

# Youth Awareness on Sustainable Development: The Mediating Effect of Place Attachment in Selangor, Malaysia\*<sup>\*</sup>

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## ABSTRACT

Youths formed a significant percentage of Malaysia's population, hence their participation and engagement in sustainable development is crucial for the transformation of the nation's development landscape. However, the awareness on sustainable development among the youth population in Malaysia has yet to achieve satisfactory level after many years of exposure. introduced. This study aims to identify the relationship between knowledge, attitude and social influences on sustainable development awareness among youth in Selangor, the state that has the highest population of youth in Malaysia. It also examines the mediating effect of place attachment. The study employs quantitative approach. Using cross-sectional survey, there are 385 respondents that was identified through the convenience sampling technique. The findings revealed a significant relationship between knowledge, attitude and social influences on sustainable development awareness among youth in Selangor. The multiple regression analysis ranked knowledge as the most influential factor in youth's awareness on sustainable development. Place attachment also mediates the relationship between knowledge, attitude and social influences on sustainable development factor in youth's awareness on sustainable development awareness among youth in Selangor. The multiple regression analysis ranked knowledge as the relationship between knowledge, attitude and social influences on sustainable development awareness among youth is sustainable development. Place attachment also mediates the relationship between knowledge, attitude and social influences on sustainable development awareness among youth's awareness on sustainable development.

Keywords: Youth; Awareness; Sustainable Development; Malaysia; Place Attachment.

# INTRODUCTION

The concept of sustainable development (SD) in Malaysia has been practically adopted since the 1970s through the implementation of the New Economic Policy (NEP) which aims to promote social equity and eliminate poverty (Afroz & Ilham, 2020). However, the adoption of sustainable development (SD) is not gone as fast as might be expected (Weybrecht, 2017). People still consider sustainability to be a concept that is difficult to grasp from the perspectives of the environment, economy, and society as a whole (Alsaati et al., 2020). The findings of the study conducted by Abedin et al. (2021) reveals that students at higher education institutions have a low to moderate degree of Sustainable Development Goals (SDGs) knowledge. This is because there are scarce and limited sources to obtain Sustainable Development Goals (SDGs) knowledge which only depends on educational institutions and social media (Tuan Ismail et al., 2022). This has pondered a question: Do education on sustainable development (SD) offered to the youth in school and higher learning institution insufficient? Given the growing relevance of sustainability consciousness, the purpose of this research is to investigate the factors that influence and correlate with sustainable development awareness among youth.

### **Problem Statement**

Sustainable development (SD) has become one of the most crucial and challenging issues in 21st century that has been faced by human society (Anbu, 2020). Malaysia has experienced numerous environmental issues, which become obvious signs of the unsustainability of development patterns. For example, the action of the



irresponsible industry sector which illegally dumped chemical substances and toxic into Sungai Kim Kim in Pasir Gudang has caused adverse effects in which a total of 2775 people (mostly school children) have been hospitalized, 110 schools near the river instructed to temporarily close and 1500 tonnes of river water needed to clear the 900 tonnes of toxic (Chung, 2022). Besides that, the state government's actions that are more concerned with profit by approving forest harvesting activities and illegal logging led to major floods occurring in Pahang (Chyuan, 2022). These behaviors could lead to environmental crises and create a serious threat to the welfare and well-being of humankind as well as other species. In Malaysia, youth represent a large population and they are the most significant contributors to the country's pressing issues. Youth comprise 45.8 percent of the overall population and are becoming change agents in pushing the country's economic transition (Abdul Rahman, 2020). Thus, youth awareness and involvement in addressing environmental issues that are crucial for sustainable development (Wee et al., 2017).

Besides that, many sustainable programs have been introduced aimed to promote sustainable living among youths. However, Malaysian youths' lackadaisical attitude still exists and the tendency to believe that Malaysia is a country blessed with abundant resources and it is the government's responsibility to protect the environment and handle it has led the unsustainable development (Yahya, 2019). This can be supported when the National Youth Climate Change Survey conducted by UNICEF emphasized that 92 percent of Malaysian Youth realized that climate change is one of the serious crises caused by human beings which indicated that there is a high level of awareness of the issue. Despite improvement in the youth awareness, there is still lack of deep understanding of the ways to tackle the issues and rely on the government to solve the issue (Qiu et al., 2022). Research by Hubbub on youth environmental attitude and awareness also revealed that this situation also happens in other countries like the UK where a quarter of young people aged 16-24 years old don't believe that climate change is caused by human activity and 30 percent have a mindset that climate change is not relevant issues need to be solved by them and believe it should be lead by the government (Restorick, 2022). In Malaysia, 40 percent of respondents from a study conducted by the government entitled "Youth Awareness in Environmental Care" involving 384 youth respondents aged 15-30 years in Kuala Lumpur and Putrajaya mentioned that time constraints and busyness as the main reason they did not recycle waste even though they know about the recycling campaign and been taught ever since they were young. This has caused an increase in the cost of waste management and waste of commodities which affected environmental sustainability (Bernama, 2022).

