

## **PAYING MORE FOR GREEN BALI: A WILLINGNESS TO PAY PREMIUM MODEL FOR BOTTLED WATER PRODUCTS**

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### **Abstract:**

This study aims to analyze the effect of perceived value on willingness to pay a premium for environmentally friendly bottled drinking water (AMDK) products in Bali, by examining the role of environmental awareness as a mediating variable and price sensitivity as a moderating variable. This study uses a quantitative approach with an explanatory design. Data were collected through a survey of 130 bottled drinking water consumers in the Sarbagita region (Denpasar, Badung, Gianyar, and Tabanan) using purposive sampling and accidental sampling techniques. Data analysis was performed using Structural Equation Modeling based on Partial Least Squares (SEM-PLS) with the help of SmartPLS 4 software. The results showed that perceived value did not have a significant direct effect on willingness to pay a premium, but had a positive and significant effect on environmental awareness. Furthermore, environmental awareness was proven to have a positive and significant effect on willingness to pay a premium, and fully mediated the relationship between perceived value and willingness to pay a premium. Meanwhile, price sensitivity was not proven to moderate the effect of perceived value on willingness to pay a premium. These findings imply that AMDK producers need to strengthen consumers' perceived environmental value and increase environmental awareness through education and sustainable marketing communications to encourage consumers' willingness to pay premium prices for environmentally friendly products.

**Keywords:** Perceived Value, Environmental Awareness, Price Sensitivity, Willingness to Pay Premium, Green Consumer Behavior, Environmentally Friendly AMDK

## **INTRODUCTION**

Waste accumulation is a complex problem that can cause various environmental problems, health issues, ecosystem damage, and other negative impacts. Data shows that the proportion of waste in Indonesia continues to increase, with nearly 40% of this waste unmanaged (Huda et al., 2023). Waste reduction efforts are not solely the responsibility of the industrial sector through the creation and supply of environmentally friendly products, but also involve interventions on the demand side, namely, consumer behavior as the primary waste generator. Therefore, consumers are encouraged to shift to more sustainable consumption patterns by choosing products that produce minimal waste (Huda et al., 2023).

Environmental issues, particularly related to the increasing volume of plastic waste, have become a crucial issue in various global tourism destinations, including Bali. As an international destination promoting sustainability, Bali faces increasing pressure due to the high consumption of single-use plastic-based products, one of which is bottled drinking water (AMDK). In line with this, environmental awareness among the Balinese people has significantly increased through various plastic reduction campaigns and sustainability movements. However, this increased awareness has



not yet been fully converted into real consumption behavior, especially in the context of purchasing environmentally friendly products.

In the context of bottled drinking water products, this gap is evident in the low consumer interest in products with sustainable packaging, which are generally offered at a higher price. Consumers tend to prefer cheaper conventional products, despite their greater environmental impact. The concept of willingness to pay refers to the highest price level consumers are able and willing to pay for a product or service (García-Salirrosas et al., 2023). It indicates that willingness to pay a premium is not only determined by environmental awareness but also by consumers' perceived value of the product (Gomes et al., 2023a).

Perceived value is a key factor in bridging the relationship between environmental awareness and willingness to pay. When the environmental benefits offered by a product are not perceived as tangible or relevant to consumers, the perceived value is low, thus failing to drive a willingness to pay a premium (Wang et al., 2023). On the other hand, the characteristics of bottled water (AMDK) products as routine necessities make price a primary consideration, potentially weakening the influence of perceived value on premium payment decisions. This phenomenon indicates a gap between consumers' perceived value and willingness to pay (behavior gap), which remains a topic of debate in the literature on green consumer behavior.

Furthermore, previous empirical studies have shown that research related to willingness to pay for green products is still dominated by non-routine product contexts such as green hotels (Galati et al., 2023), green buildings (Al Mamun et al., 2023), the restaurant sector (Bushara et al., 2023), organic food (Wang et al., 2023; Hu et al., 2024), green fashion (Farzin et al., 2023; Valencia-Arias et al., 2025), heritage mangroves (Sahabuddin et al., 2024), electric vehicles (Mustafa et al., 2024), and green packaging (Mahmoud et al., 2022), and focuses more on purchase intention than actual behavior (Bushara et al., 2023; Gomes et al., 2023; González-Viralta et al., 2023; Kusuma et al., 2025; Konyalıoğlu et al., 2025; Ramli et al., 2022; Sayem et al., 2025; Rahardja & Fataya, 2023).

**The Influence of Perceived Value on Willingness to Pay a Premium.** The perceived value of a product is considered an important factor driving continued consumption and willingness to pay a premium price. When purchasing a product, customers typically evaluate its value, consider their willingness to pay a higher price, and determine whether to continue the purchase (Hu et al., 2024). Research conducted by Hu et al. (2024) shows that perceived value has a positive and significant effect on willingness to pay a premium among Chinese consumers. Research conducted by Bushara et al. (2023) shows that perceived value has a positive and significant effect on willingness to pay a premium among Saudi Arabian consumers. Research (Huda et al., 2023) shows that perceived value has a positive and significant effect on willingness to pay a premium among Indonesian consumers. H1: Perceived value has a positive and significant effect on willingness to pay a premium

**The Influence of Perceived Value on Environmental Awareness.** Researchers and environmental activists believe that consumers can make a significant contribution to improving environmental quality by purchasing environmentally friendly or green products (Huda et al., 2023). Environmental awareness can influence a person's attitude toward green products through several mechanisms. First, environmental awareness can increase an individual's knowledge of environmental issues related to green products, thereby influencing their attitude toward those products. Second, environmental awareness can influence an individual's values related to the environment, which in turn influences their attitude toward green products. Third, environmental awareness can influence an individual's perception of their social and moral responsibility towards the environment, as well as their attitude toward green products (Mustafa et al., 2024). Research

conducted (Huda et al., 2023; Mustafa et al., 2024; Sahabuddin et al., 2024) shows that perceived value has a positive and significant effect on environmental awareness.

