

TECHNOLOGY ACCEPTANCE MODEL AND DIGITAL LITERACY OF FIRST-YEAR STUDENTS IN A PRIVATE INSTITUTION OF HIGHER LEARNING IN MALAYSIA

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ABSTRACT

The purpose of this study is to investigate the relationship between Technology Acceptance Model (TAM) and digital literacy among the first-year students in a private institution of higher learning in Malaysia. Two main dimensions from TAM were investigated as independent variables, i.e., perceived ease of use (PEOU) and perceived usefulness (PU). Meanwhile, the digital literacy was investigated as the dependent variable. Other factors such as gender, age, location, home internet connection, tenure of being computer user were also being investigated in this study. A total of 127 questionnaires were distributed among first-year students. However, only 123 responses were useful. The data gathered was tabulated using SPSS version 20. Four types of analyses, i.e., Descriptive analysis, T-Test, ANOVA and Spearman's Correlation were administrated. The results showed that high level of digital literacy among the first-year students. The T-Test showed significant difference in the level of digital literacy in accordance with home internet connection. However, no significant difference level of digital literacy in accordance with in gender and location. ANOVA Analysis showed no significant difference in the level of digital literacy in accordance with age and tenure of being computer user. Spearman's Correlation revealed that there is a significant relationship between PEOU and digital literacy. Similarly, significant relationships found between PU and digital literacy and home internet connection and digital literacy. In addition, PEOU was identified as the most dominant factor influencing digital literacy.

Keywords: *Digital literacy, perceived ease of use, perceived usefulness, Technology Acceptance Model.*

INTRODUCTION

In the context of development and expansion of an increasingly digital society, training in competencies within the scope of digital literacy among higher education students becomes essential (Jeffrey *et. al.*, 2011). Students' ability on making use the digital technologies as tools in their learning, communication and assessment vary depending different factors. While digital technologies have dramatically increased students' opportunities to create and

share information. However, students who hold different level of digital literacy have different ability to communicate, share and create information retrieved from internet.

In relation to this, Malaysia Communications and Multimedia Commission (2016) (hereafter MCMC) conducted a survey about internet users in Malaysia. A total of 2,787 respondents (2,402 Internet users and 385 non-users) through Computer Assisted Telephone Interview (CATI) system were involved. In its report *The Internet User Survey 2016*, educational attainment appeared to be a significant indicator to access the Internet. Looking at the average hours spent online, school-goers spent the most time online. On average, a student spent three hours in a day to access the Internet. In addition, 94.7% claimed that they used the Internet for study purposes.

In the following year, MCMC (2017) reported that out of 3,469 respondents (2,402 Internet users and 1,067 non-users) about two-third (67.6%) of Internet users used Internet for study purposes (not restricted to students who contributed to 17.1% of user base). The Internet also provided convenience to students and teachers to have virtual group discussion, conduct research, find reference material, etc. This is suggested that there is a significant growth for students to use digital technology including internet in their studies.

By using the original TAM as theoretical base, two dimensions from the TAM were selected as variables; Perceived Ease of Use (PEOU) and Perceived Usefulness (PU) together with other variables gender, age, location, home internet connection, tenure of being computer user, and also purpose of using digital technologies.

These independent variables are relevant to the study as previous researchers found evidence for differences in technological preparedness based on factors like gender, geographical lines, year of using computer (Kubey, Lavin & Barrows, 2001). In addition, there are also differences in how first-year students as a whole use the Internet and technology compared to other individuals. A recent study found that first-year students spent an average of 16.3 hours per week chatting while spending only an average of 3.9 hours per week using e-mail (Morgan & Cotton, 2003).

It is important for the faculty who work with first-year students must ensure that students are receiving proper education in technological skills. This study examines the factors that influence the development of digital literacy among first-year students specifically so that the researcher will be able to provide recommendations for the institution to provide activities or program to ensure that first-year students to be more digital literate. This is one of the institutional efforts on student retention and also student learning. Through the recommendations, it is expected that the gap between faculty and students in technological use can be smaller.

