



JOJAPS

eISSN 2504-8457



Journal Online Jaringan COT POLIPD (JOJAPS)

Study on Student Recycling Practices and Awareness of Green Products

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Abstract

The growing issues in environmental consciousness among young generation in this country does not promote their inclination towards recycling practice and adoption of green product in daily life. Hence, the main purpose of this study is to explore students' recycling practices and to understand students' awareness of green products among students'. Knowing the practice of recycling and the use of green products among students allows innovation in marketing communications to enhance a culture of healthy environment in the country. Interviews were conducted to 36 respondents' form 6 residential colleges around Bangi. The findings show that the practice of recycling need to be enhanced to implement this practice as a lifestyle of young generation. There is a good awareness of respondents regarding the term of green products but the level of use of green products is less among them. Thus, marketing in the communications of recycling and green products should emphasize a culture of recycling and the use of green products to promote a healthy environment practices and enhance acceptance of green products, especially with regard to communication and awareness of recycling use of green products.

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Key-word: - recycling practice, green product, student

1. Introduction

Climate change, natural disasters and pollution is a natural phenomenon that has increased significantly, while the increase in people using the depleting natural resources has created challenges and competition in a variety of fields such as business, manufacturing and construction. Scientifically, the changes of this nature have been disturbing people's welfare in Malaysia. According to studies conducted by the (Md.Jahi, 2009) the impact of climate change in the future will be a challenge in order to maintain the sustainability of the country. Global warming refers to the increase in global temperature is remarkable (Siwar, Alam, Murad, & Quasem, 2009). It makes the environment feel warm, even at night (Md Zain et al., 2012)

Activities performed by humans are the biggest factors that contribute to this phenomenon. Recycling program in Malaysia was launched on December 2, 2000 by the Ministry of Housing and Local Government. Yet in the document RMK-9 state recycling rate Malaysians is about 5% per annum. Therefore the practice of recycling should be enhanced to address the increasing amount of solid waste in the country.

Consequence of this phenomena also the Ministry of Energy, Green Technology and Water have introduced the practice of green environment to address this issue. Green practice is promotional activities aimed at taking advantage of the changing consumer attitudes toward environment. These changes are increasingly being influenced by a firm's policies and practices that affect the quality of the environment and reflect the level of its concern for the community. Every organization must concern about this concept because of the situation has been change. Customer now becoming smart and care about environmental issues. This study was conducted to explore the practice of recycling and the use of green products among students. In particular, this study was undertaken in the vicinity of residential college campus around Bangi to see the practice of recycling and awareness of green products among students residential.

2. Literature Review

2.1 Recycling Practice

In general, the term 'recycling' refers to the nature or characteristics of the goods produced can be converted from one article to another article by the process, the program, and can be collected, processed and subsequently produce raw materials or products (Awang, Hassan, Ahdullah, & Linde, 2001). According to Awang et al., (2001) also recycling is not just a waste management strategy alone, but also an important strategy for reducing the environmental impact of industrial processes.

There are a lot of activities program done by university to encourage and to increase the students' knowledge and attention about recycling. Educational and promotional program highlighting the benefits and importance of recycling activities and convenience of the recycling facilities can be adopted as the key strategies to encourage recycling on campus. However, the effectiveness of programs is dependent on the student's own practice in implementing recycling practices. According to Calvin Wan,(2013) the behavioral intention with regard to recycling is influenced by attitude, the subjective norms, perceived behavioral control, and awareness of consequences, the moral norms, and convenience.

2.2 Environment Knowledge

There are many studies carried out in the review of community engagement for the environment, particularly on students in educational institutions. Many of the findings of previous studies showing that the knowledge, attitudes and environmental awareness among students in institutions of higher learning in Malaysia is at a good level (Mohd Helmi, Ros Zayanah, Fauziah Ahmad, 2012); (Mei, Wai, & Ahamad, 2016). This is in line with the findings by (Mohd Helmi, Ros Zayanah, Fauziah Ahmad, 2012) in the context of Malaysia, young Malaysians are well aware about the environmental problems in this country. It consistent with the research done by Ojala, (2012) the young adults able to being knowledgeable about the problems of environment, they are also capable of addressing what are considered to be the environmental sustainability challenges of the future.

