

## Eco-Consciousness in Action: Student Perspectives on Sustainable Packaging

Hanisah Ahmad<sup>1</sup>, Sabidatul Afifah Abidin<sup>2</sup>, Wei Boon Quah<sup>3,4</sup>

<sup>1</sup>Unit Culinary, Sungai Petani Community College 08000 Kedah, Malaysia, <sup>2</sup>Unit Hotel Operations, Sungai Petani Community College, 08000 Kedah, Malaysia <sup>3</sup>Faculty of Educational Studies, Universiti Putra Malaysia, 43400 Serdang, Selangor, <sup>4</sup>Human Resource Management Division, Ministry of Higher Education, 62200 Putrajaya, Wilayah Persekutuan Putrajaya

Email: hanisah@kkspe.edu.my, sabidatul@kkspe.edu.my

Corresponding Author Email: skymangrace@gmail.com

To Link this Article: <http://dx.doi.org/10.6007/IJARBSS/v14-i7/21886>

DOI:10.6007/IJARBSS/v14-i7/21886

**Published Date:** 10 July 2024

### Abstract

The importance of eco-friendly packaging is increasingly recognized by consumers worldwide, including in Malaysia, where it plays a crucial role in both protecting food from contamination and minimizing environmental impact. This study focuses on the knowledge, concern, and readiness of hospitality students at Sungai Petani Community College towards the use of eco-friendly packaging. Utilizing a quantitative research methodology, data were collected through a structured questionnaire administered to 174 students enrolled in culinary and hotel operations programs. The results reveal that the respondents possess high levels of knowledge and concern regarding eco-friendly packaging, acknowledging its environmental benefits. However, apprehensions about potential cost increases or additional taxes associated with such packaging were also noted. Despite these concerns, a significant proportion of students expressed their willingness to adopt eco-friendly packaging in their daily routines. Furthermore, the study identified a significant positive correlation between knowledge and readiness, as well as between concern and readiness, suggesting that increased awareness and concern can drive readiness to use eco-friendly packaging. These findings underscore the critical need for educational initiatives aimed at enhancing students' understanding of sustainable practices while also addressing perceived barriers to their acceptance. The study provides valuable insights for educators and policymakers, highlighting the necessity of integrating sustainability education into hospitality training programs to foster sustainable behavior and practices in the industry. Future research should explore the long-term impact of such educational interventions and investigate strategies to overcome economic barriers to the adoption of eco-friendly packaging.

**Keywords:** Concern, Eco-Friendly Packaging, Hospitality Students, Knowledge, Readiness

## **Introduction**

The Covid-19 virus has affected the entire world since late 2019, impacting various sectors significantly. In Malaysia, the virus was first identified with several positive cases reported from visitors from China. Consequently, the number of Covid-19 cases in Malaysia continued to rise (Ministry of Health Malaysia, 2021). The sectors most affected include the economy and education, particularly the food and beverage industry. Due to the stringent Movement Control Order (MCO) period, there was a significant impact on food businesses as government directives on movement control led to a lack of customers in restaurants or eateries due to the ban on dine-in services, among other factors (Che Suhaili et al., 2020). With the limitations on dining in restaurants, many eateries shifted to online food delivery services to boost their income. However, with the increase in online food purchases during the Covid-19 pandemic, the use of plastic packaging also increased, especially in food delivery (Muslim, 2020). Datuk Mizan Yahya, Executive Chairman of Waste Management Systems Sdn Bhd, stated that the increase in the purchase of packaged food results in more household waste, and most of the packaging is made of plastic. Prof. Dr. P. Agamuthu from the Jeffrey Sachs Center on Sustainable Development, Sunway University, added that public awareness of environmental protection often only arises when faced with evident negative effects (Muslim, 2020). This raises questions about our awareness of using eco-friendly packaging. Is such packaging safe for storing food? At Sungai Petani Community College, hospitality students have been trained through the Food Safety & Sanitation module. With an understanding of eco-friendly packaging, students can choose more sustainable options to reduce their environmental impact. Therefore, a study was conducted to assess the knowledge, concern, and readiness of hospitality students towards the use of eco-friendly packaging.