Therefore, the purpose of this study is to investigate the relationship between Technology Acceptance Model (TAM) and digital literacy among the first-year students in a private institution of higher learning in Malaysia by answering the following research questions:

RQ1: What is the level of digital literacy of the first-year students?

- RQ2: What is the difference in first-year student's digital literacy in accordance with their demographic backgrounds (gender, age, location, home internet connection and tenure of being computer user)?
- RQ3: What is the relationship between TAM's dimensions and digital literacy of the first-year student?
- RQ4: What is the most dominant factor that influencing the digital literacy of first-year students?

LITERATURE REVIEW

Digital Literacy

Digital literacy skills and competences make it possible for students to use digital tools to enrich their educational experience and improve them for society and lifelong learning (Ukwoma, Iwundu & Iwundu, 2016). Students are expected to use technologies tools such as online information, software and applications to do their assignments and presentations as assessment. Digital literacy is defined by Becta (2010) as a combination of functional technology skills, critical thinking, collaborative skills and social awareness.

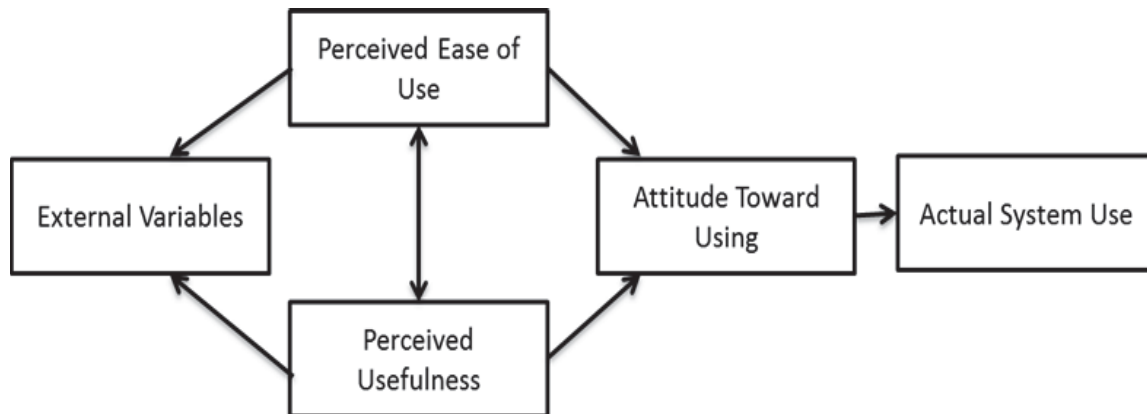
In a survey-based study of digital literacy of 51 undergraduate students at an Australian university, Ng (2012) found that her students were generally able to use unfamiliar technologies with ease but many of them did not use online tools for educational purposes. The results of her study suggested that more support should be given to students to use educational technologies.

Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM) is an information systems theory that models how users come to accept and use a technology. The technology acceptance model (TAM), developed by Davis (1989), states that the success of a system can be determined by user acceptance of the system, measured by three factors: perceived usefulness (PU), perceived ease of use (PEOU), and attitudes towards usage (ATU) of the system (Davis, 1989). If a system is not easy to use then it will probably not be perceived as useful.

This model explains a user's perception about the system's usefulness and ease of use result in a behavioural intention to use (or not to use) the system (Davis *et.al.*, 1989; Nov & Ye, 2008). According to Davis (1989), practitioners evaluate systems for two purposes:

- i. to predict acceptability;
- ii. to diagnose the reasons resulting in lack of acceptance and to take proper measures to improve user acceptance.



(Source: Davis, 1989, in Chuttur, 2009)

Figure 1: Technology Acceptance Model (TAM)

Overall, the TAM has received empirical support for being robust in predicting technology adoption in various contexts and with a variety of technologies (Carlwly & Fine, 2004; Gao, 2005; McKinnon & Igonor, 2008; Sugar & Teo, 2009; Krause, 2011; Park, Nam & Cha, 2012).