Having a good awareness of sustainable development among youth is important as critical awareness is associated with empowerment (Chang et al., 2022). Young people are the generation most affected by the present sociopolitical and economic crises and bearing the brunt of its effects plays a vital role in how sustainable development processes in organizations, institutions, and communities operate. Youths will be able to release their potential, serve as agents of good change and sustainable growth, and so make their societies thrive towards sustainable development if they are empowered and proactive in topics that have a high influence on their lives (Elmasllari, 2022). Selangor is a state located in west Peninsular Malaysia. In terms of development, Selangor is considered one of the most developed states in Malaysia due to its advancement in almost every aspect of development (Habibullah et al., 2018). Not only that, Selangor is also known as the house of economic power because Selangor contributed to the growth of the country in terms of boosting the Gross Domestic Product (GDP) (DOSM, 2021). However, Selangor recorded a lower Sustainable Development Goals (SDGs) score as compared to Negeri Sembilan, Pahang and Sarawak. This might be due to challenges facing such as the urbanrural gap for relative poverty, water crisis, income gap, illegal fishing and many more (SDSN, 2022). According to Gomes et al. (2019), a sustainable future is somehow a complex interdisciplinary decision as it needs to be balanced between the environment, economy and society which requires efforts in communicating and information. Therefore, lack of awareness and unsustainable consumption are some factors that hinder a sustainable environment (Yngfalk, 2019). As a state with the highest youth population which is around 1 489 900 million in 2022 and increasing to 1 490 900 million in 2023 (Malaysia Youth Data Bank System, 2023), this topic must be urgently addressed as youth will be the most vulnerable to the effects of environmental issues and climate change even though youth contribute the least those issues. Additionally, policymaking alone is not sufficient if the Malaysian community especially the youth did not have the awareness of the need to give priority to the issue of environment and sustainability (Sababathy, 2022).

Finally, sustainable development (SD) and its multiple dimensions that aims to give prosperity to people and protect the environment are modern ideas that are nowadays been taken into consideration in the majority of



nations all around the world. In some developing countries, several terms regarding sustainable development (SD) might be unfamiliar to the communities resulting in a lack of awareness towards the topic of sustainability. Additionally, fragmentation or lack of data also has led to difficulty in communicating and collecting information about sustainable development (SD) in developing countries (El Rifai, 2021). Malaysia's former Housing and Local Government Minister stated that the community is still in the dark regarding sustainability as only half of Malaysians are aware of the government's aims and vision for sustainable development. As a result, it will hamper the nation's goals and aspirations to move towards a more sustainable future (Birruntha, 2019). A few studies focused on sustainability awareness as compared to an extensive study into youth behavior towards sustainable development and most of these studies were undertaken in Western countdries. Thus, this study was conducted to fill the gaps in understanding the level of awareness of young people towards sustainable development. As Malaysia has more than 14.6 million youth aged between 15-39 years old (Malaysian Department of Statistics, 2022), this issue is vital to study as over the next few years the youth will inherit Malaysia's decision and policy-making process, be involved in business activities and determine the the sustainability direction of Malaysia.

### **Research Questions**

- 1. Is there a significant relationship between knowledge, attitudes and social influence towards youth's awareness on sustainable development (SD)?
- 2. Which factor has the strongest influence towards youth's awareness on sustainable development (SD)?
- 3. Does place attachment mediate the relationship between knowledge, attitudes and social influence towards youth's awareness on sustainable development (SD)?

# LITERATURE REVIEW

#### Awareness

Awareness can be defined as the state or ability of an individual to be conscious of an event, object or sensory pattern (Odelami & Fasakin 2012). Awareness is a part of individual behavior towards sustainable development. Thus, awareness in the context of sustainable development is referred to as individuals' social consciousness, which includes the individuals' ability to empathize with nature, belonging, and norms (Shutaleva et al., 2022). A global survey conducted at the beginning of 2020 places the percentage of awareness on sustainability and Sustainable Development Goals (SDGs) at nearly 50% (Frank et al, 2020). Moreoer, Leiva-Brondo et al. (2022) also revealed that Universitat Politècnica de València (UPV) students are aware of sustainability and Sustainable Development Goals (SDGs) importance in their daily lives but most of the students do not fully understand about it and the current implementation. Only 15.9 percent of students knew about sustainability very well. This rate of awareness is slightly lower than the previous study conducted among Japanese university students (Ando et al., 2019). Similarly, being less aware of sustainability was found in the Nigerian university population as the majority of the students (81 percent) were unaware of the UN Decade of Education for Sustainable Development (Akeel et al., 2019).

