

The Use of E-learning during Covid-19: Application of Theory Acceptance Model (TAM)

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Abstract

Nowadays, many university students are experiencing difficulties with e-learning due to the Covid-19 pandemic. With the abolition of face-to-face learning on university campuses, many university faculty and students have embraced e-learning as a means of transmitting and receiving information, as well as continuing education and discussion. Nonetheless, many students are stressed and anxious as a result of psychological issues that make the transition from traditional to online learning difficult. The purpose of this study is to determine the factors that influence students' behavioural intentions toward e-learning during Covid-19 in Malaysia. Respondents were selected from university students in Malaysia using a simple random sampling technique. The study employed a quantitative approach through the use of an online survey form (Google Form). The researcher hopes that this study can be used as a guidance and reference, especially for the management of the education as well as the relevant parties responsible for the organizational support experienced. This study will contribute to the body of knowledge on the influence of behavioural intention toward students in university by applying the technology acceptance model (TAM).

Keywords: e-learning, TAM model, Behavioural Intention, Covid-19, Business Students

Introduction

Today, numerous nations throughout the world enforced the movement control order (MCO) in an effort to flatten the curve of Covid-19's spread. Coronavirus illness (COVID-19), according to the World Health Organization (2020), is a newly found coronavirus that causes an infectious disease. In order to prevent the spread of the epidemic, a number of nations have enacted stringent social isolation and lockdown regulations. In Malaysia, both public and private universities will undertake teaching and learning through e-learning. E-learning provides an adaptable learning environment for persons who cannot attend regular classrooms for a number of reasons. E-learning improves the performance of university

students as measured by student competencies, skill, user satisfaction, and behavioural intents (Al-Rahmi et al., 2018; Mohammadi, 2015).

Universities and other educational institutions are compelled to move rapidly to distance and e-learning due to the Covid-19 pandemic. Due to Covid-19, universities all around the world have been compelled to use e-learning. Therefore, with easy availability to Internet connectivity for e-learning, e-learning systems will solve pandemic-related educational issues. In the case of a pandemic, the e-learning system has several good features that will prove valuable. This device may be more practical to utilise at that time. Using an e-learning system, for instance, students can participate in a learning activity with instructors from the comfort of their own homes. In addition to being able to connect to mobile networks or local wireless networks, students can quickly download educational content to their mobile devices (Caballé et al., 2010).

According to UNESCO (2020), university and school closures have various detrimental effects on pupils, including disrupted learning, which deprives students and youth of growth and development chances. Because they had never utilised e-learning before, some students claimed that it was too tough for them (Coman et al., 2020). Some of them expressed discontent with the available facilities and resources (Katherine, 2020). During the Covid-19 pandemic, producing and utilising e-learning materials in an e-learning environment has become a challenge for many colleges. The e-learning framework is a great source of knowledge due to its accessibility anywhere and at any time (Rayens & Ellis, 2018), cheap cost (Tamm, 2020), ease of use (Caballe et al., 2010), and interactive character (Roy et al., 2005). Despite the many benefits of e-learning, there are also some disadvantages. Video conferencing for e-learning consumes a great deal of internet data. Due to the high cost of data packages, students expressed their displeasure (Coman et al., 2020). Due to the fact that some students reside in remote locations where sufficient signals are unavailable, the effectiveness of video conferencing is reduced. Student presentations were frequently interrupted by signal issues and the inability to use video conferencing software (Coman et al., 2020).

Consequently, based on the aforementioned issues, this study employs the Technology Acceptance Model (TAM) to investigate the factors influencing students' behavioural intention to use e-learning during Covid-19 in Malaysia. The section that follows will cover the literature review, followed by the theoretical framework, methods, results, and discussion, and ending with the conclusions and recommendations.

Literature Review

E-learning

E-learning is a form of online education that emphasises technical instruction and instruction. This kind of education immerses pupils in a simulated environment where they can participate in a number of activities. Among these methods are research and audiovisual communication with several subjects. Educational and higher education institutions should increase the accessibility of interactive e-learning courses in order to recognise substantial gains in e-learning practises (Amado-Salvatierra et al., 2016).