Davis suggested that users' motivation can be explained by three factors:

- Perceived usefulness (PU) - the degree to which the user believes that using the technology will improve his or her work performance.
- Perceived ease of use (PEOU) - refers to how effortless he or she perceives using the technology will be.
- Attitude towards usage - factor that guides future behavior or the cause of intention that ultimately leads to a particular behavior.

In TAM, attitude towards usage is referred to as the evaluative effect of positive or negative feeling of individuals in performing a particular behavior (Ajzen & fishbein, 2000).

Perceived Ease of Use and Perceived Usefulness

TAM proposes that Perceived Ease of Use and Perceived Usefulness of technology are predictors of user attitude towards using technology, subsequent behavioral intentions and actual usage. Perceived Ease of Use was also considered to influence digital literacy among university students (Masrom, 2007).

It was discovered that the Perceived Ease of Use and Perceived Usefulness are important factors for predicting students' and teachers' behavioural intention to use social networking media for e-learning in Libyan higher education (Elkaseh, Kok & Chun, 2016).

In previous studies, Perceived Usefulness had a significantly greater correlation with usage behaviour than the Perceived Ease of Use. Regression analyses suggest that

Perceived Ease of Use may actually be a causal antecedent to Perceived Usefulness, as opposed to a parallel, direct determinant of system usage. Implications are drawn for future research on user acceptance (Davis, 1989).

Hence, the followings are the first-two hypotheses for this study:

Ho₁: There is no significant relationship between perceived ease of use and digital literacy of first-year students.

Ho₂: There is no significant relationship between perceived usefulness and digital literacy of first-year students.

First-Year Students

The use of computers and the internet has increased dramatically across the board. No other group has seen increase greater than incoming first-year students (Lee *et al.*, 2005). Current first-year students use technology more than their counterparts from previous generations, and students in general use technology more than other population. It is crucial for both the lecturers and students to be familiar with the technologies tools to perform their roles.

Gobel and Kano (2013) investigated 337 first-year Japanese university students' use of digital technology in academic and non-academic settings with a questionnaire consisting of 75 questions concerned with background information, student mobile phone and computer use, student familiarity with software and websites, student activities and learning preferences. The study showed that students are not ready for digital learning yet and still prefer traditional forms of learning and studying.

Demographics

There are three demographic characteristics suggested in this study, namely gender, location, age, home internet connection and tenure of being computer user.

In previous research, differences in how women use the internet have been reported. Cyberatlas (2002), showed that men logged on to the internet more, spent more time on-line, and accessed more content than women, even though women's internet presence (numbers of individuals using the internet) equaled that of men in the United States. Research has also suggested that men may be more comfortable using technology for expressing emotional issues (Junco & Salter, 2004)

Besides that, there is a difference between students who stay in rural and students who stay in urban area when it comes to familiarity with and use of computers and technology. Students with disadvantaged technological backgrounds are more likely to struggle when they attend institution of higher education. (Upcraft, Gardner, Barefoot & Associates, 2005)

In addition to gender and location, there are also significant differences in how first-year students as a whole use the internet and technology compared to individuals from different ages. One project study, The Internet Goes to College on how students are living in

the future with today's technology, found that 72 percent of all college students check their e-mail daily, while only 52 percent of all Americans with internet access do so (Brooker, Brooker & Lawrence, 2017).

In a nationwide study and document, *Falling Through the Net: Toward Digital Inclusion in The United State of America*, reported that only schools attended by students from minority or lower socioeconomic-status (SES) backgrounds tend to provide less access to computers and internet facilities, and when they do have these facilities, they are often located in areas inaccessible by students (U.S. Department of Commerce, 2000). As a result, students who have internet connection at home will have better chances to access I.T related facilities and hence, they commonly demonstrate higher level of digital literacy.

Students who start using computer and technologies at younger age will be more technological prepared when they come to tertiary education. In the previous study, out of 276,449 first-year students nationwide, 81.7 percent reported that they used the internet for research or homework during their senior year in high school (Sax *et al.*, 2003). In another word, students have being using computer and IT related technologies will tend to show higher level of digital literacy.

