

The Extended Unified Theory of Acceptance and Use of Technology (UTAUT2) and New Media Literacy: A Study on Internet Usage and Youth Literacy

Che Nur Amalina S. Che Zainal, Wardatul Hayat Adnan & Ahlam Abdul Aziz
University Teknologi MARA

***CHE NUR AMALINA S. CHE ZAINAL**

Faculty of Communication and Media Studies
University Teknologi MARA Cawangan Shah Alam
email: che_amalina@yahoo.com

AHLAM ABDUL AZIZ

Faculty of Communication and Media Studies
University Teknologi MARA Cawangan Shah Alam
email: ahlam@uitm.edu.my

WARDATUL HAYAT ADNAN

Faculty of Communication and Media Studies
University Teknologi MARA Cawangan Shah Alam
email: wardatul@uitm.edu.my

ABSTRACT

The development of the Internet has had an impact on various aspects of our lives, including communication, business, and information gathering. Internet benefited individual and has its own advantages and disadvantages towards life. This study aims to comprehend the relationship between Internet use and youth new media literacy. The study, which involved young in Shah Alam, Selangor, Malaysia, aged 18 to 30, was carried out using a quantitative, cross-sectional survey and purposive sampling. The study's findings revealed that respondents had good level of Internet proficiency and used their mobile phones regularly to access the Internet. Youth Internet usage variable of the Unified Theory of Acceptance and Use of Technology 2 (UTAUT 2) have a positive correlation hence show that people accept and use the Internet for daily tasks. The relationship between Internet Use Behaviour (IUB) and New Media Literacy (NML) are indicated was significant and supported (P-value: .000, C.R. value: 9.254). The interconnection between Internet usage and new media literacy highlights the significance of providing young people with the essential abilities to navigate the online environment proficiently. Engaging with the Internet without these skills may limit the potential benefits and expose individuals to various online risks.

Keywords: Internet, new media literacy, UTAUT 2, youth, online behaviour

INTRODUCTION

The Internet has developed into a crucial tool during the past ten years (Andrew et al., 2020; Wang et al., 2019) for individuals to connect, find entertainment, conduct both private and professional business, as well as to gain and gather knowledge. Internet also has an impact on the culture in which people live. However, young people are learning through their use of the Internet, which has evolved into a potent educational instrument (Jahan et al., 2021). Despite giving society a world without bounds, the ability of the Internet to help people in many ways promotes their acceptance of and use of technology in daily life (Farah Waheeda et al., 2022). Internet usage has increased globally, reaching 63.1 percent of the total population. China, India, and the United States were the top three countries in the world for Internet users according to country (Statista, 2022). As for Malaysia, there were 738 thousand more Internet users in the country in the years 2020 and 2021, a rise of 2.8 percent (Kemp, 2021). According to a study by Joschka (2021), there will be up to 30 million more Internet users in Malaysia by 2025. The prediction is based on daily Internet usage that ranges from five to eight hours on average. The fact that there are more people using the Internet every year throughout the world is evidence of how important it is for society as a whole.

Young people are more likely to use the Internet than other age groups, and Internet literacy varies according to age, gender, and educational attainment (Runchina et al., 2022). The current study highlights the disparity between age, gender, and educational background when using the Internet and assessing the users' literacy. Understanding the impact of Internet use on young Internet literacy is the contribution of the study. Unified Theory of Acceptance and Use of Technology 2 (UTAUT 2) and New Media Literacy is one of the models used to construct, explain, and forecast how users would use and behave when utilizing technology under various circumstances.

Thus, this study is conducted to answer below research questions (RQ):

RQ1: What is the level of Internet usage among youth?

RQ2: What is the relationship between Internet Use Behaviour with Youth New Media Literacy?

LITERATURE REVIEW

Internet Users in Malaysia

Malaysian users have a high and growing penetration of the Internet, which is enabling its growth. People are connected via the Internet, and usage is increasing yearly (Kurniawati et al., 2021). For both fixed and mobile connections, the number of households using the Internet increased by 90 percent in 2019 (Gong, 2020). Among Asian nations, Malaysia had the highest percentage of Internet users in 2019 at 81.2 percent, followed by Indonesia and Singapore. Due to Malaysia's status as a developing nation attempting to provide users with reliable connectivity, previous studies indicate that Internet penetration in Malaysia is at a standard level.

