


# The Influence of Environmental Awareness, Price, and Digital Marketing on Green Product Purchase Decisions: A Case Study on Students of Dian Nusantara University

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Article Info	ABSTRACT
<p><b>Keywords:</b> Environmental Awareness, Price, Digital Marketing, Green Product, Purchase Decision.</p>	<p>This study investigates the influence of environmental awareness, price, and digital marketing on green product purchase decisions among students at Dian Nusantara University. The research uses a quantitative method, employing questionnaires distributed to 200 respondents. The data were analyzed using multiple linear regression. The results demonstrate that all three variables—environmental awareness, price, and digital marketing—have a significant positive effect on green product purchase decisions. Environmental awareness emerged as a key motivator, while price influenced consumer choices based on perceived value. Digital marketing played a dominant role in shaping awareness and purchase behavior. The findings highlight the importance of integrating eco-conscious values with effective pricing strategies and digital engagement to foster green consumption. This study provides both theoretical insights and practical recommendations for marketers and policymakers seeking to promote sustainable consumer behavior among the younger generation.</p>
<p>This is an open access article under the <a href="https://creativecommons.org/licenses/by-nc/4.0/">CC BY-NC</a> license</p> 	<p><b>Corresponding Author:</b> Achmad Tarmizi Management, Faculty of Business and Social Sciences, Dian Nusantara University Jl. Tanjung Duren Barat II, Grogol Petamburan District, Jakarta, Indonesia <a href="mailto:achmad.tarmizi@undira.ac.id">achmad.tarmizi@undira.ac.id</a></p>

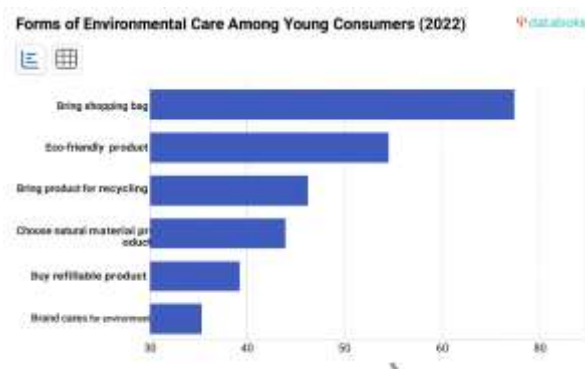
## INTRODUCTION

In recent years, conversations about environmental damage have shifted from scientific circles into everyday life. We are now living in a world where climate change, waste pollution, and forest degradation have become real problems that affect not just nature, but also our daily routines. In Indonesia, the scale of environmental degradation is alarming. Forests are disappearing, rivers are increasingly polluted, and urban air quality continues to decline. According to Greenpeace (2023), approximately 1.8 million hectares of forests have been lost in areas with overlapping concessions. These are not abstract concerns they are lived realities that demand urgent collective attention.

The climate crisis, largely driven by global warming, has introduced irregular weather patterns, prolonged dry seasons, floods, and increasingly frequent natural disasters. These

changes do not only destabilize ecosystems but also threaten food security and public health. Factors contributing to this crisis include industrial emissions, irresponsible waste disposal, and excessive consumption of non eco friendly products (Kementerian Lingkungan Hidup Indonesia, 2022). While these problems are complex, a growing body of research highlights the significant role individual consumer behavior plays in either exacerbating or alleviating environmental impacts (Kollmuss & Agyeman, 2002).

Recognizing this, both governments and civil society have started to respond. In Indonesia, a policy was introduced to charge consumers for plastic bags as a means of reducing plastic waste. At the same time, various community based organizations such as Greenpeace, Earth Hour, and local initiatives like Indonesia Diet Kantong Plastik and Koalisi Pemuda Hijau Indonesia (KOPHI) have emerged as powerful forces in environmental advocacy (Pebrianti, 2012). These movements illustrate a cultural shift where environmentalism is becoming embedded not just in policy but in everyday habits and social identity.