Therefore, the hypothesis developed for this study based on the literature review above is:

Ho₃: There is no significant relationship between home internet connection and digital literacy of first-year students.

METHODOLOGY

This research is a quantitative study that emphasise on objective measurements and numerical analysis. The research instrument used in this study is a self-administered questionnaire consisting four sections. The first section is Demographic. The second section is Perceived Ease of Use. The third section is Perceived Usefulness and the fourth section is Digital Literacy. The questionnaire was developed based on previous researches, with some amendments made to fit the study environment.

A pilot study for the draft questionnaire was carried out in order to examine its reliability and construct validity. The results of the pilot study revealed that the Cronbach's Alpha coefficients for all three sections were relatively high: Perceived Ease of Use (0.88), Perceived Usefulness (0.90) and Digital Literacy (0.91). However, six items that scored lesser than 0.70 were deleted to make the overall reading of Cronbach's Alpha coefficients to settle at 0.90 which showed a high degree of reliability. On the other hand, item analysis revealed that all the items from the questionnaires reached the significant level at 0.05. Furthermore, the results of factor analysis also showed adequate construct validity.

The population in this study was 127 first-year students from a reputable university college in Klang Valley. The questionnaires were sent to all 127 subjects in the population. The same approach had been used in previous studies (Lamb, 2015; Fleming & Stanway, 2014; Hussein, Zamzuri & Hagshenas, 2014). As a result, 125 of them responded. However, only 123 or 98.4% were useful responses. All data collected were analysed using SPSS version 20.

FINDINGS

Research Question 1: What is the level of digital literacy of the first-year students?

Table 1: Mean and Standard Deviation for Digital Literacy

| Digital Literacy | Mean | Standard Deviation |
|--|-------------|--------------------|
| Ability to find information | 4.08 | 0.50 |
| Ability to use the information | 4.03 | 0.47 |
| Ability to share the information | 4.00 | 0.44 |
| Ability to evaluate information | 3.88 | 0.77 |
| Ability to create content using ICT and the internet | 3.67 | 0.69 |
| Overall | 3.93 | 0.57 |

Descriptive analysis was used to obtain the overall mean value for each digital literacy dimension followed by comparing the overall mean with mean interpretation to determine the level of digital literacy among the first-year students. The overall mean value is presented in Table 1 above. The finding showed that the mean value for all the dimensions were high; ability to find information (4.08), ability to use the information (4.03), ability to share the information (4.00), Ability to evaluate information (3.88) and Ability to create content using ICT and the internet (3.67). The overall mean value of for digital literacy among the first-year students was also high (3.93).

Research Question 2: What is the difference in first-year student's digital literacy in accordance with their demographic backgrounds (gender, age, location, home internet connection and tenure of being computer user)?

Table 2: Mean Scores and T-Values Deference in level of Digital Literacy among First-Year Students in Accordance with Gender

| Gender | n | Mean | Std. Deviation (SD) | df | t | Sig. |
|--------|----|-------|---------------------|-----|------|------|
| Male | 60 | 2.788 | .451 | 121 | .690 | .492 |
| Female | 63 | 2.810 | .671 | | | |

Significant at $P < .05$ (2-tailed)

An independent T-Test was employed to examine whether or not there is significant difference between male and female students in their level of digital literacy. As shown in Table 2, the mean scores on digital literacy for male and female students were 2.788 (SD = .451) and 2.810 (SD = .671) respectively. The result shows that statistically there is no significance difference [$t(121) = .690, p > .05$] between male and female students in their level of digital literacy.

Table 3: Mean Scores and T-Values Deference in level of Digital Literacy among First-Year Students in Accordance with Location

| Location | N | Mean | Std. Deviation (SD) | df | t | Sig. |
|-----------|----|-------|---------------------|-----|------|------|
| Urban | 69 | 2.696 | .520 | 121 | .573 | .568 |
| Sub-urban | 54 | 2.703 | .461 | | | |

Significant at $P < .05$ (2-tailed)

As it is indicated in Table 3, the mean score for students stay in the urban and sub-urban were 2.696 (SD = .520) and 2.703 (SD = .461) respectively. The difference between the two groups of students was statistically not significant [$t(121) = .573, p > .05$]. In another word, similar level of digital literacy found between the two groups of students.