In addition, this situation is similar to a study conducted by Msengi et al. (2019) whereby only several respondents realized what is sustainability but almost all agreed that it is important. Furthermore, many respondents do not realize the sustainability initiatives carried out by institutions. Wee et al. (2017) disclosed that although respondents' awareness of sustainability regarding the idea and problem of sustainable development has grown, they still have a diverse understanding of its semantics and scope. Despite that, the study found that respondents were worried about sustainability and eager to act sustainably. Javan (2022) in her study on investigating awareness, attitudes, and behaviors among Geography Students at Urmia University towards sustainable development (SD) revealed that students' awareness of the dimensions of sustainable development which is maintaining biodiversity was more than other dimensions. However, the Index of Standard Division and Mean (ISDM) was used by the researcher to determine the level of awareness and the researcher concludes that the level of sustainable awareness among Geography Students at Urmia University is moderate. It can be seen when only 25.5 percent of students have a high level of awareness towards sustainable development while 41.5 percent of students have a medium level of awareness and 33 percent of students have a low level of awareness.



Michael et al. (2020) conducted a study to measure students' awareness, attitudes and actions towards sustainable development. The study involved 507 students from a Malaysian public university in Kota Samarahan and the results stipulated that first-year and second-year students have the lowest level of sustainability awareness as compared to the final-year student (M=3.918, SD=.517). This study supported the findings of Mojilis (2019) that reported students in another university specifically the University College Sabah Foundation (UCSF) regardless of age, gender and level of study had over 70 percent level of sustainability awareness.

### Knowledge

As sustainable development covers the interaction between people and the environment, knowledge is an important aspect of producing people that are knowledgeable about the environment and its related issues, producing people who have a high degree of consciousness to solve the issues and people who are inspired to work on the solution (Gough and Whitehouse, 2018). Knowledge and awareness are interrelated with one another in influencing sustainability. Education and knowledge need to be instilled at an early age as it is an important medium for inculcating awareness and shaping sustainability perspectives (Radzi et al., 2022).

There are several studies that associated knowledge and awareness on sustainability. Mohamad et al. (2020) for instance, conducted a study on 235 students from 25 different primary schools in Kluang District to examine the environmental conservation awareness of students based on their knowledge, attitude, and behavior. The results shown a moderate level of environmental awareness among students with mean score of 3.37. This is in line with the study by Azmi et al. (2017) that highlighted the most important aspect of raising awareness of green practices in an organization and green purchase intention (Nguyen et al, 2022) is knowledge. Furthermore, in research on solid waste management, Barloa et al. (2016) found that respondents with better knowledge scores were more likely to demonstrate excellent behavior. Suki (2016) also emphasized that young consumers are more pro-environmental when they have a broader and more varied environmental knowledge base.

Knowledge can be found as one of the elements that influence youth awareness on sustainable development (SD). It is stated that if youth are given the information and chances to grow and participate in decision-making processes, they may generate and become a positive and dynamic force for Sustainable Development (Hwang & Kim, 2017). According to a study conducted by Nongqayi et al. (2022), with adequate knowledge indirectly youth as future change agents will also have adequate awareness that later contributes to pro-environmental behaviors. One of the hypotheses drawn in Shutaleva et al. (2022) study mentioned that Ekaterinburg's young people's level of education has the greatest influence on their experience and application of environmental practices. Thus, the study suggests the following hypothesis:

H<sub>1</sub>: There is a significant relationship between knowledge towards youth's awareness on sustainable development.

### Attitude

Attitudes are mental positions, emotions, or sentiments towards a fact or a condition (Michalos et al, 2012). Previous studies have explored the association of attitudes with sustainable environmental behaviour. Zulkipli et al. (2022) tested knowledge, attitudes, perception and practice with the level of Malaysian awareness of solid waste management. Results revealed that overall mean score analysis for three items used for attitude have high scores. Thus, the authors concluded that there was a high level of attitude among Malaysian citizens towards solid waste management and this outcome demonstrates a good contribution to the 12th Malaysian Plan Agenda, which focused on promoting environmental sustainability by 2025 and was in line with sustainable development goals (SDGs). Moreover, a study by Javan (2022), revealed that 38.3 percent of students had a negative attitude towards sustainable development, and it came to the conclusion that a lack of human understanding of and responsibility for the environment is partly responsible for selfish views and attitudes (Javan, 2022).

Mahat et al. (2020) conducted a study to explore the attitude-behavior gaps in young Malaysians' environmental sustainability awareness by involving 1000 Malaysian youth selected using stratified random sampling. The overall levels of attitude were high (m=4.181 and SD= 0.732). The study also found that when attitudes towards environmental sustainability were strong, it was found that behavior followed suit. As a result, the study did not



find a gap between attitudes and behaviors towards environmental sustainability awareness among youth in Malaysia. Another study in Malaysia was done by Afroz & Ilham (2020) to ascertain the degree of awareness among the University of Malaya students towards Sustainable Development Goals (SDGs), base on their findings, attitude and practice regarding SDGs do have a substantial positive association (Afroz & Ilham, 2020).