H2: Perceived value has a positive and significant effect on environmental awareness.

### **The Influence of Environmental Awareness on Willingness to Pay Premiums.**

Environmental awareness describes an individual's level of understanding of various ecological issues and the underlying relationships that contribute to environmental impacts. From this perspective, an individual's perception and knowledge of environmental issues are key factors influencing decision-making and behavior. Thus, environmental awareness can act as a predictor of pro-environmental behavior (García-Salirrosas et al., 2023). Furthermore, this awareness is seen as a crucial determinant influencing consumption patterns, individual actions, sustainability practices, and responsibility for environmental preservation. In line with this, Carrión Bósquez et al. (2022) emphasized that developing strategic marketing campaigns plays a significant role in increasing consumer awareness of the environmental impacts of conventional product use. Ferreira et al. (2023) confirmed that environmental awareness positively influences recommendation intentions and behavioral intentions, not only for products but also for the use of technologies that contribute to environmental preservation. Conversely, García-Salirrosas et al. (2023) revealed that since the COVID-19 pandemic, there has been an increase in environmental awareness in consumer behavior, followed by an increase in consumer intention to purchase environmentally friendly products, particularly in Latin America. Previous studies have emphasized the importance of environmental awareness on consumer behavior (Al Mamun et al., 2023; Farzin et al., 2023; García-Salirrosas et al., 2023; Mahmoud et al., 2022; Valencia-Arias et al., 2025).

H3: Environmental awareness has a positive and significant effect on willingness to pay a premium.

### **The Influence of Environmental Awareness Through Perceived Value on Willingness to**

**Pay a Premium.** Perceived value is a crucial factor influencing how consumers evaluate a product, including environmentally friendly products. When consumers perceive a product as having high benefits in terms of quality, environmental benefits, and emotional value, this can increase their awareness of the importance of environmental issues. In other words, perceived value not only directly influences purchasing decisions but also contributes to shaping consumers' environmental awareness (Sahabuddin et al., 2024). Environmental awareness, in turn, plays a role in encouraging more responsible consumption behavior. Consumers with a high level of environmental awareness tend to be more concerned about the impact of their consumption on the environment and are more willing to support environmentally friendly products, including by paying a premium price. Therefore, environmental awareness is an important mechanism bridging the influence of perceived value on willingness to pay a premium (Al Mamun et al., 2023; Farzin et al., 2023; Hu et al., 2024; Valencia-Arias et al., 2025; Wang et al., 2023).

Several previous studies have shown that perceived value has a positive effect on environmental awareness (Huda et al., 2023; Mustafa et al., 2024; Sahabuddin et al., 2024) and that environmental awareness influences consumption behavior and decisions, including willingness to pay more (Al Mamun et al., 2023; Farzin et al., 2023; Mahmoud et al., 2022). Thus, environmental awareness acts as an intervening variable that strengthens the relationship between perceived value and willingness to pay a premium.

H4: Environmental awareness mediates the effect of perceived value on willingness to pay a premium.

### **The Role of Price Sensitivity in Moderating the Effect of Perceived Value on Willingness**

**to Pay a Premium.** Price sensitivity refers to the level of attention consumers pay to price compared to other attributes when forming perceptions and making purchase decisions (Jacob et al., 2022). In



the context of perceived value, consumers who perceive high value for a product generally have a tendency to pay a premium. However, the influence of perceived value on willingness to pay a premium is not always consistent, as it can be influenced by the consumer's level of price sensitivity. When consumers have low price sensitivity, the influence of perceived value on willingness to pay a premium is stronger. Conversely, for consumers with high price sensitivity, this influence tends to weaken because consumers are more price-oriented (Durmaz & Akdoğan, 2024). Several studies have shown that price sensitivity acts as a significant moderating variable in the relationship between psychological variables and consumer purchase intentions (Bhutto et al., 2022; Durmaz & Akdoğan, 2024; Jacob et al., 2022; Lavuri, 2022).

H5: Price sensitivity moderates the influence of perceived value on willingness to pay a premium

Furthermore, few studies have integrated the role of environmental awareness as a psychological mechanism (mediating) and price sensitivity as a rational limit (moderating) on willingness to pay a premium in a single comprehensive model, particularly in the context of daily consumption products such as bottled water (AMK) in Bali. This finding presents a novelty in this study.

Based on this gap, the urgency of this research is to develop a model that can explain how the perceived value of sustainable bottled water products can drive willingness to pay a premium, considering the role of environmental awareness as a mediating variable and price sensitivity as a moderating variable. This approach is expected to not only provide theoretical contributions to the development of green consumer behavior literature but also provide practical implications for industry players and policymakers in designing more effective marketing strategies and environmental policies based on consumer behavior.