The term e-learning system refers to the means by which students get content, typically assignments. Individual task engagement is supported by e-learning resources. These tasks are essential for end-user computer settings like e-learning (Doll & Torkzadeh, 1988; Hsu & Chiu, 2004). Doll and Torkzadeh (1988) define one of these perspectives by asserting that the artefact is the focal point of computer-oriented techniques such as e-learning, whereas the traditional technique emphasises the interaction between the individual and the activity. Other research has discovered that by integrating technology into e-learning courses, some qualities such as accessibility and engagement can be enhanced (Al-Rahmi et al., 2018; Mayisela, 2013).

E-learning has had a good impact on instructors and students and has evolved into an alternate learning approach. By transitioning from traditional lectures to e-learning, students can receive access to a number of benefits, such as higher efficacy and quality of learning facilities as a result of improved communication with lecturers and more access to learning resources (Idris & Osman, 2016).

Similar to other implemented automation technologies, they can have both positive and negative consequences (Fernandez & Aman, 2018, Fernandez, Zainol & Ahmad, 2018). According to some reports, the dropout rate for online courses is higher than that of in-person courses (Monahan et al., 2008). This kind of learning has led to a radical transition from teacher-centered teaching to student-centered self-regulated learning. As a result, students are becoming increasingly independent in their relationships with teachers (Schworm & Gruber, 2012). Furthermore, e-learning can also increase the incidence of cheating and plagiarism on assignments and exams. The integrity of the students will be called into question, and the quality of education will suffer as a result (Fernandez et al., 2019)

Therefore, when implementing a new system, careful planning is required to ensure that activities are carried out efficiently (Fernandez & Aman, 2021). Various types and levels of learners have different expectations for different sorts of online involvement (David et al., 2011; Hollenbeck et al., 2011; Tello, 2008). Universities must therefore provide compelling learning environments that allow students, instructors, and content to interact in relevant and specific ways. Additionally, a robust system support and educator training are required to ensure that the teaching process is conducted clearly.

Covid-19 and Technology Use in Education

As the epidemic has restricted options for offline contact, the technology sector, which comprises networking networks, online services, cloud services, artificial intelligence, and smart service platforms, has expanded significantly (Kevin, 2020). Demand is at an all-time high for online education, online life amenities, and other endeavours. At the same time, "online" office work, such as home office and remote office that are not limited by geographical location, will be the future development trend, particularly office software that enables individual communication. One of the top content distribution organisations has observed a 20–40 percent surge in internet traffic following the initiation of lockdown in certain areas (Favale et al., 2020).

In addition, the form of development of the ICT sector, government initiatives, improvements in E-learning content, access of foreign players, a growing number of colleges and business organisations, and an increase in the Internet penetration rate will force the Malaysian E-learning market to grow at a Compound Annual Growth Rate (CAGR) of 16.1% over the next five years (Jatin, 2019). Consequently, many Malaysians are urbanised and educated, as 76 percent of the population is urbanised. Consequently, there was an abundance of Internet usage. Presently, 83 percent of Malaysians are online, and 81 percent use social media. Compared to other Southeast Asian regions, Malaysian internet users spend more time each day consuming media (Simon, 2020).

Additionally, there are numerous types of educational technology applications. In addition to the various auxiliary channels built with the assistance of institutions of higher education, such as Google Classroom, Zoom meeting, and Webex, numerous existing social media structures can also be utilised online, as university students are familiar with the programme. WhatsApp, Telegram, Facebook, Google Meet, Line, and Instagram are examples. According to Nicholson (2008), e-learning in university settings emphasises the growth of metacognitive, reflective, and interactive learning skills. E-learning goes beyond planned topic learning to recognise the significance of the unplanned and the learner's self-direction in order to maximise incidental learning and improve outcomes.