**Figure 1.** Various Forms of Environmental Concern Among Young Consumers

This shift is particularly visible among younger generations. Recent surveys (JakPat, 2022) reveal that Millennials and Gen Z are showing increasing concern for environmental issues. Many already bring reusable shopping bags, choose eco-friendly products, and engage in recycling behaviors. In fact, according to Kantar (2020), the number of Indonesian consumers concerned about green products increased by 112% in just one year. Such growing awareness is transforming not only consumer behavior but also how brands position themselves in the marketplace. However, environmental awareness does not always lead to consistent consumer action. As Junaidi (2005) notes, many individuals who are fully aware of environmental issues still do not prioritize green products in their purchases. Common barriers include the limited availability of eco-friendly options, less appealing designs, and higher prices. These gaps highlight the tension between intention and behavior where values may be present, but practical obstacles remain.

This is where the concept of green marketing becomes increasingly relevant. Businesses have started communicating not just functional benefits, but also environmental values through strategies such as eco-labeling, CSR campaigns, and sustainable packaging

(Chen, 2013). Green marketing is no longer a niche strategy it is now integral to building trust, winning loyalty, and expanding reach in a market that is becoming more values driven.

Equally important is the role of digital marketing in shaping consumer behavior. Young consumers spend a considerable amount of time online, where they are exposed to environmental messages through platforms like Instagram, TikTok, and YouTube. Digital strategies allow companies to engage consumers with personalized, visual, and interactive content helping green products become part of a lifestyle choice rather than a moral obligation (Ali & Alqudah, 2022).

University students represent an ideal demographic to examine this phenomenon. Not only are they forming long-term consumption habits, but they also balance idealism with price sensitivity. They are digital natives socially active, highly connected, and often influential in shaping peer behavior. Understanding their motivations is crucial for businesses looking to promote green products and for policymakers aiming to shift public behavior toward sustainable consumption.

This study, therefore, focuses on students of Dian Nusantara University in Jakarta. By investigating how environmental awareness, pricing, and digital marketing influence their purchasing behavior, this research aims to bridge the gap between awareness and action. The findings are expected to provide both theoretical contributions to green consumer behavior studies and practical guidance for marketers and sustainability advocates seeking to foster responsible consumption in urban academic settings.

## METHODS

This research was designed to better understand how environmental awareness, price perception, and digital marketing influence students' decisions when it comes to buying green products. To explore this, we used a quantitative approach that allowed us to collect structured data from a large group of respondents and analyze their responses statistically. The combination of descriptive and causal research designs was chosen to not only describe the existing behaviors but also examine potential cause-and-effect relationships between the variables.

Primary data were collected using a questionnaire developed based on previous studies and theories. The questionnaire included several indicators spread across four variables: environmental awareness, price, digital marketing, and green purchase decisions. Respondents were asked to rate their level of agreement on a Likert scale for statements that reflected their knowledge, attitudes, and behaviors. Before distributing the questionnaire widely, we ensured the content was clear, relevant, and aligned with our research objectives.

We focused our study on students from Dian Nusantara University, located in Jakarta. Since the total number of students was not precisely defined for our scope, we applied an accidental sampling technique, a practical method where respondents were selected based on their availability and willingness to participate. This approach works especially well for exploratory studies like ours, and it allowed us to reach a diverse sample of 200 students,

which matched the sample size recommendations provided by Hair et al. (2014), suggesting 5–10 respondents per indicator.

To ensure the questionnaire effectively measured what it intended to, we conducted a validity test. Each item's correlation value was compared to a standard  $r$ -table value. All items exceeded the minimum threshold, confirming that our questions were valid. We then ran a reliability test using Cronbach's Alpha, which produced values above 0.70 for all variables. These results gave us confidence that the responses were consistent and reliable.