## **Research Objectives**

There are four specific research objectives in this study

1. To identify the level of students' knowledge about eco-friendly packaging.
2. To identify the level of students' concern about eco-friendly packaging.
3. To identify the level of students' readiness to use eco-friendly packaging.
4. To identify the relationship between students' knowledge and concern with their readiness to use eco-friendly packaging.

## **Literature Review**

### ***Eco-friendly Food Packaging***

Packaging plays a significant role in waste production, especially in the context of food products. Approximately one-third of pollution is attributed to packaging (Branca et al., 2024). Eco-friendly packaging refers to packaging materials that are renewable, biodegradable, compostable, or recyclable (Moshood et al., 2022). The use of food packaging is essential not only for protecting food from contamination and damage but also has an environmental impact (Moey et al., 2016). Therefore, eco-friendly food packaging that can be reused, recycled, or decomposed biologically is important to reduce negative environmental impacts. During the COVID-19 pandemic, the use of single-use food packaging, such as plastic and styrofoam, increased significantly due to the rise in online food orders not only in Malaysia (Astro AWANI, 2020) but also in other countries like Indonesia (Agensi, 2022). A study by Cheng et al. (2022) on household packaging waste during the Movement Control Order (MCO) in Malaysia found that 49% of respondents disposed of the plastic packaging of products they purchased online as waste. Additionally, according to Dr. Mohd Pauze Mohamad Taha

(Deputy Chief Executive Officer (Technical) of SWCorp), "the second largest component in the national waste composition is plastic (13.2 percent)" (Radhi, 2020). This situation raises concerns as plastic is difficult to decompose and causes long-term environmental pollution (United Nations Economic and Social Commission for Asia and the Pacific, 2022). Waste management in Malaysia is still in the development stage, and most urban waste, such as used food packaging, is typically disposed of in controlled landfills (Muhammad, 2021). Therefore, it is important for researchers to study consumer knowledge about the use of eco-friendly packaging, particularly among hospitality students at Sungai Petani Community College.

### ***Consumer Knowledge on Students' Readiness to Use Eco-friendly Packaging***

Knowledge can be defined as the understanding consumers have about products obtained from various sources. This knowledge plays an important role in raising awareness about eco-friendly packaging among consumers (Shimul et al., 2023). A systematic literature review on sustainable attributes and eco-friendly characteristics in consumer product packaging was conducted by (Branca et al., 2024). According to their study, one of the main themes identified was consumer knowledge about sustainable packaging. The study's findings indicate that consumer knowledge about eco-friendly packaging is important and can increase the intention to purchase green packaging products (Oloyede & Lignou, 2021). Additionally, a study done by Ketelsen et al (2020) stated that consumers with less knowledge, especially about new packaging materials, may face barriers in choosing eco-friendly packaging. Furthermore, a study conducted by Kararia (2023) concluded that most consumers have limited knowledge about sustainable packaging options and their benefits. This can hinder their ability to make informed choices and prioritize sustainable packaging. Meanwhile, a study done by Saidi and Er (2016) in Malaysia found that students' knowledge about eco-friendly products such as eco-friendly food containers (BMA) was low. The study conducted by Rajendran et al (2019) also showed a significant relationship between knowledge about green packaging and preferences for green packaging products. Moreover, the study done by Abdullah et al (2022) showed a moderate but significant correlation between knowledge and willingness to adopt sustainable consumption behavior. Therefore, knowledge is an important factor to be considered in this study. The following is the predicted hypothesis:

H1: Consumer knowledge has a significant relationship with students' readiness to use eco-friendly packaging

### ***Consumer Concern on Students' Readiness to Use Eco-friendly Packaging***

Environmental concern plays a crucial role in driving green consumption behavior and predicting sustainable consumption behavior (Kararia, 2023). Previous studies have shown that consumers who generally care about the environment are more likely to choose sustainable packaging (Oloyede & Lignou, 2021; Trivedi et al., 2018). Several studies emphasize the importance of environmental concern as a major driver of sustainable behavior among consumers. For example, a study done by Prakash and Pathak (2017) confirmed that the intention to purchase eco-friendly packaging is significantly influenced by environmental concern. Additionally, a systematic literature review on consumer perceptions of sustainable products by Camilleri et al (2023) showed that environmental concern is one of the main factors influencing consumer perceptions of sustainable products. Sustainable products refer to items produced and used in ways that minimize negative environmental