In conclusion, educational institutions that are unfamiliar with these online forms will undoubtedly face problems. There are various significant obstacles to implementing e-learning, including technological, individual, pedagogical, and enabling factors (Ali et al., 2018).

E-learning: TAM Perspective

Davis created the original TAM in 1989, and it has undergone numerous revisions since then (Davis, 1989). TAM focuses on people's reactions to technology, their behavioural intentions to utilise technology, and their actual usage of technology. The TAM is a common model for describing the link between present and potential use, perceived usefulness (PU), and perceived ease of use (PEOU). The PU variable indicates whether an individual believes that employing a particular technology would enhance his or her job performance. However, PEOU refers to the extent to which an individual believes that using a system will be free, simple to use, and inexpensive to operate.

The theoretical underpinning of the TAM is the Theory of Rational Action (TRA) which is a model of human behaviour that posits that human judgement results from the expansion of an attitude toward performing behaviour as a function of values and evaluations (Kiet et al., 2014). People's views regarding intranets can influence their engagement with the system and perception of its usability. The TAM contributed to a greater comprehension of how individuals utilise computers and information systems. TAM has been the most widely used and published model in the social science environment (Teo et al., 2019). The TAM found that PU and PEOU were the most significant indicators of an IT user's attitude or overall affect. The TAM was one of the first models to forecast technological acceptance by incorporating psychological elements.

Theoretical Framework

Perceived Usefulness (PU)

PU is the amount to which an individual believes that the usage of a specific technology will increase their professional effectiveness (Davis et al., 1989). People are more likely to utilise a programme if they believe it will enhance their job performance. People who find the technology useful may believe that it is too difficult to use, and that the performance benefits are offset by the work necessary to use the entire application or technology (Davis, 1989). It was argued that an individual's decision to utilise or not use technology is influenced by his or her impression of how much technology can enhance job efficiency (Davis, 1989). This involves reducing the time required to execute a task and boosting its efficiency and precision.

According to Teo et al (2011), PU has a direct and positive effect on the behavioural intentions of Singaporean and Malaysian pre-service students to use technology. This means that a student-teacher would be more likely to utilise technology if he or she saw it as a useful and practical tool to work more efficiently. This entails lowering the amount of time required to complete a task while enhancing productivity and precision.

In the preceding study, PU was utilised as a measure of a prospective user's subjective likelihood that utilising technology would improve his or her personal or organisational well-being (Phillips et al., 1994). PU is a precursor of attitude and has a substantial impact on computer use behaviour intention (Teo et al., 2008). The assumption is that PU has a direct effect on machine use intentions and behaviour.

In addition, instructional materials have a significant impact on the PU of e-learning. PU is cited as a measure of an individual's inclination to apply e-learning inside the resultant study content (Al-Rahmi et al., 2015). TAM perceived usefulness is an illustration of extrinsic motivation (Bagozzi et al., 1992). PU has a significant impact on usage intention. PU is the extent to which a person believes that using a particular system will enhance his or her performance (Davis, 1989). According to Davis (1989), PU is also more significant in contemporary societies. Consequently, this study hypothesises

H1: Perceived usefulness has a significant influence towards behavioural intention to use e-learning during Covid-19

Perceived Ease of Use (PEOU)

PEOU is the extent to which a user believes a system to be easy to use (Davis, 1989). Although consumers may believe that technology is beneficial, they may also believe that it is too difficult to use and that the benefits do not justify the time and effort required to operate it (Davis, 1989). Therefore, technology with a high degree of perceived utility may be more likely to elicit positive emotions. In addition, a link exists between PU and PEOU in which PU mediates the effect of PEOU on attitude (Teo et al., 2008). In other words, while PU directly influences attitude, PEOU indirectly influences attitude via PU.