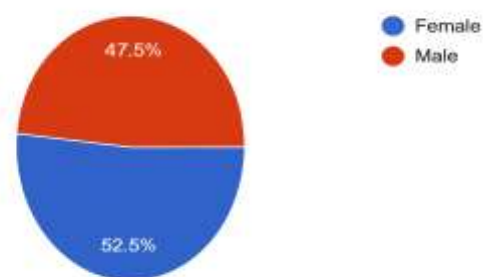
Once the data were collected, we conducted a multiple linear regression analysis to examine both individual and combined effects of the independent variables on the dependent variable green product purchase decisions. The  $t$ -test was used to identify the partial effect of each independent variable, while the  $F$ -test helped us understand their collective influence. This step allowed us to see which factors had the most impact and how they interacted together.

To strengthen our analysis, we also tested for multicollinearity, a situation where independent variables might be too closely related, potentially distorting the results. We used the Variance Inflation Factor (VIF) to assess this issue, and all values were within the acceptable range, indicating that multicollinearity was not a concern in our model. All data were processed using statistical software, which helped us run the calculations accurately and efficiently. Through these tools, we obtained regression coefficients, significance levels, and other key metrics that were essential for testing our hypotheses. These numbers weren't just statistics, they told a story about how students think and behave when it comes to environmental responsibility and consumption.

## RESULTS AND DISCUSSION

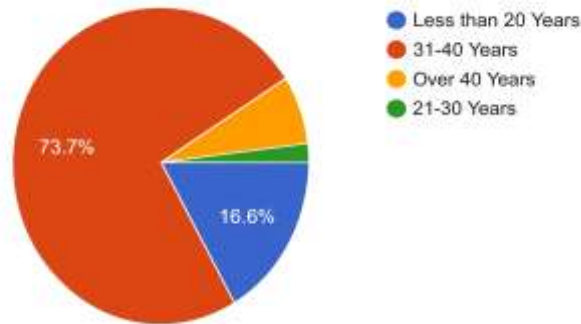
### Overview of Findings

The results of this study provide several meaningful insights into how environmental awareness, pricing, and digital marketing shape students' decisions when purchasing green products. Using responses from 200 students at Dian Nusantara University, the data revealed clear patterns that reflect both current behavior and deeper attitudes toward sustainability.



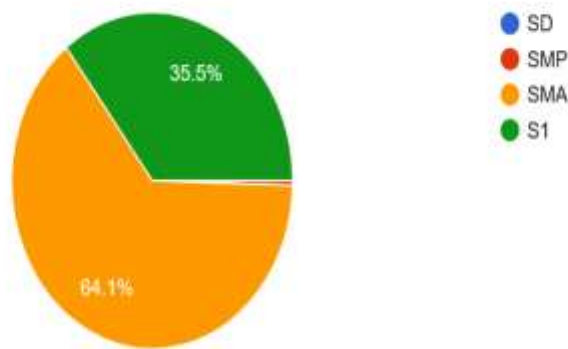
**Figure 2.** Gender Distribution of Respondents

The pie chart illustrates the gender distribution of respondents in this study, revealing a fairly balanced composition. Female participants made up 52.5% of the total, while male participants accounted for 47.5%. This near-equal representation ensures that the perspectives captured in the research reflect a diverse range of gender-based consumer behaviors, particularly in relation to environmental awareness and green product purchasing decisions among university students.



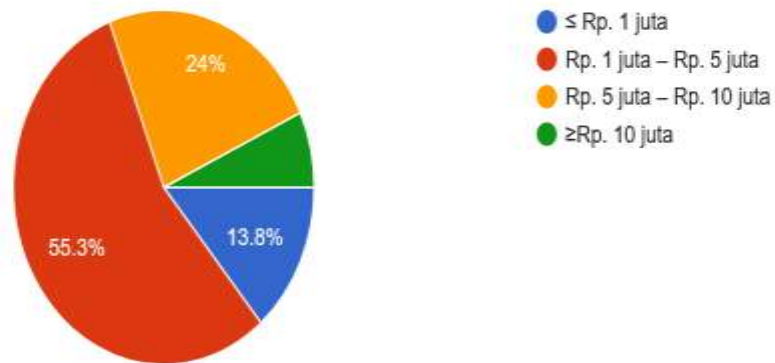
**Figure 3.** Respondent Characteristics Based on Age

Based on Figure 3, the majority of respondents—73.7%—are aged between 20 and 30 years. Meanwhile, 16.6% are under 20, 7.4% are aged 30 to 40, and only 2.3% are over 40. This indicates that most respondents fall within the young adult age group.



