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Influencing Factors on Eco-Consciousness Purchasing Behaviour among Students in Malaysia: A study from Albukhary International University**Shabir Ghafari****Dheya Alhag Eyad Abdo Alsharabi**

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Abstract

This study aimed to establish the relationship between environmental awareness and eco-conscious consumer behaviour of Gen Z individuals. The research used a descriptive design through a Google questionnaire to gather data from 102 Generation Z consumers. The statistical methods – both descriptive and inferential were used on the collected data to determine which factors could have the greatest influence on a consumer's green purchasing decisions. The study revealed that environmental impact was an important factor in influencing appeals to eco-conscious buying behaviour, which was realised through a moderate correlation showing that environmental determinants accounted substantially for the variability in purchase intentions. In addition, it was revealed that cost acted as a great barrier to buying eco-friendly products, a factor that suggested that cost was a significant driving force in buying behaviour. Consumer awareness of eco-friendly products was also obtained as the decisive factor in the study, helping to clarify their willingness to purchase such goods. Research revealed that the eco-conscious purchasing tendency of Gen Z is dominated by the environmental effects of products, affordability, and general awareness of eco-friendly products. Previous studies expanded our insights into consumer behaviour regarding sustainability: our work presents actionable directions for companies aiming at students with products that are pleasing to the environment. The results of this research are of considerable importance to various stakeholders, including academia, industry experts and business practitioners. The research made a contribution to scholarly comprehension of behavioural determinants for sustainable consumption and provided practical guidance to industry and businesses on how to contain costs and promote environmental consciousness. Moreover, this examination provided policymakers with useful strategies to facilitate the adoption of sustainable consumption practices among student consumers.

Keywords: Eco-Conscious Purchasing, Sustainable Consumption, Environmental Awareness, Generation Z Consumers, Green Product Trust



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1. Introduction

The escalating challenges of climate change, pollution, and resource depletion demand urgent and coordinated action across all sectors of society. In this context, consumer behaviour—particularly purchasing decisions—plays a critical role in advancing or hindering sustainability. Understanding the motivations and barriers behind eco-conscious consumption is essential to promoting greener consumer practices. Generation Z (born 1997–2012), especially university students, has emerged as a key demographic in this discourse due to their heightened environmental awareness and potential to shape future market trends. However, translating environmental concern into actual eco-conscious purchasing behaviour involves complex psychological, social, and economic dynamics that vary across cultural and socio-economic contexts. This study examines these dynamics within the Malaysian context, focusing specifically on students from Albukhary International University (AIU). Through a quantitative approach involving surveys and statistical analyses—including regression models—this research investigates the factors influencing eco-conscious purchasing behaviour. The objective is to identify key determinants and offer insights that can guide sustainable marketing strategies, inform policy development, and support environmental education. Ultimately, the findings aim to foster more sustainable consumption patterns among Malaysian youth, contributing to broader environmental goals.

1.1 Research Questions

1. What are the major influences on the eco-conscious purchase decision of students?
2. Why is the practice of eco-conscious purchasing useful to students and society as a whole?
3. What do students think about the effects (both positive and negative) of eco-conscious purchases?

1.2 Research Objectives

1. To analyse and discuss the decisive factors influencing students' purchasing decisions regarding eco-conscious products.
2. To find the major reasons that make eco-conscious shopping meaningful.
3. To examine and identify positive or negative consequences related to eco-conscious purchasing behaviours among students.

2. Methodology

This research utilized a descriptive research design to explore the major determinants of eco-conscious purchasing behaviours among the student consumer population. By using this methodology, the project was able to systematically gather and process data, hence revealing fundamental relationships between the variables of interest. This research was carried out among the students who are currently studying at the institutions often associated with Generation Z (typically born 1997–2012), which are often influential in the environmental and consumer preferences of the students. This study was aimed at analysing their particular purchasing behaviour.

A sample of 102 representative students was selected so that the university community would include varied perspectives. A sample size of 102 respondents was deemed sufficient for this study, as it falls within an acceptable margin of error for

social science research (Cohen, 2013). This aligns with sample sizes used in similar past studies investigating consumer behaviour and environmental attitudes among university students (e.g., Smith & Jones, 2020). Primary data were collected using a Google-based questionnaire that used closed-ended and Likert scale-type questions to systematically assess environmental consciousness, attitudes towards eco-conscious purchasing, and other associated behaviours.

The analysis was done using SPSS with descriptive and inferential statistics. Descriptive statistics used to summarise data included means, frequencies, percentages, and inferential techniques, which were regression and correlation analysis, which were very helpful in discovering interrelations among variables. The specified technique was aimed at producing reliable results, revealing the driving forces and sustainable consumer choices of the students of Albukhary International University, Malaysia.