impacts. This includes the use of renewable or recyclable materials, manufacturing processes that produce less pollution, and products designed for long-term use. Consumers are increasingly concerned about sustainable products as they aim to reduce their ecological footprint and support environmentally responsible business practices. The review also indicated that consumers who are more aware of environmental issues tend to value and choose sustainable products in their daily lives. On the other hand, a study in Malaysia conducted by Ghaffar et al [23] on consumer purchase intentions and behavior towards green packaging products showed that consumers' environmental concern directly influences their intention to purchase green packaging products. These findings highlight the important role of environmental concern in shaping consumer attitudes and behavior towards sustainable consumption practices. In other words, consumers who are concerned about the environment are more willing to adopt sustainable consumption behaviors. Therefore, concern is one of the important factors to be examined in this study. The following is the predicted hypothesis:

H2: Consumer concern has a significant relationship with students' readiness to use eco-friendly packaging

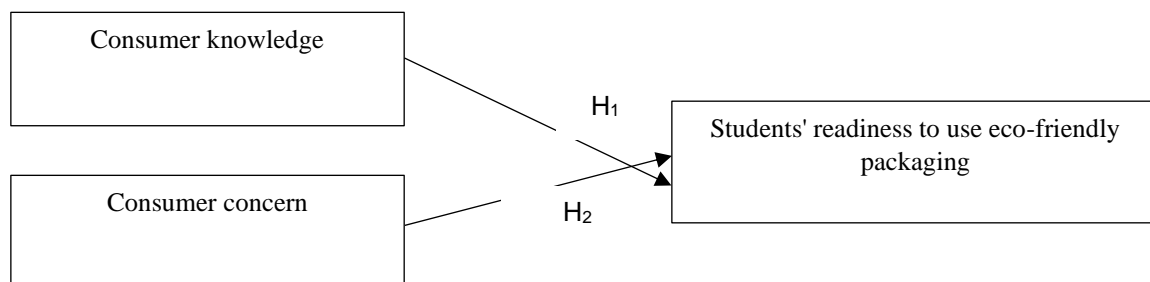


Fig. 1 Proposed conceptual framework

## Methodology

This study uses a quantitative approach, i.e., a questionnaire as the research instrument. The total number of respondents is 174, comprising all students in the Culinary and Hotel Operations fields at Sungai Petani Community College. The questionnaire is divided into four main sections: Section 1 - Demographics; Section 2 - Questions about students' knowledge of eco-friendly packaging; Section 3 - Questions about students' concern about eco-friendly packaging; and Section 4 - Questions about students' readiness to use eco-friendly packaging. The questionnaire used in this study was adapted from Ahmad Saidi and Er (2016); Sabri and Teoh (2006) and modified according to the context of this study. Additionally, the researchers used Google Forms to distribute the questionnaire to collect data. Data analysis uses descriptive analysis to identify students' knowledge, concern, and readiness levels. Furthermore, inferential analysis such as Pearson correlation was used to determine the relationship between students' knowledge and concern with their readiness to use eco-friendly packaging. Further details on the questionnaire can be found in Table 1.

Table 1

*Questionnaire Items*

Variable	Number of Items	References
Dependent Variable		
Students' Readiness	6	Ahmad Saidi and Er (2016)
Independent Variable		
Independent Variable		Ahmad Saidi and Er (2016)
Consumer Knowledge	7	Sabri and Teoh (2006)
Consumer Concern	7	

Using a smaller number of respondents compared to the sample size of the initial study design was the method used for the questionnaire test. In this preliminary test, the questionnaire was tested to assess the reliability of the scale through the Cronbach's Alpha value. A total of 30 target respondents were randomly selected to test the reliability of the questionnaire, and the results showed the Cronbach's Alpha value of 0.924. Cronbach's Alpha is a measure used to assess the reliability of a single test, with scores typically ranging from 0 to 1 (Gliem & Gliem, 2003). This score indicates how consistent the items in the test are with each other. A score of 0 indicates the lowest reliability where the items in the test are inconsistent and may not measure the same construct. Conversely, a score of 1 indicates the highest reliability where all items in the test are very consistent and tend to accurately measure the same construct. Generally, Cronbach's Alpha score considered good is at least 0.7, while scores above 0.8 are considered very good.

