the assessment of

Coefficient of Determination (R^2) which is used to measure the extent of the variance of the independent variables which can explain the variance of Willingness to Pay and the assessment of Effect Size (f^2) which is used to measure the relative contribution of each independent variable to the R^2 of the dependent variable. The results of these assessments are presented in the following sub-sections.

4.3.1. Multicollinearity Assessment (VIF Test)

To prevent high multicollinearity between independent variables in the structural model, which is likely to bias the path coefficient estimates and make the results of the structural model unreliable, a multicollinearity check was performed before evaluating the path coefficients and results of the hypothesis testing. The Variance Inflation Factor (VIF) was used to test for multicollinearity, with values below 5 as acceptable and below 3.3 as a strict and conservative criterion in PLS-SEM (Hair et al., 2019). Table 4.8 shows the results of the inner VIF.

Table 4.8 *VIF Result*

	VIF
Brand Trust -> Willingness to Pay	1.025
Family Socialization -> Willingness to Pay	1.051
Price Sensitivity -> Willingness to Pay	1.043
Price Sensitivity X Sustainability Awareness -> Willingness to Pay	1.031
Sustainability Awareness -> Willingness to Pay	1.071

Source: Authors Data (2026)

According to Hair et al. (2022), a VIF value below 5.0 indicates that multicollinearity is not a concern. As presented in Table 4.6 all VIF values shown are below the threshold, ranging between 1.025 and 1071. These results suggest that each predictor Sustainability Awareness, Price Sensitivity, Brand Trust, Family Socialization, and the interaction term Price Sensitivity $\times$ Sustainability Awareness indicate that there is no multicollinearity issue among the independent variables in the structural model, confirming that each contributes distinct and independent information in explaining willingness to pay (WTP), and that the structural model is suitable for further analysis of path coefficients and hypothesis testing.

4.3.2. Coefficient of Determination (R^2)

The Coefficient of Determination (R^2) is used to determine the amount of variance in the dependent variable, willingness to pay (WTP), which is explained by the independent variables in this study: sustainability awareness (SA), price sensitivity (PS), brand trust (BT), family socialization (FS) and the interaction term, price sensitivity $\times$ sustainability awareness (PS $\times$ SA). R^2 values are between 0 and 1, with larger numbers the closer the model is to explaining more of the variance in the data.

Table 4.9 R^2 Result

	R-square	In Percentage (%)	R-square adjusted	In Percentage (%)
Willingness to Pay	0.418	41.8%	0.401	40.1%

Source: Authors Data (2026)

The results from Table 4.9 shows that the R^2 value for willingness to pay (WTP) is 0.418, with an adjusted R^2 of 0.401. This shows that the five independent variables in this study, collectively account for 41.8% of the variance in willingness to pay premium for eco-friendly packaging, with 58.2% of the variance being explained by other factors that are not included in this study model. According to Chin's (1998) guideline, this R^2 value is considered to be in the moderate range,

which means that Sustainability Awareness, Price Sensitivity, Brand Trust, Family Socialization, and moderating effect of Price Sensitivity can explain the willingness to pay premium for eco-friendly packaging of Generation Z consumers reasonably well.

4.3.3. Effect Size (f^2)

Effect size (f^2) is used to measure the relative contribution of each independent variable to the dependent variable willingness to pay (WTP) R^2 value. Unlike R^2 which is the overall explanatory power of all predictors together, f^2 measures the change in R^2 when an independent variable is omitted from the model, and quantifies the unique contribution of each predictor to the model's explanatory power of WTP. Cohen (1988) considers values of f^2 to be small if 0.02, medium if 0.15, and large if 0.35. The results of the f^2 assessment are presented in Table 4.12.

Table 4.10 f^2 Result

	f-Square
Brand Trust	0.075
Family Socialization	0.076
Price Sensitivity	0.213
Sustainability Awareness	0.113
Price Sensitivity X Sustainability Awareness	0,093
Willingness to Pay	

Source: Authors Data (2026)

The results indicate that Price Sensitivity (PS) has the highest effect size of 0.213 (medium-to-large range), showing that PS has the most significant unique contribution to

Willingness to Pay among all the predictors in this study. Sustainability Awareness (SA) showed an f^2 value of 0.113 which is a small to medium effect. The moderation effect of Price Sensitivity $\times$ Sustainability Awareness (PS $\times$ SA) had an f^2 value of 0.093, which is in the small effect range. Family Socialization (FS) and Brand Trust (BT) had the smallest effect size of 0.076 and 0.075 respectively, which were in the small effect category, near the smallest effect of 0.02. The results show that all five predictors have a significant role in explaining Willingness to Pay but the price sensitivity has the largest individual effect, with Brand Trust and Family Socialization also having significant unique effects within the structural model but to a lesser degree. This confirms that economic/price-related factors matter more to Gen Z rather than psychological or social factors in determining willingness to pay

4.4. Path Coefficients and Hypothesis Testing

This section covers the last step of the PLS-SEM analysis, where the hypotheses formulated in Chapter 2 are finally tested with the data gathered. This stage is for determining whether the proposed effects (of Sustainability Awareness, Price Sensitivity, Brand Trust and Family Socialization on Willingness to Pay) are supported by empirical evidence, instead of the earlier stages, which examined the reliability and the validity of the measurement model. Path coefficient (Original Sample value) represents the strength of the relationship and the direction of the relationship between the two constructs, a positive value of path coefficient indicates positive relationships (0 and +1), a negative value of path coefficient indicates inverse relationships (0 and -1).

This study uses a bootstrapping procedure with 5,000 subsamples to test the statistical significance of each of the hypothesized relationships generating T-statistics and p-values for each hypothesized path. The T-statistic is the size of the effect in comparison with the standard error of the effect, and the p-value tells the likelihood that the observed relationship is due to chance. In line with the general procedure in PLS-SEM studies, a two-tailed test of significance with a threshold value of $T > 1.96$ and $p < 0.05$ are used (Hair et al., 2019). It must be mentioned that statistical significance does not establish a hypothesis. In addition, the direction of the

relationship initially suggested – such as a hypothesis stating that there will be a positive effect – must be confirmed by a path coefficient that is significant and positive. However, if the relationship is important but the two variables go in the opposite directions than that which was predicted or are not significant at all, the hypothesis under test is rejected. Throughout the rest of the discussion of the results of hypothesis testing in this section, this distinction between significance and directional consistency is used.