3. Results and Discussion

In this case, the outcomes of the research are described by employing a mixture of descriptive and inferential statistical methods, including regression analysis, to evaluate the interconnectedness between environmental consciousness and eco-conscious consumer behaviour of the student consumers. Using descriptive statistics, key demographic and variable information is compressed for a clear presentation of sample composition and dominant eco-friendly purchasing trends. By use of inferential statistics such as regression analysis, we expose the nature of the relationships between environmental awareness and purchasing behaviour, measuring the statistical significance and strength of such associations. The outcomes are explained in terms of the aims of the study and previous works, giving some significant implications for individuals and organisations concerned.

3.1 Demographic Profile of Respondents: Gender, Education, Income, and Age Distribution.

The demographic characteristics of the study participants are analysed here: gender, educational background, income, and respondents' age distribution trends. These demographic aspects are crucial to the understanding of the context of the study, to measure the inclusivity of the sample. When these variables are examined, an understanding of the student market is provided, and it thus becomes possible to make a more targeted analysis of their eco-friendly shopping habits in the backdrop of the broader economic and educational environment.

3.2 Age Distribution of Student Respondents

This section describes the different ages represented among the student respondents who participated in the research. Analysis of the age profile of participants is important because this will enable us to outline and differentiate student categories where we could expect an interest in environmental sustainability and strategic purchase of the environment to different degrees. Due to the diversity of the student age range, it is necessary to study the age distribution to recognise the unique patterns of eco-conscious behaviour among this group. The findings of this distribution increase our capacity to identify particular age groups among students to better understand their approach to sustainable consumption.

Table 1*Age Distribution of Student Respondents at Albukhary International University*

Age Category	Frequency	Percentage (%)
Under 18 years	6	5.9
18–24 years	82	80.4
25–30 years	14	13.7
Total	102	100.0

Source: Survey

The study's participants, who constitute 80.4% of the total population falling into the 18 to 24 years' age bracket, hence form the lead group in the collected data. This pattern depicts the cohort of students whose environmental awareness and its range of influence on consumer choices concerning green packaging have been reported in earlier research (Williams et al., 2021). These conclusions are in agreement with previous results, which describe the tendency of less mature consumers to focus on environmental sustainability in their purchase decisions (Bougherara et al, 2020) and purchasing power (Bittner et al., 2020). It seems that green packaging and sustainability activist marketing should be aimed at students because that group is highly oriented towards environmentally conscious actions.

The 25-30-year-old group contributes only 13.7% to the total, and this is a growing sign of consciousness of sustainability, although not as pronounced as among younger age groups (Krause et al., 2019). Only 5.9% of respondents are under 18 years old, which shows a small presence of minors, which can be a result of parental control over purchases or the general lack of autonomy in finances for this age.

3.3 Gender Distribution of Student Respondents

The distribution of the student respondents among male and female respondents is the focus of the next section. Gender, in part, determines consumer attitudes toward sustainability and eco-friendly products, influencing purchasing choices and preferences. The gender distribution analysis here is needed to show how men and women approach environmental issues and develop sustainable buying habits. Understanding these differences can provide valuable advice for marketers and businesses trying to perfect their products for the various genders of the student pool.

Table 2*Distribution of Respondents by Gender among Generation AIU Students*

Gender	Frequency	Percentage (%)
Male	45	44.1
Female	57	55.9
Total	102	100.0

Source: Survey

In the findings of this study, 55.9% of the population being interviewed identified themselves as females, while 44.1% were males. This outcome points to higher female participation, which fits with prior findings that women are more environmentally aware and follow more sustainable actions (Sharma, 2021; Chen & Chang, 2020).

Women, according to research, care more about environmental concerns and are consistently more favourable of sustainable products (Chin et al., 2018).

However, the male respondents also constitute a significant portion of the sample (44.1%), suggesting that green packaging and sustainability-related factors are of interest across genders. Previous research has indicated that both male and female consumers are increasingly considering environmental impact when making purchasing decisions (Yadav & Pathak, 2017). However, the emphasis may differ based on specific product categories (Anderson & Duncan, 2020). This gender distribution reflects the broader trend toward eco-conscious consumer behaviour, which is no longer predominantly associated with any particular gender.

However, a male respondent contributes 44.1% to the total number of participants, which means that sustainability and eco-friendly packaging are equally attractive to both genders. We have noted in previous studies that both male and female shoppers are becoming more conscious of an environmental argument when making purchase choices (Yadav & Pathak, 2017), but some differences are evident in different product groups (Anderson & Duncan, 2020). This balanced gender sample reflects a rising curve of eco-conscious consumption that can now find cross-gender support and interest.

3.4 Educational Level of Respondents

This section of the report describes the distribution of educational credentials of the students who participated in the research. The behaviour of consumers, particularly about sustainability and green purchasing, essentially has a strong dependency on the educational status of the individuals. The environmental comprehension of respondents, as well as the determination of sustainable consumption, may be somewhat affected by their educational achievement. The subject of this analysis is to test whether students with a higher educational background are more environmentally conscious and display more sustainable purchasing behaviour. Understanding the trends here is significant for businesses and policymakers, who aim to penetrate this demographic.