Based on Table 2, the study results indicate that the reliability level for the dependent variable ("Readiness") is 0.908, indicating the scale is stable and reliable. The reliability level for the independent variables ("Knowledge" and "Concern") is 0.893 and 0.743, respectively, also indicating the stability and reliability of the scale. The total overall reliability is 0.924, indicating the overall scale used in this study is stable and reliable.

Table 2

*Cronbach's Alpha Results*

Variable	Cronbach's Alpha
Dependent Variable	
Readiness	0.908
Independent Variable	
Knowledge	0.893
Concern	0.743
<b>Total</b>	<b>0.924</b>

**Findings**

From the analyzed data, there are more female respondents compared to male respondents, with percentages of 64.4% and 35.6%, respectively. Meanwhile, in the Ethnicity category, the majority of respondents are Malay, with a small number being Indian, at 94.8% and 5.2%, respectively. Regarding the respondents' age groups, the study findings indicate that most

respondents are aged between 18-20 years, followed by 21-22 years and 23 years and above, with percentages of 81.6%, 13.2%, and 5.2%, respectively.

Table 3

*Respondents' Demographics*

Item	Category	N	%
Gender			
	Male	62	35.6
	Female	112	64.4
Ethnicity			
	Malay	165	94.8
	Indian	9	5.2
Age			
	18-20 years	142	81.6
	21-22 years	23	13.2
	23 years and above	9	5.2

**Research Objective 1: To Identify Students' Knowledge Level on Eco-friendly Packaging**

The study findings indicate that the mean score for each question ranges from 4.03 to 4.26, with the lowest score on question 2 and the highest score on question 7. The standard deviation score for each question ranges from 0.545 to 0.725, with the lowest score on question 1 and the highest score on question 5. The overall mean score for the knowledge category is 4.14, and the standard deviation score is 0.518.

These results indicate that respondents have a high level of knowledge regarding eco-friendly containers and their benefits. The high mean scores and low standard deviation scores indicate consistency in the respondents' knowledge levels. Respondents also show a high level of acceptance towards using eco-friendly containers in food purchases and product identification.

Although respondents have a high level of knowledge about the advantages and disadvantages of eco-friendly and non-eco-friendly packaging, the lower mean scores for questions 2 and 5 indicate that they may be less interested in choosing eco-friendly packaging for daily use or packaging. This shows that despite awareness of the benefits of eco-friendly packaging, factors such as lack of deep awareness, concerns about additional costs, or discomfort in changing purchasing habits may influence their decisions. This situation reflects the gap between knowledge and actual behavior that needs to be addressed through more effective education and awareness campaigns.

For example, additional efforts may be needed to educate consumers on how to integrate eco-friendly packaging into their daily lives in a more cost-effective and convenient manner. Also, incentives or support from the government and industry could help alleviate concerns about the additional costs involved.

Table 4

*Students' Knowledge Level on Eco-friendly Packaging*

No.	Items	Mean	Standard Deviation	Level
1.	I know about eco-friendly containers.	4.20	0.545	High
2.	I use eco-friendly containers when buying food.	4.03	0.725	High
3.	I can differentiate packaging products based on eco-friendly materials.	4.17	0.675	High
4.	I buy eco-friendly packaging for both packaging and daily use.	4.07	0.672	High
5.	When buying food, I ensure the packaging is eco-friendly.	4.03	0.740	High
6.	I know the benefits of using eco-friendly packaging.	4.20	0.569	High
7.	I know the disadvantages of using non-eco-friendly packaging like polystyrene.	4.26	0.694	High
	<b>Overall Mean</b>	<b>4.14</b>	<b>0.518</b>	<b>High</b>

***Research Objective 2: To Identify Students' Concern Level on Eco-friendly Packaging***

The study findings indicate that the mean score for each question ranges from 3.47 to 4.31, with the lowest score on question item 1 and the highest score on question item 2. The standard deviation score for each question ranges from 0.668 to 0.929, with the lowest score on question 2 and the highest score on question item 1. The overall mean score for the concern category is 3.98, and the standard deviation score is 0.527.

The findings show that respondents consider the use of eco-friendly packaging important for environmental protection. The high mean scores for question items 2 and 7 indicate respondents' positive attitudes towards eco-friendly packaging. However, the findings also show that respondents tend to disagree with the concept of paying higher prices for eco-friendly packaging or taxes for non-eco-friendly packaging. The low minimum scores for question items 5 and 6 indicate respondents' negative attitudes towards the cost of eco-friendly packaging.