## METHODS

This study uses a quantitative approach with an explanatory research design. It aims to examine the causal relationships between variables in a willingness-to-pay-premium model for environmentally friendly bottled water (AMDK) products in Bali. The focus of the study is on consumer behavior in paying more for products with environmentally sustainable attributes. The population in this study was all bottled water consumers in the Sarbagita region, which includes Denpasar City, Badung Regency, Gianyar, and Tabanan. This region was selected based on its characteristics as a center of economic activity and tourism, as well as its relatively high consumption of bottled water products in Bali.

The sample size for this study was 200 respondents, considered adequate based on the analytical method used, Structural Equation Modeling based on Partial Least Squares (SEM-PLS), which does not require a large sample size and can accommodate complex research models with non-normal data distributions (Hair Jr et al., 2021). All variable measurements in this study were adopted from relevant previous studies and have been empirically tested. The environmental awareness variable was adapted from (Gomes et al., 2023a), the willingness to pay premium variable was adapted from (Valencia-Arias et al., 2025), the price sensitivity variable was adapted from (Bhutto et al., 2022), and the perceived value variable was adapted from (Mustafa et al., 2024). All indicators were then adapted to the research context, namely, environmentally friendly bottled drinking water (AMDK) products.

The sampling technique used was purposive sampling, with the following criteria for respondents: (1) at least 20 years old, (2) residing or operating in the Sarbagita area, and (3) having consumed or purchased bottled water products within a certain period. Furthermore, an accidental sampling technique was used in the questionnaire distribution process, where respondents who



were encountered by chance and met the criteria were selected as the research sample. This approach was chosen to facilitate access to respondents who matched the research characteristics in the field.

Data were analyzed using a Structural Equation Modeling approach based on Partial Least Squares (SEM-PLS) with the assistance of SmartPLS version 4 software. The analysis included an outer model evaluation to test validity and reliability, an inner model evaluation to analyze causal relationships between variables, and hypothesis testing through bootstrapping. The SEM-PLS method was chosen because it is flexible in accommodating complex models, capable of analyzing reflective and formative constructs simultaneously, and remains robust to relatively limited samples without requiring a normal distribution (Susanti & Nurtyastuti, 2025). This approach is expected to produce findings that are valid, reliable, and scientifically accountable.

## RESULT AND DISCUSSION

Based on the construct validity and reliability test results, all variables in this study met the goodness-of-measure criteria and were therefore suitable for use in further analysis. It is demonstrated by the Composite Reliability (CR) values for each construct, which were above the minimum threshold of 0.70: Price sensitivity (0.906), Perceived Value (0.854), Willingness to Pay (0.868), and Environmental Awareness (0.814). These values indicate that each indicator within each construct has a good level of internal consistency in measuring the latent variables studied.

At the indicator level, all outer loading values ranged from 0.760 to 0.938, exceeding the recommended minimum value of 0.70. The indicator with the largest contribution is the Price Sensitivity construct, namely indicator M1.1, with a loading factor of 0.938. Meanwhile, the lowest indicator is the Environmental Awareness construct, namely Z1.3, with a loading factor of 0.760, but still within the valid category. Furthermore, the R<sup>2</sup> value indicates that the Willingness to Pay variable is explained by the independent variables in the model by 68.2%, which falls into the moderate to strong category. Meanwhile, the Environmental Awareness variable has an R<sup>2</sup> value of 43.9%, indicating the model's explanatory power is in the moderate category. Overall, these results confirm that the measurement model (outer model) has met the validity and reliability criteria, allowing for further testing of the structural model (inner model).

**Table 1.** Measurement Model Evaluation Results

Indicator	Composite Reliability	cronbach alpha	AVE	R <sup>2</sup>	Loading Factor
M1.1 <- Price sensitivity (M)					0.938
M1.2 <- Price sensitivity (M)	0.906	0.898	0.936		0.917
M1.3 <- Price sensitivity (M)					0.878
X1.1 <- Perceived value (X)					0.876
X1.2 <- Perceived value (X)	0.854	0.852	0.910		0.867
X1.3 <- Perceived value (X)					0.900
Y1.1 <- Willingness To Pay (Y)					0.867
Y1.2 <- Willingness To Pay (Y)	0.868	0.865	0.917	0.682	0.867
Y1.3 <- Willingness To Pay (Y)					0.925
Z1.2 <- Environmental Awareness (Z)					0.870
Z1.3 <- Environmental Awareness (Z)	0.814	0.737	0.845	0.439	0.760
Z1.4 <- Environmental Awareness (Z)					0.768



Furthermore, the Cronbach's Alpha test results also showed values above the 0.70 threshold, with Price Sensitivity at 0.898, Perceived Value at 0.852, Willingness to Pay at 0.865, and Environmental Awareness at 0.737. These findings indicate that the research instrument has adequate reliability and is capable of providing consistent measurement results. In terms of convergent validity, all constructs demonstrated Average Variance Extracted (AVE) values above 0.50, with values of 0.936, 0.910, 0.917, and 0.845, respectively. Thus, it can be concluded that each construct is able to explain the variance of its indicators strongly, thus meeting the criteria for convergent validity.