In addition, the attitude has an indirect effect on the intents of use due to the impression of utility, while it has an indirect effect on the behavioural intentions of use due to the perception of ease of use. Consistent with the findings of Davis (1989) and Davis et al (1989). Several research have validated Davis et al (1989)'s conclusion that PEOU would have

only one focus on perceived usefulness (Ali et al., 2018; Teo et al., 2011). PEOU influences behavioural intention both directly and indirectly (Davis, 1989; Teo et al., 2008).

According to a growing number of research, attitudes toward computer use are strongly correlated with both planned and actual behaviour. This study's dependent variable is the behavioural purpose, which is a more realistic way to assess student instructors' technology usage (Teo & Noyes, 2011). Numerous student teachers have limited expertise with computers in a classroom setting. Consequently, it is believed that gauging student instructors' intentions rather than their actual use of computers is more successful (Teo et al., 2011). According to Teo et al. (2008), 88 percent of the variance in behavioural intention among Malaysian pre-service teachers may be explained by device attitudes. In other words, instructors' intentions regarding computer use affect their ability to adapt to technology.

Venkatesh and Davis (1996) examined the factors that influence the PEOU. They concluded that computer self-efficacy influences PEOU both before and after hands-on experience, whereas objective usability influences PEOU only after hands-on experience. Through PEOU, e-learning self-efficacy was found to have an indirect effect on students' intents (Adams et al., 1992). Besides that, Mungania and Reio (2005) identified a correlation between dispositional barriers and e-learning self-efficacy. Educational practitioners, according to the authors, should analyse learner attitudes and seek ways to promote e-learning self-efficacy. This study defines e-learning self-efficacy as a person's confidence in accessing material and communicating with an instructor via an e-learning system, as well as the abilities required to use the system. Consequently, this study hypothesises:

H2: Perceived ease of use has a significant influence towards behavioural intention to use e-learning during Covid-19

Behavioural Intention (BI)

TAM asserts that behavioural intention (BI) determines technology acceptance by defining the actual use of a given information system (Davis, 1989). PU influences BI, but PEOU influences BI indirectly. Perceived usefulness and perceived ease of use have direct influences on behavioural intention, but perceived ease of use has direct influences on perceived usefulness. In addition, TAM theorises that external factors influence perceived utility and usability. Thus, perceived usefulness and perceived usability influence the effect of external variables on behavioural intention and, consequently, actual system usage.

In addition, BI which is the product of intentional decision-making processes, is used to define the majority of information system usage behaviours. PU and PEOU are two thought components that determine the BI of an individual. By addressing these two factors, system engineers can better govern users' perceptions of the system, and consequently, their behavioural intent and usage.

According to Teo, Luan & Sing (2008), technology acceptance is the demonstrated desire within a user group to engage information technology (IT) for the tasks it was meant to serve. Principal themes of this study are instrumental impacts, which examine acceptance assessments that incorporate beliefs of how adopting technology might result in objective performance increases (Thompson et al., 2006). Thompson et al. said that this technique had

a limited impact on technology research; hence, they broadened their investigation to include non-instrumental variables on technology acceptance. BI is determined by PU and PEOU according to the TAM. Although various variables impact early technological acceptance, PEOU and PU have a bigger impact on long-term adoption (Hu et al., 1999). TAM presupposes that an individual's behavioural purpose is the outcome of deliberate decision-making (Venkatesh et al., 2003).

Greater information accessibility, according to Lin and Lu (2000), results in increased information intake and a sense of usability. In this study, e-learning accessibility refers to the ease with which a university student can access and utilise a campus e-learning system as an organisational factor. A user's BI is a crucial factor in evaluating whether they will utilise the technology.

In the context of this study, BI decides whether consumers wish to accept e-learning systems (Salloum & Shaalan, 2019). Besides that it also describes individuals' plans to replace traditional learning processes with e-learning technology in the future. It is believed to be a precursor to user behaviour. It indicates to users that they are prepared to perform a particular action. In the context of e-learning systems, prior research (Davis, 1989; Venkatesh et al., 2003) has demonstrated that individuals' actual use of electronic systems is positively affected by their intention to use such systems. Consequently, this study hypothesises:

H3: Student's behavioural intention has a positive influence towards the performance impact of e-learning.