Respondents may be reluctant to pay more because they view eco-friendly packaging as something that should be provided without additional costs. Concerns about additional costs may be due to the perception that using eco-friendly materials has not become a standard or mandatory practice, so they feel there is no urgent need to spend more money.

Additionally, the findings indicate that respondents tend to feel difficulties and frustrations towards the government for not mandating the use of eco-friendly packaging. The high mean scores for question items 3 and 4 reflect respondents' negative attitudes towards government actions in advocating for eco-friendly packaging. This reflects frustration with measures perceived as insufficient by the authorities to promote or mandate the use of eco-friendly packaging.

These findings indicate that although there is awareness and positive attitudes towards eco-friendly packaging, there are also barriers that need to be addressed to increase readiness

and actual behavior. Therefore, efforts should focus on continuous education, financial incentives, and stricter policies to encourage the use of eco-friendly packaging.

Table 5

*Students' Concern Level on Eco-friendly Packaging*

No.	Items	Mean	Standard Deviation	Level
1.	I strive to use eco-friendly packaging.	3.47	0.891	Moderate
2.	Eco-friendly packaging must be fully used to protect the environment.	4.31	0.668	High
3.	I feel uneasy because the government does not mandate the use of eco-friendly packaging.	4.00	0.745	High
4.	I feel angry and disappointed thinking about the adverse effects of environmental pollution due to not using eco-friendly packaging.	4.18	0.689	High
5.	Consumers should pay higher prices for eco-friendly packaging.	3.66	0.929	Moderate
6.	Non-eco-friendly packaging should be taxed.	3.94	0.851	High
7.	Students must be exposed to eco-friendly packaging.	4.29	0.661	High
	<b>Overall Mean</b>	<b>3.98</b>	<b>0.527</b>	<b>High</b>

***Research Objective 3: To Identify Students' Readiness Level on Eco-friendly Packaging***

The study findings indicate that the mean score for each question ranges from 3.90 to 4.25, with the lowest score on question item 4 and the highest score on question item 1. The standard deviation score for each question ranges from 0.581 to 0.753, with the lowest score on question item 1 and the highest score on question item 4. This shows consistency in respondents' answers to each statement. The overall mean score for the readiness variable is 4.07, and the standard deviation score is 0.539.

The findings show that respondents indicate a high overall level of support and readiness to use eco-friendly containers. The statement with the highest mean score is question item 1 with a mean score of 4.25, indicating the highest readiness to buy eco-friendly containers. The statement with the lowest mean score is question item 4, indicating that although the overall readiness is high, there are still concerns about the higher price for eco-friendly containers.

These findings suggest that while there is a strong willingness to use eco-friendly packaging, price remains a significant barrier. Addressing this concern through subsidies, financial incentives, or reducing the cost of eco-friendly materials could enhance readiness and encourage more widespread adoption.



Table 6

*Students' Readiness Level on Eco-friendly Packaging*

No.	Items	Mean	Standard Deviation	Level
1.	I am ready to buy eco-friendly containers.	4.25	0.581	High
2.	I use eco-friendly containers when buying food at eateries.	4.01	0.650	High
3.	I am willing to pay more to ensure that the containers I buy are based on eco-friendly products.	3.96	0.724	High
4.	I am ready to buy eco-friendly containers even if they are more expensive than existing containers.	3.90	0.753	High
5.	I am ready to ensure the use of eco-friendly containers in daily life.	4.16	0.586	High
6.	I am ready to contribute energy and ideas to promote the use of eco-friendly containers.	4.13	0.585	High
	<b>Overall Mean</b>	<b>4.07</b>	<b>0.539</b>	<b>High</b>

***Identifying the Relationship between Students' Knowledge and Concerns with their Readiness to Use Eco-Friendly Packaging***

The study results show a significant positive relationship between knowledge and readiness ( $r = .688$ ,  $p = .000$ ). This means that the higher a person's knowledge about eco-friendly packaging, the higher their readiness to use it. Deep knowledge about the benefits and importance of eco-friendly packaging can enhance awareness and motivation to choose such packaging. Respondents who are more knowledgeable tend to understand the positive implications of using eco-friendly packaging on the environment, thus increasing their readiness to adopt it in their daily lives.