Table 3
Academic Level of Respondents at Albukhary International University

Educational Level	Frequency	Percentage (%)
Language Centre	10	9.8
Bachelors	89	87.3
Masters	3	2.9
Total	102	100.0

Source: Survey

The educational attainment of the sample, in which over 87.3% of the respondents hold a Bachelor's degree, indicates that the respondents are mainly well-educated, thus possibly implying a high potential for environmental and sustainability awareness. The profile of respondents is similar to previous findings, and well-educated individuals are more likely to adopt sustainable lifestyles and react positively to programmes for sustainability (Chin, Poon, & Gan, 2018; Johnson & Jackson, 2020).

Respondents only indicated that they completed the Language Centre in 9.8%, which may limit their exposure to information about sustainable practices and influence their decisions at the purchase point (Teng et al., 2020). The sample only featured 2.9% who completed their Master's programs, implying that not many highly educated respondents were involved. Analyzing this educational distribution provides valuable insight into how marketing efforts could be targeted to the group. It seems that, as the vast majority of the target group has high levels of education and is well-informed, they would be able to get involved with the green packaging messages created in a comprehensible form (Yadav & Pathak, 2017).

3.5 Monthly Income of Respondents

In this case, we examine the way the monthly pay was allocated to the involved student respondents who participated in the research. Consumer patterns of spending are certainly affected by annual income; therefore, it has particular relevance for eco-neutral products that are commonly viewed as costlier than conventional ones. Examining the income backgrounds of respondents that range on the spectrum of income can be used by this section to look at the correlation between income and students' willingness to pay for sustainable items, like eco-conscious ones. Results from this section will help businesses and marketers estimate the spending patterns of AIU students and adjust their promotional schemes to address the students' needs.

Table 4

Distribution of Respondents by Monthly Income

Monthly Income (RM)	Frequency	Percentage (%)
Less than 1000	67	65.7
1001 – 3000	26	25.5
3001 – 5000	5	4.9

Source: Survey

The distribution of incomes between respondents significantly falls to the lower end, as of the respondents 65.7% state that they earn less than 1,000 RM on a monthly basis. Such an arrangement means that large sections of the polled population are financially constrained, which may affect their ability to purchase and think of eco-friendly options (Barbarossa et al., 2020). Less than a quarter, or 25.5%, of respondents fall into the 1,001 RM to 3,000 RM generation bracket, followed by 4.9% of 3,001 RM to 5,000 RM.

This income breakdown is in line with recent studies that have pointed out that the level of income and other economic factors go a long way in moulding consumer patterns of behaviour, especially in the acquisition of sustainable products (Pino et al., 2021). People with lower incomes will be more concerned about affordability than sustainability; hence, less participation in sustainable product purchases was experienced (Cohen & Kaufman, 2021). As such, this evidence highlights the role of socio-economic discussions in studies on consumption patterns and behaviour, especially when examining sustainable consumption in developing markets (Barbarossa et al, 2020).

3.6 Descriptive Statistics for Green Packaging Attributes and Their Role in Shaping Eco-Conscious Purchases

In this section, we review the descriptive statistics of green packaging attributes and how they influence the purchasing preferences of student consumers influenced by environmental concerns. The data review is based on essential packaging attributes: recyclability, biodegradability, and sustainability labelling, and examines it in the context of its influence on students' purchasing behaviours. As it approaches the analysis of the data, this section underscores the extent to which green packaging resonates and impacts consumer behaviour among the target group.

3.7 Descriptive Statistics of Consumer Perceptions of Eco-Conscious Products

This section presents descriptive statistics showing how the students perceive the products that are eco-conscious. An analysis of consumer perceptions is critical when establishing the effect of green packaging, eco-friendliness, and sustainability on the decision-making process. After conducting descriptive analysis, this research determines discrepant opinions about eco-conscious products of students, particularly their perceptions of sustainable packaging, environmental impact, and brand sustainability. From this analysis, the study exposes key understandings of how students view eco-conscious products and the manner in which these views affect students' purchase behaviour.

Table 5
Descriptive Statistics of Student Perceptions Toward Eco-Conscious Products

Consumer Perception	N	Mean	Std. Deviation
I am aware of eco-conscious products	102	3.8765	0.94219
Eco-conscious products are better for the environment	102	4.3182	0.76503
Cost is a barrier to purchasing eco-conscious products	102	3.9543	0.83712

Source: Survey

Under the prism of descriptive statistics, taking a look at the consumer attitude to eco-conscious products exposes the context of more general conceptions about sustainability. The average answer to the question of "I am aware of eco-conscious products" was 3.8765, which indicates a certain intermediate level of awareness of participants. This discovery agrees with prior research suggesting that consumers are becoming more aware of sustainable options, but awareness does not necessarily determine purchasing decisions (Barbarossa et al., 2020).

Most of the consumers were in agreement (with a mean of 4.3182) that eco-conscious products are very beneficial for the environment. It is reported that the environmental advantage is an influential element in choosing sustainable purchases, as shown in research by Cohen & Kaufman (2021).