Attitude is one of the most crucial parts of generating awareness as it involves the way individuals think, believe and feel about something. Fu et al. (2018) indicated that attitudes, knowledge and environmental values are several components of environmental awareness whereby environmental awareness that combines values with attitudes, feelings, and emotional involvement will generate pro-environmental behaviors. A study conducted by Sánchez-Bravo et al. (2020) stated that sustainable food consumption requires awareness by consumers whereby awareness depends on perceptions and attitudes. Furthermore, belief in the harmful impact of meat on the environment was positively related to the desire to change towards sustainable consumption (de Boer et al., 2016). Moreover, consumers' value which consists of both terminal (beliefs about preferred end states such as comfortable life) and instrumental (beliefs about the desired mode of action) has a significant influence on environmental consciousness for green products (Kautish & Sharma, 2021). Thus, the study formulates the following hypothesis:

H<sub>2</sub>: There is a significant relationship between attitude towards youth's awareness on sustainable development.

### Social Influence

Solomon (2006) described the reference group as part of social influence whereby those individuals whose attitudes or values are mimicked by others, which occasionally impacts others' behavior. When determining their awareness and behavior, individuals frequently adhere to their reference group's values, norms, attitudes, or beliefs (Mowen & Minor, 2000). According to Klobas and Clyde (2001), people who are close to individuals which are friends, family, educators, employers, coworkers, experts, and the media are a part of social influence.

Students in Hong Kong when asked about other factors that influenced their perceptions of sustainability understanding, students emphasized other school lessons or activities, TV, newspapers or magazines and the internet are those factors. However, the findings indicated that family and friends do not significantly influence the students' perceptions of their sustainability consciousness (Savelyeva & Douglas, 2017). Moreover, a study conducted by Si et al. (2022) to analyze the relationship between environmental awareness, habitat quality, and community residents' pro-environmental behavior disclosed environmental awareness, habitat quality, and pro-environmental behavior are all mediated to some extent by social capital dimensions which are social trust and social norms, sense of community, and community voluntarism. Wan & Du (2022) also supported that residents' pro-environmental activities can be affected by social capital which are social trust and social norms. Social trust is a type of particular connection of trust developed through time by members of a community. Meanwhile, social norms are the behavioral standards that community members follow to preserve generally accepted community order, encourage community cooperation, and maximize the welfare of all community members (Wan & Du, 2022).

Wang et al. (2021) in their study also stated that individuals will identify with the group and be impacted by it when their moral convictions and cognitive processes are in line with group standards. Members of an organization with a focus on environmental preservation are more inclined to act in favor of the environment. As a result, social capital in the social environment may be a component that motivates individuals to engage and take action, and it may also have a favorable impact on pro-environmental behavior. Generally, social influence is one of the priorities in people's life. In this study, the researcher believed that people who are close to the youth influence the youth's awareness on sustainable development. According to a study conducted by Mehdizadeh et al. (2019), researchers emphasized parental awareness affects children's psychological predispositions and long-term behaviors. It supported the study by Stevenson et al. (2016) which indicated the frequency of conversations with friends and family was the second most powerful predictor that assist future generations to become more concerned about climate change. Casaló & Escario (2016) also proved that parents' environmental concern has an important influence and relate positively to children's environmental concern. Furthermore, the surrounding group which includes family members, peers, neighbors, schools and local government act as role models in influencing teenagers' awareness as world heritage guardians (Wang et al.,



#### 2017). Thus, the research suggests the following hypothesis:

H<sub>3</sub>: There is a significant relationship between social influence towards youth's awareness on sustainable development.

#### **Place Attachment**

Place attachment is characterized by a sense of connecting and connection with a certain location, as well as a sense of feeling and identity with that location (Zhang et al., 2014). It is primarily concerned with the bonds that humans create with physical locations and might be marked by ambiguity (Hernandez et al., 2014). Strong place attachment was shown to be connected with older age, poorer education, and birthplace in the area. However, residency time is one of the most important determinants of place attachment (AlQahtany and Abubakar 2020; Jansen 2020; Razem 2020). Place attachment was found to have a positive and substantial mediating influence on the connection between nature connectivity and human well-being in an analysis of survey data obtained from Japanese citizens. Place attachment accounts for 30 percent of the entire influence of nature connectivity on the citizens' well-being. Thus, the study discovered a direct and significant relationship between nature connectivity and human well-being (Basu et al., 2020).

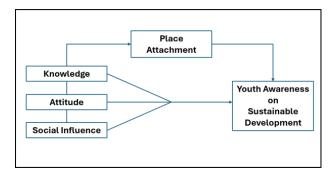
Javed and Kour (2022) investigated the impact of place attachment in establishing a relationship between green consciousness, conservation commitment and environmentally responsible behaviors among university students in India. According to the study's findings, green awareness has a significant impact on students' conservation commitment which influences students to engage in ecologically responsible conduct. Furthermore, in this study, location attachment moderates the overall relationship. Both findings appear to be consistent with the earlier study by Chiu et al. (2014), which found that environmental concern, ecological knowledge, and commitment lead to environmentally responsible behavior. Meanwhile, university attachment highlights its significance among the different structures used to determine environmentally responsible behavior.