Table 4.11 Hypothesis Test Result

	Original sample (O)	T values	P values	Result
Sustainability Awareness -> Willingness to Pay	-0.265	4.288	0.001	Rejected
Price Sensitivity -> Willingness to Pay	-0.359	6.474	0.001	Accepted
Brand Trust -> Willingness to Pay	-0.211	3.814	0.001	Rejected
Family Socialization -> Willingness to Pay	-0.216	3.84	0.001	Rejected
Price Sensitivity X Sustainability Awareness -> Willingness to Pay	-0.251	4.272	0.001	Accepted

Source: Authors Data (2026)

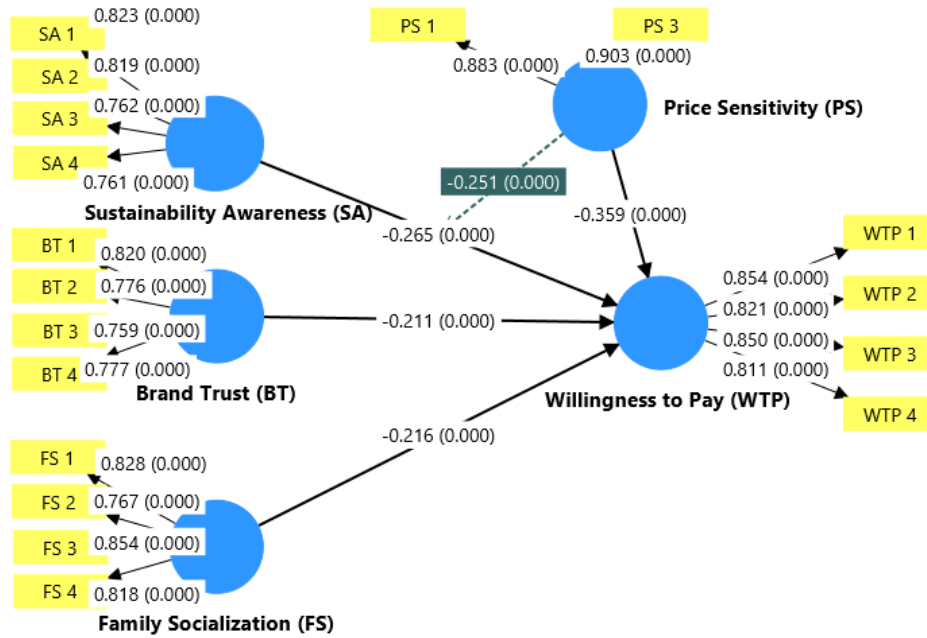


Figure 4.3 Hypothesis Test Result (Outer Loading P-value)

Source: Authors Data (2026)

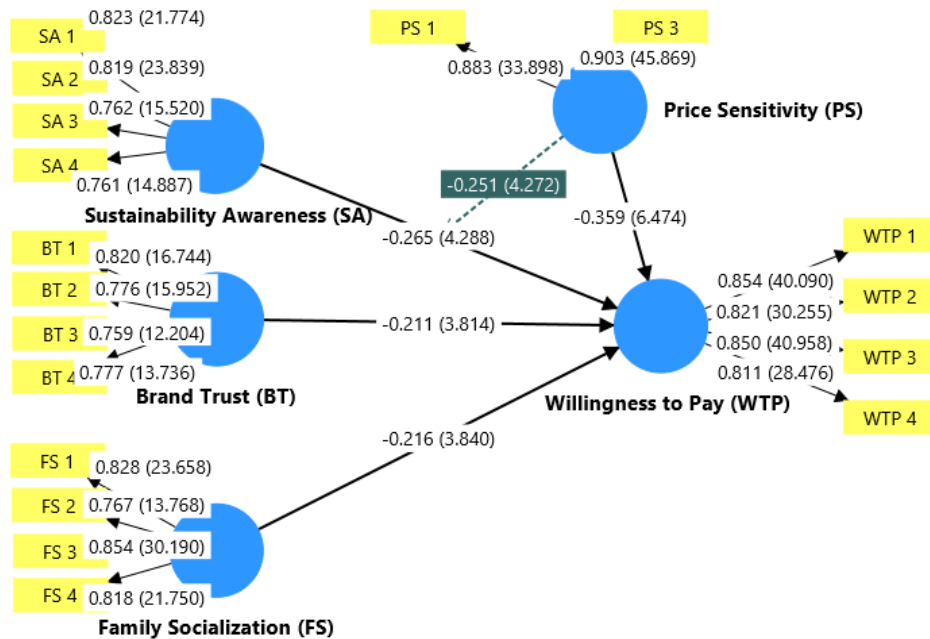


Figure 4.4 Hypothesis Test Result (Outer Loading T-value)

Source: Authors Data (2026)

4.4.1. Interpretation of Hypotheses

H1: Sustainability Awareness has a positive significant effect on Willingness to Pay Premium for Eco-Friendly Packaging

The results indicate that there is a significant negative relationship between sustainability awareness and willingness to pay (WTP) ($\beta = -0.265$, $t = 4.288$, $p = 0.000$), although it meets the requirement for significance, the direction is contrary to the hypotheses of a positive relationship thus, **H1 is rejected**. The results contradict the previous research that typically shows that increased sustainability awareness is connected with the higher willingness to pay premium for environmentally-conscious products (Ketelsen et al., 2020; Dilkes-Hoffman et al., 2021; Laurensia et al., 2026). The reason for this contrary result may be the attitude-behaviour gap, which is a gap between someone's attitude and their action – which is purchasing – when they put it into practice, or when they are faced with a financial choice. (Zíka & Olšová, 2025). Another possible explanation is that highly sustainability-aware Gen Z consumers in this study have a higher expectation for companies and/or government institutions to pay for sustainability efforts, rather than consumers themselves.

H2: Price Sensitivity has a negative effect on Willingness to Pay Premium for Eco-Friendly Packaging

The findings indicated that price sensitivity was hypothesized to have a negative impact on willingness to pay, which is supported by the findings ($\beta = -0.359$, $t = 6.474$, $p = 0.000$) therefore, **H2 is accepted**. This result is consistent with previous studies that found price-sensitive consumers are more likely to consider price than environmental concerns when purchasing products (Herrmann et al., 2022; Yan et al., 2025; Saragi, 2025). The result shows that price is a big challenge to use eco-friendly packaging material among Gen Z consumers in Java Island in spite of their environmental values. This is in line with the general issue discussed in Chapter 1, which was economic factors as an obstacle to the implementation of green purchasing actions.

H3: Brand Trust has a positive significant effect on Willingness to Pay Premium for Eco-Friendly Packaging

The result indicates that the hypothesized positive relationship was negative in nature for the variable brand trust with a value of $\beta = -0.211$, $t = 3.814$, and $p = 0.000$ therefore, **H3 is rejected**. This result contrasts with the results of previous studies, which have mostly found that brand trust has a positive effect on consumers' willingness to pay premium prices for sustainable products (Guerreiro & Pacheco, 2021; Román-Augusto et al., 2022; Ashwini & Moodbidri, 2026).

H4: Family Socialization has a positive significant effect on Willingness to Pay Premium for Eco-Friendly Packaging

The results indicate that there is a significant negative relationship between family socialization and willingness to pay ($\beta = -0.216$, $t = 3.840$, $p = 0.000$) which contradicts the positive proposed hypothesis therefore, **H4 is rejected**. This is contrary to the previous studies which generally concluded that a positive influence of family on pro-environmental attitudes and sustainable consumption attitudes among younger consumers (Grønhøj & Thøgersen, 2017; Lee et al., 2021; Ofori et al., 2025). One possible reason for this finding is that in this study, the values inculcated in families regarding sustainability may be more about being frugal, resourceful, and reducing waste, saving money or reusing items, than it is about spending money on a "premium eco-friendly" product. This does indicate that families may be teaching environmentally responsible behaviours that are more likely to be undertaken to decrease consumption rather than to increase the cost of sustainability.