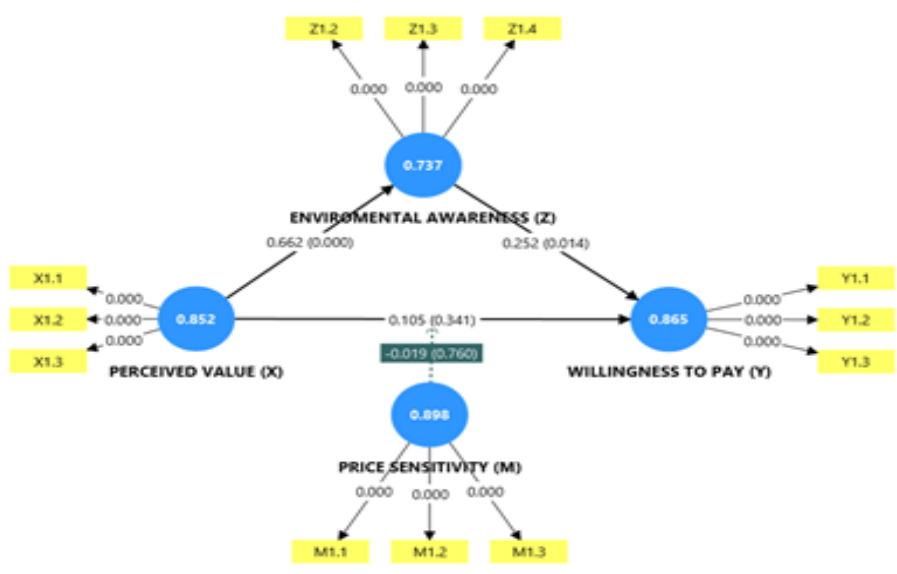
**Table 2.** Path Analysis

Variable	Original sample (O)	T statistics ( O/STDEV )	P values
<i>Environmental Awareness (Z) -&gt; Willingness To Pay (Y)</i>	0.252	2.466	0.014
<i>Perceived value (X) -&gt; Environmental Awareness (Z)</i>	0.662	10.655	0.000
<i>Perceived value (X) -&gt; Willingness To Pay (Y)</i>	0.105	0.953	0.341
<i>Price sensitivity (M) -&gt; Willingness To Pay (Y)</i>	0.598	6.897	0.000
<i>Price sensitivity (M) X Perceived value (X) -&gt; Willingness To Pay (Y)</i>	-0.019	0.305	0.760
<i>Perceived value (X) -&gt; Environmental Awareness (Z) -&gt; Willingness To Pay (Y)</i>	0.167	2.559	0.011

Based on the path analysis results in Table 2, it can be seen that not all relationships between variables in the research model show a significant effect. The relationship between Environmental Awareness and Willingness to Pay shows a positive and significant effect, with a path coefficient of 0.252, a t-statistic of 2.466 (>1.96), and a p-value of 0.014 (<0.05). This finding indicates that the higher a consumer's level of environmental awareness, the higher their willingness to pay for products with added value. In other words, environmental concern is a factor that can drive increased consumer willingness to pay.

Furthermore, the effect of Perceived Value (X) on Environmental Awareness (Z) shows a path coefficient of 0.662, with a t-statistic of 10.655 and a p-value of 0.000 (<0.05). This finding indicates that perceived value has a positive and significant effect on Environmental Awareness, which means that the higher the value perceived by consumers towards a product, the higher the environmental awareness formed. However, the direct effect of Perceived value (X) on Willingness to Pay (Y) shows a coefficient value of 0.105, with a t-statistic of 0.953 and a p-value of 0.341 (>0.05), so that Perceived value does not have a significant direct effect on Willingness to Pay.





**Figure 1.** Willingness to Pay Model

On the other hand, the Price sensitivity (M) variable showed a positive and significant effect on Willingness to Pay (Y) with a path coefficient of 0.598, a t-statistic of 6.897, and a p-value of 0.000 (<0.05). Thus, Price sensitivity was proven to have a significant effect on Willingness to pay. Meanwhile, the results of the Price sensitivity × Perceived value interaction test on Willingness to Pay obtained a coefficient value of -0.019, with a t-statistic of 0.305 and a p-value of 0.760 (>0.05), indicating that the moderating effect of Price sensitivity on the tested relationship was insignificant. In other words, the interaction between the two variables was unable to provide an additional influence on Willingness to Pay.

However, the results of testing the moderating effect between price sensitivity and perceived value on willingness to pay did not show a significant influence, with a path coefficient of -0.019, a t-statistic of 0.305, and a p-value of 0.760. Thus, price sensitivity is unable to moderate the relationship between perceived value and willingness to pay. Overall, the results of this path analysis indicate that the variable that has a dominant influence on willingness to pay is price sensitivity, followed by environmental awareness, while perceived value plays a more indirect role through increasing consumer environmental awareness.

In addition to the direct effect, the results of the indirect effect test indicate that Environmental Awareness significantly mediates the relationship between Perceived Value and Willingness to Pay ( $\beta = 0.167$ ;  $t = 2.559$ ;  $p = 0.011$ ). Considering that the direct effect of Perceived Value on Willingness to Pay was insignificant ( $\beta = 0.105$ ;  $p = 0.341$ ), while the indirect effect through Environmental Awareness was significant, it can be concluded that Environmental Awareness acts as a full mediator in the relationship between Perceived Value and Willingness to Pay. Overall, the results confirm that Environmental Awareness acts as a significant mediator, while the moderation effects tested in the model were not statistically significant.

