THE DRIVES TOWARDS CONTROLLING PLASTIC CONSUMPTION: A STUDY IN UiTM KAMPUS SEREMBAN

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1. INTRODUCTION

Plastic waste is a significant environmental issue for decades as it poses a major threat to the ecosystem, especially for the marines like sea turtles and whales. Plastics refer to polymers (either they are made synthetically or from natural resources like tar, shells, and cellulose) and consist of a mixture of materials that go through a heating process to retain their shapes (History Science Institute, 2021). The combination of polymers with other unique things such as low density, low electrical conductivity, transparency, and toughness has given room for plastics to be widely used in many sectors throughout the world (Rodriguez, 2020).

According to WWF Australia (2021), plastics take a long time to be decomposed, depends on their types and usage. For instance, normal plastic bags will be fully decayed after 20 years, and a kid's toothbrush will perish after 500 years. Malaysia had been stated as the biggest plastic consumer by the WWF in its report, whereby an individual in Malaysia generally produced 16.8 kg/person compared to Thailand (15.5 kg/person) per year (Reuters, 2020). In addition, the culture of Malaysians that like to 'tapao' (take away) foods and drinks had accelerated the usage of plastics in Malaysia and this had caused the existed landfills to overflow with low-value plastic packaging and sachets (Lee, 2021). In short, this phenomenon leads to further analysis on plastic consumption behaviour, particularly among the current tertiary students who are more exposed to the 'tapao' culture and possess some ideas about the effects of plastic consumption (thanks to the lectures and wider coverage and information on the sites regarding the matter).

In general, there are three main drivers of plastic consumption behaviours, i.e., knowledge, environmental awareness, and government policies and regulations (Law, Zhao, & Lim, 2019). A study conducted by Syed Hassan, Harun, and Lim (2015), proved that knowledge and education were powerful to shape the behaviour of reducing plastic consumption among UPM students. It was added that lectures about the effects of plastic consumption in their classes did play a part in their reaction to using plastics. Permana, Rizal, and Hasan (2020), together with Law, Zhao, and Lim (2019) agreed that young adults, especially university students, who possessed a high level of environmental awareness preferred to use less plastic. They were exposed to information regarding the impacts of plastic usage via social media or local movements by the government or environmental activists (Permana, Rizal, & Hasan, 2020).

Environmental policies and regulations formulated and implemented by the government were another force that can influence the students to reduce their plastic consumption. For an instance, in 2011, the "No Plastic Bag" campaign was launched by the Ministry of Domestic

Trade in selected stores across Malaysia for every Saturday to change the mindset of Malaysian on the usage of plastic bags for buying groceries and other things. Nonetheless, the RM0.20 charge for having a plastic bag seemed to be a big hurdle for this campaign to succeed. In response, a consumer said a higher price for a plastic bag and a lower price for buying an eco-bag might be a way for him to support this campaign (Omar, Quoquab, & Mohammad, 2019). The following hypotheses were stipulated, based on the previous discussion:

H1: There is a correlation between knowledge and plastic consumption behaviour among students in UiTM Kampus Seremban.

H2: There is a correlation between environmental awareness and plastic consumption behaviour among students in UiTM Kampus Seremban.

H3: There is a correlation between government policies and regulations and plastic consumption behaviour among students in UiTM Kampus Seremban.

2. METHODOLOGY

To answer the hypotheses, a cross-sectional study was conducted. The respondents consisted of undergraduates from UiTM Kampus Seremban. The total population of UiTM Kampus Seremban was initially 5000 students during its first phase in 2014 (Kamarudin, Md. Sarif, & Hashim, 2017). Krejcie and Morgan (1970) table was used to determine an appropriate sample size of the respondents (Sekaran & Bougie, 2013), as in Table 1:

Table 1: Sample Size of the Study

Population (N)	Sample Size (n)
5000	357

An English questionnaire was constructed. Due to the new norms, it has been distributed to the respondents using Google Form (an online method). It is shared via WhatsApp and it has been distributed using the convenience sampling technique. Pearson Product Moment Correlation technique was adapted to analyse the correlations (as in the hypotheses mentioned before). Table 2 explains the questionnaire's reliability value. The value earned was considered at a very good level, as it was greater than 0.8 and less than 0.95 (Ursachi, Horodnic, & Zait, 2015). Reliability is important to ensure that the questions asked are error-free and align with the study's aim (Sekaran & Bougie, 2013).

