

# DO KNOWLEDGE AND AWARENESS AFFECT THE IMPLEMENTATION OF GREEN PRACTICES? THE PERSPECTIVES OF HIGHER EDUCATION STUDENTS IN MALAYSIA

<sup>1</sup>Roslizawati Che Aziz, <sup>2\*</sup>Nik Alif Amri Nik Hashim, <sup>3</sup>Abdullah Muhamed Yusoff, <sup>4</sup>Zaimatul Awang, <sup>5</sup>Derweanna Bah Simpong, <sup>6</sup>Raja Norliana Raja Omar, <sup>7</sup>Nur Azimah Othman

**ABSTRACT**--The objective of this study is to investigate the association among factors that have influenced the implementation of green practice activities among students in higher education. Self-administered questionnaires were applied to collect data from students in higher education institutions. About 457 questionnaires were distributed to the students through a random sampling technique. The findings of the study have shown that the independent variables, which are knowledge and awareness, have positive relationships in the implementation of green practice activities among students in higher education. This current study is beneficial for the management of universities to gain more understanding of how to attract students towards implementing green practices. Furthermore, this study's outcomes supply useful data towards increasing the knowledge and awareness of green practices at higher education institutions. Therefore, the results of the work can be utilised as a referral point for any succeeding study in improving green practices.

**Keywords**-- Knowledge; Awareness; Higher Education; Green Practices; Student

## I. INTRODUCTION

Tourism and the tourist industry is among the biggest sectors in the world economy. Tourism results in employment opportunities, promotes exports and generates wealth that contributes to economic wellbeing. The tourist sector, which is made up of a multitude of industries, provide services and facilitation to local, overseas, trade and recreational travellers. There are businesses of all sizes that are involved in the many facets of the tourist industry such as hotels, transport, food and drink, retailers and cultural outlets all the way to recreational and sporting providers. These businesses are involved in providing goods and services to tourists, deliver community

---

<sup>1</sup> Faculty of Hospitality, Tourism and Wellness, Universiti Malaysia Kelantan, Malaysia

<sup>2\*</sup> Faculty of Hospitality, Tourism and Wellness, Universiti Malaysia Kelantan, Malaysia, nikalifamri@gmail.com

<sup>3</sup> Faculty of Hospitality, Tourism and Wellness, Universiti Malaysia Kelantan, Malaysia

<sup>4</sup> Faculty of Hospitality, Tourism and Wellness, Universiti Malaysia Kelantan, Malaysia

<sup>5</sup> Faculty of Hospitality, Tourism and Wellness, Universiti Malaysia Kelantan, Malaysia

<sup>6</sup> Faculty of Hospitality, Tourism and Wellness, Universiti Malaysia Kelantan, Malaysia

<sup>7</sup> Faculty of Hospitality, Tourism and Wellness, Universiti Malaysia Kelantan, Malaysia

support and assist tourist in celebrating all world's wonders. In the annual report by the World Travel & Tourism Council (WTTC) that measures the impact of global travel and tourism on the economy and job creation in 185 countries and 25 regions, it was revealed that tourism contributed 10.4% to the world's GDP and supported 310 million jobs in 2016, which is a tenth of the total global employment for that year (WTTC, 2017). Spending for leisure travel made up 78.5% of total travel expenditure, while business travel spending contributed to the rest at 21.5%. The tourist industry contributed 6.5% to total world exports and 27.2% to the services sector exports globally. Domestic travel represents 71.2% of all tourism-related expenditure in 2018 and is growing strongly in developing countries, while continuing to promote economic openings through regional economic advancements, rewards, and the enhancement of national pride (WTTC, 2019).

Nowadays, travel has become a necessary activity for people, be they young or matured adults, to get away from a busy city life or simply to relieve stress. Whatever the season, the charm and beauty of Malaysia will never cease because the climate in Malaysia is primarily tropical which remains hot and humid throughout the year. In general, the industry has a huge impact as a vital earnings source for many nations around the world. This is because the sector is able to generate income through the use of goods and services by tourists and provide employment opportunities for the services industry (Kutschera, 2019). The Malaysian tourism and travel industry has grown exponentially through the government's joint efforts and campaigns in establishing Malaysia as a top tourist destination. The determinants of the tourist industry influencing their movement globally such as a destination's attractions and its currency's strength, will continue to influence tourist behaviour in the coming years. The tourist industry boosted the Malaysian economy by RM84.1 billion from the spending of 25.8 million travellers (WTTC, 2017). There is no doubt that new factors will emerge to complement the prevailing ones. The development of some countries will see travel and tourism becoming a more vital driver of economic advancement and to act as a medium of cultural sharing that will promote mutual understanding (Wang, Xiang, & Fesenmaier, 2016).

