

Tourists and Waste Management: Attitude, Motivation and Volunteerism

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Abstract: *The Movement Control Order (MCO) is a security measure implemented globally to reduce the spread of Covid19. The implementation of MCO has been beneficial to the environment, particularly at various tourism destinations. However, since the lifting of MCO's, there have been numerous reports of littering by tourists. Therefore, the present study's main objective is to investigate tourists' attitudes towards proper solid waste management during visits to outdoor recreational areas in Malaysia. Furthermore, this study also investigates the motivation and volunteerism value amongst tourists. This study utilized an online questionnaire to gather the data from the 415 respondents participating in this study. Our study discovered that most local tourists were shown to have a positive attitude and motivation towards proper solid waste management. However, voluntary participation in proper solid waste management is still below the desirable level. The study revealed the current tourist attitude, motivation and volunteerism with regards to solid waste management in Malaysia. From the findings, the importance of the continuous public, government, and stakeholders efforts to raise awareness while maintaining a positive attitude and motivation is essential to boost volunteerism amongst tourists regarding waste management in Malaysia.*

Keywords: tourist attitude, littering, tourism, waste management, volunteerism

1. Introduction

The COVID-19 pandemic triggered huge losses in various economic sectors globally. All the nations affected by the pandemic including Malaysia are still in the recovery stage although it has been forecasted to take an extended period of time due to the various new mutations of the virus slowing down recovery efforts. However, the current lockdown or Movement Control Order (MCO) situation has had a positive impact on the environment due to restrictions in visiting outdoor recreational areas. Visitors were unable to visit recreational areas throughout the MCO period, which eliminated littering by irresponsible visitors. As the stricter restrictions of the MCO have been lifted, outdoor recreational areas have once again been reopened to the public resulting in a reemergence of the solid waste issue. Sadly, the pandemic has had no effect on raising the level of education of the public regarding the importance of environmental

protection in terms of solid waste management. There were numerous reports in social media regarding the rise in solid waste issues at outdoor recreational areas after outdoor recreational activities resumed across districts and states in Malaysia. According to Williams (2016), human activity is the main contributor to environmental pollution which is harmful to the environment and reduces wildlife sustainability. Therefore, this issue is a critical factor which must be dealt with.

This study attempts to understand tourists' attitude towards proper solid waste management during their visit to outdoor recreational areas in Malaysia. The study also investigates the motivation driving proper solid waste management. Additionally, this study then evaluates volunteerism for proper solid waste management at outdoor recreational areas. This paper is organized as follows: (i) literature related to the topic being reviewed in Section 2, (ii) an explanation of the research methodology in Section 3. (iii) the findings of the study in Section 4 and finally, (iv) the conclusion in Section 5.

2. Literature Review

Waste management poses various unique issues especially for developing-world tourist locations. Even though major tourism intakes and associated development may significantly increase the amount of municipal rubbish, wealthy tourists demand high aesthetic and hygienic standards in order to be satisfied. Local governments often lack the ability to manage waste in a sustainable manner, and local knowledge of the need for waste segregation, recycling as well as other measures may be insufficient (Singer, Kieu & Pravitasari, 2019).

Over decades the tourism industry has grown exponentially to the point where it is now one of the most dynamic economic sectors globally. Solid waste is a well-known and growing problem associated with tourism; improper management may have significant and permanent direct and indirect environmental, economic, and social consequences. However, according to climatic conditions, geography, budgetary constraints, planning challenges, shifting consumption habits, transitory population, and seasonal changes in solid waste amount and composition, solid waste management can be incredibly challenging (Ezeah, Fazakerley & Byrne, 2015).

Tourism makes a significant contribution to local economies by providing jobs and investment opportunities, however the increasing growth has resulted in various negative social, environmental, and economic effects (Zorpas, Voukkali & Loizia, 2015). A number of recently published research findings have emphasized the importance of public perception, knowledge, awareness, attitude, and behaviors in relation to this issue. The discontinuity in public perception, consciousness, cognition, and behaviors has been identified and highlighted as some of the key factors exacerbating this problem (Masud et al., 2015). Attitude is a significant element of how individuals examine their physical surroundings and determine relevant environmental challenges. However, there is still a lack of research has being conducted on how to address issues of awareness and foundational knowledge.