The year 2020 saw an increase of 919,000 users or 3.6 percent in the number of Internet users in Malaysia, bringing the country's penetration rate to 83 percent with 26.69 million users (Taib et al., 2021). In January 2021, Malaysia's Internet penetration rate was reported to be 84 percent (Jo et al., 2020). UNICEF Malaysia (2018) added a comparison with the rate in 2015, which was only 66 percent. In terms of global Internet penetration, since 2019, it has been estimated that 63 percent of the population has access to the web, and this number has increased in all countries by over 20 percent (ITU, 2020). In Malaysia, the percentage of people aged 44 and under who use the Internet has increased from 76.9 to 88.7, with penetration reaching this level in just 4 years (Nik Jaafar et al., 2021). Compared to other groups, younger generations use the Internet more frequently (Kitazawa et al., 2019). It is concluded that Internet usage grows annually throughout the world, including Malaysia.

There have been a number of previous studies on new media literacy. According to a study by Yasdin et al. (2021), knowledge from new media can help people develop their soft skills. Knowing how to locate knowledge before receiving any information improves soft skills in critical thinking. On the other hand, new media literacy is crucial for everyone, especially young adults (Xiao et al., 2021). It aids people in sifting through false information. People who utilize the Internet are more likely to critically examine new media content. It takes a variety of media usage experiences to create new media literacy. As a combination of information and communication technologies, this is significant to the communication context (Rosenthal, 2020).

The Extended Unified Theory of Acceptance and Use of Technology (UTAUT2)

The Unified Theory of Acceptance, and Use of Technology 2 (UTAUT 2) was originally known as Unified Theory of Acceptance, and Use of Technology (UTAUT) to predict the use of technology in organizational settings. UTAUT 2 theory is an extended model version by (Venkatesh et al., 2003) with the integration of eight models dominant which are: Theory of Reasoned Action, Technology Acceptance Model, Motivational Model, Theory of Planned Behaviour, Combined Technology Acceptance Model (TAM) and TPB, Model of PC Utilization (MPCU), Innovation Diffusion Theory, and Social Cognitive Theory. The theory explains how people behave when they intend to utilize a technology or actually do use it.

Venkatesh et al. (2003) assert that there are seven key elements that affect how people use technology, extending UTAUT into UTAUT 2. These seven aspects include performance expectancy, effort expectancy, enabling conditions, social influence, hedonic incentive, price value, and habit. According to Venkatesh et al. (2012), performance expectancy helps users perform specific tasks using technology, effort expectancy makes using it simple, social influence is crucial for educating others—such as family and friends—about the use of a particular technology, and facilitating conditions are the factors that encourage and enable the behavior, such as resources and support. Hedonic motivation, user's behavior such as pleasure or enjoyment in using the product or technology that focuses on utility, price value where users are solely accountable for the cost and dominate the user's adoption decision, and habit has different effects on the use of technology, may strengthen and/or weaken the usage are the additional three factors extended from UTAUT 2 (Venkatesh et al., 2012).