H5: Price Sensitivity Negatively Moderates the Effect of the Relationship between Sustainability Awareness and Willingness to Pay Premium for Eco-Friendly Packaging

As indicated in the results, the interaction term between Price Sensitivity and Sustainability Awareness is significant in determining Willingness to Pay ($\beta = -0.251$, $t = 4.272$, $p = 0.000$), price sensitivity has a significant moderating effect on the relationship between sustainability awareness and willingness to pay, which mean **H5**

is accepted. The negative interaction coefficient suggests that the negative correlations between Sustainability Awareness and Willingness to Pay become even more negative among consumers with higher price sensitivity. This finding is consistent with the suggestion of Prakash and Pathak (2021) and Sultan et al. (2024) that price related factors may have a significant impact on the relationship between environmental attitudes and actual willingness to pay. The findings support a general idea that economic factors are the final determining factor in a consumer's decision making process, even if the consumer is environmentally conscious.

4.5. Discussion

This chapter provides a discussion of the findings that were derived from the data analysis carried out in Chapter 4, the findings and results of the analysis are interpreted in the context of the research objectives, the theoretical framework and previous studies discussed in Chapter 2. The purpose of the discussion is to gain a deeper understanding of the factors that affect Generation Z consumers' willingness to pay premium for eco-friendly packaging, both in terms of the results obtained that confirm the hypothesized relations and in terms of the results that contradict known literature.

1. The Effect of Sustainability Awareness on Consumers' Willingness to Pay Premium for Eco-Friendly Packaging among Gen-Z.

Based on this study, the results show that Sustainability Awareness has a significant negative impact on Willingness to Pay Premium for Eco-Friendly Packaging for Gen-Z ($\beta = -0.265$, $t = 4.288$, $p = 0.000$). This result goes against the direction of Hypothesis 1, which predicted a positive relationship, and contrasts with previous research which shows that environmentally conscious consumers tend to be more willing to pay more for sustainable products (Ketelsen et al., 2020; Dilkes-Hoffman et al., 2021; Laurensia et al., 2026). This finding, however, is in line with many recent studies that show the existence of a “Gen-Z intention-behaviour gap”: high levels of environmental awareness and values do not necessarily correspond to higher levels of willingness to pay

more. Among Generation Z consumers, ecological values had moderate scores, and willingness to pay was comparatively low, thus indicating that environmental values were positively linked to positive attitudes on green products, but only a small percentage of consumers converted these attitudes into higher prices or constant action on their expressed attitudes. A possible reason for this trend is the growing scepticism among consumers about sustainability claims. According to Urbański and ul Haque (2020) and Volschenk et al. (2022), those who become aware of deceptive environmental claims are less willing to purchase sustainable products, resulting in what has been termed a ‘greenwash penalty’ whereby consumers actively penalise brands they perceive as ‘greenwashing’. This tendency may be accentuated by the socio-demographic profile of the respondents in this study. The majority of respondents were aged 16-20 years, most of which had finished Senior High School, and most had a monthly income in the range of Rp1,000,000 up to Rp3,000,000 as shown in the respondent characteristics. This is consistent with recent research finding that intention-behaviour gap among Gen Z consumers can be explained by income constraints, availability and accessibility issues as well as external pricing barriers (Ngo et al., 2024), and that financial constraints may outweigh the importance of sustainability preferences among Gen Z, as sustainability motives have a higher impact than economic motives on actual purchasing decisions (Fei et al., 2024). It may be that the negative relationship observed in this study is not an absence of awareness about the environment, but rather a more critical and wealth-driven form of awareness in which consumers of the Gen-Z generation in the Java Islands are more and more doubtful about the added value of the cost of the product they are paying for when they buy the product.

2. To Analyze the Effect of Price Sensitivity on Consumers’ Willingness to Pay Premium for Eco-Friendly Packaging among Gen-Z.

Based on the result of this study, price sensitivity has significant negative influence on Willingness to Pay Premium for Eco-Friendly Packaging ($\beta =$

-0.359, $t = 6.474$, $p = 0.000$) in support of Hypothesis 2. Interestingly, the strongest path coefficient among all predictors in this study, the largest effect size ($f^2 = 0.213$), and the highest contribution to the model indicated that Willingness to Pay Premium was most strongly influenced by economic considerations, more so than Sustainability Awareness, Brand Trust, and Family Socialization. A possible reason is because of the financial reality of Gen-Z consumers in Indonesia. In the study conducted by Saragi (2025), it was found that in the consumer group of Indonesian Gen Z and Millennials, price sensitivity has a negative effect towards the intention to buy, whereas personal evaluation in the form of attitude and trust is still relatively stable. This indicates that awareness and trust appear to play a role in the consumer sentiments towards environmentally friendly products, but that price sensitivity plays a more direct role in turning those sentiments into action: the financial one. Given that the majority of respondents in this study were still in Senior High School with a monthly income between Rp1,000,000 and Rp3,000,000, as shown in the respondent characteristics, this group likely has limited discretionary income, making price a more immediate and practical constraint than abstract values such as sustainability or brand loyalty. In line with this, price sensitivity has also been shown to diminish the positive impact of subjective norms on green purchase intention among younger Indonesian consumers, indicating that high subjective norms towards green purchasing can be undermined even when price proves to be a constraint. This phenomenon can also be related to the consumer decision making process, where the economic need is more dominant than the value consideration, especially in emerging market countries like Indonesia where income level and the cost-of-living are more restrictive than in developed economies. This does not mean that Gen-Z consumers aren't concerned with sustainability when it comes to packaging, it's more that when there's not a ton of money to spare, the price of sustainability can simply be a barrier they are not able to overcome.

3. To examine the effect of Brand Trust on Consumers' Willingness to Pay Premium toward Eco-Friendly Packaging among Gen-Z.

The results of this study indicate that the relationship between Brand Trust and Willingness to Pay Premium for Eco-Friendly Packaging is negative ($\beta = -0.211$, $t = 3.814$, $p = 0.000$), which is not aligned with Hypothesis 3 which suggests that these two variables have a positive relationship. This result contradicts the previous studies, which indicate that generally, brand trust is expected to lead consumers to pay more for sustainable products (Guerreiro & Pacheco, 2021; Román-Augusto et al., 2022; Ashwini & Moodbidri, 2026).

Based on this study, trust and premium payment are not identical and one does not necessarily lead to the other. According to Riva et al. (2024), claiming to be green does not necessarily make a brand trusted as green, and consumers are unlikely to trust a green brand solely because of the positioning strategy, as consumers now consider a variety of factors besides the brand's green words when making their trust judgment, mainly because green claims by firms are often perceived as ambiguous or even deceptive. This would mean that the high levels of trust that this study found towards brands with eco-friendly packaging could be more of a minimum benchmark of trust/ethics rather than a justification to pay more. That is, if the consumer trusts the brand, he or she may assume that the brand is acting in a responsible manner, but may not feel that this responsible action is worth paying a higher price for the product, beyond its regular cost. This separation has a significant conceptual implication in the sense that it may help explain the relationship between Willingness to Pay and Brand Trust. But this does not imply that brand trust is a direct cause of premium payment; it could more well be a precondition for purchase consideration than a justification for premium payment – consumers might need to trust a brand first to even consider its claim of being “eco-friendly” to be credible, let alone worthy of the premium price tag. It matches the general trend of this study in Hypotheses 1, 3 and 4, where psychological and social variables could not directly predict a higher financial commitment, further supporting that factors of trust, awareness and social influence influence consumer attitudes

towards eco-friendly packaging, whereas price sensitivity more directly influences actual purchase behaviour. It could also be because, while Gen Z consumers are aware of a brand's green stance, they may not be willing to pay more for a brand just because it is trusted, but they are willing to pay for a brand that provides environmentally friendly packaging. In other words, people's belief in the sustainability of a brand does not always directly lead to preparedness to pay more for that brand.