The human mind syncs with nature and its resources as a consequence of regular contact and continual adaptations to address various environmental issues (Matilainen et al., 2017). An increase in environmental understanding would raise a sense of care and ownership for it (Emekci, 2019; Sussenbach & Kamleitner, 2018). Cheung and Hui (2018) revealed that citizens' attachment to their place was substantially connected with positive perceptions, attitudes, and ecologically responsible activities. Cheng & Wu (2015) indicates that place attachment was found to have significant effects in mediating the relationship between environment knowledge (EK) and environmentally responsible behavior. A study conducted by Wang et al. (2019) used place ownership as a mediator in the association between awareness and green consumption. Thus, the researcher suggests the following hypothesis:

H4: Place attachment relates positively to the knowledge, attitude and social influence that affects youth's awareness on sustainable development.

## **CONCEPTUAL FRAMEWORK**

Figure 1: Conceptual Framework



Source: Self developed based on literature review



# **RESEARCH METHODS**

In this study, a cross-sectional design using a quantitative method was used to achieve the objective of the study. The data obtained in this study has been analysed using a Statistical Package for Social Science (SPSS) version 28. The unit of analysis in this study comprises individuals who study, work and live around Selangor. Furthermore, the selection of youth in this study also falls under the category of those aged between 18 to 30 years old. This research study the population of youth in Selangor. Selangor has recorded around 1,721,100 youth (IYRES, 2022). Based on the total population, 384 respondents have been chosen as the sample size for this study using convenience sampling technique. The sample size was determined as referred to as the sample size for a given population size established by Krejcie and Morgan (1970). The data from this study has been collected through the distribution of an online questionnaire which has been prepared in the form of bilingual (Bahasa Malaysia and English). For data analysis, this study employes Pearson Correlation analysis to answer the first three (3) hypotheses of the study while multiple regression is used to determine the most influential factor that influences the youth's awareness on sustainable development. Baron & Kenny (1986) mediation analysis is employed to answer the fourth hypothesis. This analysis comprises three sets of regression which are independent variable (X) affects dependent variable (Y) (X  $\rightarrow$  Y), X affects mediator variable (M) (X  $\rightarrow$  M) and the effect of X on Y goes through M (X + M  $\rightarrow$  Y).

As for reliability analysis, Cronbach's Alpha was used to determine whether the instrument are statistically significant. Md Ghazali (2016) emphasized that instrument reliability illustrates how positively connected one instrument is with the others. This study adopt the rule of thumb from Mat Daud et al. (2018) and all the variables are reliable as demonstred in Table xxx

Variable/ Construct	Number of Items	Cronbach's Alpha	Reliability Assumed
Knowledge (IV)	5	0.677	Acceptable
Attitude (IV)	5	0.794	Acceptable
Social Influence (IV)	6	0.852	Good
Place Attachment (Mediator)	6	0.840	Good

Table 1: Reliability Test

(Rule of thumb: Mat Daud et al., 2018, value > 0.6)

# RESULT

This sub-section provides an overall statistical finding for each of the objectives highlighted in the study. Four (4) important statistical analysis used in the study which are Descriptive, Pearson Correlation, Multiple Regression and Process analysis. Results of the analysis are as follows:

# To examine the significant relationship between knowledge, attitudes and social influence towards youth's awareness on sustainable development

In this study, there are 3 hypothesis constructed using the correlation analysis to determine the relationship between variables. The hypothesis can be referred as followed:

H1: There is a significant relationship between knowledge towards youth's awareness on sustainable development.

H<sub>2</sub>: There is a significant relationship between attitude towards youth's awareness on sustainable development.

H<sub>3</sub>: There is a significant relationship between social influence towards youth's awareness on sustainable



development.

Table 2 revealed the correlation analysis of all the independent variables for youth awareness on sustainable development. For the first independent variable, there is a strong positive association between awareness towards the youth's knowledge of sustainable development (r=0.642, p<0.001). It is followed by the second independent variable, where there is a strong positive association between attitude towards the youth's awareness on sustainable development (r=0.596, p<0.001). In addition, for the third independent variable, there is also a strong significant relationship association between social influence towards the awareness on sustainable development (r=0.540, p>0.001). To sum up, all of the three independent variables have an association with the youth's awareness on sustainable development.