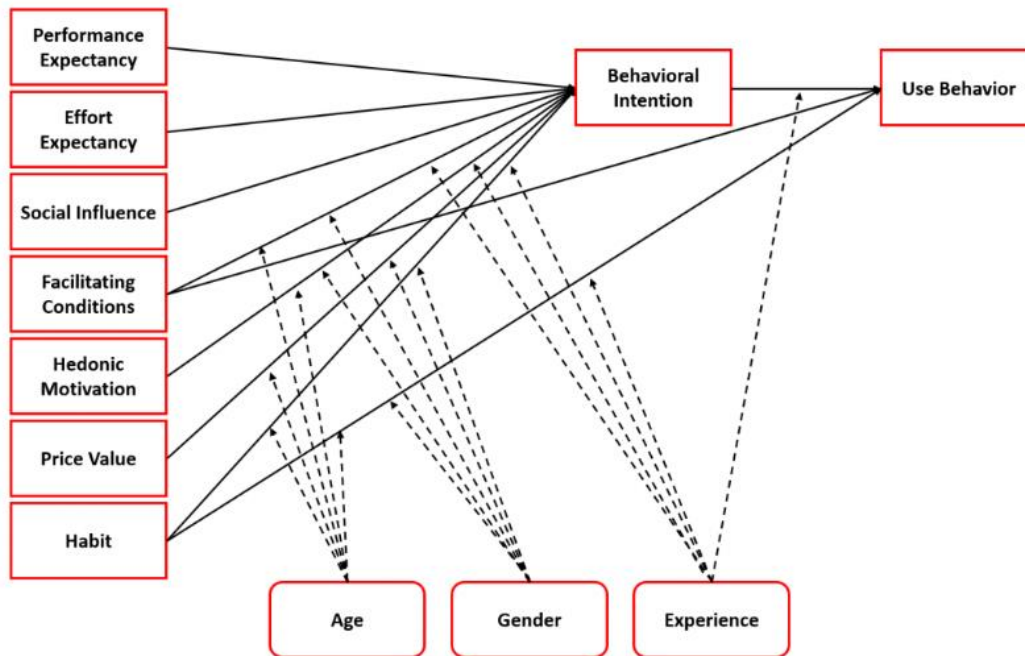


Figure 2.1: Unified Theory of Acceptance, and Use of Technology 2 (UTAUT 2)

New Media Literacy

Media literacy, as it was previously known, was intended to help people become better informed members of society through appropriate media message consumption. The phrase "media literacy" needs to be updated in light of the development of information and communication tools (ICT) in the 21st century, also known as the Digital Age. Additionally, according to Ugurhan et al. (2020), the new media literacy of today demands that the content be self-generated. According to (Xiao et al., 2021), it is the capacity to access, analyze, assess, and produce media messages in various contexts.

The Internet-based platform has the ability to enhance knowledge production and delivery on a bigger scale with the introduction of Web 2.0. Despite having good abilities using a variety of Internet platforms, respondents in Aceh study were unable to discriminate between fake and authentic news. To fulfill themselves or for no other reason, they have published posts on social media (Syam & Nurrahmi, 2020). Despite having proficiency with the Internet, the understanding and literacy of new media is still very poor.

As media evolves, so does literacy, from traditional to new media on the web. According to Ugurhan et al. (2020), the active production of new technology consumption has entered popular culture, making it easier to access new media and popular for people to share and create media material. Users in Web 2.0 are both content producers and consumers (Lin et al., 2013). As a result, Lin et al. (2013) paradigm emphasizes the participatory culture that develops with Web 2.0. The following indicators, which are based on the new media literacy

(NML) framework, represent the new media literacy skills: When a person consumes media content, technical skills and comprehension abilities are included in the first two skills: consuming (1) and comprehending (2). Skills to dissect, recreate, and remix media information while embracing multiple points of view make up analysis (3) and synthesis (4). Evaluation (5) refers to the capacity to examine, evaluate, and determine whether media content is reliable.

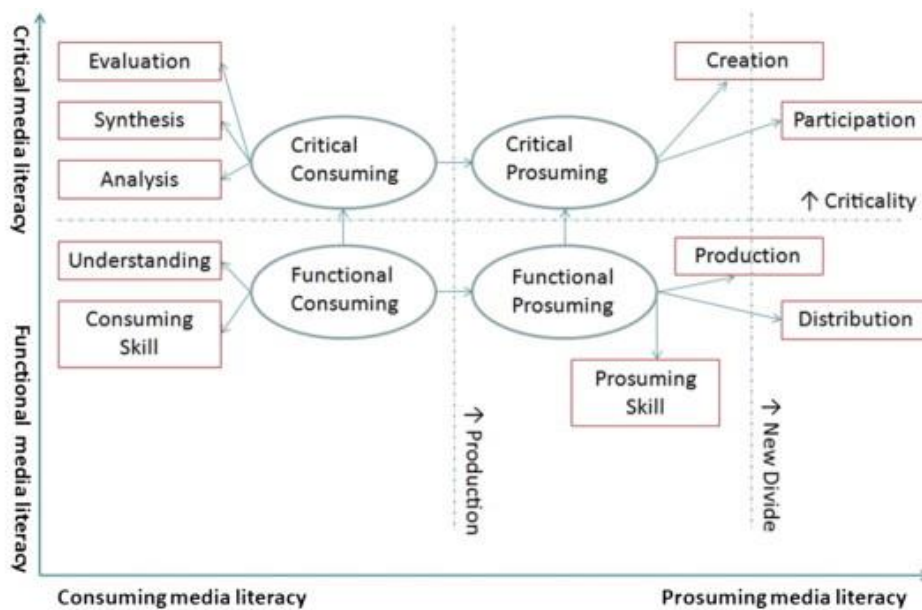


Figure 2.2: Theory of New Media Literacy (NML)

Research Framework

The research framework is developed from two major theories; Unified Theory of Acceptance and Use of Technology 2 (UTAUT 2) and New Media Literacy (NML). It is simplified in Figure 2.3 on the effects of Internet usage on new media literacy. The Internet usage includes performance expectancy, effort expectancy, social influence, facilitating conditions, hedonic motivation, price value, habit of using the technology, behavioural intention and use behaviour. New media literacy includes the study on the functional consuming, and functional prosumer.