The tourist industry has some specific requirements. For example, customers experiencing adverse travel events will usually share their less than favourable views of a country or a place of stay. These negative experiences must be reduced so that an establishment is not hindered from gaining other clients (Mohiuddin, Mamun, Fazal, Masud, & Su, 2018). A rise in awareness towards environmental issues and with it increased support for eco-friendly tourism has seen many countries supporting green tourism by practicing green initiatives. Popular catchphrases such green practices, environmental management practices and eco-marketing practices are new and value-added methods to market an organisation's business activities (Yusof & Awang, 2018). The method adapts and strengthens existing methods, seeks varied perspectives, and addresses shortcomings to reduce deleterious effects on the society and ecology (Rahim & Musa, 2018). Environmental education is also considered to be essential to ensure environmental quality for sustainable development. The future quality of the environment depends on the students now as they will be the leaders at that time, and thus are the most important people who need to learn how to manage the environment. Towards that end, this research attempts to examine the correlation between knowledge and awareness towards green practice activities among higher education students in Malaysia. When students gain knowledge, they can be relied on to promote awareness and inculcate positive attitudes towards the environment, which may encourage students to demonstrate practices in environmental care. The findings from this study may provide useful inputs in designing better environmental education in the future.

## II. LITERATURE REVIEW

### 1.1 Knowledge Related to Green Practices

The definition of environmental knowledge is "*knowledge that people know about the environmental, key relationships leading to environmental impacts, an appreciation of the 'whole systems', and collective responsibilities necessary for sustainable development*" (Chelliah, Atteyat, & Huoy, 2017). This can also be seen as an abstract concept that is free from the tangible world which has a vital function in determining whether an organisation succeeds or fails (Rahim & Musa, 2018). In the tourism industry, knowledge is being classified base on its ability to be codified and communicated to smooth the process. Since skills and experience are a part of knowledge, people can have added intelligence to information for providing proof in any actions. There are two forms of knowledge, i.e. explicit knowledge and tacit knowledge. Accordingly, explicit knowledge means any knowledge that is in written form such as books, written reports or manuals that can be codified, verbalised, transferred, and articulated (Mojilis, 2019).

These kinds of knowledge have expanded in the lower, middle and upper institutions or even in the mass media, which are meant to ease the communication process among the people in the organisation as well as representing the knowledge capital of tourism organisations. In contrast, other types of knowledge are known as tacit knowledge. Basically, this is known as the hidden and unwritten knowledge that exists in people's minds. In addition, the process of transferring tacit knowledge needs a high trust level that may not be found easily due to the highly competitive environment between parties in the tourism industry (Hanifah, Shahrudin, Mohmadisa, Nasir & Yaizid, 2015). Mohiuddin et al. (2018) views tacit knowledge to be more valuable compared to explicit knowledge because the more it is used, the more benefits it will give, as has been demonstrated by the growing awareness and knowledge base of climatic changes in the tourist industry. A suitable instance of tacit knowledge in tourism is knowledge which has been gained by a seasoned tour operator in the planning and assembling of tours. Thus, recognising this knowledge is essential because usually most of the knowledge is tacit, which requires a specific type of approach to capture and manage tourism knowledge (Hernandez, 2019).

### 1.2 Awareness Related to Green Practices

Environmental awareness can be classified into two characteristics; acknowledging that environmental problems exist and the behavioural inclination to guard against it. The behaviour inclination can be divided into two values that determine the worth of protecting the environment: the first is environmental value that influences how people view the cost consideration between protecting the environment and economic development, in addition to how willing they are to spend money to save the environment. The other one is the attitudes towards participating in environmental protection (Chelliah et al., 2017). Awareness itself may be used to define the quality or state of being aware; such as knowing and understanding when something happens or exists, by supporting an increased awareness of the problem when people seem to have a low awareness of happenings. In the extreme the alternative plays a particularly important role in awareness (Hanifah, 2015). According to Azmi et al. (2017), an awareness that is related to green practices is limited by a few cognitive and emotional constraints. Thus, the Ministry of Tourism Malaysia rolled out several fresh programs to increase the awareness of operators and tourists

to the importance of environmental restoration. Among these efforts include the launch of the 1Malaysia Green, 1Malaysia Clean (1MG1MC) campaign. This is an awareness campaign on the importance of maintaining cleanliness in tourist spots through “*gotong-royong*”. An individual’s level of awareness is believed to have an influence on increasing ecological behaviour (MaTiC, 2010; Tourism Malaysia, 2015).