4. The Effect of Family Socialization on Consumers' Willingness to Pay Premium for Eco-Friendly Packaging among Gen-Z.

The findings of this study show that the negative effect of Family Socialization on Willingness to Pay Premium for Eco-Friendly Packaging ($\beta = -0.216$, $t = 3.840$, $p = 0.000$) does not support Hypothesis 4 which proposed that the influence of Family Socialization on Willingness to Pay Premium for Eco-Friendly Packaging was positive. This result goes against previous studies showing that family tends to have a positive effect on pro-environmental attitudes and sustainable consumption behavior (Grønhøj & Thøgersen, 2017; Lee et al., 2021; Ofori et al., 2025). Family socialization most probably does not discourage sustainability as such, but rather promotes a particular type of sustainable behaviour: not paying more. This separation is easier to understand when distinguishing between two different categories of environmental responsibility expressions: consumption reduction (re-use, repair, waste minimisation, unnecessary purchases avoidance) and premium purchasing (paying more for environmentally responsible products marketed as such).

In the context of Indonesia, especially for low-income families, Gen-Z might be socialized to adopt eco-friendly behaviours through a focus on reusing items (shopping bags, packaging wastes), being frugal and resourceful rather than actively seeking to pay more for goods described as "eco-friendly". That is, when asked about their family's influence on their attitude toward sustainability, Gen-Z respondents who indicated that their family was very influential might have been conditioned to think more about "consuming less," not "paying more."

So, from this angle, the relationship between family socialization and willingness to pay a premium is not just unrelated, it may actually be two mutually exclusive philosophies of sustainable behaviour – one based on reducing consumption in total, and the other on paying for a “better” (and often more expensive) alternative. These two dimensions can be tested in future research in an empirical way by breaking down family-instilled behaviours by these two dimensions, for instance, the relationship between family encouragement and specific behaviours related to reuse and waste reduction (e.g., reusing shopping bags, avoiding single-use packaging) can be contrasted with the relationship between family encouragement and specific behaviours related to increased spending on premiums (e.g., willingness to buy a pricier biodegradable packaging). However, if family socialization is strongly and negatively related to the latter but strongly and positively related to the former, as this study's results indicate, it would support the interpretation that consumers of Gen-Z in Java Island are socialized towards a model of sustainability that is frugal: that is, that financial prudence is seen as compatible with sustainability, and that a measure of sustainability is to reduce consumption altogether rather than to pay more for a green-labeled product.

5. The Moderating Role of Price Sensitivity in the Relationship between Sustainability Awareness and Willingness to Pay Premium for Eco-Friendly Packaging among Gen-Z.

The findings of this study validate the moderating effect of Price Sensitivity between Sustainability Awareness and Willingness to Pay Premium (Hypothesis 5) ($\beta = -0.251$, $t = 4.272$, $p = 0.000$). The interaction coefficient is negative, suggesting that the sustainability awareness's negative impact on Willingness to Pay Premium is accentuated among price-sensitive Gen-Z consumers. There is a critical question to be answered here, which of the two findings, Price Sensitivity ($\beta = -0.359$) or its moderating effect on Sustainability Awareness ($\beta = -0.251$) is more important to understand Gen-Z's willingness to pay a premium for eco-friendly packaging? Even though the numerical effect of Price

Sensitivity is larger and has the highest effect size ($f^2 = 0.213$) in this study, it is the moderating effect of Price Sensitivity that is arguably the more theoretically significant finding as it shows how the Price Sensitivity operates within the overall decision-making process, instead of just confirming that Price Sensitivity is important. A direct effect is just as much as it states that the average price-sensitive consumer is less willing to pay a premium. In contrast, the moderating effect indicates that the relationship between environmental values and financial behavior is not unaffected but is rather modified by the price sensitivity in such a way that the negative pattern seen in Hypothesis 1 is magnified. This is in accordance with the methodology of the PLS-SEM study that states that even the relatively small interaction effect can be significant, especially if the change in strength of the relationship is practically relevant for the constructs used in the study (Chin, Marcolin, & Newsted, 2003). Theoretically, this moderating effect provides a more comprehensive understanding of the surprising outcomes observed across this study. It implies that the impact of Sustainability Awareness on Willingness to Pay Premium is not the same for all Gen-Z consumers, but rather varies based on the price sensitivity of the consumer. Finally, when looking at the negative relationship between sustainability awareness and willingness to pay, this may be comparatively weaker for Gen-Z consumers as they are not as price-sensitive, but, for the majority of this study's respondents (as indicated in the respondent characteristics) mostly still in Senior High School and have limited monthly income, the price sensitivity indeed seems to reinforce the tendency to pay a lower price than a higher price for the sustainability awareness. In this context, the moderating effect does not only confirm that price plays an important role; it shows that the price sensitivity acts as a conditioning variable that impacts how much environmental consciousness can practically be turned into financial commitment by a business or policy, providing a useful and more nuanced understanding of the impact of price sensitivity than the direct impact alone.

CHAPTER 5.

CONCLUSION AND RECOMMENDATION

5.1. Conclusion

The purpose of this study was to examine the relationship between sustainability awareness, price sensitivity, brand trust, family socialization, and willingness to pay premium for the eco-friendly packaging as well as to explore the moderation role of price sensitivity between the Sustainability Awareness and Willingness to Pay among Generation Z consumers. The data were obtained by using purposive sampling technique from 179 respondents of Generation Z in Java Island and analyzed with the Partial Least Squares Structural Equation Model (PLS-SEM). Based on the findings obtained from the measurement model evaluation, structural model evaluation, and hypothesis testing shown in Chapter 4, the following conclusions can be made.

Contrary to Hypothesis 1, sustainability awareness was found to have a significant negative impact on willingness to pay a premium for eco-friendly packaging. This suggests that the Gen Z consumers in this study might be aware of the problem with the environment but do not seem to be willing to pay more for sustainable packaging. On the contrary, the outcome suggests an attitude-behaviour gap, where there is a gap between environmental consciousness and financial commitment, especially for consumers with low discretionary income.

Second, price sensitivity had a significant negative effect on willingness to pay a premium for eco-friendly packaging, consistent with the Hypothesis 2. This finding is in line with the fact that "price" is the most prevailing factor in determining the intention to buy environmentally friendly packaging among Gen Z consumers as indicated by its score as the highest predictor in the structural model.

Third, brand trust was determined to have a statistically significant negative impact on willingness to pay premium for eco-friendly packaging which is in opposition to Hypothesis 3. This indicates that brands with sustainable packaging can gain consumer trust, but this does not lead to a purchase with a higher price for products that the brands offer.

Fourth, results showed that family socialization had a highly negative relationship with willingness to pay a premium for eco-friendly packaging, which is contrary to Hypothesis 4. This suggests that the values that are inculcated in the children by their family might be more frugal and reusing values in place rather than toward supporting higher spending on premium-priced sustainable products.

Fifth, Price Sensitivity was found to significantly and negatively moderate the relationship between sustainability awareness and willingness to pay premium for eco-friendly packaging, supporting Hypothesis 5. This finding confirms that the negative relationship between sustainability awareness and willingness to pay becomes stronger among consumers who are more price-sensitive, demonstrating that economic factors play a critical conditioning role in shaping how environmental values are translated into willingness to make a financial commitment.