Furthermore, there is also a significant positive relationship between concerns and readiness ( $r = .639$ ,  $p = .000$ ). This indicates that the higher a person's concern for environmental issues, the higher their readiness to use eco-friendly packaging. Environmental concern plays a crucial role in motivating individuals to take eco-friendly actions. Respondents concerned about the negative impacts of non-eco-friendly packaging are more ready to adopt eco-friendly packaging as a step towards protecting the environment.

However, although there is a significant positive relationship between knowledge and concern with readiness, other factors may also influence this readiness level. For example, economic factors such as the additional cost for eco-friendly packaging can be a major barrier. Respondents may understand and be concerned about the importance of using eco-friendly packaging, but if the cost is higher, they may be less willing to bear the additional expense.

In conclusion, while knowledge and concern are important factors influencing the willingness to use eco-friendly packaging, further efforts are needed to address barriers such as additional costs. Measures such as providing incentives or subsidies for eco-friendly packaging and continuous awareness campaigns can help overcome these barriers and increase the use of eco-friendly packaging among consumers.

Table 7

*Relationship between Students' Knowledge and Concerns with their Readiness to Use Eco-Friendly Packaging*

		Knowledge	Concern	Readiness
Knowledge	Pearson Correlation	1	.483**	.688**
	Sig. (2-tailed)	.000	.000	.000
	N	174	174	174
Concern	Pearson Correlation	.483**	1	.639**
	Sig. (2-tailed)		.000	.000
	N	174	174	174
Readiness	Pearson Correlation	.688**	.639**	1
	Sig. (2-tailed)	.000		
	N	174	174	174

Note: Significant at the 0.01 level (1-tailed)

### Discussion

The overall findings of this study indicate that respondents have a high level of knowledge and a positive attitude towards the benefits of using eco-friendly food containers. As stated by Branca et al (2024); Shimul and Cheah (2023), knowledge is a major theme and plays a crucial role in raising awareness about eco-friendly packaging among consumers. Although respondents have good knowledge, the relatively low mean score for the interest in buying eco-friendly containers indicates a gap between knowledge and actual action. The findings also show a significant positive relationship between knowledge and readiness. The study done by Rajendran et al (2019) also shows a significant relationship between knowledge about green packaging and preference for green packaging products. In contrast, the results of the study done by Abdullah et al (2022) show a moderate but significant correlation between knowledge and readiness to practice sustainable consumption behavior. This indicates that knowledge is important in contributing to students' readiness to use eco-friendly packaging.

Based on the findings, respondents tend to have a positive or concerned attitude towards the use of eco-friendly packaging in preserving the environment. As stated by Camilleri et al (2023); Prakash and Pathak (2017), environmentally concerned consumers will influence the intention to use eco-friendly packaging. However, the findings of this study also show that respondents are unwilling to pay a higher price for eco-friendly packaging and tax on non-eco-friendly packaging. This means respondents tend to choose cheaper products, even if they are not eco-friendly. Additionally, the findings also show a significant positive relationship between concern and readiness. This means that users who are more concerned about the environment are more ready to use eco-friendly packaging. The study done by Ghaffar et al (2023) also shows that consumers' concern for the environment directly influences their intention to buy green packaging products.

To bridge the gap between knowledge and action and to increase awareness and support for the use of eco-friendly packaging, several approaches can be considered. First, continuous educational programs and awareness campaigns in schools and communities should be provided to enhance knowledge and awareness about the benefits of eco-friendly packaging. The use of social media, short videos, and infographics can help convey easily understandable

information about the positive effects of eco-friendly packaging on the environment. Second, offering incentives such as discounts or rebates to consumers who purchase products with eco-friendly packaging and providing subsidies to producers to reduce the cost of eco-friendly packaging, making the price of these products more competitive. Third, enforcing regulations that encourage the use of eco-friendly packaging and imposing taxes on non-eco-friendly packaging, as well as developing policies that mandate the use of eco-friendly packaging in certain sectors, such as food and beverages. Fourth, collaborating with industries to develop and promote innovative and eco-friendly packaging technologies, and encouraging companies to clearly label their products as eco-friendly, which can help consumers make more informed choices. Lastly, implementing loyalty programs that reward consumers who consistently choose products with eco-friendly packaging and recognizing businesses that demonstrate a high commitment to eco-friendly packaging practices. By implementing these approaches, the gap between consumer knowledge and action can be reduced, and awareness and support for the use of eco-friendly packaging can be increased, helping to achieve better environmental sustainability goals.