**Figure 4.** Respondent Characteristics Based on Education

Based on Figure 4, the majority of respondents—64.1%—have a high school (SMA) education, while 35.5% hold a bachelor's degree (S1). None of the respondents reported primary (SD) or junior high school (SMP) as their highest level of education.



**Figure 5.** Respondent Characteristics Based on Income

The data in Figure 5 shows that 13.8% of respondents earn less than IDR 1 million, 55.3% earn between IDR 1 million and IDR 5 million, 24% fall within the IDR 5 million to IDR 10 million range, and 6.9% have a monthly income above IDR 10 million. The majority of respondents earn between IDR 1 million and IDR 5 million, making up 55.3% of the total.

### Instrument Validity and Reliability

The first step in our analysis involved testing the validity of the research instrument.

**Table 1. Validity Test**

Variable	Number of Statements	R Count	R Table	Description
Environmental Awareness (X1)	X1.1	0,635	0,138	Valid
	X1.2	0,758	0,138	Valid
	X1.3	0,806	0,138	Valid
	X1.4	0,843	0,138	Valid
	X1.5	0,804	0,138	Valid
Price (X2)	X2.1	0,839	0,138	Valid
	X2.2	0,822	0,138	Valid
	X2.3	0,811	0,138	Valid
	X2.4	0,807	0,138	Valid
	X2.5	0,798	0,138	Valid
Digital Marketing (X3)	X3.1	0,749	0,138	Valid
	X3.2	0,805	0,138	Valid
	X3.3	0,791	0,138	Valid
	X3.4	0,780	0,138	Valid
	X3.5	0,706	0,138	Valid
Green Product Purchase Decision (Y)	Y1	0,696	0,138	Valid
	Y2	0,829	0,138	Valid
	Y3	0,839	0,138	Valid
	Y4	0,796	0,138	Valid
	Y5	0,692	0,138	Valid

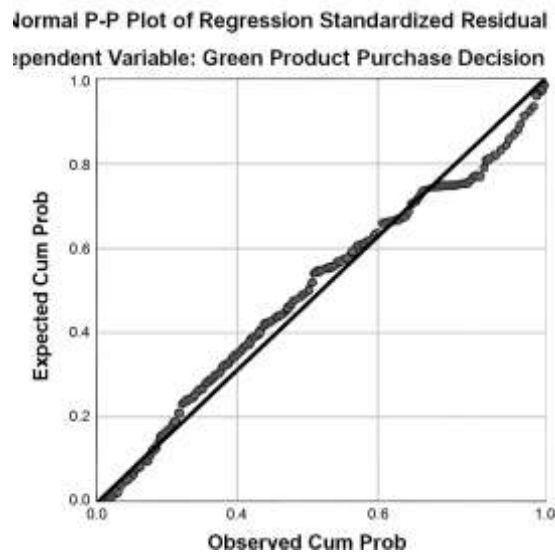
All questionnaire items across all four variables, environmental awareness, price, digital marketing, and purchase decision, exceeded the minimum r-table threshold of 0.138. This indicates that each item was appropriately designed and capable of accurately capturing the variable it represented.

**Table 2.** Reliability Test

Research Variables	Cronbach's Alpha	Description
Environmental Awareness	0,826	Realibel
Price	0,872	Realibel
Digital Marketing	0,823	Realibel
Green Product Purchase Decision	0,829	Realibel

Further, the reliability test showed high internal consistency, with Cronbach's Alpha values ranging from 0.823 to 0.872. These results confirmed that the questionnaire provided stable and dependable measurements.