Next, the goodness-of-fit model was evaluated, consisting of Q-square prediction, SRMR, and PLS prediction, as follows.



**Table 3.** Goodness-of-Fit Model

<i>Willingness to pay (Y)</i>	<b>Q<sup>2</sup> Predict</b> 0,615
<i>Environmental Awareness (Z)</i>	0,416
SRMR	<b>SRMR</b> 0,082

Based on Table 3 regarding the goodness-of-fit and model fit, the Q<sup>2</sup> Predict value for the Willingness to Pay (Y) variable is 0.615, while for the Environmental Awareness (Z) variable, it is 0.416. According to the criteria (Hair Jr et al., 2021), if the Q<sup>2</sup> value is above 0, the model can be said to have predictive relevance. The higher the Q<sup>2</sup> value, the better the model's ability to predict the dependent construct. Thus, a Q<sup>2</sup> value of 0.615 indicates that the model has strong predictive ability for the Willingness to Pay variable, while a value of 0.416 indicates moderate to strong predictive ability for the Environmental Awareness variable. It indicates that the constructed structural model has adequate ability to explain and predict variation in both endogenous constructs. Therefore, the willingness to pay model has predictive relevance and predictive accuracy approaching high.

**Table 4.** PLS Predict

Indicator	Q <sup>2</sup> predict	PLS-SEM_RMSE	PLS-SEM_MAE	LM_RMSE	LM_MAE
Z1.2	0.168	0.602	0.458	0.641	0.483
Z1.3	0.114	0.653	0.504	0.703	0.558
Z1.4	0.457	0.524	<b>0.421</b>	0.551	0.416
Y1.1	0.506	0.511	0.380	0.536	0.387
Y1.2	0.525	0.509	0.352	0.521	0.383
Y1.3	0.418	0.571	0.396	0.581	0.399

Based on the PLS Predict results in Table 4, all indicators have a Q<sup>2</sup> predict value > 0, ranging from 0.114 to 0.525, indicating that the model has good predictive relevance. In addition, a comparison of RMSE values shows that all indicators have a lower PLS-SEM\_RMSE value than LM\_RMSE, so the PLS-SEM model is more accurate than the benchmark linear model in predicting data. In terms of MAE, most indicators also show lower error values in the PLS-SEM model, although there is one indicator (Z1.4) with a slightly higher MAE value than the linear model. Overall, these results indicate that the research model has high predictive power and is suitable for use in explaining and predicting endogenous variables in this study.

**The Effect of Perceived Value on Willingness to Pay a Premium.** The results of the hypothesis testing indicate that perceived value does not significantly influence willingness to pay a premium, thus rejecting the first hypothesis (H1) in this study. It is indicated by a path coefficient of 0.105, with a t-statistic of 0.953 and a p-value of 0.341, which is greater than the 0.05 significance level. These findings indicate that although consumers have a positive perception of value toward a product, this perception is not strong enough to increase their willingness to pay a premium price directly. In other words, perceptions of the product's benefits, quality, or emotional value do not automatically translate into a decision to pay a higher price.

These findings suggest that, in the context of this study, consumers' decisions to pay a premium are likely not solely based on perceived value but also influenced by other factors such as price considerations, environmental concerns, and motivations for sustainable consumption. The results of this study differ from those of Hu et al. (2024), Bushara et al. (2023), and Huda et al. (2023), who found that perceived value had a positive and significant effect on willingness to pay a



premium. This difference in findings indicates differences in consumer characteristics, market context, and psychological factors that influence premium purchasing behavior. In this study, consumers tend to require encouragement in the form of increased environmental awareness before their perceived value can develop into a willingness to pay a higher price. Thus, perceived value does not directly drive willingness to pay a premium, but rather works through the development of consumer environmental awareness.

**The Influence of Perceived Value on Environmental Awareness.** The results of the hypothesis testing indicate that perceived value has a positive and significant effect on environmental awareness, thus H2 is accepted. It is indicated by a path coefficient of 0.662, with a t-statistic of 10.655 and a p-value of 0.000, which is less than the 0.05 significance level. These findings indicate that the higher the value consumers perceive of a product, whether in terms of functional benefits, quality, or emotional value, the higher their awareness of environmental issues. In other words, when consumers perceive a product as having greater value, particularly in relation to sustainability and a positive impact on the environment, they will develop greater concern for environmental aspects during the consumption process. Consumers who perceive greater benefits from a product tend to perceive that their consumption can make a positive contribution to the environment, thus encouraging increased environmental awareness. It suggests that the formation of environmental awareness is inseparable from how consumers interpret the value inherent in the products they consume.

The findings of this study align with those of Huda et al. (2023), Mustafa et al. (2024), and Sahabuddin et al. (2024), who stated that perceived value has a positive and significant effect on environmental awareness. The consistency of these results strengthens the argument that the higher the value consumers perceive for green products, the greater their tendency to care and be aware of environmental sustainability. Thus, perceived value can be viewed as an important determinant in shaping environmental awareness.