Table 4: Mean Scores and T-Values Deference in level of Digital Literacy among First-Year Students in Accordance with Home Internet Connection.

| Home Internet Connection | N | Mean (\bar{x}) | Std. Deviation (SD) | df | t | Sig. |
|--------------------------|----|--------------------|---------------------|-----|-------|--------|
| Yes | 74 | 4.081 | .514 | 121 | 3.914 | .000** |
| No | 49 | 3.090 | .735 | | | |

***Significant at $P < .01$ (2-tailed)*

Another independent T-Test was employed to examine whether or not there is significant difference between students with home internet connection and those without home internet connection in their level of digital literacy. As shown in Table 4, the mean score on digital literacy for students with home internet connection and those without home internet connection were 4.081 (SD = .514) and 3.090 (SD = .735) respectively. The result shows that statistically there is a significant difference between students with home internet connection and students without home internet connection in their level of digital literacy [$t(121) = 3.914, p < .01$]. In this context, students with home internet connection ($\bar{x} = 4.081$) demonstrated higher level of digital literacy in comparison with students without home internet connection ($\bar{x} = 3.090$).

Table 5: Mean Scores and F-Values Deference in level of Digital Literacy among First-Year Students in Accordance with Age

| Age | Sum of Squares | df | Mean Square | F | Sig. |
|----------------|----------------|-----|-------------|------|------|
| Between Groups | .107 | 2 | .054 | .521 | .595 |
| Within Groups | 19.854 | 120 | .103 | | |
| Total | 19.961 | 122 | | | |

Significant at $P < .05$ (2-tailed)

A one-way ANOVA test was conducted to examine whether or not there is significant difference in level of digital literacy among first-year students from different age groups. As shown in Table 5, the p-value was .595 which was greater than .05, therefore, there was no statistically significant difference in the level of digital literacy between the students from different age groups [$F(2, 122) = .521, p > .05$].

Table 6: Mean Scores and F-Values Deference in level of Digital Literacy among First-Year Students in Accordance with Tenure of Being Computer User

| Tenure of being Computer user | Sum of Squares | df | Mean Square | F | Sig. |
|-------------------------------|----------------|-----|-------------|------|------|
| Between Groups | .049 | 2 | .024 | .243 | .784 |
| Within Groups | 19.275 | 120 | .100 | | |
| Total | 19.305 | 122 | | | |

Significant at $P < .05$ (2-tailed)

Another one-way ANOVA test was conducted to examine whether or not there is significant difference in level of digital literacy among first-year students in accordance with the tenure of being computer user. The result from Table 6 indicated that the p-value was greater than .05 ($p = .784$). Therefore, no statistically significant difference in the level of digital literacy was found among the students in accordance with tenure of being computer user [$F(2, 122) = .243, p > .05$].

In summary, we can conclude that there is a significant difference in the level of digital literacy found among the first-year students in accordance home internet connection. However, there wasn't any statistically significant difference in the level of digital literacy found among the first-year students in accordance with their other demographic backgrounds (i.e. gender, age, location and tenure of being computer user).

Hypothesis Testing

Research Question 3: What is the relationship between TAM's dimensions and digital literacy of the first-year student?

Parametric Assumptions

To determine whether or not the data are parametric, the researchers tested assumptions of parametric. First and foremost, the data were continuous and measurements met the minimum sample size requirement (Saunders, Lewis and Thornhill, 2016). Secondly, the ratio of cases/samples (N) to variables (IV) was found to be below 5:1. According to Osborne and Costello (2002), it is expected the ratio to be 5:1 or more. Furthermore, there was no linear relationship among the two variables and data collected were not normally distributed based on the results obtained from the linearity and normality tests respectively. Therefore, to examine the relationship between TAM's dimensions (perceived ease of use and perceived usefulness) and digital literacy of the first-year students, the researchers used Spearman's Rank Test to measure the non-parametric data.