According to Agamuthu & Fauziah (2011), an increase in buying power has allowed members of society to consume a wider range of items; resulting in a more complex and heterogeneous waste composition. The complexity of garbage generated in Malaysia has increased since the 1980s and has continued to expand throughout the 2000s. Even though Malaysia's economy is among the most advanced transitional nations in the world, the country's waste management system is sadly, in poor condition (Periathamby, Hamid & Khidzir, 2009).

Waste can still be utilized in a beneficial manner. There is not a single material on the planet that is not valuable in some way or the other. It is due to man's ignorance that he views certain things as waste and others to be beneficial. People's attitudes towards waste must shift in tandem with the changing varieties of waste. People should be enlightened that rather than being destroyed, garbage can be used as a valuable resource (Desa, 2010).

It is a widely accepted point that people litter because they do not experience a sense of personal ownership of the places they dump their rubbish. Furthermore, even though parks and beaches are public spaces, litterbugs frequently expect that someone else, such as a park cleaner, to clean up after them. People tend to litter more in a pre-littered area, generating a feedback loop or self-fulfilling prophecy in which the presence of trash can serve as a cause for more litter. (Ong & Sovacool, 2012). Reducing overconsumption and waste production has two dimensions: saving the resources used by tourists for use in the manufacturing of distinct items and relieving pressure on environmental resources caused by waste treatment and disposal. What matters most in terms of waste production and management is proving the dominance of sustainable waste management practices rather than the amount of garbage produced. Natural resource consumption, consumerism, and garbage generation are all negative effects of tourism. Travelers consume goods in compact packing forms that has packaging which is discarded to form considerable amounts of solid trash. The accumulative litter on beaches and streets, unlawful dumping, and garbage burning, poor waste management causes environmental degradation and aesthetic appeal loss (Shamshiry et al., 2011).

According to Zulfa & Nugraheni (2020), the effort of counselling and training that took place in Segaran Village, Karawang, had a massive impact on the inhabitants. The Segaran Village community learnt how to manage their household waste, recycling some of their waste into high-value-value products. Desa Segaran, is now one of the Sustainable Tourism Villages in the Karawang area of West Java. As evidenced by the significant Wilcoxon statistical test findings of 0,000 ($p < 0.05$) on waste management, the counselling and training activities carried out were effective in boosting the knowledge, attitudes, and behavior of housewives. There was a substantial change in knowledge after the villagers partook in the course.

3. Methodology

In this study, questionnaires were utilized for data collection. The questionnaire consisted of two sections. Section A was designed to obtain necessary demographics information, and Section B was designed to access the respondents' attitude, motivation, volunteerism, and general opinion towards waste management in tourism areas. Only one item under respondent's attitude used the two-point scale (yes/no) to measure littering experience at tourism sites. The remaining items use the Likert Scale, ranging from (1) strongly disagree to (5) strongly agree. The questionnaire was developed using the Malay Language. In addition, a snowball sampling technique was also practiced. The questionnaires were distributed online through the social media application WhatsApps, and were self-administered by the respondents. The survey was conducted from 28 September 2021 until 8 October 2021. A total of 415 questionnaires were received, but only 412 of them were accepted for analysis. Data was analyzed using the Microsoft Excel application software. Descriptive statistics were used to summarize the data, and the effective rate was 99.28%. The level of agreement was interpreted based on the mean score (Table 1) following the methodology of Zaimah et al. (2015):

Table 1: The Interpretation of the Mean Score

Mean Score	Interpretation
1.00-2.33	Low
2.34-3.66	Moderate
3.67-5.00	High

4. Discussion and Conclusion

A. Demographic

The data were screened to exclude any invalid data from the total sum of data collected. The total number of respondents whom participated in this survey was 412 people coming from throughout the whole of Malaysia. Figure 1 illustrates the gender breakdown of the respondents, with 44% (180 people) being male respondents and 56 % (232 people) being female respondents.