**The Effect of Environmental Awareness on Willingness to Pay a Premium.** The results of the hypothesis test indicate that environmental awareness has a positive and significant effect on willingness to pay a premium, thus accepting H3. It is indicated by a path coefficient of 0.252, with a t-statistic of 2.466 and a p-value of 0.014, which is less than the 0.05 significance level. This finding indicates that the higher the level of consumer awareness of environmental issues, the higher the consumer's willingness to pay a premium price for a product. In other words, consumers who are concerned about environmental sustainability are more likely to accept a higher price as long as the product they purchase is perceived as providing ecological benefits or supporting environmental conservation.

These results indicate that environmental awareness is a crucial factor in shaping sustainability-oriented consumption behavior. Consumers who understand the environmental impact of their consumption patterns tend to consider ecological aspects in their purchasing decisions, including their willingness to incur higher costs as a way of contributing to the environment. It confirms that willingness to pay a premium is not solely driven by a product's functional benefits but is also influenced by the consumer's perceived environmental values. With increasing environmental awareness, consumer preference for more environmentally friendly products also tends to increase, including tolerance for the premium prices attached to these products.

The findings of this study align with those of Al Mamun et al. (2023), Farzin et al. (2023), García-Salirrosas et al. (2023), Mahmoud et al. (2022), and Valencia-Arias et al. (2025), which show that environmental awareness has a positive and significant effect on pro-environmental consumer



behavior, including willingness to pay a premium. This consistency of results strengthens the argument that environmental awareness is a crucial determinant in encouraging consumers to place a higher economic value on products perceived as supporting environmental sustainability. Therefore, increasing environmental awareness can be an effective strategy in encouraging consumers' willingness to pay a premium for sustainable products.

**The Mediating Role of Environmental Awareness in the Relationship between Perceived Value and Willingness to Pay a Premium.** The results of the hypothesis testing indicate that environmental awareness mediates the influence of perceived value on willingness to pay a premium, thus accepting H4. It is indicated by an indirect effect value of 0.167, with a t-statistic of 2.559 and a p-value of 0.011, which is less than the 0.05 significance level. These findings indicate that perceived value can increase willingness to pay a premium by increasing consumer environmental awareness. In other words, when consumers perceive a product as having high value, whether in terms of benefits, quality, or contribution to the environment, this perception will foster stronger environmental awareness, which ultimately increases consumer willingness to pay a premium.

Interestingly, in this study, the direct effect of perceived value on willingness to pay a premium was not proven significant, while the indirect effect through environmental awareness was significant. This condition indicates that environmental awareness acts as a full mediator in the relationship between perceived value and willingness to pay a premium. It means that perceived value does not directly encourage consumers to pay more; rather, it must first shape consumers' environmental awareness to influence their willingness to pay a premium. This finding confirms that psychological aspects, such as environmental concern, are the primary mechanism linking perceived value to consumers' decisions to pay a premium.

The results of this study align with those of Huda et al. (2023), Mustafa et al. (2024), and Sahabuddin et al. (2024), which showed that perceived value positively influences environmental awareness. They are also supported by the findings of Al Mamun et al. (2023), Farzin et al. (2023), Hu et al. (2024), Valencia-Arias et al. (2025), and Wang et al. (2023), which emphasize that environmental awareness plays a significant role in driving willingness to pay a premium. Thus, environmental awareness is proven to be an intervening variable that significantly bridges the influence of perceived value on willingness to pay a premium.

**The Role of Price Sensitivity in Moderating the Effect of Perceived Value on Willingness to Pay a Premium.** The results of the hypothesis test indicate that price sensitivity is unable to moderate the effect of perceived value on willingness to pay a premium, thus rejecting H5. It is indicated by an interaction coefficient of -0.019, with a t-statistic of 0.305 and a p-value of 0.760, which is greater than the 0.05 significance level. These results indicate that consumers' level of price sensitivity neither significantly strengthens nor weakens the relationship between perceived value and willingness to pay a premium. Therefore, the level of consumer sensitivity to price does not significantly alter the influence of perceived value in shaping willingness to pay a premium.

This finding suggests that, in the context of this study, consumers tend to assess their willingness to pay a premium not solely based on price sensitivity but rather on other factors such as perceived benefits, sustainability values, and environmental awareness. Furthermore, because the direct effect of perceived value on willingness to pay a premium was also insignificant, the presence of price sensitivity as a moderating variable is not strong enough to alter this relationship. It indicates that the relationship between perceived value and willingness to pay a premium in this study is more complex and likely operates through indirect mechanisms, such as environmental awareness, which in this study was shown to act as a significant mediator.



The results of this study differ from those of Bhutto et al. (2022), Dumaz and Akdoğan (2024), Jacob et al. (2022), and Lavuri (2022), which showed that price sensitivity can act as a significant moderating variable in the relationship between psychological factors and consumer purchasing behavior. This difference in results indicates that the moderating role of price sensitivity is highly dependent on consumer characteristics, product context, and value perceptions formed during the consumption process. In this study, price sensitivity was not found to be a factor capable of significantly changing the relationship between perceived value and willingness to pay a premium. Therefore, price sensitivity was not proven to act as a moderating variable in the relationship between perceived value and willingness to pay a premium.