2.3 Green product

The research study of Mazar & Zhong, (2010) defined green products as those that use recyclable materials, least wastage, and reduce the use of water and energy, and generate less toxic substances. In other words, green products which known as environmentally friendly or ecological products are bringing less harmful effect to human and environment with offer more long-term practical development opportunities from a social and economic perspective. However, researches on green products are less exercised compared to green technology in Malaysia.

This is because the terms of green products used in Malaysia less than internationally. This is based on a study of V.N, Yean, Ru, & Yin, (2012) where the respondent still misunderstand the meaning of green product with recycled product. There awareness of green product is important in the development of the industry in Malaysia. This is because the development of green products industry internationally has grown extensively. This is consistent with MyHIJAU under Malaysian Government's program to encourage local manufacturers, producers and suppliers to produce green products and services are more competitive That in local and global market.

3. Methodology

This cross sectional study employs one modes of data collection by interview. The interviews are conducted with 36 of students. The backgrounds of the interviewees are in Table 1. This study was carried out on students who live in residential colleges in Bangi. The interview form asked under the respondents demographic which included gender, level and major of study. A total of 36 responses were collected, consisting of 24 (67 %) female and 12 (33%) male respondents. Out of the 36 respondents, 24 were undergraduate students and 12 respondents were graduate students. In term of major, 17 (47.22%) were science students and from that 9 (52.95%) were male student and 8 (47.05%) were female student while 19 (52.78%) were social science and from that 3 (15.79%) were male student and 16 (84.21%) were female student. The detailed of interviewed profile is in appendix was conducted to 6 residential collage in Bangi.

Table 1: Respondents Profile

Level of Study	Major	Gender	No. Of Students	Total	Grand Total	
Undergraduate	Science	Male	5	10		
		Female	5			
Graduate	Social Science	Male	2	14	MALE=12 33%	
	Science	Female	12			
	Science	Male	4	3	7	FEMALE = 24 67%
		Female				
Social Science	Male	1	5			
	Science	Female	4			

4. Analysis

4.1 Recycling Practice

Recycling is one of the things that are emphasized, especially for the younger generation. Recycling can be seen from the level of practice of the students in daily life. Md Zain et al., (2012) in a study state that attitude is defined as a person’s reaction through the soul, whose behavior can become a common habit. Attitudes also can determines whether a person’s action positive or negative. The results from the 36 respondents of the interview conducted in several residential colleges students found a moderate level of practice on recycling among student.

On the other hand, the construct in the aspect of practices that was at the level of the medium was on “yes” or “not really” and “not”. In term of frequency, 9 over 36 respondent which is 25% were “not really use” of recycle bin facilities. It can be seen from the answer given by the respondent KUO_1 were she did not really use of recycling bin. While 11 respondent which is 31% not use of recycle bin in their daily life in campus. There are several reason given by respondent regarding why they not use and practice the recycle bin. From 36 of respondents that have been interviewed, only 16 respondent which is 44% use recycle bin facilities. And the rest from that use recycle bin because they have awareness in environment. Table 2 show the recycling practice in residential area.

Table 2: Recycling Practice in Residential Area.

Recycling Practice	Frequency (Respondent Identity)	Example of Responses
Use recycle bin	16 Respondents KAB_1,KAB_5,KAB_6,KUO_6,KUO_4,KIZ_3 ,KIZ_2,KKM_5, KUO_5,KBH_2,KBH_5,KBH_1,KIY_2, KIY_4,KAB_2, KIY_5	Yes when I walked nearby I will use. Yes because to prevent environment pollution and to foster the values in everyday life Yes, I use. Yes, if i have a recycling item. [plastic, bottle & paper bag] Yes, since there are no other dustbins at the foyer.
	9 Respondents KUO_3,KBH_6_KIZ_4,KIZ_5, KUO_2, KKM_1, KKM_3,KKM_6,KUO_1	Bit and not fully. [Sometimes] Not really because when I use recycling bin it seem the recycle item I put in the facilities doesn't collect by anyone. No, because garbage is mixed up.
Not really use [sometimes]	11 Respondents KIY_1,KIZ_1,KKM_4,KAB_3,KBH_3,KBH_4 KIY_3,KIY_6,KKM_2,KAB_4,KIZ_6	Here didn't use, because here is no facilities are available. No, because only one recycle bin and it is not enough No because it's too far from my hostel

4.2 Issues on recycling practice

There are a number of issues raised by the 36 of respondents in practice recycling in their residential colleges. Based on the interview, the result showed that respondents whose stay in campus are most concerned towards the issue of the quantity of recycling bins are very limited, person in charge for recycle, design, prices for recycled items and recycle activities. All the issues set out why recycling practice has not been successfully implemented. Thus issues also consistent to previous findings that show why students are less interested in recycling in the university. The problem on presented is consistent with the study Md Zain et al., (2012) which states that there is low participation of students on recycling practice in university. Out of 36 issues stated by the respondent, the most frequent issue is lack of recycle bin in residential area that are 18 respondent and it presents 50% of the total issues.