Table 2: Correlation Results

Variable	Pearson Correlation	Result	Hypothesis
Knowledge	Pearson Correlation Sig. (2-tailed)	0.642** <0.001	An alternative hypothesis is accepted
Attitude	Pearson Correlation Sig. (2-tailed)	0.596** <0.001	An alternative hypothesis is accepted
Social Influence	Pearson Correlation Sig. (2-tailed)	0.540** <0.001	An alternative hypothesis is accepted

#### To determine the most influential factor that influences the youth's awareness on sustainable development

Table 3: Multiple Regression Results

Model	R	R Square	Adjusted Square	Std. Error of the Estimate	Durbin Watson
1	0.716 <sup>a</sup>	0.512	0.508	2.177	1.852

Table 3 above revealed that the R square is 0.512 which indicates that 51.2 percent of the variation in awareness on sustainable development (DV) can be explained by knowledge (IV), attitude (IV) and social influence (IV). According to Julie Pallant (2016), the value of Durbin Watson which falls in the range of 0 to <2 shows a positive correlation while >2 to 4 is negative autocorrelation. Additionally, if the value recorded is 2 there is no correlation. Thus, positive autocorrelation has been achieved in this study as the Durbin-Watson earned the value of 1.852.

Table 4: ANOVA for Multiple Regression Analysis

ſ	Model	Sum of Square	df	Mean Square	F	Sig
ſ	1	1895.425	3	631.808	133.274	<.001 <sup>b</sup>

Based on Table 4 it can be seen that the model has significance as the p-value is less than 0.05. In addition, the p-value is <0.001 and it impacted the dependent variable which is awareness on sustainable development by 51.2 percent (R square= 0.512) (F= 133.274, p<0.001b). In summary, the model is significant and has an impact on the dependent variable which is awareness on sustainable development.

Table 5: Coefficient Output for Multiple Regression

Model		Unstan Coeffic	dardized ients	Standard Coefficients			Collinearity Statistics	y
		В	Std Error	Beta	t	Sig	Tolerance	VIF
1	(Constant)	7.187	0.989		7.268	< 0.001		
	Knowledge_Compute	0.363	0.055	0.331	6.599	< 0.001	0.508	1.969



Attitude_Compute	0.348	0.055	0.291	6.301	< 0.001	0.602	1.661
Social_Compute	0.169	0.031	0.233	5.384	< 0.001	0.682	1.465

Table 5 above shows the equation that has been constructed in evaluating the statistical significance of each independent variable from the dependent variable which is awareness on sustainable development. From the table, it can be seen that knowledge (IV) is significant (p<0.001, t= 6.599) and has the greatest impact on awareness of sustainable development (DV) ( $\beta$ = 0.331). Followed by attitude (IV) which is significant as the p-value is less than 0.05 (p<0.001, t= 6.301) and has a good impact on awareness of sustainable development (DV) as  $\beta$ = 0.291. Moreover, social influence (IV) also shows that there is significance as the p-value recorded the value of <0.001 and has a good impact on awareness of sustainable development (DV) as the beta value recorded a positive value ( $\beta$ = 0.233). Based on the findings above, the most influential independent variable is knowledge as the beta value is highest as compared to other independent variables. Besides that, the tolerance and variance inflation factor (VIF) in this research for all variables indicates that there is no problematic multicollinearity as the value of tolerance is more than 0.1 while the VIF is below 10.

# To identify whether the relationship between knowledge, attitudes and social influence towards youth's awareness on sustainable development (SD) is mediated by place attachment.

H4: Place attachment relate positively to the knowledge, attitude and social influence that affects youth's awareness on sustainable development.

Table 6 revealed a significant indirect effect of knowledge on awareness as the coefficient value, b is equal to 0.123 and the p-value is considered significant as the is no existence of 0 value in the confident interval (LCCI= 0.070, ULCI= 0.189). The total effect of knowledge on awareness was significant (b=0.704, t=16.393 and p= 0.000) with the inclusion of the mediator effect, knowledge on awareness was still significant (b= 0.581, t= 12.944 and p= 0.000). This show that place attachment partially mediates the relationship between knowledge and youth's awareness on sustainable development (SD). Thus, Ha4 is supported.

Table 6: Mediation Analysis Summary between Knowledge (IV) and Awareness on Sustainable Development (DV)

Relationship	Total Effect	Direct Effect	Indirect Effect			Conclusion
	В	В	В	BootLCCI	BootULCI	
$ \begin{array}{c} \text{Knowledge} \rightarrow & \text{Place} \\ \text{Attachment} \rightarrow \text{Awareness} \end{array} $	0.704 (0.000)	0.581 (0.000)	0.123	0.070	0.189	Partial Mediation

Table 7 revealed a significant indirect effect of attitude on awareness as the coefficient value, b is equal to 0.145 and the p-value is considered significant as the is no existence of 0 value in the confident interval (LCCI= 0.085, ULCI= 0.217). The total effect of attitude on awareness was significant (b= 0.713, t= 14.531 and p= 0.000). Furthermore, the direct effect of attitude on youth's awareness on sustainable development in the presence of the mediator was also found significant (b= 0.568, t= 11.149 and p= 0.000). This show that place attachment partially mediates the relationship between attitude and youth's awareness on sustainable development (SD). Thus, Ha4 is supported.