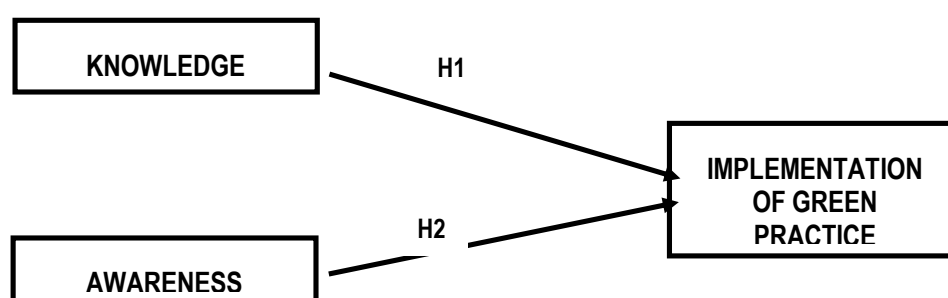
In addition, people can now buy eco-friendly products, purchase organically-grown food and join in recycling programs because they are more aware about environmental issues (Chan, Hon, Chan, & Okumus, 2014). Cognitive limitations include indirect ecological problems, the steady destruction of ecological systems and the complexity of serious environmental issues that may compromise the individual’s desire to act in the environment. Other than that, some people have acknowledged the consequences of using hair sprays and stopped using them because of the severity of Chloro-Fluoro-Carbon (CFC) discharge and how CFC destroys the ozone layer (Rahim & Musa, 2018). Hence, it has been found that awareness is enhanced when an individual understands the systems. Emotional constraints however, include emotional non-involvement and emotional reactions. As an example, some people stopped using hair spray after realising and admitting the deleterious effects of CFC release and ozone depletion (Chan et al. 2014).

### **1.3 Implementation of Green Practices Activities**

Green practices are one of the elements on how to have sustainable tourism that secures the future needs of sufficient environmental, economic, social and cultural resources, where it shows how the practices symbolise environmental preservation (Londoño & G.Hernandez-Maskivker, 2016). Green practices have also demonstrated approaches or strategies that are implemented by the host or organiser as well as the visitors in collaboration to carry out any activities without incurring any problems to the environment, and instead to help in its conservation. Hence, the concept of green practices include activities that minimise the harmful environmental effects and enhance the cultural integrity of local people (Lee, Honda, Ren, & Lo, 2016). The purpose is to provide insights and concerns about the environment and to increase greater appreciation for nature. The level of consumer perception of environmental protection can prevent them from engaging in eco-friendly activities such as recycling. The aggregate environmental effect is dependent on the total consumption volume of biophysical resources (You, Chen, & Song, 2011). There are a lot of activities that can be done to support green tourism. For example, jungle trekking which is the most popular activity that gets more attention from young people which requires energy while enjoying the beauty of nature. This activity is very beneficial to both human and nature because plants remove carbon dioxide, and other potentially harmful gases such as sulphur dioxide and carbon monoxide from the environment and produce oxygen (Vaske, Jacobs, & Espinosa, 2015). Other than that, human resource management policies, philosophies, and practices have been used to nurture the sustainable consumption of resources in organisations to reduce the harmful effects to the environment. Thus, the development of sustainable tourism is widely recognised as a tool for faster economic development. Globally, while the general pattern is a rapidly expanding tourism initiative, the detrimental effects of tourism are growing dangers in many parts of the world (Rajasthan, 2017).

### III. CONCEPTUAL FRAMEWORK

This research has built up a research framework (shown in Figure 1) via a literature review of previous studies. Therefore, the study is focused on establishing the factors affecting the implementation of green practices among tertiary education students. A conclusion that can be drawn based on past research is that the independent variables are knowledge, awareness and practice. However, in this study, the researchers selected only two independent variables due to them being the main factors of the dependent variable.