### **Conclusion**

The conclusion of this study shows that there is a high level of knowledge, concern, and readiness among students to use eco-friendly packaging. Respondents demonstrate good awareness of the importance of using eco-friendly packaging in preserving the environment, although there are still some concerns about its cost and practicality in daily life. The analysis results also show significant relationships between students' knowledge, concern, and readiness to use eco-friendly packaging. This underscores the need for a holistic and integrated approach in promoting awareness and the use of eco-friendly packaging in society. By understanding the factors influencing students' attitudes and behaviors, development steps can be taken to enhance the use of eco-friendly packaging and support effective environmental sustainability.

### ***Implications of the Study***

The implications of this study, based on the findings from the four study objectives, highlight the importance of enhancing students' knowledge and awareness about eco-friendly packaging and its benefits, along with strengthening their concern for this issue. Although respondents show high levels of knowledge and awareness, there is a tendency to disagree with the concept of higher prices or additional taxes for eco-friendly packaging. Therefore, a more effective approach in conveying information to students is needed to alleviate their concerns about the potential financial implications. Additionally, the findings show a significant positive relationship between students' knowledge, concern, and readiness to use eco-friendly packaging. Therefore, further steps can be taken to strengthen this relationship through comprehensive educational and awareness programs, with the aim of increasing students' readiness to adopt eco-friendly practices.

### ***Suggestions for Future Research***

The use of eco-friendly containers is becoming increasingly important in our efforts to reduce human impact on the environment. In this study, most respondents show a high tendency to use eco-friendly containers. These results indicate that awareness and support for eco-friendly products are growing in society. However, there is still room to increase awareness and the use of eco-friendly containers. This study only involves certain respondents; therefore,

it can be expanded to include a broader and more diverse sample, including respondents from different demographic backgrounds. This will provide a deeper understanding of perceptions towards eco-friendly packaging from various societal groups. Additionally, future research can focus on the impact of eco-friendly packaging practices on environmental awareness and integrated behavior in society.

## References

- Abdullah, N. B. A., Yaacob, N. A., Ab Samat, R., & Ismail, A. F. (2022). Knowledge, readiness and barriers of street food hawkers to support the single-use plastic reduction program in Northeast Malaysia. *International Journal of Environmental Research and Public Health*, 19(8), 4507.
- Agensi. (2022). Belanja dalam talian menyumbang peningkatan sisa plastik. *Berita Hairan Online*. Retrieved from <https://www.bharian.com.my/dunia/asean/2022/02/926804/belanja-dalam-talian-menyumbang-peningkatan-sisa-plastik>
- Astro AWANI. (2020). Pantau penggunaan plastik semasa pandemik COVID-19. *Astro AWANI*. Retrieved from <https://www.astroawani.com/berita-malaysia/pantau-penggunaan-plastik-semasa-pandemik-covid19-245908>
- Branca, G., Resciniti, R. & Babin, B. J. (2024). Sustainable packaging design and the consumer perspective: A systematic literature review. *Italian Journal of Marketing*, 2024, 77–111.
- Camilleri, M. A., Cricelli, L., Mauriello, R., & Strazzullo, S. (2023). Consumer perceptions of sustainable products: A systematic literature review. *Sustainability*, 15, 8923.
- Che Suhaili, C. T., Napisah, H., Karimah Fakhriah, I. (2020, Ogos 26-27) *Pembelian makanan dalam talian: Isu dan cabaran terhadap keselamatan makanan sepanjang pandemik covid-19*. Paper presented at the Webinar Serantau Pandemik Covid-19.
- Cheng, K. M, Tan, J. Y., Wong, S. Y., Koo, A. C., Amir Sharji, E. (2022). A review of future household waste management for sustainable environment in Malaysian cities. *Sustainability*, 14(11), 6517.
- Ghaffar, A., Zaheer Zaidi, S. S., & Islam, T. (2023). An investigation of sustainable consumption behavior: the influence of environmental concern and trust in sustainable producers on consumer xenocentrism. *Management of Environmental Quality*, 34(3), 771-793.
- Gliem, J. A., & Gliem, R. R. (2003). Calculating, interpreting, and reporting cronbach's alpha reliability coefficient for likert-type scales. *Midwest Research to Practice Conference in Adult, Continuing, and Community Education*, Columbus, 82-88.
- Kararia, S. (2023). Sustainable packaging: A consumer perspective [Master's thesis, Jyväskylä University]. Retrieved from <https://jyx.jyu.fi/bitstream/handle/123456789/87929/1/URN:NBN:fi:jyu-202306203984.pdf>
- Ketelsen, M., Janssen, M., & Hamm, U. (2020). Consumers' response to environmentally-friendly food packaging - A systematic review. *Journal of Cleaner Production* 254, 120123.
- Ministry of Health Malaysia. (2021). *Situasi semasa sistem kesihatan di Malaysia dan peranan semua pihak dalam sama-sama mendepani krisis berhadapan dengan Covid-19*. Retrieved from <https://covid-19.moh.gov.my/semasa-kkm/2021/05/situasi-semasa-sistem-kesihatan-dan-peranan-semua-pihak-menghadapi-covid-19>
- Moey, S. W., Abdullah, A., & Ahmad, I. (2016). Bahan pembungkus makanan aktif (Active food packaging materials). *Buletin Teknologi MARDI*, 10, 37–45.