Table 7: Mediation Analysis Summary between Attitude (IV) and Awareness on Sustainable Development (DV)

Relationship	Total Effect	Direct Effect	Indirect Effect			Conclusion
	В	В	В	BootLCCI	BootULCI	
$\begin{array}{c} \text{Attitude} \rightarrow & \text{Place} \\ \text{Attachment} \rightarrow \text{Awareness} \end{array}$	0.713 (0.000)	0.568 (0.000)	0.145	0.085	0.217	Partial Mediation



Table 8 revealed a significant indirect effect of social influence on awareness as the coefficient value, b = 0.106 and the p-value is considered significant as the is no existence of 0 value in the confident interval (LCCI= 0.058, ULCI= 0.159). The total effect of social influence on awareness was significant (b = 0.391, t = 12.562 and p = 0.000). Furthermore, the direct effect of social influence on youth's awareness on sustainable development in the presence of the mediator was also found significant (b = 0.285, t = 8.321 and p = 0.000). This show that place attachment partially mediates the relationship between social influence and youth's awareness on sustainable development (SD). Thus, Ha4 is supported.

Table 8: Mediation Analysis Summary between Social Influence (IV) and Awareness on Sustainable Development (DV)

Relationship	Total Effect	Direct Effect	Indirect Effect			Conclusion
	В	В	В	BootLCCI	BootULCI	
Social Influence $\rightarrow$ Place Attachment $\rightarrow$ Awareness	0.391 (0.000)	0.285 (0.000)	0.106	0.058	0.159	Partial Mediation

# DISCUSSION

Objective 1: To examine the significant relationship between knowledge, attitudes and social influence towards youth's awareness on sustainable development

# i. To determine the relationship between knowledge towards youth's awareness on sustainable development

In the correlation test, the researcher discovered the Pearson correlation value in the research findings was ( $r=0.642^{**}$ ) while the significant value was (p<0.001). As a result, there is a relationship between knowledge towards Selangorian youth's awareness on sustainable development. This study's findings were aligned with Shutaleva et al. (2022) and Nongqayi et al. (2022) that revealed education is one of the influencing factors that contribute to adequate awareness that will further encourage the application of good environmental practice among youth. Moreover, the finding of the study is contrary to the findings of Zhou et al. (2022) and Mohamad & Mohd Yusoff (2018) that findings pointed out individual knowledge does not affect individuals' sustainability engagement and practice. Meanwhile, as according to Odelami & Fasakin (2019), inability to gain access on information hinders the sustainable development among youth. Therefore, environmental education is a necessary independent subject or syllabus that needs to be included in the Malaysian education system to raise student consciousness in both preserving nature and practicing green practices (Wee et al., 2017).

### ii. To determine the relationship between attitude towards youth's awareness on sustainable development

In the correlation test, the researcher discovered the Pearson correlation value in the research findings was ( $r=0.596^{**}$ ) while the significant value was (p<0.001). As a result, there is a relationship between attitudes towards Selangorian youth's awareness on sustainable development. The previous study by de Boer et al. (2016), proved this hypothesis by demonstrating that the evaluation of the attitude has a strong relationship in generating awareness. This research study founds that belief in the harmful impact of meat on the environment may increase one's desire to change towards sustainable consumption. This is also supported by the previous study by Tang (2017) which disclosed most respondents agreed that by changing their attitude towards sustainability, they will be more aware and willing to change their lifestyle to a good one such as utilizing the resources effectively and efficiently, avoid wastage as well as avoid making pollution. Hence, selfish views might lead to a lack of awareness and understanding regarding the human responsibility in protecting the environment and natural resources which might hinder good sustainable development practices in the country (Javan, 2022). Additionally, attitude is a clear understanding of the collection of values, interests or principles that might lead to proenvironmentalism and environmental awareness among the young generation which will motivate them to actively participate in protecting the environment and its resources for the future generation (Ramu, 2020).



# iii. To determine the relationship between social influence towards youth's awareness on sustainable development

In the correlation test, the researcher discovered the Pearson correlation value in the research findings was (r=  $0.540^{**}$ ) while the significant value was (p<0.001). As a result, there is a relationship between social influence towards Selangorian youth's awareness on sustainable development. This finding is in line with the finding of Stevenson et al. (2016) who found out that when the young generation frequently communicated with their family and friends about climate change, they will gain more information and can exchange views which will make the young generation more concerned about any issue when it comes to climate change. It is further supported by Casaló & Escario (2016) who indicated that family acts as inter-generational transmission to transfer information, beliefs and attitudes in generating sustainability concerns among their children. Other than that, the study by Siddique & Hossain (2018) agreed that awareness is the critical factor that affects consumers' green purchasing decisions whereby consumers' green products awareness was significantly influenced by reference groups. This is because people prefer to duplicate as well as develop their close one's values, attitudes, norms and beliefs.