Performance Impact (PI)

PI can be understood as a strategic tool for enhancing productivity. Using multiple metrics, the impact of contract performance can be measured in a variety of ways. The PI is measured in terms of increased efficiency, effectiveness, and productivity, as well as problem identification (Benedetto et al., 2003). Wu & Wang (2006) define PI as "the extent to which system use increases decision-making quality, improves job efficiency, improves knowledge and promotes innovative ideas, improves job effectiveness, assists in completing tasks quickly, and improves job performance and the quality of work life". In addition, Norzaidi et al (2007) also defined PI as "the degree to which system use improves work quality and job performance, assists in task completion rapidly, eliminates errors, improves control over work, and increases job effectiveness."

Figure 1 shows the theoretical framework used in this research.

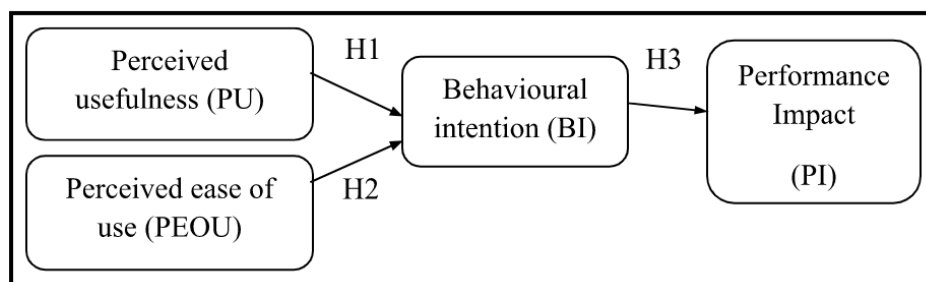


Figure 1. Theoretical Framework

Methodology

Respondents for this study were drawn from the University Tun Hussein Onn Malaysia using purposive sampling. The student received the questionnaire using Google Form, while respondents received it via email and WhatsApp. The questionnaire consists of two sections. Section 1 requires background information about the respondent. Concerns with the technology acceptance model and factors that influenced students' use of e-learning during the Covid-19 pandemic are expressed in Section 2. All items were scored on a Likert scale ranging from 1 to 5 points (strongly disagree to strongly agree). The Statistical Package for the Social Sciences (SPSS) was applied in this study to assess the validity and reliability of the questionnaire data. 377 questionnaires were submitted by respondents through the Google Form, email, and WhatsApp.

Result and Discussion*Demographic Analysis*

Table 1 indicates that slightly more women (64.5%) than men (35.5%) participated in this study. Table 4.1 reveals that the majority of respondents (362) have a bachelor's degree, whereas the minority of respondents hold a doctorate degree. Master received 10 responses, while Diploma received only 4 responses. For the academic year, the percentage of fourth-year students is 37.7%, the percentage of third-year students is 34.5%, the percentage of second-year students is 23.9%, and the percentage of first-year students is only 4%. The Faculty of Technology Management & Business (FPTP), which had 101 respondents and 26.8% of the population, was found to have the most respondents. Faculty of Technical & Vocational Education (FPTV) and Faculty of Mechanical & Manufacturing Engineering (FKMP), whose total number of respondents in this study was 58 and accounted for 15.5% of the population, had the second highest number of respondents. For the Faculty of Information Technology & Multimedia (FSKTM) and the Faculty of Electrical & Electronic Engineering (FKEE), 14.6% and 14.9% of the population, respectively, were enrolled. Faculty of Civil & Environmental Engineering (FKAAS) received a total of 49 responses, or 13% of the population. Table 4.1 displays the availability of high-speed Internet at home, with 93.1% of respondents selecting Yes and 6.9% selecting No.