The results of this study shows that the psychological and social factors, namely sustainability awareness, brand trust and family socialization have a smaller influence on willingness to pay premium for eco-friendly packaging than the economic factors, such as Price Sensitivity, among generation Z consumers in Java Island. The results also show that despite the fact that Gen Z is widely considered as a generation that cares about the environment, their commitment to invest in sustainability efforts is still limited by the economic realities, thereby emphasizing the existence of intention–behavior gap for an emerging market like Indonesia.

5.2. Recommendation

5.2.1. Theoretical implication

This study provides several theoretical implications for the study of sustainable consumption behaviour in the context of the Generation Z consumers in emerging markets. First, the findings expand the use of Value-Belief-Norm (VBN) Theory and the Theory of Planned Behavior (TPB) because they show that values and awareness towards the environment do not necessarily lead to economic commitment, particularly in cases of economic limitations. This establishes a developing literature on the attitude–behaviour gap and highlights the need for better research on

willingness to pay that includes economic constraint variables, particularly in their consideration of the direct and positive relationship between awareness or attitude and behavioural outcomes.

Second, this study validates the usefulness of price sensitivity as not only a direct predictor, but also as an important moderator variable which has the potential to reverse or weaken the anticipated positive link between sustainability awareness and willingness to pay. This finding provides a theoretical contribution because the relationship between psychological and social constructs (sustainability awareness, brand trust and family socialization) and economic factors are not mutually exclusive. Future studies are encouraged price sensitivity or other economic constraint variables should be considered as a boundary condition instead of simply an independent predictor in the modelling of willingness to pay premium for sustainable products.

Third, the unexpected negative relationships for brand trust and family socialization indicate that these constructs might need to be further theoretically developed when applied to the specific outcome of willingness to pay premium, rather than other outcomes like purchase intention or attitude formation. Future studies would be better served by decategorizing "sustainability through reduced consumption" and "sustainability through premium purchasing" as two distinct behavioral processes that are conceptually different from each other as types of pro-environmental behavior. The difference may explain why family socialization has been found to lead to frugality rather than premium spending for sustainable behavior.

Finally, the work of this study provides empirical evidence in Indonesia, where it is an emerging market context, as this context is not sufficiently represented in the sustainability and willingness-to-pay literature which is dominated by developed economies studies. This context-specific evidence can complement the theoretical understandings of the relationship between constructs of sustainability and willingness to pay, as the associations between constructs of sustainability and willingness to pay may vary depending on income level, market maturity and financial independence of the generations.

5.2.2. Practical implication

This study reveals some practical implications for businesses, marketers and policy makers to promote eco-friendly packaging among Generation Z consumers.

For companies and marketing professionals, findings suggest that educating Gen Z consumers about sustainability is not enough to make them buy more expensive products that feature sustainable packaging. Companies should therefore avoid pricing strategies that depend on environmental messaging and instead focus on minimizing the price gap between conventional and eco-friendly packaging options, since price sensitivity was found to be the strongest predictor of willingness to pay. Value-based pricing, "bundling" and offering comparable environmentally friendly packaging at similar prices could be more effective at turning environmental awareness into actual shopping behavior. Furthermore, based on the negative correlation observed for brand trust, companies should be careful to not assume that large price increases for products that they claim are sustainable are sufficient to build trust in the product or brand; rather, companies should design their sustainable product line to offer additional entry points and low-cost options to the line, such as additional premiums or optional add-ons, to build trust in the product or brand.

The negative relationship between family socialization and businesses targeting family-oriented marketing argue that the message that family-oriented marketing would promote premium positioning should be changed to the more sustainable value of being frugal, which seems to be embedded within the family settings of Gen Z. Marketing the eco-friendly packaging as an economically viable long-term option, and not a premium socially responsible option, might have more impact on this target group.

The results imply that for younger, more price-sensitive consumers, awareness campaigns are probably not a sufficient motivator to shift their willingness to pay premium for sustainable packaging, for policy makers. Some policy measures – like support for eco-friendly packaging manufacturers, incentives, or laws that decrease the cost of sustainable packaging - will also need to be implemented in order to make

the difference in price more appealing and secure widespread use of sustainable packaging, not just public education and environmental campaigns.

5.3. Limitation

The study has a couple of limitations that should be recognized when interpreting the results of this study and should be taken into account in future studies.

First, this study is limited to Generation Z consumers which is born from 1997 to 2010 in Java island. The results are therefore not necessarily applicable to other generational cohorts, including the Millennials or Generation X, nor to the Gen Z consumers who live outside the Java Island where the economic situation may vary widely, as may market maturity and sustainability initiatives.

Second, only four independent variables, such as sustainability awareness, price sensitivity, brand trust and family socialization, have been examined as predictors of willingness to pay a premium for eco-friendly packaging. Due to the coefficient of determination (R^2) of 41.8% that was achieved from this study, it can be seen that about 58.2% of the variance in willingness to pay was not explained by the research model. These indicate that other factors such as perceived product quality, social media influence, peer influence and/or specific product category effects may also be important and were not measured in this study.

Third, the data gathered in this study is self-reported perception and behavioral intention of the respondents, instead of their actual purchase behavior. This can lead to a misalignment between what respondents say they would do when they actually make a purchase, especially as the results of this study indicate an attitude–behaviour gap.

Fourth, the unexpected negative relationships among sustainability awareness, brand trust, and family socialization that were found in this study contradict many findings in the literature, suggesting that additional constructs and measurement items are needed to fully explain the relationships in this study. This finding might require further qualitative exploration to understand the reasoning behind it, if quantitative survey data is not sufficient to explain this finding.

Lastly, the research used purposive sampling as a sampling technique, which is a non-probability sampling method that focuses on the criteria of the respondents, but the limitation of this sampling method is that it cannot be generalized to the larger population of Gen Z consumers in Indonesia because it may not represent the income distribution, geographic spread, and lifestyle of Gen Z consumers in Indonesia.

REFERENCES

- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- Ahmed, N., Li, C., Khan, A., Qalati, S. A., Naz, S., & Rana, F. (2023). Purchase intention toward sustainable products among young consumers: The moderating role of price sensitivity. *Sustainability*, 15(4), 3568. <https://doi.org/10.3390/su15043568>
- Alenazi, S. A. (2025). Sustainability awareness, price sensitivity, and willingness to pay for eco-friendly packaging: A discrete choice and valuation study in the Saudi retail sector. *Sustainability*, 17(16), 7287. <https://doi.org/10.3390/su17167287>
- Angriani, P., Muhaimin, M., Hastuti, K. P., Adyatma, S., & Saputra, A. N. (2021). Ban on plastic bags usage: Consumer perception of single-use plastic bags in traditional market. *Proceedings of the International Conference on Social Sciences and Education*. <https://doi.org/10.2991/assehr.k.210222.036>
- Ashwini, A. D. Y., & Moodbidri, S. M. (2026). Trust-enabled drivers of Gen Z consumers' willingness to pay for sustainable packaging: An extended TRUST-PACT model. *Frontiers in Sustainability*, 7. <https://doi.org/10.3389/frsus.2026.1762826>
- Barbarousis, G., Chatzitheodoridis, F., Kontogeorgos, A., & Skalkos, D. (2025). “Innovatives” or “Sceptics”: Views on sustainable food packaging in the new global context by Generation Z members of an academic community. *Sustainability*, 17(15), 7116. <https://doi.org/10.3390/su17157116>
- Bhatta, S., Deutsch, J., & Suri, R. (2021). Differentiating price sensitivity from willingness to pay: Role of pricing in consumer acceptance of upcycled foods.