Another study by Piscitelli & D'Uggento (2022) emphasized that individuals tend to behave in socially desirable ways. Additionally, the study conducted by Collado et al. (2017) also agreed that other than witness parents' environmental actions, peers also influenced 12 to 19 years old adolescents to act sustainably by performing recycling, energy conservation, green purchasing and many more. As a result, it can be said that youth's awareness on sustainable development is influenced by people who are close to them.

# Objective 2: To determine the most influential factor that influences the youth's awareness on sustainable development

The study found that there is a positive relationship between the independent variable and the youth's awareness on sustainable development (SD). The R square value was 0.512 indicating that 51.2 percent of the independent variables of knowledge, attitude and social influence contributed to the youth's awareness on sustainable development (SD). Overall, from this study, it can be concluded that knowledge was the most possible factor in the degree of awareness among Selangorian youth regarding sustainable development (SD) due to its beta value ( $\beta$ = 0.331). The previous study by Ramu (2020) proved this hypothesis by demonstrating the same result as this study which upon running the multiple regression, knowledge was the most influencing factor towards environmental awareness among Malaysian public university students ( $\beta$ = 0.445, r= 0.626 and p<0.00). Varoglu et al. (2017) also supported that knowledge is crucial to generate awareness because an increase in consciousness due to the knowledge posses by an individual will make them more sensitive and always think about possible solutions in addressing environmental problems.

Another study by Mojilis (2019) also emphasized sustainability knowledge ( $\beta$ = 0.121 and p<0.05) and sustainability information ( $\beta$ = 0.194 and p<0.001) are the most significant influencing factors to sustainability awareness. Ahamad & Ariffin (2018) also stressed that it is clear that education improves understanding of the sustainable consumption idea or concept, which later helps to foster attitudes and concurrent sustainable practices. As a result, people need to have a basic understanding of environmental issues to generate consciousness that will lead them to act pro-environmentally and sustainably.

# Objective 3: To identify whether the relationship between knowledge, attitudes and social influence towards youth's awareness on sustainable development is mediated by place attachment

Model 4 Process Analysis by Andrew F. Hayes was performed to identify whether the relationship between knowledge, attitudes and social influence towards youth's awareness on sustainable development (SD) is mediated by place attachment. Results found that all direct effects and indirect effects of the mediation analysis for all independent variables recorded significant values less than 0.05. This indicated that some impact of knowledge, attitude and social influence on sustainable development awareness passes through place attachment. Knowledge, attitude and social influence also directly influence awareness on sustainable development.



Therefore, place attachment partially mediates the relationship between the independent variables and the youth's awareness on sustainable development.

A study by Cheung & Hui (2018) proved this finding as it indicated that residents' place attachment was significantly associated with positive attitudes as heritage forests not just provide environmental benefits but also feng shui value in South China. Thus, cultural bonding might be essential in increasing residents' environmental awareness towards heritage forest conservation. Dasgupta et al. (2022) also found that modest ecocentric attitudes are highly connected with Jhum farmers' place connection. Hence, the researchers conclude that effective strategies for sustainable agriculture can be achieved with strong ecocentric attitudes and strong place attachment. Moreover, the findings aligned with Wang et al. (2019) outcome that investigated the mediating effect of psychological ownership on the influence of awareness on green consumption. The study revealed positive social emotion emphasized the sense of connection between oneself and others around them whereby it will enhance people's awareness of green consumption.

Cheng and Wu's (2015) findings also confirmed this study's hypothesis that environmental sensitivity and place attachments had substantial impacts in mediating the links between environmental knowledge and ecologically responsible behavior. Tourists who have a high level of knowledge about sustainable development are more concerned about their surroundings and the influence of their lifestyle choices on the environment. Furthermore, when tourists establish an emotional attachment to an area, they are more likely to take action to safeguard it and its inhabitants. The result for this interaction shows it has no significant interaction between the two variables as the significance value is p=0.8399. Moreover, the interaction has contributed 0.83% to the analysis.

# CONCLUSION

In conclusion, awareness is an important aspect of the success of sustainable development implementation in the country. A high degree of awareness will lead to positive sustainable behavior. This research has studied and found the sustainable development awareness level based on youth perspectives and the elements that make the young generation aware of sustainable development. The study indicates that three factors have contributed to sustainable development awareness among youth in Selangor which is knowledge, attitude and social influence. The findings of the study also emphasized that place attachment which is the emotional bond with the place ahas a mediating effect in the relationship between knowledge, attitude and social influence with sustainable development awareness among the youth.

Variables in the study have been selected by the researcher based on the KAP Model and Social Influence Theory. The were only three independent variables that were tested in the study which are knowledge, attitudes and social influence. As a result, the study's findings are less optimistic due to the constrained question model. Thus, it is recommended that future researchers explore other available theories and models. By doing so, the researchers will have an opportunity to mix and match the variables indicated by several available theories and models and come out with their unique conceptual framework for analyzing elements that affect youth's awareness on sustainable development considering that youth judgment differs from time to time.

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