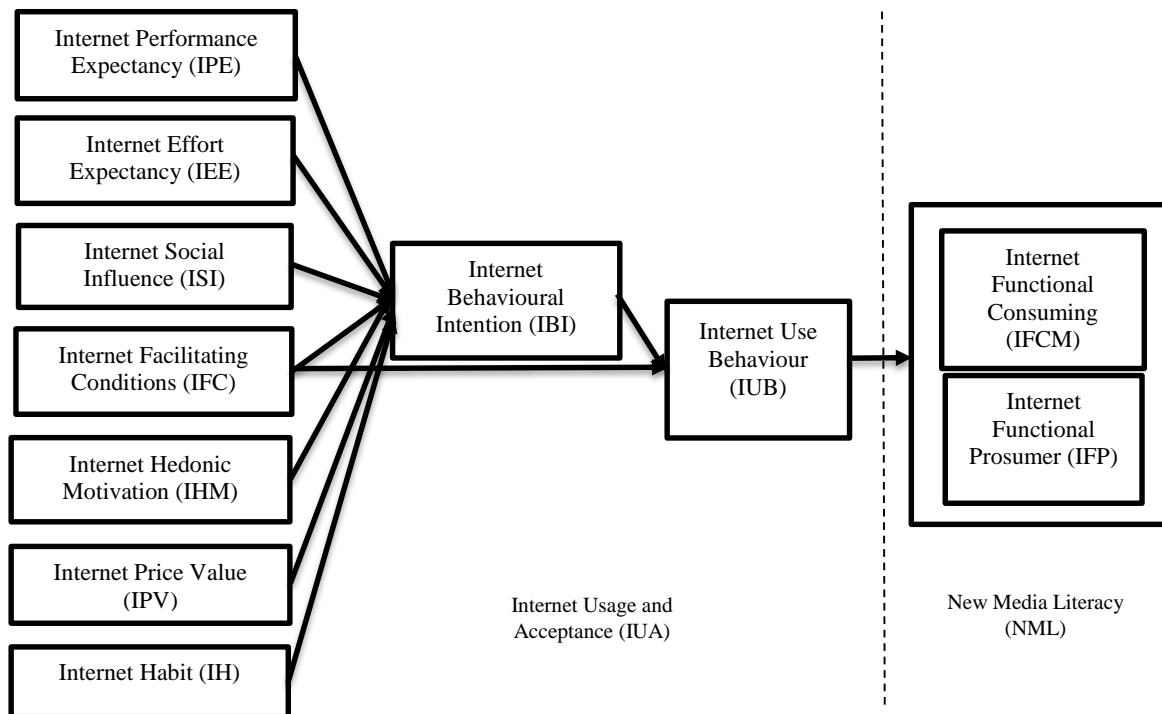


Figure 2.3: Research Framework

RESEARCH METHODOLOGY

The instrumentation used in the current research are adapted from past studies. Quantitative method and purposive sampling are used, the study was done by the researcher with a focus on young people aged 18-30 years old in Shah Alam Selangor, Malaysia. Total sample size are determined by g*power calculation. The questionnaire is divided into three components— Section A: Demographic; Section B: Internet Usage and Acceptance; and Section C: New Media Literacy—are used to collect data using an online form (Microsoft Forms). Data are collected through surveys, and the scales used for Sections A and B and C are 5-likert scales (Strongly Disagree, Disagree, Neutral, Agree, and Strongly Agree). The survey was created using the construct and questions from Table 3.1. The data has been coded ahead of the analysis and will be examined using SPSS.