**Figure 1:** A conceptual framework on the determinant factors that influence the implementation of the green practice.

Based on the past studies and literature, two hypotheses are set out as follows:

**H1:** Knowledge of students has a positive relationship towards the implementation of green practice activities among students in higher education.

**H2:** Awareness of students has a positive relationship towards the implementation of green practice activities among students in higher education.

### IV. RESEARCH METHODOLOGY

This research has an emphasis on studying the relationship between the factors that have influenced the implementation of green practice activities among students in higher education. A quantitative method is used, as it has a bigger focus on numerical data collected through mass surveys. Therefore, the process of collecting data involves the population of students in higher education institutions from years one to three covering all ethnicities. The study has a sample size of 457 students in years one to three years using the simple random sampling technique.

Three sections of the questionnaire have been constructed to collect data. Section A contains the students' demographic profiles, while section B covers independent variable-related questions. Section C is items on dependent variables. All of the items were adapted from past studies such as Awang, Yusnita and Afthanorhan (2018). This study has used a five-point Likert scale of the items to obtain further information ranging from 1= strongly disagree to 5 = strongly agree.

This study used a questionnaire where the data collection process took 3 months to complete. The questionnaire is divided into three sections i.e. parts A, B and C. All questionnaires have been distributed to the potential respondents in higher education institutions. The questionnaires are written in the English language in

order to establish a better understanding among the students. The questionnaires are collected face to face by the researcher to ensure the privacy of the information that is received from the respondents.

Data collected in this research were analysed using IBM SPSS version 25. In addition, reliability and validity tests were performed before the actual data collection process. To improve reliability, Cronbach's alpha coefficient was tested. A value greater than Cronbach's alpha means the item is more reliable. Reliability values of less than 0.6 are considered weak, 0.6 to < 0.7 are moderate, 0.7 to < 0.8 are good, 0.8 to < 0.9 are very good and 0.9 are very good (Creswell, 2007). In terms of content validity, academics from public universities have been contacted to check the validity of the content. Table 1 below illustrates the data collection procedure in this research.

**Table 1:** Procedure of Data Collection

Target Population	Higher Education Student
Number of respondents	457 Higher Education Student
Type of Sampling	Random Sampling
Research Approach	Quantitative Technique
Data collection method	Self-Administered questionnaire
Data Analysis	IBM SPSS version 25

## V. FINDING AND DISCUSSION

### 1.4 Demographic Profile

The respondents' demographic profiles are shown in Table 2. The majority of the respondents are females with 54.8%, and 45.2% are males. Most of the respondent are Malay representing 67.1%. This is followed by the Chinese with 20.3%, Indians- 8.7%, and 3.9% representing others. In addition, most of the respondents are aged between 18 - 23 years with 179 respondents at 57.7%, and a minority of respondents at 0.3% who are above 36 years old. More than half of the respondents are degree (Bachelor) holders with 64.2% followed by diploma holders- 28.1%, 4.5% respondents hold a master degree, and a minority of respondents are PhD holders represent 0.3%. Most of the respondents are from public universities- 52.6%, and 47.4% from private universities. From the data, it is shown that 40.6% of the respondents are Kelantanese and the balance of 59.4% is from other origins.

**Table 2:** Demographics Profile of student

Construct	Category	Frequency	Percentage (%)
Gender	Male	140	45.2
	Female	170	54.8
Race	Malay	208	67.1
	Chinese	63	20.3
	India	27	8.7
	Others	12	3.9

<b>Age</b>	18 - 23 years old	179	57.7
	24 - 29 years old	120	38.7
	30 - 35 years old	10	3.2
	>36 years old	1	0.3
<b>Education</b>	Matriculation	9	2.9
	Diploma	87	28.1
	Bachelor	199	64.2
	Master	14	4.5
	PhD	1	0.3
<b>Universities</b>	Public	163	52.6
	Private	147	47.4
<b>Origin</b>	Kelantan	126	40.6
	Other	184	59.4

### 1.5 Pearson Correlation

According to Cohen (1988), Pearson's correlation is used in measuring the variables of value between the two associations. The numbers representing the Pearson's correlation are to be referred to as the correlation coefficients (Hair et al., 2007). The higher the correlation coefficient, the stronger each variable is. The variable analysis provides information about the relationship between each variable whether there is a positive or negative relationship (Pallant, 2007). Table 3 lists the correlation coefficients.