- Moshood, T. D., Nawahir, G., Mahmud, F., Mohamad, F., Ahmad, M. H., & Abdulghani, A. (2022). Biodegradable plastic applications towards sustainability: A recent innovations in the green product. *Cleaner Engineering and Technology*, 6, 100404.
- Muhammad, N. H. (2021). Online food delivery services and food packaging plastic waste. *Bernama*. Retrieved from <https://bernama.com/en/thoughts/news.php?id=2029517>
- Muslim, N. (2020). Covid-19 ancaman terhadap usaha pengurangan plastik harian. *Bernama*. Retrieved from <https://www.bernama.com/bm/rencana/news.php?id=1909410>
- Oloyede, O. O., & Lignou, S. (2021). Sustainable paper-based packaging: A consumer's perspective. *Foods (Basel, Switzerland)*, 10(5), 1035.
- Prakash, G., & Pathak, P. (2017). Intention to buy eco-friendly packaged products among young consumers of India: A study on developing nation. *Journal of Cleaner Production*, 141, 385-393.
- Radhi, N. A. M. (2020). More households embracing waste separation. *NST Online*. Retrieved from <https://www.nst.com.my/news/nation/2020/02/568249/more-households-embracing-waste-separation>
- Rajendran, S. D., Wahab, S. N., & Singh, M. K. P. (2019). Malaysian consumers' preference for green packaging. *International Journal of Society Systems Science*, 11(4), 312–331.
- Sabri, M. F., & Teoh, Y. Y. (2006). Tahap keprihatinan alam sekitar dan amalan kepenggunaan hijau pengguna di Petaling Jaya, Selangor. *Pertanika Journal of Social Sciences & Humanities*, 14(2), 95-109.
- Saidi, Z. A., & Er, A. C. (2016). Penggunaan bekas makanan mesra alam di Malaysia: kajian awal pengetahuan dan kesanggupan pelajar Universiti Kebangsaan Malaysia. *Geografia: Malaysian Journal of Society and Space*, 12(10), 113-126.
- Shimul, A. S., & Cheah, I. (2022). Consumers' preference for eco-friendly packaged products: Pride vs guilt appeal. *Marketing Intelligence & Planning*, 41(2), 186-198.
- Trivedi, R. H., Patel, J. D., & Acharya, N. (2018). Causality analysis of media influence on environmental attitude, intention and behaviors leading to green purchasing. *Journal of Cleaner Production*, 196, 11–22.
- United Nations Economic and Social Commission for Asia and the Pacific. (2022). *Laporan Asas: Closing the loop (Meningkatkan kesedaran) akan pencemaran plastik di Kuala Lumpur, Malaysia*. Retrieved from <https://www.unescap.org/sites/default/d8files/event-documents/KL%20Baseline%20Report-Malay.pdf>