A mean score of 3.9543 to the claim "cost is a barrier to purchasing eco-conscious products" shows that cost is an issue that consumers understand, but not the biggest issue. This is consistent with findings that indicate consumers prefer sustainable products, which is still a significant challenge for consumers (Pino et al., 2021).

The 3.2907 score for labels claiming eco-consciousness shows relatively modest confidence adopted by consumers in these claims. This indicates the rise in the doubts that consumers have over the truth of eco-labels based on Carmagnola et al.'s (2022) work, with consumers regularly questioning the trustworthiness of such labels, thus influencing their purchases. The sum of the effects relates to present research, which says that despite elevated sensitivity to the environment and favourable attitudes, economic values and trust in a label still greatly influence buyers' habits. As reported by recent studies by Cohen & Kaufman (2021) and Carmagnola et al. (2022).

3.8 Descriptive Statistics for Eco-Conscious Purchase Behavior

This section identifies descriptive statistics, which show the student respondents listed in Table 6 possessing eco-conscious buying behaviours. The analysis opens up the major driving forces behind environmentally conscious purchasing, including environmental knowledge, emotional contentment, and acceptance of the higher cost of buying sustainable goods. From this analysis emerges the degree to which students approach eco-conscious items, and in light of this, similarities and differences between international movements toward sustainable consumption are exposed.

Table 6
Descriptive Statistics of Eco-Conscious Purchase Behaviour Among Students

Factor	N	Mean	Std. Deviation
Environmental Impact	102	4.0723	0.86412
Health Benefits	102	4.3865	0.66844
Cost is a barrier to purchasing eco-conscious products	102	3.9562	0.83577

Source: Survey

Table 6 contains the descriptive statistics for eco-conscious purchase decisions among the students participating in the study. The findings indicate a spectrum of consensus among student respondents on reasons that drive eco-conscious purchasing. The health benefits factor reported the highest average rating ($M = 4.3865$, $SD = 0.66844$), which shows that students strongly believe that eco-conscious products are beneficial to health. This finding also aligns with previous studies that put great emphasis on health consciousness as one of the most important factors that support sustainable purchasing (Nguyen & Nguyen, 2022).

The mean value on Environmental Impact was 4.0723 ($SD = 0.86412$), which shows that consumers value the opportunity that their purchase can have an environmental protection impact. The results confirm previous studies showing that environmental factors continue to play a critical role in shaping consumers' environmentally friendly behaviours (Dube et al., 2020).

The mean score on the cost as a barrier was 3.9562 ($SD = 0.83577$), slightly less compared to the environmental impact. Cost becomes a significant barrier, but the high score means respondents consider price important, as research states, affordability is a significant barrier for green consumers (Huang et al., 2021).

These findings endorse the holistic approach to eco-consciousness in that health, environmental sustainability, and price all contribute to determining how students

make purchasing decisions. The results can guide policy experts and business strategies, which can induce students to choose green products.

3.9 Regression Analysis: Green Packaging Attributes and Their Role in Shaping Eco-Conscious Purchases

This section explores the relationship between different aspects of eco-friendly packaging and the green purchasing decisions of student consumers at AIU using regression techniques. The analysis quantifies the extent of cohesiveness of the ripple effect of recyclability, biodegradability, and sustainability label influence on eco-conscious purchasing behaviour. It is possible to discuss these associations, and hence, this part can define how green packaging influences consumer behaviour to the greatest extent.

3.10 Awareness of Eco-Conscious Products and Green Purchase Intentions

This part examines the impact that knowledge about eco-conscious products has on the environmental buying intentions of student consumers. Consumer awareness is one of the most important factors that characterize the way people compare and adopt sustainable products. The examination of this link enables the study to prioritize the role played by consumer awareness in steering the choice towards environmentally friendly products. Such revelations can help businesses and policymakers to develop successful initiatives that encourage sustainable purchasing by consumers.

An analysis presented in Table 7 evaluates the influence of awareness of eco-conscious products on green purchase intention among student consumers. They are further discussed in great detail below:

Table 7
Regression Analysis Results for Awareness of Eco-Conscious Products and Green Purchase Intentions

Model Summary b										
Model	R	R ²	Adjusted R ²	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R ²	F	df1	df2	Sig. F	
					Change	Change			Change	
1	.421 ^a	.177	.169	0.47512	.177	21.445	1	100	.000	2.098
ANOVA ^a										
Model				Sum of Squares	df	Mean Square	F		Sig.	
	Regression			4.842	1	4.842	21.445		.000 ^b	
1	Residual			22.440	100	0.224				
	Total			27.282	101	4.881				

Coefficients ^a						
Model		Unstandardized	B	Standardized	t	Sig.
		Coefficients				
		B	Std. Error	Beta		
1	(Constant)	3.242	0.203	—	15.960	.000
	I am aware of eco-conscious products	0.232	0.051	0.421	4.552	.000

Source: Survey

From the Model Summary, the high positive relationship between awareness of eco-conscious products and green purchase intentions is shown through an R^2 value of 0.423. The .179 R^2 value indicates that 17.7% of the variation in the intention to purchase green products can be accounted for by familiarity. The value of .169 of the adjusted R^2 confirms the model's robustness. At the same time, the Durbin-Watson statistic of 2.098 also conforms to the lack of autocorrelation in the residuals, which makes the regression model statistically reliable.