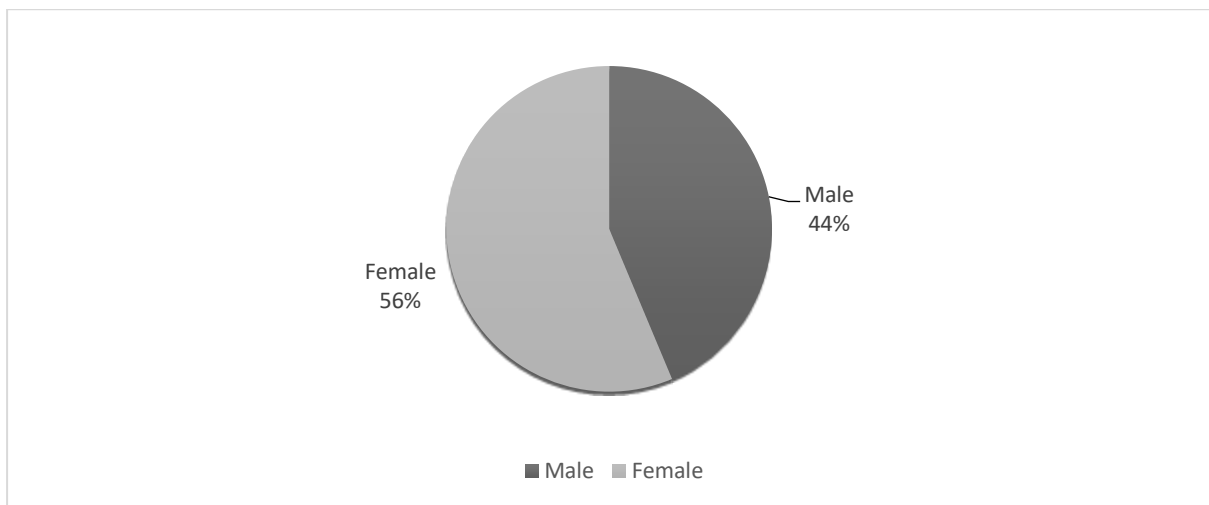


Figure 1: Gender of Respondents

The respondents of this study ranged from 18 to 51 years old from various ethnic backgrounds, including the major race groups of Malay, Chinese, and Indian. Figure 2 shows that the number of respondents refers to the age range. Based on the figure, most respondents who participate in this questionnaire is a range of 31 until 40 years which is 119 people. It is followed by the age range of 41 until 51 years and 18 until 30 years, which is 92 people and 90 people respectively. Respondents under 18 years and over 51 years are also included in giving feedback in this questionnaire, with the total number of respondents 56 people and 55 people, respectively.

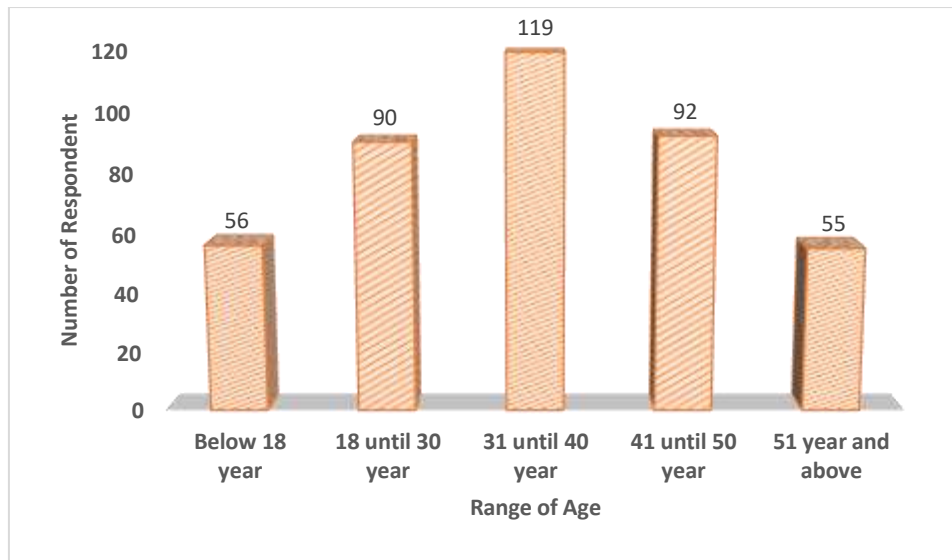


Figure 2: Number of Respondent based on Range of Age

B. Self-Attitude Towards Waste Management

This section elaborates on the findings related to Malaysian tourists' attitudes toward waste management. Seven items were designed to access the self-attitude of tourists in regards to waste management.

