The role of facilitating condition in enhancing user’s continuance intention

Zarina Kamarozaman$^1$ and Fahmi Zaidi Abdul Razak$^2$

$^1$Faculty of Information Technology and Communication, Sultan Ahmad Shah Pahang Islamic University College (KUIPSAS)  
$^2$Research and Innovation Department, Sultan Ahmad Shah Pahang Islamic University College (KUIPSAS)

E-mail: fahmizaidi@kuipsas.edu.my

Abstract. Many organizations are moving toward utilizing information system to enhance efficiency in everyday task. Although the influence of facilitating condition are important to the success of information system implementation, the literature lacks empirical research on the relationship between facilitating condition and continuance intention in private higher learning institution. In this article, the researchers introduce a simple model based on information systems (IS) and user behavior literature to examine the effect of facilitating condition on the intention to continue using e-campus. A paper-and-pencil self-administered questionnaire survey with 500 users of Malaysian private higher learning institution is carried out to evaluate the proposed model. The result proves that facilitating condition have a significant effect on e-campus continuance intention. Important practical contributions are further discussed in the paper.

1. Introduction
The worldwide proliferation in information technology has had a positive impact on government as well as the private sector. Similarly, higher education institutions reap the benefits of IT. Nevertheless, while there are several benefits to which IT technology leads, if the technology is not properly used then waste can occur. The government has made massive investments and if the IT infrastructure is not completely used the government will incur big losses. Research on the adoption of information technology is therefore essential to understanding such issue. We identified several prominent theories based on our literature review which further clarify factors leading to the adoption of information technology. Among the influential theories is UTAUT, which has four predictors that can explain what makes people adopt new technologies. The goal of this study is to determine the role of facilitating the condition as a predictor of the intention to continue using e-campus.

2. Literature review

2.1. Facilitating condition to continuance intention
Study by [1] found that continuance intention to use electronic health records was predicted by facilitating condition. Study by [2] revealed that continuance intention to use mobile payment systems was successfully determined by facilitating condition has significant effect on. While study by [3] show that continuance intention to use internet banking was significantly predicted by facilitating condition. Study by[4] found that continuance intention to use Virtual Reality in Learning was predicted by facilitating condition. Another study carried out by[5] have shown that continuance intention to use
iMAP-CampUS app was significantly explained by facilitating condition. Another study by[6] found that facilitating condition has significant and positive impact on class I Makassar. Another study by [7] shown that continuance intention to use Common Ticketing System in Thailand was significantly predicted by facilitating condition. Study by[8] have shown continuance intention to use e-government significantly explained by facilitating condition. In the context of higher education technology, study by [9] have shown that continuance intention was influenced by facilitating condition. Study by[10] found that facilitating condition has significant effect on continuance intention to use. use of electronic medical record system. Study by[11] found that facilitating condition has significant effect on continuance intention to use compulsory Device’s Usage. Study by [12] found that facilitating condition as a determinants of App Stores continuance behaviour. Study by found that facilitating condition has significant effect on continuance intention to use. Study by [13] found that all of UTAUT2 constructs significantly influenced behavioural intention to use mobile applications. Study by[14] found that facilitating conditions has a direct relationship with usage behaviour of ICT Tools in Higher Education Institutions. While study by [15] found that on continuance intention to use online postings was determined by facilitating condition.

### Figure 1. Research model

3. Methodology

To test the model empirically, a cross-sectional field survey was conducted using a paper-and-pencil survey questionnaire. Data collection was prepared and planned by our team and for selecting respondents, convenience sampling was used. For such a research, a 7-item questionnaire was created, and a Likert scale was applied in line with established literature in the IS field. The scale were assessed using the 5-point Likert Scale where 5 were 'Strongly Agree' and 1 were 'Strongly Disagree'. All items of the related construct were first translated into Malays language before being distributed to respondents. This process is crucial to ensure that the targeted respondent understands the item.

4. Data analysis

Data screening revealed 10 missing value and all of them were removed, leaving 315 responses. Since the missing value is not severe, we assume that the missing is at random. As such, we deploy expectation maximization algorithm which is can produce accurate statistical parameter estimates and result in less biased estimation[16]. To analyse the effects of the predictor variables to the explanatory variables, a simple linear regression model was used. The findings of the tests for the hypothesis were shown in table 1. The statistical results of a simple regression analysis in Table 1 define that at a meaning level of 5 per cent, an independent variable namely facilitating state, is important at p<0.001

**Table 1. Hypothesis testing**

| Hypothesis                        | Beta coefficient | t-value | p-value | remark | Variance explained |
|-----------------------------------|------------------|---------|---------|--------|--------------------|
| Facilitating condition – continuance intention | 0.336***         | 6.312   | 0.001   | supported | 0.11               |

***p<0.001
5. Discussion
The above findings confirm the previous studies on the relationship between facilitating condition and continuance intention and use behaviour as can be found in[17], [18] Therefore, researchers with information systems will be better served to focus their attention on better understanding facilitating condition and their subsequent impact on continuance intention to use e-campus. Likewise, information system provider should pay more attention to improve users’ perceptions in order to increase usage. For example, information system provider should take steps to ensure that the e-campus system is easy to use. This could be done by adopting widely accepted website usability design practices that encourage learning, performance, memorability, error-freeness and satisfaction.