The results of the ANOVA table confirm that the overall model is significant ($F = 21.445$, $df = 1, 100$; $p < .001$), p less than .001 indicating that "awareness". The Coefficients table provides a sense of how the predictor affects the dependent variable, as we see that a one-unit increase in awareness of eco-conscious products translates into a .232-unit increase in green purchase intentions, controlling for other factors. The standardized coefficient ($\beta = .421$) further highlights a strong positive correlation between awareness and green purchase intentions, and the t value of 4.552 with $p < .001$ gives rise to the confirmation of the predictor variable. Factors not considering the attention to eco-conscious products, the baseline level of green purchase intentions is $B = 3.238$ (significant), and it is statistically significant ($t = 15.960$, $p < .001$).

There is evidence to show that student consumer environmental purchase intention is greatly influenced by knowledge of eco-conscious products. Awareness accounts for close to 18% of the fluctuations in purchasing intentions and hence is quite significant in terms of influencing consumer purchases. Such findings show that campaigns and education-targeted efforts to raise awareness are essential for achieving sustainability goals and encouraging a friendly consumer habit. This study is consistent with the earlier research on the relationship between awareness and eco-conscious purchasing of products (Nguyen et al., 2020). More awareness regarding sustainable products among consumers could help bring forth an infrastructure that would help facilitate the purchase of environmentally friendly products by businesses and authorities.

3.11 Impact of Perceived Environmental Benefits on Green Purchase Intentions

This section explores the effect of the following statement that eco-conscious products have an environmental advantage on green purchase intentions among student consumers. Understanding the effect of such perceived environmental benefits on purchasing behaviours is very important to developing effective marketing campaigns targeting sustainability. The research employed a regression analysis to

examine the relationship between this perception and green purchase intentions, with the result presented in Table 8.

Table 8
Regression Analysis Results on the Impact of Perceived Environmental Benefits on Green Purchase Intentions

Model Summary b										
Model	R	R ²	Adjusted R ²	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R ² Change	F Change	df1	df2	Sig. F Change	
1	.357 ^a	.127	.118	0.48908	.127	14.592	1	100	.000	2.235

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.462	1	3.462	14.592	.000 ^b
	Residual	23.820	100	0.238		
	Total	27.282	101			

Coefficients ^a						
Model		Unstandardized B Coefficients		t	Sig.	
		B	Std. Error			
		Standardized Beta				
1	(Constant)	3.088	0.283	—	10.921	.000
	I am aware of eco-conscious products	0.247	0.064	0.357	3.860	.000

Source: Survey

The results shown in Table 8 illustrate the connection between student consumers' perception of eco-conscious products as being more environmentally friendly and their intention to buy sustainable goods.

Model Summary indicates that the perception that eco-conscious products are suitable for the environment is highly positively correlated with green purchase intentions among students, with an R² value of .127. The R² value of .127 indicates that 12.7% of students' green purchase intentions variation can be explained by the perception that eco-conscious products are more environmentally friendly. According to the results, it is apparent that environmental gains are directly related to green purchase choices; however, the occurrence of residual variance implies that other influencing elements are present. The Adjusted R² score of .118 highlights the robustness of the underlying model; it is applicable and credible in the general case. The Durbin-Watson statistic at 2.235 affirms that there is no glaring autocorrelation in the residuals, and thereby coincides with the

The statistical significance of the regression model is also given by the ANOVA table, which reports an F-statistic of 14.592 ($df = 1, 100$) with a p-value $<.001$. The data shows that the perception of eco-conscious products being environmentally friendly also plays a significant role in green purchase intentions, therefore confirming the efficacy of the model.

The Coefficients table explains how the predictor variable influences the outcome of the analysis. The unstandardized coefficient ($B = .247$) shows that a one-unit increase in the perception that eco-conscious products are suitable for the environment causes a .247-unit increase in green purchase intentions, assuming that all other variables are held constant. A standardized coefficient is ($Beta = .357$), thus, there exists a moderate positive correlation between the predictor and the dependent variable.

That rules out the possibility that the predictor variable has no significant influence on the model, as the t-statistic value is 3.860 and a very significant p-value ($<.001$) is found. The constant term ($B = 3.088$) represents the lowest level of green purchase intentions in the absence of the predictor, and this is statistically significant ($t = 10.921, p < .001$).

The results strengthen the importance of emphasizing eco-conscious product environmental gains as a way to trigger sustainable purchase decisions by student consumers. The stress on the environmental advantages of these products can help marketers and policymakers create consumer attitudes so that more sustainable purchasing is encouraged. The present findings align with the findings of such studies as Nguyen et al. (2020), which indicates that it is important to highlight environmental benefits in order to promote environmentally responsible consumer behaviour. The inclination that eco-conscious products carry an inferior ecological footprint significantly influences students' green buying. The results indicate the possibility that green choices by eco-conscious products can be obtained if marketing campaigns that work well and straightforward information on the environmental benefits of ecologically aware products are considered.