Table 3.1: Data Instrumentation

Constructs	Number of Constructs	Number of Items	Measurements	Top Score	Lowest Score	Sources
Demographic profile (Section A)	1	10	Nominal Scales (Multiple Choices)			(Armstrong, Phillips & Saling, 2000; Amiel & Sargent, 2004)
Internet Usage and Acceptance (IUA) (Section B)						

Internet Performance Expectancy (IPE)	6		30	6	
Internet Effort Expectancy (IEE)	5		25	5	
Internet Social Influence (ISI)	5		25	5	
Internet Facilitating Conditions (IFC)	5		25	5	(Salim, 2012; Venkatesh et al., 2012; Arenas-Gaitán, Peral-Peral & Ramón-Jerónimo, 2015)
Internet Hedonic Motivation (IHM)	9	6	5-point Likert Scale	30	6
Internet Price Value (IPV)	7		35	7	
Internet Habit (IH)	5		25	5	
Internet Behavioural Intention (IBI)	6		30	6	
Internet Use Behaviour (IUB)	5		25	5	
New Media Literact (NML) (Section C)					
Internet Functional Consuming (IFCM)	2	7	5-point Likert Scale	35	7
Internet Functional Prosumer (IFP)		9		45	9

FINDINGS AND DISCUSSIONS

Profile of Respondents

The respondents of this study were among the youth aged 18-30 years old in Shah Alam, Selangor. The sample size of the study was determined through the calculation of g*power with total of respondents N=317. From the data collection, the study managed to collect data from 350 respondents. However, due to incomplete and missing data, out of 350 questionnaires collected, 30 questionnaires were excluded and after the data purification, 3 cases were deleted. Therefore, 317 questionnaires collected were analysed in this study.

Table 4.1: Respondent's Demographic

Demographic	Frequency	Percentage
Gender		
Male	93	29.3
Female	224	70.7

Demographic	Frequency	Percentage
Age		
18-20	31	9.8
21-23	156	49.2
24-26	92	29.0
27-30	38	12.0
Education		
Secondary School	1	0.3
Diploma	25	7.9
Bachelor	217	68.5
Master	72	22.7
PhD	2	0.6
Rate Internet Expertise		
Poor	2	0.6
Fair	47	14.8
Good	129	40.7
Very Good	104	32.8
Excellent	35	11.0
Level Internet Usage		
Once per day	302	95.3
2-3 days per week	7	2.2
Once Per month	5	1.6
Rarely	3	0.9

From Table 4.1, out of 317 respondents, majority of the respondents were females (70.7 percent) and minorities were male (29.3 percent). Joschka, (2021) has supported that the number of females is higher as compared to males when using the Internet. A survey conducted by Malaysian Communications and Multimedia Commission (MCMC) on youth Internet use percentage by gender has shown the number of females increased from 27.1 percent in 2018 to 35.8 percent in 2020, while the number of males increased from 40.1 percent to 40.8 percent (IYRES, 2020).

The respondent's age shows majority of the respondents were aged 21-23 years old (49.2 percent), followed by respondents of age 24-26 years old (29 percent), 27-30 years old (12.0 percent) and 18-20 years old (9.8 percent). As for the respondent's education level, many held Bachelor degree (68.5 percent) and minority is at secondary level (0.3 percent). Other level of education were Diploma (7.9 percent), followed by Master Degree (22.7 percent) and Doctor of Philosophy (PhD) (0.6 percent). The statistics from Malaysia youth data bank system has supported this finding, particularly on the majority of the youth that have accessed to the Internet are of age between 15-24 years old and their level of education mostly indicate they are students (63.3 percent) (IYRES, 2019).

Respondent's Internet expertise in Table 4.1 indicate different levels including good (40.7 percent) and lowest at poor level (0.6 percent). Additionally, other rates are very good (32.8 percent), fair expertise (14.8 percent) and excellent at 11 percent). Observing the level of Internet usage in Table 4.1, 95.3 percent of the respondents do access to the Internet at least once a day. Subsequently, good Internet connectivity in Malaysia enables the respondents to access to the information daily (Kemp, 2021). The easy access allows respondents to gain information from the Internet daily without limitation. Moreover, over the improvement of the

infrastructure and technologies increases daily use of Internet with over 27.3 million Malaysians being active in using it despite their awareness of the advantages of using Internet to support daily activities (Allo, 2021).