**Table 3:** Rule of thumb on correlation coefficient size

Correlation absolute value size	Strength of association
$r = .10 - .29$	Small
$r = .30 - .49$	Medium
$r = .50 - 1.0$	High

(Cohen, 1988)

Table 4 shows the correlation between knowledge and awareness towards the implementation of green activities among students in higher learning institutions in Malaysia. The results indicate that the independent variables have a positive correlation to the dependent variables shown. The results show the correlation coefficient between knowledge and awareness towards green practices. The correlation figures indicate that awareness has a high correlation between the variables and they suggest a strong correlation between awareness and green practices ( $r = .579^{**}$ ,  $p < 0.05$ ), respectively. However, knowledge is indicating a medium correlation between the variables and it suggests a positive correlation between knowledge and green practices ( $r = .490^{**}$ ,  $p < 0.05$ ), respectively.

**Table 4:** Correlation coefficient analysis all Independent Variables towards Dependent Variables

Correlation	
Knowledge	.490 <sup>**</sup> (Medium)
Awareness	.579 <sup>**</sup> (High)

- a. Predictors: (Constant), Knowledge, Awareness
- b. Dependent Variable: Green Practice
- c. \*\* Correlation is significant at the 0.05 level (2-tailed).

## 1.6 Multiple Regression

Multiple regression is a simple extension of linear regression, and it is popular in predicting behavioural outcomes (Meyers, Gamst & Guarino, 2006). In significant cases, multiple regressions typically calculate values with the given variables (Berk, 2004). This will guide the relative contributions of all independent variables, and the statistical significance of the results both in terms of the model itself and the individual variables will be determined by the test Pallant, 2007). Therefore, multiple regressions were used in in this work to predict the relationship between knowledge, awareness and green practices.

The regression model usually is built on two or more independent variables and used to analyse the variables' relationship. Due to the fact that each independent variable is assessed from the independent predictors such as knowledge and awareness, and the green practice as a dependent predictor

**Table 5:** Results of Multiple Regression of the implementation of green activities

	Model 1
	Standard
Predictors	$\beta$
Knowledge	0.369*
Awareness	0.276*
$R^2$	0.468
Adjusted $R^2$	0.458
$R^2$ Change	0.468
$F$ Change	46.20
Dependent Variable: Green Practice	
Note: * $p < 0.05$	

Table 5 indicates the relative importance of each attributes in predicting the implementation of green activities. The result explained that 46.8% in green practices are collectively by the control variables ( $R^2 = 0.468$ ,  $F$  change = 46.20,  $p = < .05$ ). It is detailed by the multiple regression analysis of knowledge that was recorded ( $\beta = 0.369$ ,  $P = < .05$ ) and awareness ( $\beta = 0.276$ ,  $P = < .05$ ). Thus, the regression analysis identified all independent variable are found significantly have a relationship between the green practice



## **VI. LIMITATION AND FUTURE RESEARCH**

This study was limited to Malaysian higher education institutions; hence different results may be produced if it is applied in different contexts. Furthermore, its results may be altered by other factors that will be affected by the green practice activities. As such, more work may be needed to develop and test a scale for future research which would be applicable for a specific type of student in other locations. Moreover, it would be interesting if future research are conducted using the qualitative method where the researcher can interview and obtain more in-depth information directly from the students.

## **VII. CONCLUSIONS**

The findings from this study show a positive significant relationship between knowledge and green practices in higher education students in Malaysia. People tend to avoid a situation where there is insufficient knowledge to act as a benchmark for their behaviour and where the uncertainty is higher. It can be seen that when people are more exposed to issues in the environment, they are more willing to spend more on an environmentally friendly product (Chan et al., 2014). Knowledge can affect environmental attitudes that then motivate the individual's responsible behaviour (Juvan & Dolnicar, 2014). Thus, it is believed that a moderate positive relationship exists between awareness and green practices among higher education students in Malaysia. In a related concern, due to the increase of environmental concerns and awareness, which are becoming the driving forces, global manufacturers are obliged to implement green manufacturing practices while making their products (Azmi, Musa, Abdullah, Othman & Fam, 2017). Awareness of green practices is very essential as it affects the student's decision to purchase green products. Therefore, awareness should be described as a situation where students become aware of a new green product but is still in need of more information on it.