Correlation Value Interpretation

The correlation values in this study were interpreted following the table of correlation value interpretation developed by Bartlett, Kontrlik and Hinggins (2001) as shown in Table 7.

Table 7: Correlation Value Interpretation

| Correlation Value (<i>r</i>) | Relationship Strength |
|--------------------------------|-----------------------|
| ± 0.70 – 0.99 | Very Strong |
| ± 0.50 – 0.69 | Strong |
| ± 0.30 – 0.49 | Moderately Strong |
| ± 0.10 – 0.29 | Weak |
| ± 0.01 – 0.09 | Very Weak |

Perceived Ease of Use and Digital Literacy of the First-Year Students

Ho₁: There is no significant relationship between perceived ease of use and digital literacy of first-year students

Table 8: Spearman Correlation between Perceived Ease of Use and Digital Literacy of First-Year Students

| Variable | Correlation Value (<i>r</i>) | Sig. |
|------------------------------|--------------------------------|------|
| Perceived Ease of Use (PEOU) | .510** | .000 |

***Significant at $P < .01$ (2-tailed)*

Based on the correlation analysis of Spearman Test presented in Table 8, a significant, positive and strong relationship was found between perceived ease of use and digital literacy of the first-year students ($r = .510, p < .01$). The positive significant relationship showed that a high perceived ease of use dimension can increase the level of first year students' level of digital literacy and vice versa. Therefore, *Ho₁: There is no significant relationship between perceived ease of use and digital literacy of first-year students* is rejected.

Perceived Usefulness and Digital Literacy of the First-Year Students

Ho₂: There is no significant relationship between perceived usefulness and digital literacy of first-year students

Table 9: Spearman Correlation between Perceived Usefulness and Digital Literacy of First-Year Students

| Variable | Correlation Value (<i>r</i>) | Sig. |
|---------------------------|--------------------------------|------|
| Perceived Usefulness (PU) | .400** | .001 |

***Significant at $P < .01$ (2-tailed)*

Table 9 indicates that there is a significant, positive and moderately strong correlation between perceived usefulness and digital literacy of first-year students ($r = .400$, $p < .01$). The results revealed that any increase in perceived usefulness will increase the level of digital literacy of first-year students as well. Hence, H_{02} : There is no significant relationship between perceived usefulness and digital literacy of first-year students is rejected.

Home Internet Connection and Digital Literacy of the First-Year Students

H₀₃: There is no significant relationship between home internet connection and digital literacy of first-year students

Table 10: Spearman Correlation between Home Internet Connection and Digital Literacy of First-Year Students

| Variable | Correlation Value (r) | Sig. |
|--------------------------|-----------------------|------|
| Home internet connection | .504** | .000 |

** Significant at $P < .01$ (2-tailed)

In Table 10, a significant, positive and strong relationship was found between home internet connection and digital literacy of the first-year students ($r = .504$, $p < .01$). The positive significant relationship showed that by having internet connection at home, students will increase their level of digital literacy and vice versa. Therefore, H_{03} : There is no significant relationship between home internet connection and digital literacy of first-year students is rejected.

Research Question 4: What is the most dominant factor that influencing the digital literacy of first-year students?

Table 11: Spearman Correlation between Perceived Ease of Use, Perceived Usefulness, Home Internet Connection and Digital Literacy of First-Year Students

| Variable | r | Sig. |
|--------------------------|--------|------|
| Perceived Ease of Use | .510** | .000 |
| Perceived Usefulness | .400** | .001 |
| Home internet connection | .504** | .000 |

** Significant at $P < .01$ (2-tailed)

Spearman Correlation Test was conducted on two dimensions (i.e. perceived ease of use and perceived usefulness) from Technology Acceptance Model and one independent variable (i.e. home internet connection) with first-year students' digital literacy. Based on the findings, it was found that perceived ease of use showed a high correlation value of $r = .510$ compared to other variables. Meanwhile, perceived usefulness showed value of $r = .400$ and home internet connection showed value of $r = .504$. All three variables showed $R^2 = .260$, $R^2 = .160$ and $R^2 = .254$ respectively. This proved that perceived ease of use, perceived usefulness and home internet connection contributed 26%, 16% and 25.4% variants change in first-year students' digital literacy. Hence, the most dominant factor that influencing the digital literacy of first-year students is perceived ease of use.