Reliability and Regression Path Coefficients

The study runs a reliability analysis to understand the relationship between the individual’s items in the construct. Reliability measurement ensures the level of internal consistency among multiple measurements of a construct with a similar population or within the same population (Hair et al., 2011). There are different methods to estimate the reliability of the construct. However, the most used method is Cronbach’s Alpha. The Cronbach’s Alpha reliability coefficient is examined from the Cronbach’s Alpha coefficient that ranges between 0 and 1, the greater would indicate higher internal consistency of the items in the scale. Consistent measurement items can measure the reliability coefficient known as Cronbach’s Alpha values whereby >0.70 are acceptable, while >0.80 are good and >0.90 are considered excellent (Nunnally, 1978). Moreover, the minimum acceptable level for the exploratory research of Cronbach’s Alpha value is 0.60 (Basha et al., 2021).

The reliability of the instruments is tabulated in Table 4.2. The findings show that the Cronbach’s Alpha (α) for all constructs reported are above of .70 (ranging from 0.72 to 0.92) and thus, it is considered reliable. Additionally, all constructs in the study are accepted to be used for further analysis. This is supported by a study on by Basha et al. (2021) the important to proceed to further analysis are the value of the Cronbach’s Alpha (α).

Table 4.2: Reliability Test

Section	Variable	Cronbach’s Alpha
SEC2A	Internet Performance Expectancy (IPE)	0.91
SEC2B	Internet Effort Expectancy (IEE)	0.92
SEC2C	Internet Social Influence (ISI)	0.90
SEC2D	Internet Facilitating Conditions (IFC)	0.82
SEC2E	Internet Hedonic Motivation (IHM)	0.88
SEC2F	Internet Price Value (IPV)	0.72
SEC2G	Internet Habit (IH)	0.84
SEC2H	Internet Behavioural Intention (IBI)	0.71
SEC2I	Internet Use Behaviour (IUB)	0.89
SEC3A	New Media Literacy (NML)	0.82

Table 4.3: Regression Path Coefficients

Construct	Path	Construct	Estimate	S.E.	C.R.	P-value	Result
New Media Literacy	<---	Internet Use Behaviour	.506	.055	9.254	.000	Supported

The relationship between Internet Use Behaviour (IUB) and New Media Literacy (NML) are indicated in Table 4.3 was significant and was supported (P-value: .000, C.R. value: 9.254).

Youth Level of Internet Usage

With the total of respondents N=317, the frequency of Internet usage as shown in Table 4.1 is once per day at 95.3 percent (n=302). This is followed by 2-3 days per week at 2.2 percent (n=7), once per month at 1.6 percent (n=5) a rarely use of Internet is recorded as 0.9 percent (n=3). Therefore, the level of the Internet usage by the respondents is high with majority access to the Internet once per day. The findings of the study are aligned with the research conducted by Shuen Sheng Fung et al. (2021) that youth access to the Internet daily at least once per day.

Relationship Between Internet Use Behaviour with Youth New Media Literacy

The relationship between Internet Use Behaviour (IUB) and New Media Literacy (NML) was significant and was supported (P-value: .000, C.R. value: 9.254). This can be seen by a study on effectiveness of science communication using the Internet as a medium of communication. Participants seek information from the Internet to have better understanding of the issues (Rosenthal, 2020). Therefore, it can be concluded Internet Use Behaviour and NML are significant. The youth frequently use the Internet and are more literate in using it. Daily usage of the technology by youth are related to literacy in terms of sharing and/or creating content despite finding information and enhance life satisfaction.

CONCLUSION

Internet use behavior and new media literacy are intertwined because people's use of the Internet can greatly benefit from a thorough understanding of new media. Being able to critically and properly navigate the online world is necessary for getting the most out of the Internet while avoiding potential risks and incorrect information. Additionally, involvement and literacy in using the Internet is required to create a healthier access to the platform when information is shared with others. New media literacy in understanding the function and effect of the Internet become crucial in encouraging constructive collaboration among the youth and further expose them to diverse perspectives and ideas. The researcher has addressed several limitations which is important the theoretical advancement of the constructs, and the scope of the study that is covered in this study. One limitation of the study on Internet usage and media literacy on the youth which focuses on surveys of the youth aged 18-30 in Shah Alam, is that the findings may not be applicable to other populations or contexts.

***CORRESPONDING AUTHOR**

Ms Che Nur Amalina S. Che Zainal, University Teknologi MARA,
che_amalina@yahoo.com.

ACKNOWLEDGMENT

N/A

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