The Malaysian government has introduced an energy policy to ensure the sustainability of energy production, environment, economy and social well-being in the country (Azmi et al., 2017). This shows that the government has also taken part in encouraging the people to be aware of protecting the environment. Besides that, increasing the participation in environmental programs, education, increasing the knowledge of an individual, providing appropriate facilities and equipment about environment by the government and the private sectors play a significant role for the students to be actively involved on green practices in the university. Through emphasis on educational aspects it is possible to improve the practice among students of higher education because of improved knowledge; as well as taking affective measure on promoting the green practices (Londoño & G.Hernandez-Maskivker, 2016). Based on the previous study, most of the findings have found that preserving the environment is a commendable effort and it is strongly related to the green practices that should be implemented, particularly among students in higher education (Mohiuddin et al., 2018; Rajasthan, 2017; Yusof & Awang, 2018). In conclusion, where green practices among higher education students in Malaysia are concerned both knowledge and awareness are strongly related. The relationship between awareness with green practices is stronger than that with knowledge. This is because people who are aware would take more action than those who only just know. Awareness in green practices is about learning about products, equipment and systems, thus, by doing so these can help in reducing negative impacts on the environment (Hernandez, 2019). Therefore, green practices are very important to sustain environmental tourists' attractions from any destruction that is caused by tourism activities

## VIII. ACKNOWLEDGMENT

The authors would like to thank the Faculty of Hospitality, Tourism & Wellness, Universiti Malaysia Kelantan for the encouragement to publish this paper.

## REFERENCES

1. Azmi, F. R., Musa, H., Abdullah, A. R., Othman, N. A., & Fam, S. (2017). Analyzing the awareness of green technology in Malaysia practices. *Proceedings of Mechanical Engineering Research Day 2017*, Pp. 252-254, May 2017, (May), 252–254.
2. Awang, Z. Yusnita, Y. & Afthanorhan (2018). Sustainable Tourism: The Moderating Effect of Tourists' Educational Background in the Relationship Between Green Practices and Customer Satisfaction. *International Journal of Engineering & Technology*, 7, 21-27.
3. Chan, E. S., Hon, A. H., Chan, W., & Okumus, F. (2014). What drives employees' intentions to implement green practices in hotels? The role of knowledge, awareness, concern and ecological behaviour. *International Journal of Hospitality Management*, 40, 20-28.
4. Chelliah, S., Atteyat, B. M. A., & Huoy, L. M. (2017). Greener Campus Awareness among International Students for a better Sustainable Campus Culture. *International Journal of Managerial Studies and Research (IJMSR)*, 5(4), 42–53.
5. Creswell, J. W. (2007). *Qualitative inquiry & research design: Choosing among five approaches* (2nd ed.). London and New Delhi: Sage Publications Inc.
6. Hanifah, M., Shaharudin, I., Mohmadisa, H., Nasir, N., & Yazid, S. (2015). Transforming Sustainability Development Education in Malaysian Schools through Greening Activities. *Review of International Geographical Education Online*, 5(1), 77–94.
7. Hernandez, A. A. (2019). An Empirical Investigation on the Awareness and Practices of Higher Education Students in Green Information Technology: Implications for Sustainable Computing Practice, Education, and Policy. *International Journal of Social Ecology and Sustainable Development (IJSESD)*, 10(2), 1-13.
8. Juvan, E., & Dolnicar, S. (2014). The attitude–behaviour gap in sustainable tourism. *Annals of tourism research*, 48, 76-95. doi: <https://doi.org/10.1016/j.annals.2014.05.012>
9. Kutschera, S. (2019). Travel statistics to know about in 2019 and 2020. Retrieved October 18, 2019, from <https://www.treksoft.com/en/blog/65?travel?tourism?statistics?for?2019>
10. Lee, S., Honda, H. C., Ren, G., & Lo, Y. (2016). The Implementation of Green Tourism and Hospitality Journal of Tourism & Hospitality. *Journal of Tourism & Hospitality*, 5(4), 2–5. <https://doi.org/10.4172/2167-0269.1000233>
11. Londoño, M. P. L., & G.Hernandez-Maskivker. (2016). Green practices in hotels : the case of the GreenLeaders Program from TripAdvisor. In *Proceedings of the 7 International Conference on Sustainable Tourism (ST 2016)* (Vol. 201, pp. 1–13). <https://doi.org/10.2495/ST160011>
12. MaTiC. (2010). History of MaTiC. Retrieved August 4, 2012, from <http://www.matic.gov.my/en/about-matic/history/early-history.html>