Most of respondent stated that the recycle bin only have in the foyer. While there are 9 respondent issues that the lack of recycling activities also reason why the practice of recycling is in moderate level in campus which equates to 25%. Then about 5 respondent and it presents 14% stated that design of recycle bin need to be change and more friendly to encourage student use the recycle bin. The respondent said that the bin is easier if it can open by foot. Based on the interviews conducted, the respondents also stated that there should be an individual person who has the duty to take care of recycle bin so that there is a periodic inspection on monitoring the use and cleaning bins that are 3 respondents and it presents 8% of total issues. Table 3 show the issues on recycling practice.

Table 3: Issues on Recycling Practice

Issues	Frequency (Respondent Identity)	Example of Responses
Person in charge	3 Respondents (KYO_1,KIZ_3,KIY_1)	Not really because when I use recycling bin it seem the recycle item I put in the facilities doesn't collect by anyone.
Design	5 Respondents KAB_1,KIZ_4,KAB_3,KYO_2, KKM_3	Better recycling facilities because right now the cover need to use by hand to open. Create a new that not use hand but use foot.
Lack of recycle bin	18 Respondents KBH_1,KBH_5,KAB_2,KAB_5, KAB_6,KYO_5,KBH_3,KYO_6, KIZ_2,KIZ_1,KKM_1,KKM_2, KKM_4,KBH_6,KIY_3, KIY_4,KIY_5,KIY_6	Add more recycling bins and people to collect it. Right now students are collecting and selling to get some income. Yes, each block must have its own recycling bin and normal bins should be converted to recycling bins as this can encourage students to recycle while prevent monkey problems.
Price of recycle Item	1 Respondent KIY_2	Increase price of recyclable items when students' sale their items for example at PKS, right now the price is too cheap.
Lack of recycling activities	9 Respondents KAB_4,KYO_3,KYO_4,KIZ_6,KI Z_5,KKM_5,KKM_6, KBH_2,KBH_4	More awareness campaign on recycling.

4.3 Awareness towards green product

A green product refer to those that use recyclable material, least wastage and reduce the use of water and energy and generate less toxic substances (Mazar & Zhong, 2010). According to the definition found that the respondents have awareness in knowledge of green product in campus. Based on the interviewed, the answered given by respondent regarding the awareness in green product are mostly stated the green product is product that made from recycle items, efficient in energy, product that good for environment, non-toxic product and Eco friendly product.

Is show that respondent have knowledge regarding green product and able to give a right opinion regarding green product. Most of the respondent stated that green product is product that use recyclable material. Secondly more respondents stated that green product is product that can save the environment. There were some respondents indicated their awareness through their practices in the use of the goods. Product that can save energy and non-toxic product also been stated as green product. According to a study by Chen, (2010) consumers express environmental concerns based on product characteristics, accuracy of green product claims, information provided on the products and its benefits. Table 4 show the awareness towards green product.

Table 4: Awareness towards Green Product

Awareness	Frequency (Respondent Identity)	Example of Responses
Product that made from recycle items	14 Respondents KAB_2,KUO_3,KUO_4,KUO_5,KUO_6KIZ_2,KIZ_3,KKM_1 ,KBH_3,KBH_6, KIY_2,KIY_3,KIY_4,KIY_5	Made from recycled products. Made from recycled items, reusable.
Efficient in energy	1 Respondent KBH_1	Energy efficient products
Product that good for environment	12 Respondents KAB_1,KAB_3,KAB_6,KUO_1,KIZ_1, KKM_3,KIZ_5,KIZ_6,KKM_2,KKM_4, KKM_5,KBH_4	All the item that can save environment A product that do not bring harm to environment, people & health. Green product is quality product that help to save environment.
Product is non toxic [No chemical]	5 Respondents KAB_5,KUO_2,KIZ_4,KKM_6, KBH_2	Product that are non-toxic Non-chemical products
Eco friendly	1 Respondent KAB_4	Things that Eco friendly use nature as energy like solar.