## CONCLUSION

This study shows that perceived value does not have a direct, significant effect on willingness to pay a premium for environmentally friendly bottled water (AMDK). However, perceived value is proven to have a positive and significant effect on environmental awareness, and environmental awareness has a positive and significant effect on willingness to pay a premium. Furthermore, environmental awareness is shown to act as a full mediator in the relationship between perceived value and willingness to pay a premium. This finding confirms that increasing consumer perceived value does not directly drive willingness to pay a premium; it must first shape consumer environmental awareness. This study also found that price sensitivity does not play a significant role as a moderating variable, meaning that price sensitivity is neither a factor that strengthens nor weakens the influence of perceived value on willingness to pay a premium.

Theoretically, this study adds to the literature on green consumer behavior by demonstrating that the relationship between perceived value and willingness to pay a premium is not always direct but can operate through psychological mechanisms, with environmental awareness acting as an intervening variable. The findings regarding full mediation provide a new perspective that environmental awareness is a key pathway in converting perceived value into sustainable consumption behavior. In addition, the insignificant role of price sensitivity as a moderator indicates that in the context of green products in the daily necessities category, such as bottled water, price is not the only major consideration in shaping the willingness to pay a premium.

For bottled water producers, the results of this study indicate that strategies to increase willingness to pay a premium should focus not only on improving product quality but also on strengthening consumers' perceived environmental value. Producers need to develop marketing communications that emphasize the product's ecological benefits, such as the use of recycled packaging, reducing single-use plastics, lowering its carbon footprint, and contributing to environmental sustainability in Bali. Furthermore, educational campaigns regarding the environmental impact of plastic consumption need to be strengthened to increase consumer environmental awareness. This way, consumers will not only purchase products for their functional benefits but also because of the perceived sustainability value, which they believe is worth paying more for.

Future research is recommended to expand the model by adding other variables that potentially influence willingness to pay a premium, such as green trust, eco-label awareness, brand image, or subjective norms, to provide a more comprehensive explanation of the green consumer behavior model. Furthermore, future research could expand the research object to other daily consumption product categories, such as organic food products, eco-friendly household products, or personal care products, to test the model's consistency across different contexts. The use of a



mixed methods approach is also recommended to explore further consumers' psychological motivations for paying a premium for sustainable products.

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## REFERENCES

- Al Mamun, A., Rahman, M. K., Masud, M. M., & Mohiuddin, M. (2023). Willingness to pay premium prices for green buildings: evidence from an emerging economy. *Environmental Science and Pollution Research*, 30(32), 78718–78734. <https://doi.org/10.1007/s11356-023-27998-9>
- Bhutto, M. H., Tariq, B., Azhar, S., Ahmed, K., Khuwaja, F. M., & Han, H. (2022). Predicting consumer purchase intention toward hybrid vehicles: testing the moderating role of price sensitivity. *European Business Review*, 34(1), 62–84. <https://doi.org/10.1108/EBR-10-2019-0274>
- Bushara, M. A., Abdou, A. H., Hassan, T. H., Sobaih, A. E. E., Albohnayh, A. S. M., Alshammari, W. G., Aldoreeb, M., Elsaed, A. A., & Elsaied, M. A. (2023). Power of Social Media Marketing: How Perceived Value Mediates the Impact on Restaurant Followers' Purchase Intention, Willingness to Pay a Premium Price, and E-WoM? *Sustainability (Switzerland)*, 15(6), 1–22. <https://doi.org/10.3390/su15065331>
- Carrión Bósquez, N. G., Arias-Bolzmann, L. G., & Martínez Quiroz, A. K. (2023). The influence of price and availability on university millennials' organic food product purchase intention. *British Food Journal*, 125(2), 536–550. <https://doi.org/10.1108/BFJ-12-2021-1340>
- Durmaz, Y., & Akdoğan, L. (2024). The Effect of Environmental Responsibility on Green Consumption Intention: The Moderator Role of Price Sensitivity and the Mediator Role of Environmental Concern. A Case Study in Turkey. *Environment, Development and Sustainability*, 26(4), 9089–9114. <https://doi.org/10.1007/s10668-023-03083-6>
- Farzin, M., Shababi, H., Shirchi Sasi, G., Sadeghi, M., & Makvandi, R. (2023). The determinants of eco-fashion purchase intention and willingness to pay. *Spanish Journal of Marketing - ESIC*, 27(3), 348–366. <https://doi.org/10.1108/SJME-07-2022-0158>
- Ferreira, L., Oliveira, T., & Neves, C. (2023). Consumer's intention to use and recommend smart home technologies: The role of environmental awareness. *Energy*, 263(PC), 125814. <https://doi.org/10.1016/j.energy.2022.125814>
- Galati, A., Thrassou, A., Christofi, M., Vrontis, D., & Migliore, G. (2023). Exploring travelers' willingness to pay for green hotels in the digital era. *Journal of Sustainable Tourism*, 31(11), 2546–2563. <https://doi.org/10.1080/09669582.2021.2016777>
- García-Salirrosas, E. E., Escobar-Farfán, M., Gómez-Bayona, L., Moreno-López, G., Valencia-Arias, A., & Gallardo-Canales, R. (2023). Influence of environmental awareness on the willingness to pay for green products: an analysis under the application of the theory of planned behavior in the Peruvian market. *Frontiers in Psychology*, 14(January). <https://doi.org/10.3389/fpsyg.2023.1282383>