Acknowledgments
This research is supported by grants from the Sultan Ahmad Shah Islamic University College (KUIPSAS) (Project No. Y201636043).

References
[1] A. Alsyouf and A. K. Ishak, “Understanding EHRs continuance intention to use from the perspectives of UTAUT: Practice environment moderating effect and top management support as predictor variables,” Int. J. Electron. Healthc., 2018.
[2] M. Almazroa and S. Gulliver, “Understanding the usage of mobile payment systems- The impact of personality on the continuance usage,” in 2018 4th International Conference on Information Management (ICIM), 2018, pp. 188–194.
[3] S. Rahi, M. Abd. Ghani, F. M. I. Alnaser, and A. H. Ngah, “Investigating the role of unified theory of acceptance and use of technology (UTAUT) in internet banking adoption context,” Manag. Sci. Lett., pp. 173–186, 2018.
[4] C. Shen, J. Ho, T.-C. Kuo, and T. H. Luong, “Behavioral Intention of Using Virtual Reality in Learning,” in Proceedings of the 26th International Conference on World Wide Web Companion - WWW ’17 Companion, 2017, pp. 129–137.
[5] H. Alqahtani and M. Kavakli, “A theoretical model to measure user’s behavioural intention to use iMAP-CampUS app,” in Proceedings of the 2017 12th IEEE Conference on Industrial Electronics and Applications, ICEIA 2017, 2018.
[6] M. Grace and T. P. Kartini, “The influence of technology acceptance, social influence, facilitating condition, and computer self-efficacy on e-office utilization in immigration office class I Makassar,” Bus. Manag. Rev., 2017.
[7] F. Prayoonphan and X. Xu, “Factors Influencing the Intention to Use the Common Ticketing System (Spider Card) in Thailand,” Behav. Sci. (Basel)., vol. 9, no. 5, p. 46, Apr. 2019.
[8] M. N. Alraja, “THE EFFECT OF SOCIAL INFLUENCE AND FACILITATING CONDITIONS ON E-GOVERNMENT ACCEPTANCE FROM THE INDIVIDUAL EMPLOYEES’ PERSPECTIVE,” Polish J. Manag. Stud., vol. 14, no. 2, pp. 18–27, Jun. 2016.
[9] B. Bervell and I. N. Umar, “Validation of the UTAUT Model: Re-Considering Non-Linear
Relationships of Exogeneous Variables in Higher Education Technology Acceptance Research, “EURASIA J. Math. Sci. Technol. Educ.,” 13, no. 10, Sep. 2017.

[10] K. B. Shiferaw and E. A. Mehari, “Modeling predictors of acceptance and use of electronic medical record system in a resource limited setting: Using modified UTAUT model,” Informatics Med. Unlocked, vol. 17, p. 100182, 2019.

[11] S. Sarosa, “The Role of Brand Reputation and Perceived Enjoyment in Accepting Compulsory Device’s Usage: Extending UTAUT,” Procedia Comput. Sci., vol. 161, pp. 115–122, 2019.

[12] S. Rezaei, M. K. Shahijan, M. Amin, and W. K. W. Ismail, “Determinants of App Stores Continuance Behavior: A PLS Path Modelling Approach,” J. Internet Commer., vol. 15, no. 4, pp. 408–440, Oct. 2016.

[13] F. Fadzil, “A Study on Factors Affecting the Behavioral Intention to Use Mobile Apps in Malaysia,” SSRN Electron. J., 2017.

[14] S. Rosaline and J. R. Wesley, “Factors Affecting Students’ Adoption of ICT Tools in Higher Education Institutions,” Int. J. Inf. Commun. Technol. Educ., vol. 13, no. 2, pp. 82–94, Apr. 2017.

[15] J. Jewer, “Patients’ intention to use online postings of ED wait times: A modified UTAUT model,” Int. J. Med. Inform., vol. 112, pp. 34–39, Apr. 2018.

[16] R. P. Corcoran and R. Tormey, “Does emotional intelligence predict student teachers’ performance?,” Teach. Teach. Educ., vol. 35, pp. 34–42, Oct. 2013.

[17] S. Moghavvemi, N. A. Mohd Salleh, and C. Standing, “Entrepreneurs adoption of information system innovation,” Internet Res., 2016.

[18] S. Moghavvemi and N. A. Mohd Salleh, “Effect of precipitating events on information system adoption and use behaviour,” J. Enterp. Inf. Manag., 2014.