Table 1

Summary of Demographic Analysis

| Gender | Frequency | Percentage (%) |
|--|------------------|-----------------------|
| Female | 243 | 64.5 |
| Male | 134 | 35.5 |
| Level of study | | |
| Diploma | 4 | 1.1 |
| Bachelor's degree | 362 | 96 |
| Master | 10 | 2.7 |
| PhD | 1 | 0.3 |
| Year of academic | | |
| First-year | 15 | 4 |
| Second year | 90 | 23.9 |
| Third year | 130 | 34.5 |
| Fourth year | 142 | 37.7 |
| Faculty | | |
| Faculty of Electrical & Electronic Engineering (FKEE) | 56 | 14.9 |
| Faculty of Technical & Vocational Education (FPTV) | 58 | 15.4 |
| Faculty of Mechanical & Manufacturing Engineering (FKMP) | 58 | 15.4 |
| Faculty of Information Technology & Multimedia (FSKTM) | 55 | 14.6 |
| Faculty of Technology Management & Business (FPTP) | 101 | 26.8 |
| Faculty of Civil & Environmental Engineering (FKAAS) | 49 | 13 |
| Availability of high-speed Internet at home | | |
| Yes | 351 | 93.1 |
| No | 26 | 6.9 |

Descriptive Analysis

During Covid-19 in Malaysia, perceived ease of use had the highest mean ($M=3.5332$) and was one of the most prevalent factors influencing students' behavioural intentions regarding the use of e-learning. It was then followed by perceived usefulness ($M=3.5168$), performance Impact ($M=3.3762$), and behavioural intention ($M=3.3475$), which had the lowest mean value ($M=3.3475$) when compared to other variables.

Table 2

Descriptive Analysis

| Variables | N | Mean | Standard Deviation |
|------------------------------|----------|-------------|---------------------------|
| Perceived usefulness (PU) | 377 | 3.5168 | .33335 |
| Perceived ease of use (PEOU) | 377 | 3.5332 | .32138 |
| Behavioural Intention (BI) | 377 | 3.3475 | .43981 |
| Performance Impact (PI) | 377 | 3.3762 | .35525 |

Reliability and Validity Test

According to Table 3, perceived usefulness has the highest reliability, at 0.777, while behavioural intention has the lowest, at 0.623. Several of the variables have Cronbach's Alpha values greater than 0.70, so all of the data are acceptable and highly consistent.

Table 3

Reliability Analysis

| Variables | No of item | Cronbach's Alpha Value |
|-----------|------------|------------------------|
| PU | 6 | 0.777 |
| PEOU | 6 | 0.645 |
| BI | 4 | 0.623 |
| PI | 6 | 0.710 |

Table 4 shows that the skewness value for all items in this study is less than ± 2 and the kurtosis value is less than ± 7 . Therefore, it is implied that data set is normally distributed.

Table 4

Normality Analysis

| Variables | Item | Skewness | | Kurtosis | |
|------------------------------|-------|-----------|------------|-----------|------------|
| | | Statistic | Std. Error | Statistic | Std. Error |
| Perceived usefulness (PU) | PU1 | -.996 | .126 | 1.739 | .251 |
| | PU2 | .462 | .126 | 1.813 | .251 |
| | PU3 | -.436 | .126 | .763 | .251 |
| | PU4 | .171 | .126 | .236 | .251 |
| | PU5 | .122 | .126 | .079 | .251 |
| | PU6 | .223 | .126 | -.453 | .251 |
| Perceived ease of use (PEOU) | PEOU1 | .184 | .126 | -.543 | .251 |
| | PEOU2 | .378 | .126 | -.440 | .251 |
| | PEOU3 | -.305 | .126 | .634 | .251 |
| | PEOU4 | -.281 | .126 | 1.188 | .251 |
| | PEOU5 | .034 | .126 | .111 | .251 |
| | PEOU6 | .428 | .126 | .009 | .251 |
| Behavioural Intention (BI) | BI1 | -.418 | .126 | .696 | .251 |
| | BI2 | .189 | .126 | 1.600 | .251 |
| | BI3 | .327 | .126 | .606 | .251 |
| | BI4 | .525 | .126 | 1.182 | .251 |
| Performance Impact (PI) | PI1 | -.122 | .126 | -.007 | .251 |
| | PI2 | .022 | .126 | -.297 | .251 |
| | PI3 | -.493 | .126 | .702 | .251 |
| | PI4 | -.427 | .126 | 2.275 | .251 |
| | PI5 | 1.101 | .126 | 1.419 | .251 |
| | PI6 | -.717 | .126 | 1.400 | .251 |