- Gomes, S., Lopes, J. M., & Nogueira, S. (2023a). Willingness to pay more for green products: A critical challenge for Gen Z. *Journal of Cleaner Production*, 390(January). <https://doi.org/10.1016/j.jclepro.2023.136092>
- Gomes, S., Lopes, J. M., & Nogueira, S. (2023b). Willingness to pay more for green products: A critical challenge for Gen Z. *Journal of Cleaner Production*, 390(July 2022). <https://doi.org/10.1016/j.jclepro.2023.136092>
- González-Viralta, D., Veas-González, I., Egaña-Bruna, F., Vidal-Silva, C., Delgado-Bello, C., & Pezoa-Fuentes, C. (2023). Positive effects of green practices on the consumers' satisfaction, loyalty, word-of-mouth, and willingness to pay. *Heliyon*, 9(10), e20353. <https://doi.org/10.1016/j.heliyon.2023.e20353>
- Hair Jr et al. (2021). Partial least squares structural equation modeling (PLS-SEM) using R: A workbook (p. 197). Springer Nature. In *Structural Equation Modeling: A Multidisciplinary Journal* (Vol. 30, Issue July). <https://books.google.co.id/books?id=y8JyzgEACAAJ>
- Hu, T., Al Mamun, A., Reza, M. N. H., Wu, M., & Yang, Q. (2024). Examining consumers' willingness to pay a premium price for organic food. *Humanities and Social Sciences Communications*, 11(1). <https://doi.org/10.1057/s41599-024-03789-6>
- Huda, M., Hartati, N., Gunawan, A. I., & Luthfi, F. M. (2023). Revealing consumer attitudes towards green products: the role of environmental awareness, perceived value, and media influence on zero waste products purchase intentions. *IOP Conference Series: Earth and Environmental Science*, 1267(1). <https://doi.org/10.1088/1755-1315/1267/1/012009>
- Indra Wijaya Kusuma, A. M., Riyan Putra Richadinata, K., & Winda Pratiwi, K. (2025). Kesiediaan Membayar 'Organic Food' pada Mahasiswa Generasi Z di Kota Denpasar. *Jurnal Riset Manajemen Dan Bisnis*, 135-142. <https://doi.org/10.29313/jrmb.v5i2.7878>
- Jacob, J., Vieites, Y., Goldszmidt, R., & Andrade, E. B. (2022). Expected Socioeconomic-Status-Based Discrimination Reduces Price Sensitivity Among the Poor. *Journal of Marketing Research*, 59(6), 1083-1100. <https://doi.org/10.1177/00222437221097100>
- Konyalıoğlu, F. S., Küçükkelepçe, O., Kurt, O., & Bostan, Y. E. (2025). Water consumption behaviors and environmental values: A study among earthquake-affected individuals in Turkey. *Acta Psychologica*, 261(April). <https://doi.org/10.1016/j.actpsy.2025.105880>
- Lavuri, R. (2022). Organic green purchasing: Moderation of environmental protection emotion and price sensitivity. *Journal of Cleaner Production*, 368(July), 133113. <https://doi.org/10.1016/j.jclepro.2022.133113>
- 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 (Switzerland)*, 14(23), 1-14. <https://doi.org/10.3390/su142316091>
- Mustafa, S., Shi, Y., Adan, D. e., Luo, W., & Al Humdan, E. (2024). Role of environmental awareness & self-identification expressiveness in electric-vehicle adoption. *Transportation*, 861-885. <https://doi.org/10.1007/s11116-024-10515-3>
- Ramli, Y., Imaningsih, E. S., Shiratina, A., Rajak, A., & Ali, A. J. (2022). Environmental Sustainability: To Enhance Organizational Awareness towards Green Environmental Concern. *International Journal of Energy Economics and Policy*, 12(4), 307-316. <https://doi.org/10.32479/ijee.13275>
- Sahabuddin, M., Shariful Alam, M., & Nekomahmud, M. (2024). Tourist Satisfaction, Loyalty, and Environmental Awareness? *Environment, Development and Sustainability*, 7817-7840.

Sayem, S. M., Islam, Z., Anushka, A. H., Jahan, N., & Rahman, M. I. (2025). What drives Generation Z's green purchases in Bangladesh? A multidimensional analysis of psychological and environmental factors. *Social Sciences and Humanities Open*, 12(April), 102052. <https://doi.org/10.1016/j.ssaho.2025.102052>

Susanti, & Nurtyastuti, T. (2025). Jurnal Ilmiah Manajemen Dan Bisnis Perspektif Perilaku dalam Niat Adopsi Financial Technology: *Jurnal Ilmiah Manajemen Dan Bisnis*. 26(2), 178-193.

Tjandra Rahardja, C., & Fataya, D. A. C. (2023). Green Perceived Value on Green Product Awareness and Green Satisfaction Moderated by Gender. *Jurnal Akuntansi Dan Manajemen*, 34(2), 73-85. <https://doi.org/10.53916/jam.v34i2.101>

Valencia-Arias, D. A., Martinez-Tavera, C. R., Areiza-Padilla, J. A., Barajas-Portas, K., Veas-González, I., & Manzi-Puertas, M. A. (2025). The power of centennials and their environmental awareness: Willingness to pay a premium price on the internet for sustainable fashion products. *Cleaner Waste Systems*, 10(February). <https://doi.org/10.1016/j.clwas.2025.100221>