CONCLUSION AND RECOMMENDATION

This study examined the relationship between Technology Acceptance Model (TAM) and digital literacy among the first-year students in a private institution of higher learning in Malaysia. However, this study only focus on two from four main dimensions of TAM, i.e., perceived ease of use (PEOU) and perceived usefulness (PU) as the independent variables. The TAM was extended by other external variables from the demographic background of the first-year students to explain the association of these variables and the digital literacy.

A significant, positive and strong relationship was found between perceived ease of use and digital literacy of the first-year students. This finding was consistent with the findings from the previous studies conducted by Davis (1989); Jeffrey, et al. (2011); and Elkaseh, Kok & Chun (2016). Similarly, there was a significant, positive and moderately strong relationship between perceived usefulness and digital literacy of the first-year students. This result supported previous studies' findings conducted by Krause (2011); Park, Nam & Cha, 2012); and Ukwoma, Iwundu & Iwundu (2016).

Interestingly, a notable finding from this study was that home internet connection found to have significant, positive and strong relationship with digital literacy of the first-year students. Furthermore, T-Test revealed that there was a significant difference in the level of digital literacy among the first-year students who had home internet connection in comparison to those without home internet connection. Students with home internet connection were found to have higher level in digital literacy. This new discovery will be an added value to the current literature in the field of TAM and digital literacy as well.

In addition, this study also found that perceived ease of use was the better dominant factor than perceived usefulness to digital literacy. This result was contradicting with the finding from previous studies which found that perceived usefulness was the better dominant factor instead (Davis, 1989; Masrom, 2007; Elkaseh, Kok & Chun, 2016).

Finally, this study revealed that no significant differences between levels of digital literacy among the first-year students in accordance with their gender, location, age and tenure of being computer user.

Recommendation

The findings of this study should help policy makers and managers at higher educational institutions, particularly in Klang Valley, Malaysia, to pay special attention to factors that have significant, positive and strong association in acceptance of technology in improving digital literacy among their first-year students. Educators from institutions of higher learning who want to motivate students to use digital gadgets and/or facilities in teaching and learning, they need to make sure that they have enough opportunities and adequate courses to acquire the basic skills necessary for the integration of digital technology and/or facilities into such ways of teaching and learning, and to start to perceive them as easy to use. There should also be a conscious effort in creating a conducive learning atmosphere where students can gain meaningful experiences in harnessing digital technology during the process of teaching and learning. It is reasonable to expect a meaningful experience with technology to foster the development of positive attitudes towards digital gadgets and/or

facilities use among first-year students, and this in turn would significantly impact on their intention to use such technology and eventually, improve their digital literacy.

In this study, perceived ease of use and perceived usefulness were two of the important constructs that shape first-year students' intention to use digital technology. Therefore, educators from institutions of higher learning should model the integration of digital technology through their lesson delivery and assessment design. By doing so, educators may act as facilitators to shape first-year students' perceived ease of use and perceived usefulness of digital technology. In this context, educators act as referent others for their students whose digital literacy may be influenced positively.

For future study, the researchers recommended to widen the scope of study in term of subjects. The current study limited to one institution of higher learning in Klang Valley, Malaysia. A future study might consider involving all the institutions of higher learning in Klang Vally, Malaysia to draw a broader generalisation or conclusion.

Another possible study might look into other two dimensions in TAM, i.e. Trust and Perceived Risks in relation with digital literacy among the first-year students. One might predict Trust and Perceived Risks as independent variables that have some degree of association on first-year students' digital literacy.

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