5. Discussion

Recycling practice is like a friend to the earth. Thus the practice of recycling is an effort to educate the younger generation to appreciate the natural. However, based on the findings, there is a lack of practice regarding recycling. Lack of practice of recycling also influenced by the lack of motivation and encouragement for students to practice recycling. From the output show that, recycling practice is at a moderate level among the respondents.

Thus the results line with the previous studies that student had knowledge, attitudes and awareness towards environment but the practices of environment was at a moderate level (Arbaat Hassan et al. 2003; Aisyah Nadhrah Ibrahim, Mariana Mohamed Osman, & Syahriah Bachok, 2011). Although there are studies conducted regarding awareness of recycling among students is high such as study by Md Zain et al., (2012) but the practice of recycling is at the medium level. Therefore, to succeed this recycling practice, the education for environmental sustainability must do more than simply build the learner's critical awareness and understanding of environmental sustainability issues. It should affect the learner such that he/she changes or considers to changing the way he/she acts in the world.

Secondly regarding issues on recycling practice. The result further indicate that there are some issues or concern of respondents with regards to recycling practice. From the finding is stated that the most frequent issues is regarding the number of recycle bin is very limited in their residential. Hence the need to add the appropriate number of recycling bins to encourage recycling practices among them. It can also address the problem of lack of recycle bins and it only located just over the lobby. This issue is consistence with the previous findings that recycle bin in residential should put at the back at the building, next to the toilet and every level in a building (Md Zain et al., 2012).Therefore management of residential college need to take initiative to provide more recycle bin in their college.

Thirdly on awareness towards green product. The findings show that there have awareness in knowledge about green product among respondents in residential college. This is because of the findings showed that the respondents gave positive feedback. Although they have a knowledge of green product but only some respondent practice in using green product. This finding supports previous research that developing country like Malaysia, customers' acceptance of green products is still low due to the low number of environmentally friendly products acceptance compared to their non-green products (Nizam, Nurul Zarirah, Nusaibah, Mukhiffun, 2011). Even respondents have a knowledge in green product but practice green living are lower. Base on study done by Mohd Helmi, Ros Zayanah, Fauziah Ahmad, (2012) the Malaysian youth have some awareness on what the term "green living" but not all practice green living due to the lack of comprehensive understanding of the concept. Accordingly, to encourage awareness of green product, the green campaign should emphasize the simplicity of green practices. Thus, it can be concluded government and non-government organization are a strong predictor in plays an important role in encouraging consumers to go green and embrace green purchasing behavior. They could demonstrate their involvements and supports by taking initiative to expand consumer awareness of green products by creating effective green marketing campaigns or environmental-related activities such as energy conservation to contribute to a better sustainable environment. To improve on message delivery, creativity and information, government and non-government need for current and upcoming green advertising for the youth to respond in practice in green.

6. Suggestion For Future Study

This research is an exploratory study to get some insight on recycling practices and awareness of green products. So to gain a better understanding of this matter, more detailed descriptive studies can be done. Future research might want to evaluate the characteristics of individuals who practice recycling and review the market segmentation of green products in Malaysia.

7. Conclusion

This study examined, recycling practice is at a moderate level among respondents, and it requires a change through awareness campaigns and the provision of practical facilities. Therefore to succeed in recycling practice, education for environmental sustainability must do more than simply build the learner's critical awareness and understanding of environmental sustainability issues. It should affect the learner such that he/she changes or considers to changing the way he/she acts in the world. Awareness use of green products is less than the non-green products. Green products are not among consumers priorities. As green products are probably considered costly and their perceived value is low among them. In order to cope with this situation, government and companies should corroborate activities in favour of the environment, like Eco-labelling, recycling on media and sales promotional strategies to raise consumer awareness in using green product.