3.12 Influence of Cost Barriers on Green Purchase Intention

To students, the belief that eco-friendly products are expensive has a very positive impression on their preferences regarding buying green ones. Despite increased environmental awareness, many expectant consumers still perceive green products as financially beyond their reach, thus undermining their desire to adopt sustainable consumption. This section discusses the influence of cost barriers in creating green purchase intentions and examines how perceptions advance or discourage sustainable consumption options. As can be seen in Table 9, the link between the cost barrier and green purchase intentions becomes clear, underscoring the crucial role that cost plays in promoting or hindering eco-friendly purchases.

Table 9
Regression Analysis Results on the Impact of Cost Barriers on Green Purchase Intentions

Model Summary										
Model	R	R ²	Adjusted R ²	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R ² Change	F Change	df1	df2	Sig. Change	F
1	.355 ^a	.126	.117	0.48874	.126	14.512	1	100	.000	2.035
ANOVA ^a										
Model			Sum of Squares	df	Mean Square	F				Sig.
1	Regression		3.434	1	3.434	14.512				.000 ^b
	Residual		23.848	100	0.238	2				
	Total		27.282	101						
Coefficients ^a										
Model		Unstandardized Coefficients	B	Standardized Beta	t					Sig.
		B	Std. Error	Beta						
1	(Constant)	3.268	0.237	—	13.800					.000
	I am aware of eco-conscious products	0.221	0.058	0.355	3.794					.000

Source: Survey

As indicated in Table 9, the regression results spotlight the great importance of cost as a perceived barrier, which determines the green purchase plans of student consumers. The discovery of a positive association between cost as a perceived barrier and green purchase intentions shows that consumer decisions around sustainable consumption are multi-dimensional. The Model Summary shows that while cost perceptions explain a significant percentage (12.6 %) of the variability in green purchase intentions, this model failed to explain all the factors that govern decision-making among consumers. Such findings indicate that cost, though a key factor, is only one part of the bigger picture concerning green purchasing behaviours. There are probably several motivations for consumer interest in eco-conscious purchases, ranging from environmental awareness to the availability of sustainable products and personal values. The Adjusted R² value corroborates the validity of the model as it shows that the 12.6 % of variance explained captures an accurate picture of the data. This highlights the need for the model to account for the real relationship between perceived cost and intention to buy eco-conscious products.

Moreover, the fact that the Durbin-Watson statistic value is 2.035 (indicating lack of autocorrelation in residuals) serves to support the regression model. The validity of

the model is supported here as the model provides reliable forecasts and guarantees that the encountered association between cost barrier and green purchase intention is free from the disturbance of sequential correlations in the residuals. The ANOVA Table reveals that the F-statistic of the regression model is 14.512 and the p-value is $< .001$; this shows that the model is statistically significant. This finding reinforces the relevance of "Cost is a barrier to purchasing eco-conscious products" as a predictor of the variation of consumers' intention to purchase green. Significant findings suggest that consideration of cost perceptions is a viable and valuable approach to increasing green buying behaviours among consumers.

From the Coefficients Table, we are able to view the way different perceptions of cost influence consumers' green purchasing behaviours. With each one-unit increase in the perception of cost as an impediment, we find a .221 unit increase in green purchase intentions, as shown by the unstandardized coefficient. The data shows that green purchasing may still be a consideration as a result of the continued challenge of cost. However, those who consider it an issue are more likely to think of it, perhaps seeing that they acknowledge by using the standardised coefficient ($Beta = .355$), it is evident that the barrier of cost and the consumers' readiness to buy in green go hand in hand with a moderate, though positive relationship. This suggests that cost-based barriers have a lot of significance in how consumers view and treat sustainable product options. The large t-value of 3.794 of the predictor, and p-value below .001, confirms that the cost concerns consumers have are a significant determinant of their green purchasing intentions. This implies that fare pricing, showcasing deals, or offering more affordable green products should be considered by firms as a means of mitigating this barrier. The constant ($B = 3.268$), which describes the initial level of green purchase intentions (lack of cost barriers), is statistically significant ($t = 13.800$, $p < .001$). These attest to statistical evidence that what lies behind green purchasing is beyond cost considerations, an underlying drive to green purchasing, pointing to wider influences of environmental values and alternative motivations.

The research reveals that fears about costs severely confuse green purchases but are not strong enough to stop students from wanting to purchase sustainable goods. The results suggest that students are willing to purchase green products, but such options should be practical and not strain the purse. The data support the conclusions of previous studies, such as those reported by Tan et al. (2021), that affordability is still a significant barrier to sustainable consumption. A business promoting green purchasing can encourage it through cost-reducing strategies employed by businesses, including discounting, subsidy programs, or making eco-friendly items affordable by having lower prices. More awareness of the long-term advantages of sustainable products may reduce perceived price barriers, making consumers understand these goods as investments exceeding initial costs.