### Data Normality



**Figure 6.** Data Normality Results

The points closely align with the diagonal line in the Normal P-P Plot, indicating that the residuals are normally distributed. Thus, the regression model satisfies the normality assumption.

**Table 2.** Data Normality Results

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		200
Normal Parameters <sup>a,b</sup>	Mean	.0000000
	Std. Deviation	1.97678331
Most Extreme Differences	Absolute	.081
	Positive	.081
	Negative	-.077
Test Statistic		.081

Asymp. Sig. (2-tailed) .087<sup>c</sup>  
 a. Test distribution is Normal.  
 b. Calculated from data.  
 c. Lilliefors Significance Correction.

The Asymp. Sig. (2-tailed) value is 0.087, which is greater than 0.050. This indicates that the data are normally distributed.

### Multicollinearity

Multicollinearity is assessed by checking each independent variable's VIF value. If VIF < 10.00 and tolerance > 0.10, it indicates that the data are free from multicollinearity (Imam Ghozali).

**Table 3.** Multicollinearity Results

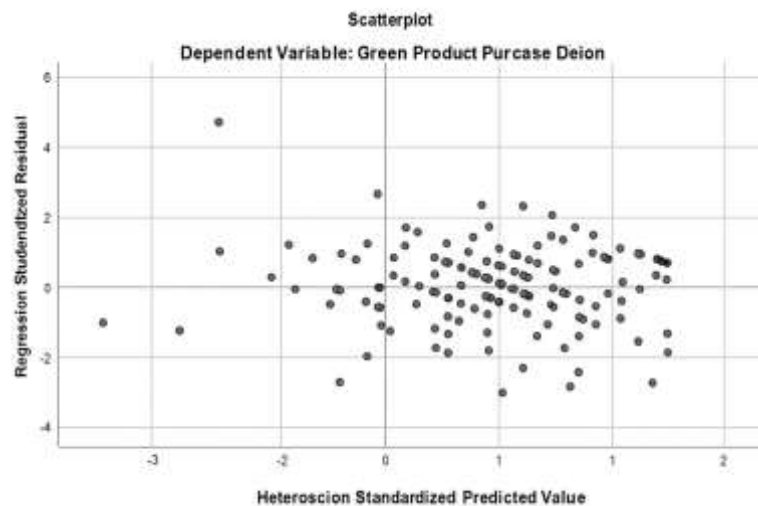
Model		Coefficients <sup>a</sup>				Sig.	Collinearity Statistics	
		Unstandardized Coefficients		Standardized Coefficients	t		Tolerance	VIF
		B	Std. Error	Beta				
1	(Constant)	1.050	1.145		.917	.360		
	Environmental Awareness	.285	.072	.253	3.943	.000	.464	2.153
	Price	.014	.077	.014	3.187	.002	.326	3.071
	Digital Marketing	.610	.066	.603	9.246	.000	.450	2.223

a. Dependent Variable: Green Product Purchase Decision

All variables have tolerance > 0.10 and VIF < 10, indicating no multicollinearity in the model.

### Heteroscedasticity

Heteroscedasticity is tested using a scatterplot. If the points are randomly spread above and below zero on the Y-axis, it indicates no heteroscedasticity.



**Figure 7.** Heteroscedasticity Results

The data points are scattered below zero on the Y-axis without forming a specific pattern, indicating the absence of heteroskedasticity.

### Autocorrelation

Autocorrelation is tested using the Durbin-Watson test by comparing the DW statistic (d) with the upper (dU) and lower (dL) bounds. No autocorrelation is indicated if the DW value lies between dU and (4 - dU).

**Table 4.** Autocorrelation Results

Model	Model Summary <sup>b</sup>				
	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.791 <sup>a</sup>	.625	.620	1.992	2.197

a. Predictors: (Constant), Digital Marketing, Environmental Awareness, Price

b. Dependent Variable: Purchase Decision of Green Products

Based on the output:

- With  $k = 3$  and  $N = 200$  at 5% significance, the Durbin-Watson lower bound (dL) is 1.738.
- The DW value of 2.197 falls between dL and  $4 - dU$  (2.201).
- Therefore, there is no indication of autocorrelation.