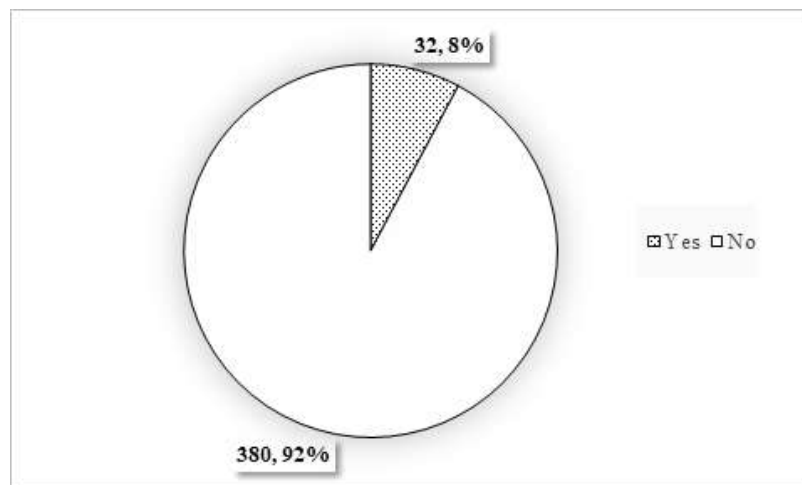


Figure 3: Littering in Tourism Areas

Littering is defined as the improper disposal of trash or waste in areas that are not designated for waste disposal (Weaver, 2015). Hu et al., (2018) stated that litter is responsible for visual as well as olfactory pollution. Solid waste may contribute to soil and water pollution, increase undesirable pest populations, stress native flora and fauna, and can also be a factor which leads to various other environmental pollutions. Littering can indirectly impact on visitors' health and satisfaction. Thus, Question B1 was designed to obtain data on the attitude of respondents regarding the subject of littering in tourism areas. From the results, Figure 3 shows that 32 (8.0%) of the respondents agreed that they have experienced littering in tourism areas. According to the data, the majority of the respondents have never littered in tourism areas (92%). This study revealed that the majority of Malaysian tourists had a positive attitude against littering. However, there is still a need to raise awareness about the consequences of littering among Malaysian tourists in order to keep tourist areas clean.

Table 2: Self Attitude towards Waste Management at Tourism Areas

No.	Item	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	S.D.
B2	Mostly I will throw rubbish into the bins provided in the tourist areas.	1 (0.24%)	2 (0.49%)	4 (0.97%)	53 (12.86%)	352 (85.44%)	4.83	0.47
B3	When I travel, I always bring a garbage bag.	14 (3.40%)	37 (8.89%)	104 (25.24%)	83 (20.15%)	174 (42.23%)	3.89	1.15
B4	I will take the rubbish home if there isn't a bin available.	8 (1.94%)	12 (2.91%)	34 (8.25%)	94 (22.82%)	264 (64.08%)	4.44	0.91
B5	If there isn't a bin provided, I will place the rubbish in another dumping area.	35 (8.50%)	22 (5.34%)	49 (11.89%)	98 (23.79%)	208 (50.45%)	4.02	1.27
B6	If I come across rubbish, I will pick it up and place it in the bin.	18 (4.37%)	51 (12.38%)	145 (35.19%)	94 (22.82%)	104 (25.24%)	3.52	1.13
B7	I will be ensuring that the bin is tightly closed.	6 (1.46%)	28 (6.8%)	75 (18.20%)	109 (26.46%)	194 (47.09%)	4.11	1.02
Total Average							4.14	0.99

Table 1 shows the tourists' self-attitude towards waste management in tourism areas. Question B2 revealed that most respondents strongly agree (352, 85.44%) and also agree (53, 12.86%) to throw the rubbish into the bins provided in tourism areas. According to Question B3, more than half of respondents frequently bring garbage bags with them during their travels of vacations. Three hundred fifty-eight respondents indicated that they would bring trash back to their homes if bins are not available in tourist areas (Question B4). Additionally, Question B5 indicates that 306 respondents would throw their rubbish into another dumping areas if no available bins are provided in the tourist area. Question B6 also shows the positive agreement on the respondents' attitude where most respondents would pick up rubbish and put it in the bin if they see the rubbish. Finally, Question 7 revealed that 73.55% of respondents would ensure they tightly close a rubbish bin. Even though all items showed that most respondents have a positive attitude related to waste management in tourism areas, the mean score reveals that Question B3 and B6 have a score below 4.00. Therefore, it is strongly suggested to respondents that they carry their own garbage bags while on vacation or traveling. This is to ensure that they can appropriately manage and dispose of their rubbish with ease wherever they may roam.