Journal of Food Products Marketing, 27(7), 331–339.
<https://doi.org/10.1080/10454446.2021.2016536>

Biswas, A., & Roy, M. (2015). Leveraging factors for sustained green consumption behavior based on consumption value perceptions: Testing the structural model. *Journal of Cleaner Production*, 109, 188–197.
<https://doi.org/10.1016/j.jclepro.2014.11.057>

Biswas, A., & Roy, M. (2016). A study of consumers' willingness to pay for green products. *Journal of Cleaner Production*, 112, 1673–1684.
<https://doi.org/10.1016/j.jclepro.2015.09.090>

Casaló, L. V., & Escario, J.-J. (2023). Predictors of sustainable consumption among young consumers: The role of family influence and environmental concern. *Sustainability*, 15(5), 4217. <https://doi.org/10.3390/su15054217>

Chen, C.-C., Sujanto, R. Y., Tseng, M.-L., Chiu, A. S. F., & Lim, M. K. (2021). How is the sustainable consumption intention model in food industry under preference uncertainties? The consumer willingness to pay on recycled packaging material. *Sustainability*, 13(21), 11578.
<https://doi.org/10.3390/su132111578>

Conner, M. (2001). Theory of planned behavior. In N. J. Smelser & P. B. Baltes (Eds.), *International encyclopedia of the social & behavioral sciences*. Elsevier.

Deloitte. (2024). 2024 Gen Z and Millennial Survey. <https://www.deloitte.com/global/en/issues/work/content/genzmillennialsurvey.html>

Dharmesti, A. (2020). *Analisis willingness to pay generasi milenial terhadap produk sustainable fashion* [Undergraduate thesis, Universitas Indonesia].

Dieli, C., Priyadarshini, A., Ludgate, R., & Foley, L. (2024). Bridging the gap: Determinants of consumers' willingness to pay for environmentally friendly

packages of leafy greens. *Sustainability*, 16(8), 3128.
<https://doi.org/10.3390/su16083128>

Dilkes-Hoffman, L. S., Pratt, S., Laycock, B., Ashworth, P., & Lant, P. A. (2021). Public attitudes towards plastics. *Resources, Conservation and Recycling*, 147, 227–235. <https://doi.org/10.1016/j.resconrec.2019.04.015>

Fianda, A. Y. A., Fandinny, I., Kacaribu, L. N. B., Desyani, N. A., Asyifa, N., & Wijayanti, P. (2022). Eco-friendly packaging: Preferensi dan kesediaan membayar konsumen di marketplaces. *Jurnal Ilmu Lingkungan*, 20(1), 147–157. <https://doi.org/10.14710/jil.20.1.147-157>

Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention and behavior: An introduction to theory and research*. Addison-Wesley.

Geng, R., Mansouri, S. A., & Aktas, E. (2023). The relationship between green supply chain management and performance: A meta-analysis of empirical evidence. *Journal of Cleaner Production*, 379, 134708. <https://doi.org/10.1016/j.jclepro.2022.134708>

Grønhøj, A., & Thøgersen, J. (2009). Like father, like son? Intergenerational transmission of values, attitudes, and behaviours in the environmental domain. *Journal of Environmental Psychology*, 29(4), 414–421. <https://doi.org/10.1016/j.jenvp.2009.05.002>

Grønhøj, A., & Thøgersen, J. (2017). Why young people do things for the environment: The role of parenting for adolescents' motivation to engage in pro-environmental behaviour. *Journal of Environmental Psychology*, 54, 11–19. <https://doi.org/10.1016/j.jenvp.2017.09.005>

Guerreiro, J., & Pacheco, M. (2021). How green trust, consumer brand engagement and green word-of-mouth mediate purchasing intentions. *Sustainability*, 13(14), 7877. <https://doi.org/10.3390/su13147877>

- Ha, M.-T. (2021). Optimizing green brand equity: The integrated branding and behavioral perspectives. *SAGE Open*, 11(3). <https://doi.org/10.1177/21582440211036087>
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2017). *A primer on partial least squares structural equation modeling (PLS-SEM)* (2nd ed.). SAGE Publications.
- Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021). *Partial least squares structural equation modeling (PLS-SEM) using R: A workbook*. Springer.
- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2–24. <https://doi.org/10.1108/EBR-11-2018-0203>
- Han, H. (2015). The value-belief-norm theory, personal norms and sustainable travel mode choice in urban areas. *Journal of Environmental Psychology*, 44, 119–125. <https://doi.org/10.1016/j.jenvp.2015.08.001>
- Handayani, N. U., Ulkhaq, M. M., & Asri, M. (2026). The moderating effect of environmental awareness on willingness to pay for green products. *GeoEco*.
- Hansmann, R., Laurenti, R., Mehdi, T., & Binder, C. R. (2020). Determinants of pro-environmental behavior: A comparison across different population groups. *Sustainability*, 12(3), 1045. <https://doi.org/10.3390/su12031045>
- Henseler, J., Ringle, C. M., & Sinkovics, R. R. (2009). The use of partial least squares path modeling in international marketing. In R. R. Sinkovics & P. N. Ghauri (Eds.), *Advances in international marketing* (Vol. 20, pp. 277–319). Emerald Group Publishing Limited.
- Hensher, D. A., Rose, J. M., & Greene, W. H. (2015). *Applied choice analysis: A primer* (2nd ed.). Cambridge University Press.

- Herrmann, C., Rhein, S., & Sträter, K. F. (2022). Consumers' sustainability-related perception of and willingness-to-pay for food packaging alternatives. *Resources, Conservation and Recycling*, 181, 106219. <https://doi.org/10.1016/j.resconrec.2022.106219>
- Hsu, S.-Y., Wang, H.-C., Ho, J.-L., & Chen, H.-C. (2020). Exploring consumers' interest in choosing sustainable food. *Frontiers in Psychology*, 11, 489. <https://doi.org/10.3389/fpsyg.2020.00489>
- Huang, Y. C., Yang, M., & Wang, Y. C. (2014). Effects of green brand on green purchase intention. *Marketing Intelligence & Planning*, 32(3), 250–268. <https://doi.org/10.1108/MIP-10-2012-0105>
- Jambeck, J. R., Geyer, R., Wilcox, C., Siegler, T. R., Perryman, M., Andrady, A., Narayan, R., & Law, K. L. (2015). Plastic waste inputs from land into the ocean. *Science*, 347(6223), 768–771. <https://doi.org/10.1126/science.1260352>
- Johnson, R. M., & Orme, B. (2003). *Getting the most from CBC*. Sawtooth Software Research Paper Series.
- Joshi, Y., & Rahman, Z. (2015). Factors affecting green purchase behaviour and future research directions. *Management of Environmental Quality*, 26(3), 330–347. <https://doi.org/10.1108/MEQ-09-2014-0132>
- Kabaja, B., Wojnarowska, M., Ćwiklicki, M., Buffagni, S. C., & Varese, E. (2023). Does environmental labelling still matter? Generation Z's purchasing decisions. *Sustainability*, 15(18), 13751. <https://doi.org/10.3390/su151813751>
- Kementerian Lingkungan Hidup dan Kehutanan. (2019). *Evaluasi uji coba kantong plastik berbayar di Indonesia*.
- Kementerian Lingkungan Hidup dan Kehutanan. (2020). *Rencana aksi nasional penanganan sampah laut 2020–2025*.