According Table 5, KMO value is 0.812, it is implied that data is great and acceptable. Bartlett's Test significant value is 0.00. This means that the variables are correlated highly enough to provide a reasonable basis for factor analysis.

Table 5

Validity Analysis

KMO and Bartlett's Test

| | | |
|--|--------------------|----------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | .812 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 1968.214 |
| | df | 231 |
| | Sig. | .000 |

Hypothesis Analysis

Pearson correlation coefficient between performance impact and perceived ease to use is 0.562 and this is statistically significant ($p= 0.000$) and Pearson correlation coefficient between performance impact and the perceived usefulness is 0.554 and this is statistically ($p= 0.000$). Moreover, Pearson correlation coefficient between performance impact and the behavioural intention is 0.526 and this also is statistically ($p= 0.000$).

Table 6

Pearson Correlation Analysis

| Correlations | | PEOU | PU | BI | PI |
|--------------|---------------------|--------|--------|--------|--------|
| PEOU | Pearson Correlation | 1 | .602** | .606** | .562** |
| | Sig. (2-tailed) | | .000 | .000 | .000 |
| | N | 377 | 377 | 377 | 377 |
| PU | Pearson Correlation | .602** | 1 | .569** | .554** |
| | Sig. (2-tailed) | .000 | | .000 | .000 |
| | N | 377 | 377 | 377 | 377 |
| BI | Pearson Correlation | .606** | .569** | 1 | .526** |
| | Sig. (2-tailed) | .000 | .000 | | .000 |
| | N | 377 | 377 | 377 | 377 |
| PI | Pearson Correlation | .562** | .554** | .526** | 1 |
| | Sig. (2-tailed) | .000 | .000 | .000 | |
| | N | 377 | 377 | 377 | 377 |

** . Correlation is significant at the 0.01 level (2-tailed).

Table 7 displays the results of multiple regression analysis. It was determined that R^2 is 0.432%. Consequently, 4.32 percent of the variance in the performance impact of the dependent factor was explained by the behavioural intention. From the table of coefficients, the t-value revealed positive values (perceived usefulness = 6,557, perceived ease of use = 8,477), confirming the correlational findings.

Table 7

Result for Multiple Regression with behavioural intention as Dependent Value

Model Summary

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | | | |
|-------|-------------------|----------|-------------------|----------------------------|-------------------|----------|-----|-----|---------------|
| | | | | | R Square Change | F Change | df1 | df2 | Sig. F Change |
| 1 | .657 ^a | .432 | .429 | .33226 | .432 | 142.399 | 2 | 374 | .000 |

a. Predictors: (Constant), PEOU, PU

Coefficients^a

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | 95.0% Confidence Interval for β | |
|-------|------------|-----------------------------|------------|---------------------------|-------|------|---------------------------------------|-------------|
| | | β | Std. Error | Beta | | | Lower Bound | Upper Bound |
| 1 | (Constant) | -.135 | .207 | | -.654 | .514 | -.543 | .272 |
| | PU | .422 | .064 | .320 | 6.557 | .000 | .295 | .548 |
| | PEOU | .566 | .067 | .413 | 8.477 | .000 | .435 | .697 |

a. Dependent Variable: BI

It was determined that R^2 is 0.277%. Consequently, 2.77 percent of the variance in the performance impact of the dependent factor was explained by the behavioural intention. The t-value indicated positive values (behavioural intention = 11,990) in the table of coefficients, supporting the correlation results. The researcher examined the significant coefficient result to determine the statistical significance of the result. The relationship between behavioural intent and performance impact is statistically significant ($p=0.000$, <0.05) as shown in table 8.