Table 2: Reliability of the Questionnaire

Variable	No. of Questions	Reliability Value
Plastic consumption behaviour (DV)	5	0.858
Knowledge	4	0.946
Environmental awareness	5	0.870
Government policies and regulations	5	0.824

3. RESULTS AND DISCUSSION

The study population consisted of 181 respondents (instead of the proposed number, which was 357 respondents). Nonetheless, this number could be accepted to be further analysed, since the online survey yielded 50 percent of the total respondents. According to

Nulty (2008), 50 to 60 percent of the required respondents from an online survey were acceptable. Table 3 also showed that many of the respondents were female (79.6 percent against 20.4 percent were males). Most of the respondents were between the ages of 21 to 23 years old (75.7 percent), followed by the respondents aged between 18 to 20 years old (4.4 percent) and more than 24 years old (19.9 percent). Furthermore, 24.3 percent of the respondents were Diploma students, while the other 75.7 percent were Degree students. Finally, 66.3 percent of the respondents were from the Faculty of Administrative Science and Policy Studies (FSPPP), 12.2 percent were from the Faculty of Sports Science and Recreation (FSR), and 21.5 percent of respondents were from the Faculty of Computer Science and Mathematics (FSKM). The summary of the demographic analysis could be seen in the following table:

Table 3: Demographic Analysis of the Study (n=181)

Demographic Details	Percentage
Gender	
Female	79.6
Male	20.4
Age	
18 – 20years old	4.4
21 – 23 years old	75.7
24 years old and above	19.9
Academic	
Diploma	24.3
Degree	75.7
Faculty	
FSPPP	66.3
FSR	12.2
FSKM	21.5

Table 4 showed the results of the hypotheses testing.

Table 4: Results of the Hypotheses Testing

Pearson Correlation	Plastic Consumption Behaviour
Knowledge	-0.186*
Environmental awareness	-0.121
Government policies and regulations	0.233*

Note: Correlation is significant at the 0.05 level (2-tailed).

Based on the research findings, environmental knowledge has a weak negative relationship with plastic consumption behavior among students ($r = -0.186$, $p<0.05$). A previous study conducted in Indonesia has proven that environmental education has increased the students' pro-environmental behaviour specifically on the usage of plastics bags such as reducing the usage of single-use plastic bags and reducing buying food and beverages that use plastic packaging (Wahid, Purnamasari, & Fauzi, 2020). Similarly, Law, Zhao, and Lim (2019) has also highlighted that environmental knowledge may influence the behaviour of the consumer, or in this case, the students. Thus, it is assumed that when people are exposed to environmental knowledge, they tend to have a positive behaviour towards plastic consumption.

In contrast, it is found that there is no relationship between environmental awareness and plastic consumption behavior among students ($r = -0.121$, $p>0.05$). It is quite rare to see that environmental awareness does not lessen plastic consumption. It is because awareness is

important as a significant correlation was also found in the previous study between the information available and the decisions made by the respondents about the actions they could take to reduce plastic consumption (Barbir et al., 2021). In an opposing idea, Adnan seemed to be less responsive towards the "No Plastic Bag" campaign launched in Malaysia and did not mind paying RM0.20 for each. He said that, until the charge would be increased, then it was okay to get a plastic bag (Omar, Quoquab, & Mohammad, 2019). Therefore, environmental awareness is not an absolute drive to reduce plastic consumption, based on the saying "old habits die hard".

The findings of the study have also revealed that there is a weak positive relationship between government policies and regulations with plastic consumption behavior among students ($r = 0.233$, $p<0.05$). Kuppusamy and Gharleghi (2017) have agreed that actions made by the government have a great influence on people's behaviour. It has been proven by the success of the European countries, Africa, and some parts of Asia, where plastic consumption have been reduced for about 96 percent when they have issued tax and levies toward plastic bag since its enforcement in the year of 2002 (Law, Zhao, & Lim, 2019).

4. CONCLUSION

This study aims to identify the drivers that influence plastics consumption behavior among students in UiTM Kampus Seremban. Based on the findings, it is found that only two independent variables; environmental knowledge and government policies and regulations are correlated with their plastic consumption behaviour. Unfortunately, environmental awareness seems to go in another way i.e., no relationship at all. The results of this study are supported by previous studies and numerous scholars in which they agreed that environmental knowledge, as well as the enforcement of the law, have led more people to become environmentally conscious and able to control themselves from using more plastics for buying things. As for enhancing environmental awareness, a holistic approach is needed for promoting fewer plastics consumption. Integration of green practices in the school syllabus, collaboration with the environmental NGOs to conduct more social campaigns on plastics consumption behaviour and encouraging the innovation for alternative plastic materials are some of the strategies that could be taken into consideration in addressing issues of plastics consumption behaviour.

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