References

- Aisyah Nadhrah Ibrahim, Mariana Mohamed Osman, & Syahriah Bachok. (2011). The Level of Awareness towards Environmental Issues and Concern among Students in Tertiary Level : Case Study of Universities Students in Kuala Lumpur and Klang Valley of Malaysia. *APSA Congress 2011*, 1–13.
- Arbaat Hassan, N. A. R. & S. I. S. S. A. (2003). The level of environmental knowledge, awareness, attitudes and practices among ukm students.
- Awang, M., Hassan, M. N., Ahdullah, R., & Linde, V. Der. (2001). Environmental Management in Malaysia: Future Perspectives. *Prosiding Persidangan Kebangsaan P&P IPTA 2001*.
- Calvin Wan, R. C. & G. Q. S. (2013). Recycling attitude and behaviour in university campus: a case study in Hong Kong. *International Journal of Sustainability in Higher Education*, Vol. 30 Is(13/14), 630 – 646. <https://doi.org/http://dx.doi.org/10.1108/MRR-09-2015-0216>
- Chen, T. B. (2010). Attitude towards the Environment and Green Products : Consumers ' Perspective, *4*(2), 27–39.
- Mazar, N., & Zhong, C. B. (2010). Do green products make us better people? *Psychol Sci*, *21*(4), 494–498. <https://doi.org/10.1177/0956797610363538>
- Md.Jahi, J. (2009). Pembangunan Pelancongan dan Impaknya terhadap Persekitaran Fizikal Pinggir Pantai. *Malaysian Journal of Environmental Management*, *10*(2), 18. Retrieved from http://journalarticle.ukm.my/2289/1/MJEM_2009_5_Jamaluddin.pdf
- Md Zain, S., Basri, N. E. A., Mahmood, N. A., Basri, H., Zakaria, N., Elfithri, R., ... Shahudin, Z. (2012). Recycling practice to promote sustainable behavior at University Campus. *Asian Social Science*, *8*(16), 163–173. <https://doi.org/10.5539/ass.v8n16p163>
- Mei, N. S., Wai, C. W., & Ahamad, R. (2016). Environmental Awareness and Behaviour Index for Malaysia. *Procedia - Social and Behavioral Sciences*, *222*(7), 668–675. <https://doi.org/10.1016/j.sbspro.2016.05.223>
- Mohd Helmi, Ros Zayanah, Fauziah Ahmad, N. L. (2012). Green Advertising and Environmentally Responsible Consumer Behavior: The Level of Awareness and Perception of Malaysian Youth. *Asian Social Science*, *8*(5), 46–54. <https://doi.org/10.5539/ass.v8n5p46>
- Nizam, Nurul Zarirah, Nusaibah, Mukhiffun, S. N. (2011). Factors Influencing Customers ' Decision to Buy Green Product Design in Malaysia. *PROSIDING PERKEM VI*, *1*(ISSN: 2231-962X), 362–367.
- Ojala, M. (2012). Hope and climate change: the importance of hope for environmental engagement among young people. *Environmental Education Research*, *18*(5), 625–642. <https://doi.org/10.1080/13504622.2011.637157>
- Siwar, C., Alam, M., Murad, A. W., & Quasem, A.-A. (2009). A Review of the Linkages between Climate Change, Agricultural Sustainability and Poverty in Malaysia. *International Review of Business Research Papers*, *5*(6), 309–321.
- V.N, F. W., YEAN, L. M., RU, L. X., & YIN, L. S. (2012). A Study On The Youth Attitudes Toward Purchase Green Products In Malaysia, (November).
- Perret, D. & Kamarudin, A.R. (1998), Kompleks Makam Ulu Sungai Che Omar & Bukit Telepok, Yayasan Warisan Johor dan Ecole francaise d'Extreme-O
- Perret, D. & Kamarudin, A.R. (2004), Batu Aceh Johor Dalam PERBANDINGAN, Percetakan Asni Sdn. Bhd, Selangor
- Repelita, W.O. (2009) "Perkembangan Bentuk Nisan Aceh, Sebagai Wujud Kreativitas Masyarakat Aceh Pada Masa Lalu", Balai Arkeologi Medan 80-93
- Suprayitno (2011) "Evidence of the Beginning of Islam in Sumatera: Study on the Acehnese Tombstone", TAWARIKH:International Journal for Historical Studies, *2*(2) 2011.

Teuku Iskandar (2007) “Aceh as a Muslim-Malay Cultural Centre (14th-19th Century)” in First International Conference of Aceh and Indian Ocean Studies, February 24-27, 2007, Asia Research Institute, National University of Singapore & Rehabilitation and Construction Executing Agency for Aceh and Nias (BRR), Banda Aceh, Indonesia.