**Table 5.** Autocorrelation Results

	Descriptive Statistics						
	N	Minimum	Maximum	Sum	Mean	Std. Deviation	Std. Error
Environmental Awareness	200	7	25	4437	22.18	.203	2.867
Price	200	5	25	4122	20.61	.228	3.220
Digital Marketing	200	10	25	4062	20.31	.226	3.191
Green Product Purchase Decision	200	8	25	4011	20.06	.228	3.230
Valid N (listwise)	200						

### Partial T-Test

The partial t-test compares t-count with t-table at a 5% significance level. If  $t\text{-count} > t\text{-table}$  or  $\text{sig} < 0.05$ , then  $X_1$ ,  $X_2$ , and  $X_3$  significantly affect  $Y$ . Degrees of freedom are calculated using:  $df = n - k$ , where  $n$  is the number of observations and  $k$  is the total number of variables.

**Table 6.** T-Test Results

Model		Coefficients <sup>a</sup>			T	Sig.
		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta		
1	(Constant)	1.050	1.145		.917	.360
	Environmental Awareness	.285	.072	.253	3.943	.000
	Price	.014	.077	.014	3.187	.002
	Digital Marketing	.610	.066	.603	9.246	.000

a. **Dependent Variable:** Green Product Purchase Decision

The t-test analysis produced the following findings: For the Environmental Awareness variable, the t-value was 3.943, exceeding the t-table value of 1.652, with a significance of 0.000, indicating a significant effect on Green Product Purchase Decision. Similarly, the Price variable obtained a t-value of 3.187 (sig = 0.002), and the Digital Marketing variable showed a t-value of 9.246 (sig = 0.000); both values are above the critical threshold and their significance values are below 0.05. Thus, all three variables significantly influence the Green Product Purchase Decision among students at Dian Nusantara University.

**F-Test (Simultaneous Test)**

**Table 7.** F-Test (Simultaneous Test) Results

Model		ANOVA <sup>a</sup>				Sig.
		Sum of Squares	df	Mean Square	F	
1	Regression	1298.768	3	432.923	109.118	.000 <sup>b</sup>
	Residual	777.627	196	3.967		
	Total	2076.395	199			

a. Dependent Variable: Green Product Purchase Decision

b. Predictors: (Constant), Digital Marketing, Environmental Awareness, Price

The F-test result (F = 109.118, p < 0.05) confirms that Environmental Awareness, Price, and Digital Marketing jointly have a significant influence on Green Product Purchase Decisions among Dian Nusantara University students.

**Coefficient of Determination (R<sup>2</sup>)**

**Table 8.** Coefficient of Determination (R<sup>2</sup>) Results

Model	Model Summary <sup>b</sup>			
	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.791 <sup>a</sup>	.625	.620	1.992

a. Predictors: (Konstanta), Digital Marketing, Environmental Awareness, Price  
 b. Variabel Dependen: Green Product Purchase Decision

An R<sup>2</sup> value of 0.625 means that 62.5% of green purchase decisions are explained by the studied variables, while 37.5% are influenced by other factors.

**Hypothesis Test Results**

The results of the hypothesis testing reveal that all proposed hypotheses are accepted based on the statistical evidence obtained. Environmental awareness significantly influences green product purchase decisions, as indicated by a t-value of 3.943, which exceeds the

critical value of 1.652, with a significance level of 0.000, well below the 0.05 threshold, thereby supporting Hypothesis 1 (H1). Similarly, price exerts a significant impact on green product purchasing behavior, demonstrated by a t-value of 3.187 and a significance level of 0.002, thus confirming Hypothesis 2 (H2). Furthermore, digital marketing proves to be a highly influential factor, with a notably strong t-value of 9.246 and a significance level of 0.000, lending robust support to Hypothesis 3 (H3). In addition, the F-test result shows a value of 109.118, which is considerably greater than the critical F-value of 2.65, accompanied by a significance level of 0.000. This confirms that the three independent variables—environmental awareness, price, and digital marketing—jointly have a statistically significant effect on green product purchase decisions among students at Dian Nusantara University, thereby validating Hypothesis 4 (H4).