C. Motivation for Waste Management Behaviour

Three items are designed to assess the motivation related to waste management in tourist areas. Question B8 was designed to motivate others to dispose of rubbish properly. The result shows that 298 respondents (72.33%) strongly agreed and 73 respondents (17.72%) agreed with this statement. Question B9 revealed that 259 respondents (62.86%) would be willing to advise those who are in their immediate surroundings to dispose of rubbish properly. This percentage is lower than Question B8 because they may be hesitant to advise strangers. Giving advice can be awkward and also requires skill due to the random range of responses it can generate from those who receive it (Feng, 2009).

Table 2: Self-Motivation on Waste Management Behaviour

No.	Item	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	S.D.
B8	I will always encourage family and friends to properly dispose of rubbish.	1 (0.24%)	7 (1.70%)	33 (8.01%)	73 (17.72%)	298 (72.33%)	4.60	0.73
B9	I will advise those who are in my immediate surroundings to dispose of rubbish properly.	14 (3.40%)	38 (9.22%)	101 (24.51%)	97 (23.54%)	162 (39.32%)	3.86	1.14
B10	I support the campaign to keep tourist sites clean.	0 (0.00%)	2 (0.49%)	7 (1.70%)	34 (8.25%)	369 (89.56%)	4.87	0.42
Total Average							4.44	0.76

D. Volunteerism in Waste Management

There are three items proposed in accessing the Malaysian tourists' volunteerism value related to waste management in tourist areas. The mean score for Question B12 is 3.61 (S.D. 1.08), Question B13 is 3.15 (S.D. 1.13) and Question B14 is 2.87 (S.D. 1.27). The overall mean score for this factor is 3.33 (S.D. 1.16). This reveals that Malaysian tourists have a moderate level of volunteerism toward waste management. Question B14 shows that most Malaysian tourists had little intention of raising awareness about littering via social media.

Table 3: Volunteerism Value among Malaysian Tourists toward Waste Management Behaviour

No.	Item	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	S.D.
B12	I will notify the public authorities if the waste is not properly managed.	15 (3.64)	40 (9.71)	139 (33.74)	113 (27.43)	105 (25.49)	3.61	1.08
B13	I enjoy following the program for cleaning and rehabilitating the environment at tourist sites.	18 (4.37%)	54 (13.11%)	140 (33.98%)	99 (24.03%)	101 (24.51%)	3.51	1.13
B14	I intend to share photographs of littering on social media.	71 (17.23%)	86 (20.87%)	140 (33.98%)	55 (13.35%)	60 (14.56%)	2.87	1.27
Total Average							3.33	1.16

In general, the results from the present study reveal that most Malaysian tourists have a generally positive attitude and motivation towards waste management. In contrast, the value of volunteerism to participate in waste management was relatively low. Several recommendations should be taken into consideration to maintain the level of self-attitude and motivation as well as to boost volunteerism in waste management amongst Malaysian tourists (Omar et al., 2018; Min & Mapa, 2019):

- Use mass media and various campaigns to spread the importance of proper waste management among Malaysian tourists.
- Involves the Malaysian community, particularly the local society, in waste management decision-making in tourism areas.
- Enforcement of a realistic penalty or consistent enforcement against littering.

- conduct a variety of programs such as the sustainable waste management program, no-plastics zone areas, and plastic-free days

4. Conclusion

The first impression of a tourism destination strongly affects the attraction for a tourist to visit or revisit a particular tourism destination. Littering habits lead to environmental pollution, including at tourism destinations. Despite reports on littering at tourism destinations, this study reveals that Malaysian tourists have a generally positive attitude and motivation related to waste management. Therefore, this issue may be caused by only a few irresponsible individuals. The finding revealed that volunteerism on waste management is still low. As a result, the public, government, non-governmental organisations, and other stakeholders must continue to exert constant effort, initiative, and collaborations to maintain environmental awareness and responsibility. Future research should be conducted to gain a better understanding of the existing issues of littering at tourist destinations especially focusing on various different aspects and perspectives on the issue.

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