13. Meyers, S. L., Gamst, G., & Guarino, A. J. (2006). *Applied Multivariate Research: Design and Interpretation*. London: Sage Publication, Inc.
14. Mohiuddin, M., Mamun, A. Al, Fazal, S. A., Masud, M. M., & Su, Z. (2018). Environmental Knowledge , Awareness , and Business School Students ' Intentions to Purchase Green Vehicles in Emerging Countries. *Sustainability*, 10(1534), 2–18. <https://doi.org/10.3390/su10051534>
15. Mojilis, F. (2019). Sustainability Awareness of Students from a Green University in Sabah, Malaysia. *Journal of Tourism, Hospitality and Environment Management*, 4(13), 24–33.
16. Pallant, J. (2007). *SPSS Survival Manual A Step by Step Guide to Data Analysis Using SPSS for Window*. (3rd Ed). New York: McGraw Hill.
17. Rahim, F., & Musa, H. (2018). Green technology awareness : A case of Malaysia. *Environment and Social Psychology*, 3(1), 4–8. <https://doi.org/10.18063/esp.v3i1.674>
18. Rajasthan, U. (2017). Green Tourism Practices in India- A Paradigm Shift in Sustainable Development. *International Journal of Science Technology and Management*, 6(5), 70–74.
19. Tourism Malaysia. (2015). *Malaysia Tourism Statistics*. Retrieved January 25, 2016, from <http://www.tourism.gov.my/statistics>
20. Vaske, J. J., Jacobs, M. H., & Espinosa, T. K. (2015). Carbon footprint mitigation on vacation: A norm activation model. *Journal of Outdoor Recreation and Tourism*, 11, 80–86. <https://doi.org/10.1016/j.jort.2015.05.002>
21. Wang, D., Xiang, Z., & Fesenmaier, D. R. (2016). Smartphone Use in Everyday Life and Travel. *Journal of Travel Research*, 55(1), 52–63. <https://doi.org/10.1177/0047287514535847>
22. WTTC. (2017). *Benchmark Report 2017 - Malaysia*. United Kingdom.
23. WTTC. (2019). *Travel & Tourism Economic Impact 2019 World*. United Kingdom.
24. You, Z., Chen, W., & Song, L. (2011). Evaluating ecological tourism under sustainable development in Karst Area. *Journal of Sustainable Development*, 4(2), 234–239.
25. Yusof, Y., & Awang, Z. (2018). Preliminary Study : Green Practices , Awareness and Knowledge about the Environment among Homestay Operators in Selangor , Malaysia. *Advances in Social Science, Education and Humanities Research*, 292, 286–293
26. Zhu, W., Zhu, Z., Fang, S., & Pan, W. (2017). Chinese Students' Awareness of Relationship between Green Finance, Environmental Protection Education and Real Situation. *Eurasia Journal of Mathematics Science & Technology Education*, 13(7), 3753-3769
27. Vivek, C. M., Thamilvanan, G., & Mohanasundaram, K. (2019). Influence of activity based assessment in outcome-based education. *Test Engineering and Management*, 81(11-12), 4524-4528. Retrieved from [www.scopus.com](http://www.scopus.com)
28. Wahyudin, Ulfatmi, Jandra, M., Huda, M., & Maselena, A. (2019). Examining development quality practice in higher education: Evidence from islamic higher education institution (IHEI) in indonesia. *Test Engineering and Management*, 81(11-12), 4298-4310. Retrieved from [www.scopus.com](http://www.scopus.com)
29. Widiyanah, I., Sugiarto, D. Y. P., Rusdarti, & Wahyono. (2019). The development of english language learning management model of non formal education (NFE) strategy to improve speaking skill. *Test Engineering and Management*, 81(11-12), 4400-4407. Retrieved from [www.scopus.com](http://www.scopus.com)
30. Safitri, D., Umasih, Yunaz, H., Marini, A., & Wahyudi, A. (2019). Model of environmental education. *International Journal of Control and Automation*, 12(4), 49-55. doi:10.33832/ijca.2019.12.4.04