- Ketelsen, M., Janssen, M., & Hamm, U. (2020). Consumers' response to environmentally-friendly food packaging—A systematic review. *Journal of Cleaner Production*, 254, 120123. <https://doi.org/10.1016/j.jclepro.2020.120123>
- Kovács, I., & Keresztes, G. (2022). The impact of trust on green purchase behavior: Evidence from sustainable consumption. *Sustainability*, 14(3), 1045. <https://doi.org/10.3390/su14031045>
- Kozik-Kołodziej, N. (2026). Consumer attitudes and perceptions toward sustainable packaging: A systematic literature review. *Sustainability*, 18(3), 1235. <https://doi.org/10.3390/su18031235>
- Kumar, P., Polonsky, M., Dwivedi, Y. K., & Kar, A. (2021). Green information quality and green brand evaluation: The moderating effects of eco-label credibility and consumer knowledge. *European Journal of Marketing*, 55(7), 2037–2071. <https://doi.org/10.1108/EJM-01-2020-0036>
- Kutaula, S., Gillani, A., Gregory-Smith, D., & Bartikowski, B. (2024). Ethical consumerism in emerging markets: Opportunities and challenges. *Journal of Business Ethics*, 191, 651–673. <https://doi.org/10.1007/s10551-022-05256-0>
- Laurensia, J. V., Trisnawati, J. D., & Megawati, V. (2026). The interplay of perceived value, environmental concern, attitude, and willingness to pay on Gen Z's purchase intention toward sustainable packaging. *Dinasti International Journal of Education Management and Social Science*, 7(3), 2643–2653. <https://doi.org/10.38035/dijemss.v7i3.6025>
- Lee, Y., Kim, S., & Kim, J. (2021). Family influence and sustainable consumption behavior among young consumers. *Sustainability*, 13(9), 5120. <https://doi.org/10.3390/su13095120>

- Lehmann, S., & Sheffi, Y. (2020). The impact of price on green consumer behavior: Evidence from emerging markets. *Transportation Research Part D: Transport and Environment*, 82, 102305. <https://doi.org/10.1016/j.trd.2020.102305>
- Lopes Amaral, M. A., Haro, A., Ketmoen, A., Fallo, A., Watu, E. G. C., Ang, C. M., & Gani, E. A. M. W. (2025). Green trust as mediator in green sharing intention of palmyra palm packaging among Generation Z. *Widya Cipta: Jurnal Sekretari dan Manajemen*, 9(2). <https://doi.org/10.31294/widyacipta.v9i2.11527>
- Louviere, J. J., Hensher, D. A., & Swait, J. D. (2000). *Stated choice methods: Analysis and applications*. Cambridge University Press.
- Maccoby, E. E. (2022). Socialization in the context of the family: Parent-child interaction. *Annual Review of Psychology*, 73, 1–28. <https://doi.org/10.1146/annurev-psych-020821-010455>
- Mahmoud, M. A., Tsetse, E. K. K., Tulasi, E. E., & Muddey, D. K. (2022). Green packaging, environmental awareness, willingness to pay and consumers' purchase decisions. *Sustainability*, 14(23), 16091. <https://doi.org/10.3390/su142316091>
- Mathur, M. (2025). Sustainable consumer behaviour in emerging markets. In *Marketing to the base of the pyramid* (pp. 171–187). Springer.
- Memon, M. A., et al. (2025). Purposive sampling: A review and guidelines for quantitative research. *Journal of Applied Structural Equation Modeling*.
- Moschis, G. P. (2012). Consumer socialization theory and research: A review of theory and research. *Journal of Consumer Behaviour*, 11(2), 89–103. <https://doi.org/10.1002/cb.1399>
- Nguyen, T. H., & Nguyen, H. T. (2024). Family values and consumer preferences toward sustainable packaging among Generation Z. *Journal of Retailing and*

Consumer Services, 76, 103540.
<https://doi.org/10.1016/j.jretconser.2023.103540>

- Nguyen, T. T., Nguyen, N., & Hoang, Y. T. (2023). Sustainability awareness and green purchasing behavior among Generation Z consumers. *Sustainability*, 15(11), 8734. <https://doi.org/10.3390/su15118734>
- Nikolopoulou, K. (2023). *What is purposive sampling? Definition and examples*. Scribbr. <https://www.scribbr.com/methodology/purposive-sampling/>
- Ofori, D., Nsiah-Sarfo, D. J., Frimpong, S. E., & Buer, S. B. (2025). Determinants of green purchase and conservation behaviour among young consumers: An emerging economy perspective. *Cleaner Logistics and Supply Chain*, 16, 100234.
- Park, H., & Lin, L. M. (2022). The effects of family environmental practices on green purchasing behavior. *Young Consumers*, 23(3), 401–417. <https://doi.org/10.1108/YC-09-2021-1394>
- Pham, T. C. A., Le, M. H., & Vu, T. K. O. (2021). Generation Z willingness to pay for sustainable apparel: The influence of labelling for origin and eco-friendly material. *Journal of International Economics and Management*, 20(3), 42–59. <https://doi.org/10.38203/jiem.020.3.0015>
- Prakash, G., & Pathak, P. (2021). Intention to buy eco-friendly packaged products among young consumers of India: A study on developing nation. *Journal of Cleaner Production*, 141, 385–393. <https://doi.org/10.1016/j.jclepro.2016.09.116>
- Riskos, K., Dekoulou, P., Mylonas, N., & Tsourvakas, G. (2021). Ecolabels and the attitude–behavior relationship toward green product purchase. *Sustainability*, 13(12), 6867. <https://doi.org/10.3390/su13126867>
- Román-Augusto, J. A., Garrido-Lecca-Vera, C., Lodeiros-Zubiria, M. L., & Mauricio-Andia, M. (2022). Green marketing: Drivers in the process of

buying green products—The role of green satisfaction, green trust, green WOM and green perceived value. *Sustainability*, 14(17), 10580. <https://doi.org/10.3390/su141710580>

Ryoo, Y., & Kim, S. (2023). The influence of price perception on green purchase intention. *Journal of Retailing and Consumer Services*, 70, 103143. <https://doi.org/10.1016/j.jretconser.2022.103143>

Saragi, E. Y. (2025). Indonesia's young consumers' green purchase intention: The role of price sensitivity and environmental knowledge. *BISMA (Bisnis dan Manajemen)*, 18(1), 1–34. <https://doi.org/10.26740/bisma.v18n1.p1-34>

Sekaran, U., & Bougie, R. (2016). *Research methods for business: A skill-building approach* (7th ed.). John Wiley & Sons.

Shahsavari, T., Kubeš, V., & Baran, D. (2019). Factors influencing willingness to pay for environmentally friendly products. *Sustainability*, 11(12), 3431. <https://doi.org/10.3390/su11123431>

Shang, X., Chen, Y., & Li, H. (2024). Sustainability awareness and consumer willingness to pay. *Journal of Cleaner Production*, 412, 137321. <https://doi.org/10.1016/j.jclepro.2023.137321>

Sharma, A., & Foropon, C. (2022). Green product attributes and green purchase behavior: A theory of planned behavior perspective with implications for circular economy. *Management Decision*, 60(10), 2833–2860. <https://doi.org/10.1108/MD-10-2019-1370>

Sinchai, T., & Namwat, T. (2025). Influence of social media marketing, perceived value and brand trust on willingness to pay for green food packaging. *Connexion: Journal of Humanities and Social Sciences*.