For student eco-conscious consumers, the issues of the cost of eco-conscious products play a significant role in their green consumption, which explains 12.6% of the differences in purchase intentions. In order to facilitate sustainable consumption, it is important to overcome this cost barrier with marketing efforts, discounts, and easy pricing strategies. Additional research may explore the way that the interplay of other variables, such as environmental awareness, social attitudes, and access to green products, also moulds consumer intentions to purchase environmentally friendly products.

3.13 Effect of Trust in Eco-friendly Labels on Green Purchase Intentions

Effect of Trust in Eco-Conscious Labels on Consumers' Green Purchasing Decisions. Under increased awareness of the environment, eco-conscious labelling is now a pretty influential broker of consumers' intentions to make green purchases. It is generally believed that confidence in eco-conscious names is critical to the formation of sustainable consumer behaviour, allowing customers to understand the environmental consequences of their purchases more effectively. However, whether or not trust in eco-labels really influences consumers' green purchase behaviour remains unknown. In this section, we discuss the effect of trust in eco-conscious labels on consumers' green purchase aspirations, with evidence regarding the labels' role in facilitating sustainable choices. The relationship between trust in eco-labels and consumers' motivation to select environmentally friendly products is quantified by regression analysis in this specific section. The findings summary is presented in Table 10.

Table 10

Regression Analysis Results on the Impact of Trust in Eco-Conscious Labels on Green Purchase Intentions

Model Summary									
Model	R	R ²	Adjusted R ²	Std. Error of the Estimate	Change Statistics				
					R ² Change	F Change	df1	df2	Sig. F Change
1	.165 ^a	.027	.017	0.51613	0.027	2.785	1	100	.095
ANOVA ^a									
Model				Sum of Squares	df	Mean Square	F		Sig.
1	Regression			0.740	1	0.740	2.785		.095 ^b
	Residual			26.542	100	0.265			
	Total			27.282	101				
Coefficients ^a									
Model				Unstandardized B Coefficients		Standardized Beta	t		Sig.
				B	Std. Error				
1	(Constant)			3.842	0.192	—	20.021		.000
	I am aware of eco-conscious products			0.093	0.056	0.165	1.668		.095

Source: Survey

The analysis in Table 10 employs regression techniques to determine whether consumer trust in eco-conscious labels would predict their willingness to purchase green products. The received R-value of 0.165 indicates a weak connection between trust in eco-conscious labels and intentions to purchase green products, as there is a moderate relationship between those two factors. This finding confirms previous

research, which stated that various influences guide green purchase intentions and no specific variable, such as label trust, controls them (Chen, 2010; Peattie, 2010).

An R Square value of 0.027 shows that a small part, that is, 2.7% of the variation of the green purchase intention, can be explained by trust in eco-conscious labels. This suggests that though some effects of eco-labels on consumer choices exist, they are not a dominant factor in green purchase intentions. Such results corroborate previous studies suggesting that environmental concerns alone cannot incentivize sustainable purchasing behaviour and that the aspects of quality, price, and convenience are equally important (Biswas & Roy, 2015; Johnstone & Tan, 2015). Furthermore, a value of 0.017 for the Adjusted R Square while controlling the number of variables in the model adds credence to the idea that trust in eco-conscious labels also does not materially enhance the ability of the model to predict green purchase intentions. This means that although the power of trust in eco-conscious labels is significant, it practically does not have a significant impact on the behaviour of the consumers. Environmental incentives do not always result in buying behaviour, as consumers have an abundance of other criteria to evaluate apart from simply the appeal for the environment (Schwepker, 2015). Having a Standard Error Estimate of 0.51613, the model does not explain half of the observed deviations, which indicates an average unexplained variation. This finding suggests that there is the potential for omitted variables to explain the dissimilarities between predictions from a model and green purchases. Moreover, there is evidence of the Durbin-Watson statistic (1.904) that confirms the lack of significant autocorrelation of residuals, which proves the unbiasedness of the model's predictions and mutual independence of them (Tabachnick & Fidell, 2013).

ANOVA tests whether a regression model overall is statistically significant or not. With the F-statistic (2.785) and p-value (0.095), the model fails to demonstrate statistical significance at the 0.05 level. As a result, trust in eco-conscious labels has an insignificant influence on green purchase intentions, and the model explains only a small part of the variation in these intentions. This finding reverberates the previous study that identifies the multi-dimensional nature of eco-conscious purchasing, indicating that there are other variables in addition to the trust in eco-labels (Peattie, 2010; Magnier & Schoenberger, 2017).

The total sum of squares of 27.282 indicates that the regression model does not explain most of the variability in the green purchase intentions since only 0.740 is accounted for, further showing that eco-label trust cannot alone account for changes in green purchase intentions. The residual sum of squares (26.542) emphasises that the model cannot explain a significant amount of variability in the data, and so the addition of additional predictors is required to make it a better explainer of data variability. The Coefficients Table provides more details about the relationship between trusting eco-conscious labels and consumers' intentions to purchase green products. The Constant ($B = 3.842$, $t = 20.021$, $p < .001$) forward the level of green purchasing intent that was seen with consumers not basing their trust on eco-conscious labelling. Although it is questionable if trust in eco-labels exists, the fact that the coefficient is positive suggests that green purchasing might be driven by criteria such as environmental awareness or personal values. This concurs with earlier studies, which show that the eco-conscious attitudes and personal values of consumers play an important role in influencing purchase behaviours that can often override the influence of specific labels (Chen, 2010; Magnier & Schoenberger, 2017).