Table 8

Result for Multiple Regression with Performance Impact as Dependent Value

Model Summary

| Model | R | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | | | |
|-------|-------------------|-------------------|----------------------------|-------------------|----------|-----|-----|---------------|
| | | | | R Square Change | F Change | df1 | df2 | Sig. F Change |
| 1 | .526 ^a | .277 | .30242 | .277 | 143.765 | 1 | 375 | .000 |

a. Predictors: (Constant), BI

Coefficients^a

| Model | | Unstandardized Coefficients | | Standardized Coefficients Beta | t | Sig. | 95.0% Confidence Interval for β | |
|-------|------------|-----------------------------|------------|--------------------------------|--------|------|---------------------------------------|-------------|
| | | β | Std. Error | | | | Lower Bound | Upper Bound |
| 1 | (Constant) | 1.953 | .120 | | 16.312 | .000 | 1.717 | 2.188 |
| | BI | .425 | .035 | .526 | 11.990 | .000 | .355 | .495 |

a. Dependent Variable: PI

Table 9

Result of Hypothesis Testing

Table 9 demonstrates that all hypotheses are supported because all beta values are positive and their significance level is less than 0.05.

| Hypotheses | Pearson Correlation Coefficient | Multiple Regression | Results |
|---|---------------------------------|---------------------|-----------|
| H1 Perceived usefulness has a significant influence towards behavioural intention to use e-learning. | 0.554 | P=0.000 | Supported |
| H2 Perceived ease of use has a significant influence towards behavioural intention to use e-learning. | 0.562 | P=0.000 | Supported |
| H3 Student's behavioural intention has a positive influence towards performance impact. | 0.526 | P=0.000 | Supported |

Conclusions and Recommendations

Using the TAM model, the objective of this study is to identify the factors that influence students' behavioural intentions toward e-learning during Covid-19 in Malaysia. The result of this study demonstrates that all of the hypothesis are supported. The hypothesis are; H1: Perceived usefulness has a significant influence towards behavioural intention to use e-learning; H2: Perceived ease of use has a significant influence towards behavioural intention

to use e-learning; and H3: Student's behavioural intention has a positive influence towards performance impact.

It indicates that students believe they will be able to learn more effectively by utilising a particular type of e-learning. E-learning is advantageous for students because it can enhance learning performance and productivity. An important advantage of e-learning is that students can complete their assignments at their own pace and on their own timetables. Due to recorded lessons, textual content, webinars, and collaborative e-learning technology, anyone with an internet connection has access to all information. In addition, this study demonstrates that user-friendly and navigable e-learning is essential. The method and procedure of e-learning should be straightforward and uncomplicated. In the second case, unnecessary complicated processes and requirements should be simplified, whereas in the first case they should be eliminated. The greater the utility of technology, the more user-friendly it must be.

In addition, this study shows that e-learning increases students' ability to comprehend what is taught or delivered, while decreasing communication between the lecturer and student. Traditional face-to-face learning and e-learning have significantly different effects on performance. Measuring the effectiveness of e-learning requires determining whether or not students understood what was delivered or taught. This study's findings can help policymakers comprehend how e-learning affects university students' academic performance.

To improve the significance of this study, the population of students should be expanded to include students from other states, as well as those who are enrolled in universities. In-depth research may also be conducted on the remaining components, with the exception of investigating the factors that influence students' behavioural intentions regarding the use of e-learning during Covid-19 in Malaysia.

In conclusion, this study's research objective has been met by examining the factors that influence students' behavioural intentions regarding the use of e-learning during Covid-19 in Malaysia. In this investigation, three hypotheses were confirmed. H1: Perceived usefulness has a significant influence towards behavioural intention to use e-learning. H2: Perceived ease of use has a significant influence towards behavioural intention to use e-learning. H3: Student's behavioural intention has a positive influence towards performance impact.

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