Song, M., Guo, R., Wang, Y., & Mou, J. (2025). How streamer's follower count affect consumers' immediate purchase behavior: The moderating effect of context collapse. *Industrial Management & Data Systems*, 1–26.

- Speckemeier, C., Krabbe, L., Schwenke, S., Wasem, J., Buchberger, B., & Neusser, S. (2021). Discrete choice experiment to determine preferences of decision-makers in healthcare for different formats of rapid reviews. *Systematic Reviews*, 10(121). <https://doi.org/10.1186/s13643-021-01647-z>
- Stern, P. C. (2000). Toward a coherent theory of environmentally significant behavior. *Journal of Social Issues*, 56(3), 407–424. <https://doi.org/10.1111/0022-4537.00175>
- Stern, P. C., Dietz, T., Abel, T., Guagnano, G. A., & Kalof, L. (1999). A value-belief-norm theory of support for social movements: The case of environmentalism. *Human Ecology Review*, 6(2), 81–97.
- Suganda, U. K., Theresia, M. P., & Wijaya, H. A. (2021). Antecedents of green purchase behavior: Evidence from Indonesia. *International Journal of Business Ecosystem & Strategy*, 4(1), 1–10. <https://doi.org/10.36096/ijbes.v4i1.306>
- Sultan, P., Tarafder, T., Pearson, D., & Henryks, J. (2024). The role of price sensitivity in sustainable consumption behavior and willingness to pay for green products. *Journal of Retailing and Consumer Services*, 76, 103548. <https://doi.org/10.1016/j.jretconser.2023.103548>
- Tambun, E. T. N., & Nastiti, A. (2025). Reducing single-use plastic in Indonesian traditional markets: An application of the extended Theory of Planned Behavior. *Jurnal Sosioteknologi*, 24(3). <https://doi.org/10.5614/sostek.itbj.2025.24.3.7>
- Train, K. E. (2009). *Discrete choice methods with simulation* (2nd ed.). Cambridge University Press.
- Wandosell, G., Parra-Meroño, M. C., Alcayde, A., & Baños, R. (2021). Green packaging from consumer and business perspectives. *Sustainability*, 13(3), 1356. <https://doi.org/10.3390/su13031356>

- Wang, J., Pham, T. L., & Dang, V. T. (2024). Environmental consciousness and consumers' intention toward sustainable packaging products. *Journal of Cleaner Production*, 435, 140483. <https://doi.org/10.1016/j.jclepro.2023.140483>
- World Bank. (2021). *Plastic waste discharges from rivers and coastlines in Indonesia*.
- Yan, Z., Wang, T., Song, Z., Liu, J., & Lyu, W. (2025). Consumer willingness to pay for green express packaging in e-commerce: An eye-tracking experiment analysis. *Frontiers in Psychology*, 16, 1615315. <https://doi.org/10.3389/fpsyg.2025.1615315>
- Yadav, R., Balaji, M. S., & Jebarajakirthy, C. (2023). How psychological and contextual factors contribute to consumers' green purchasing behavior. *Journal of Business Research*, 156, 113482. <https://doi.org/10.1016/j.jbusres.2022.113482>
- Yang, X. (2024). Price sensitivity and sustainable consumption: A behavioral economics perspective. *Journal of Consumer Behaviour*, 23(2), 210–225. <https://doi.org/10.1002/cb.2105>
- Yıldırım, C., Bacanlı, H., & Özsoy, S. (2019). Future teachers' sustainable water consumption behavior: A test of the value-belief-norm theory. *Sustainability*, 11(6), 1558. <https://doi.org/10.3390/su11061558>
- Yulius, H., Dewata, I., Syah, N., Putra, A., Hasmira, M. H., & Frinaldi, A. (2024). Consumer behavior towards environmental policy for paid plastic shopping bags in traditional markets of Padang City. *International Journal of Environmental Impacts*, 7(1), 151–158. <https://doi.org/10.18280/ije.070117>
- Yumico. (n.d.). *Cassava starch plastic bags*. <https://www.yumico.id/id/cassava-starch-plastic-bags/>

- Zíka, V., Olšová, P., & Jánská, M. (2025). The attitude–behavior gap is not one-sided: Some do more for the environment than they believe. *Journal of Behavioral and Experimental Economics*, 102446.
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2022). *A primer on partial least squares structural equation modeling (PLS-SEM)* (3rd ed.). Sage Publications.
- Sarstedt, M., Ringle, C. M., Cheah, J.-H., Ting, H., Moisescu, O. I., & Radomir, L. (2020). Structural model robustness checks in PLS-SEM. *Tourism Economics*, 26(4), 531–554. <https://doi.org/10.1177/1354816618823921>
- Chin, W. W. (1998). The partial least squares approach to structural equation modeling. In G. A. Marcoulides (Ed.), *Modern methods for business research* (pp. 295–336). Mahwah, NJ: Lawrence Erlbaum Associates.
- Jegorow, D. (2025). Values, intentions, and the price of sustainability: Explaining the intention–behaviour gap among Generation Z consumers. *Journal for Perspectives of Economic Political and Social Integration*, 31(2), 141–175. <https://doi.org/10.18290/pepsi-2025-0019/>
- Ngo, T. T. A., Vo, C. H., Tran, N. L., Nguyen, K. V., Tran, T. D., & Trinh, Y. N. (2024). Factors influencing Generation Z's intention to purchase sustainable clothing products in Vietnam. *PLOS ONE*, 19(12), Article e0315502. <https://doi.org/10.1371/journal.pone.0315502>
- Chin, W. W., Marcolin, B. L., & Newsted, P. R. (2003). A partial least squares latent variable modeling approach for measuring interaction effects: Results from a Monte Carlo simulation study and an electronic-mail emotion/adoption study. *Information Systems Research*, 14(2), 189–217. <https://doi.org/10.1287/isre.14.2.189.16018>

- Riva, F., Magrizos, S., Rubel, M. R. B., & Rizomyliotis, I. (2024). Beyond the hype: Deciphering brand trust amid sustainability skepticism. *Business Strategy and the Environment*, 33(7), 6683–6695. <https://doi.org/10.1002/bse.3829>
- Jegorow, D. (2025). Values, intentions, and the price of sustainability: Explaining the intention–behaviour gap among Generation Z consumers. *Journal for Perspectives of Economic Political and Social Integration*, 31(2), 141–175. <https://doi.org/10.18290/pepsi-2025-0019>
- Ngo, T. T. A., Vo, C. H., Tran, N. L., Nguyen, K. V., Tran, T. D., & Trinh, Y. N. (2024). Factors influencing Generation Z's intention to purchase sustainable clothing products in Vietnam. *PLOS ONE*, 19(12), Article e0315502. <https://doi.org/10.1371/journal.pone.0315502>
- Urbański, M., & Ul Haque, A. (2020). Are you environmentally conscious enough to differentiate between greenwashed and sustainable items? A global consumers perspective. *Sustainability*, 12(5), 1786.