### Discussion

The findings of this study underscore the growing significance of environmental awareness, pricing considerations, and digital marketing strategies in influencing green product purchase decisions among university students. The positive and significant impact of environmental awareness suggests that when students possess a heightened consciousness about environmental degradation and sustainability, they are more inclined to support environmentally friendly products. This aligns with the perspectives of Kollmuss and Agyeman (2002), who emphasized the pivotal role of individual awareness in shaping pro-environmental behavior, despite the presence of various behavioral barriers. Furthermore, the price variable was also found to significantly influence purchasing decisions, albeit with a lower beta coefficient compared to digital marketing and environmental awareness. This indicates that while students are price-sensitive, their willingness to purchase green products increases when the pricing is perceived as fair and justifiable. These results are in line with prior studies such as Pebrianti (2012) and Mbete & Tanamal (2020), which highlighted that price remains one of the key determinants in green consumption, especially among price-conscious consumers like students.

Digital marketing emerged as the most influential factor among the three, as shown by its high standardized beta value. This reinforces the importance of targeted and engaging digital campaigns in promoting sustainable products to younger demographics. Platforms such as Instagram, TikTok, and YouTube are not only entertainment outlets but also vital channels for influencing consumer behavior. As supported by Ali and Alqudah (2022), digital marketing facilitates emotional engagement and lifestyle alignment, which are essential in encouraging green consumption.

The F-test further confirmed that the combined effect of environmental awareness, price, and digital marketing significantly explains variations in green product purchasing decisions. With an  $R^2$  value of 0.625, the model demonstrates that these three factors account for 62.5% of the variance in consumer behavior—indicating a strong explanatory power. The remaining 37.5% suggests the existence of other relevant factors, such as product availability, peer influence, brand trust, or ethical considerations, which future research could explore.

This study's implications are twofold. First, for marketers, it highlights the necessity of integrating eco-conscious messages with competitive pricing and innovative digital strategies. Effective campaigns that resonate with students' values and daily digital habits can bridge the intention-action gap in sustainable consumption. Second, for policymakers and educators, the findings suggest the importance of embedding sustainability topics within the academic curriculum and supporting digital literacy as a means of driving responsible consumer behavior. In summary, the study provides empirical evidence that green marketing strategies, when supported by environmental values and pricing logic, can foster greater adoption of green products among young consumers. These insights offer a valuable foundation for designing interventions and marketing strategies aimed at advancing sustainable consumption in academic and urban environments.

## CONCLUSION

This study concludes that environmental awareness, price, and digital marketing significantly influence green product purchase decisions among students at Dian Nusantara University. The findings reveal that environmental awareness positively drives students to consider the environmental impact of their consumption, indicating a shift toward more sustainable lifestyle choices. Price also plays an important role, as students are more likely to purchase green products when they perceive the pricing to be reasonable and aligned with the product's environmental value. Among the three variables, digital marketing emerged as the most dominant factor, emphasizing the effectiveness of online platforms in shaping eco-conscious consumer behavior. The strong influence of digital marketing underscores the necessity for businesses to develop targeted, engaging, and visually compelling content that resonates with student values and digital habits. The model's  $R^2$  value of 0.625 suggests that the three variables collectively explain a substantial portion of the variation in green product purchase decisions. These results offer practical insights for marketers, educators, and policymakers aiming to promote sustainable consumption among youth. Future research should consider exploring additional variables, such as brand image, peer influence, or ethical concerns, to provide a more comprehensive understanding of green purchasing behavior in various demographic segments.

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