The trust-in-ecoconscious labels coefficient ($B = .093$, Std. Error = $.056$) is indicative that one more unit of trust in eco-conscious labels leads to a 0.093 unit rise in the likelihood of green purchases. That T-value of 1.668 and P-value of 0.095 means that this effect is not statistically significant at the 0.05 level, but not significant; therefore, this effect indicates that trust in labels can make a subtle positive increase in green purchase intentions. This is consistent with previous work that has indicated that trust in eco-labels is weakly associated with consumer behaviour, and is very weak as a measure of influence (Peattie, 2010; Magnier & Schoenberger, 2017).

Standardized Coefficient (Beta = 0.165) measures the extent to which variation of the predictor causes variation of the dependent variable. Considering that the positive Beta value already indicates a weakly positive relationship and that the value is not significant either, it means that the eco-conscious label trust does not influence consumer purchasing intentions significantly. This is in accordance with prior works, whereby although eco-labels may exert little influence on the consumer's behaviour, the pragmatic manifestations of price, product quality, and convenience have a greater role to play (Johnstone & Tan, 2015; Biswas & Roy, 2015).

The results of the regression analysis show that trust in eco-conscious labels is significantly correlated with small and non-significant changes in green purchase intentions. Although trust in labels is linked with positive consumer behaviour, its power is weak and holds an insignificant role in developing green purchase intentions. These findings are consistent with prior research that indicates that environmental goals are not enough to enable sustainable purchasing since consumers take into account many more factors while choosing products (Chen, 2010; Peattie, 2010; Biswas & Roy, 2015). The lack of explanatory power of the model (with an R-square of 2.7% and the statistical significance provides the basis for the assumption that product quality, pricing, and consumer value play a more critical role in determining green purchase decisions. Further studies may focus on issues of green consumerism and develop more refined models that allow for capturing the complexities of conscious consumer behaviour.

4. Conclusion

This study confirms that while trust in eco-friendly labels has a positive influence on green purchase intentions, its effect is limited and secondary. The findings suggest that although eco-labels contribute to eco-conscious behaviour, they are not the primary drivers. More significant influences include product quality, environmental awareness, and price sensitivity. The results indicate that eco-labels alone are insufficient to shift consumer behaviour substantially. Therefore, a more comprehensive approach—integrating environmental education, improved product accessibility, and sustainability-focused communication—is necessary to drive green purchasing among Generation Z students effectively. These insights hold practical value for businesses, policymakers, and educators. Companies should align eco-labelling with broader marketing and educational strategies, while policymakers should support initiatives that enhance public understanding of eco-labels and environmental issues. Academically, this research enriches the literature on sustainable consumer behaviour, especially within the context of Malaysian university students, and opens pathways for further exploration of social and market factors influencing green consumption. Ultimately, building trust in eco-labels must be part of a broader sustainability mission—one that empowers Generation Z to

become responsible consumers and active participants in the transition toward a greener future.

5. Recommendations for Future Research

It is necessary to intensify research concerning the ways Generation Z interacts with sustainable shopping routines to diversify ways of studying to comprehend a situation better and fill the knowledge deficit. If researchers could examine the ways in which economic status contributes to eco-friendly purchasing habits, they might come to understand why some populations do not develop conscious buying habits. Other research in the future could classify participants based on income to determine ways that help low-income earners acquire environmentally friendly goods. This would allow the companies to modify their products according to both sustainability objectives and budget concerns. A future direction for research should be the immediate ramifications of social media and digital platforms on Generation Z's environmental consciousness and purchasing habits. As Generation Z uses online platforms more than others do, launching explorations of the effect of social media influencers, digital campaigns, and peer recommendations on ecological awareness and purchasing preferences might turn out beneficial. It could help the firms to create more successful online marketing programmes that are directed at engaging Gen Z audiences. Furthermore, the effects of eco-labels and certifications over time in building consumer confidence need to be examined better. This study demonstrates that consumers have mixed feelings regarding the reliability of eco-labels, but further work is necessary to draw out the reasons behind these feelings and possible remedies. Forming strategies to enhance the recollection of eco-labels and increase consumer knowledge by means of education may bring more sustainable consumption. Researchers could access a broader understanding of why people make eco-friendly buys through qualitative research, including practices such as in-depth interviewing or focus groups. By using these methods, we will be able to discover subtle psychological, cultural, or societal details that are not obtainable through statistical surveys. By acknowledging contextual influences that shape eco-conscious behaviour, firms may be able to recognise ways to proposition sustainable consumption that better account for the various cultural contexts in which their consumers are.

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