The adoption of Facebook mobile application for managing learning

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Abstract: Mobile technologies such as mobile device applications play a significant role within formal education and the use of social networking site such as Facebook through mobile devices has influence students' management of learning in higher education. Researchers have identified a range of uses of Facebook mobile application in higher education. Despite the increasing use of Facebook mobile application by students and lecturers in higher education for educational purposes, very little empirical studies that concern the adoption of Facebook mobile application by university students in managing learning in the Malaysian higher education context. In this paper, we describe the likelihood of adoption of Facebook mobile application for managing learning by students of a private university in Malaysia, as well as how the perceived ease of use, perceived usefulness, and motivations of usage affect the behavioural intention of the students in adopting Facebook mobile application for managing learning. Through an online questionnaire survey, data were analysed using descriptive statistics, correlations and regressions. Results from the survey questionnaires (N=101) indicated a significant positive association between motivations of usage towards adoption of Facebook mobile application for managing learning as well as between perceived ease of use and perceived usefulness towards students' adoption of Facebook mobile application for managing learning. In conclusion, students' perceived ease of use, perceived usefulness, education purposes, information-seeking motive and interactivity were significant predictors of behavioural intention in adopting Facebook mobile application for managing learning.

Keywords: Facebook mobile application, managing learning, university students, Malaysia

1. Introduction

Mobile technologies are increasingly popular as useful educational tools to enrich teaching and learning process, to engage and retain students, and to improve educational outcomes (Arokiasamy, 2017). The benefits of mobile technologies for teaching and learning in higher education has caused a new paradigm of learning to emerge known as mobile learning. This new way of learning allows university students to utilise mobile technologies such as smartphone, tablets and laptops to learn and to obtain learning materials anywhere, anytime. The features of mobile technologies - mobility, the ease of software access and integration of media and applications - enable students 'to work more continuously across home and school settings, allows activities to be initiated outside the school, or practice on exercises to be undertaken when or where desired' (Passey, 2010, p. 69). Therefore, evidence from prior studies indicates the potential of mobile technologies in supporting learning (Passey, 2010).

Research on Facebook use in Malaysian educational contexts has been growing at a rapid rate. However, only ten out 35 existing studies are implemented in formal classroom curriculum. Despite the increasing use of Facebook mobile application by students and lecturers of higher education institutions for educational purposes due to its affordances and benefits illustrated in prior literature; very little empirical studies that concern the adoption of Facebook mobile application by university students for managing learning in the Malaysian higher education context. This study aims to find out the likelihood of adoption of Facebook mobile application for managing learning by students of a private university in Malaysia, as well as how the perceived ease of use, perceived usefulness and three motivations of usage (education purposes, information seeking and interactivity) affect the behavioural intention of the students in adopting Facebook mobile application for managing learning.

2. Methodology

The questionnaire consists of two sections, namely Section A for demographic profile and Section B for testing the independent variables (i.e., construct of usage motivations) and dependent variables (i.e., behavioural intention of adoption). During data analysis, a total of 101 responses were usable and analysed using IBM SPSS 25.0 for descriptive statistics, correlation and regression analyses. The reliability score of 32 scale-items using Cronbach's Alpha are found to be highly reliable, achieved 0.958 which sufficiently exceeded the minimum requirement of 0.70 (Nunnally, 1978). The respondents of the survey comprise of 101 students of a private university in the Klang Valley, Malaysia. This private university is known to have a focus on innovative uses of technology in teaching and learning. The demographic profile of the respondents and the descriptive statistics show that most of the respondents are female students (67.3%) and 32.7% of the respondents are male students. A total of 54 respondents are in the age range of 20-22 years old (53.5%); 23.8% of the respondents are within the age range of 17-19 years old, followed by 22.8% of them in the age range of 23-25. Majority of the respondents are Chinese (65.3%), followed by Malay and Indian students (12.9%) as well as other races (8.9%).

3. Findings

3.1 The Adoption of Facebook Mobile Application for Managing Learning

This section reveals the results answering the research question on the likelihood of adoption of Facebook mobile application for managing learning from students' level of agreement on 15 statements of three motivations of usage - education, information seeking and interactivity - towards the adoption of Facebook mobile application for managing learning in Malaysian higher education. Findings show that students slightly agreed that Facebook mobile application could be used for providing others with information (M=3.90), allows the exchange of information among peers (M=3.83), for knowledge-sharing in the education system (M=3.79), supports informative discussion related to education between friends (M=3.71), allows the exchange of information with educator (M=3.55), and gives the opportunity for discussion to take place (M=3.53).

Next, from the bivariate correlation findings, respondents' adoption of Facebook mobile application indicated a strong correlation with the opportunity for discussion to take place (r=.563, p<.01) and for obtaining information and course related materials (r=.516, p<.01); a moderate correlation with interaction among peers (r=.492, p<.01), for educational purposes (r=.478, p<.01), for interaction with the educator (r=.452, p<.01) and exchange of information among peers (r=.442, p<.01); but shows a weak association with providing others with information (r=.279, p<.01) and for knowledge-sharing in the education system (r=.273, p<.01). Based on the results, because p<.01, the relationship between education purposes, information-seeking motive and interactivity with Facebook mobile application adoption are statistically significant and they are positively correlated.

3.2 The Relationship Between Perceived Ease of Use, Perceived Usefulness and Motivations of Usage towards Facebook Mobile Application Adoption for Managing Learning

This section describes the relationship between perceived ease of use and perceived usefulness and behavioural intention of adopting Facebook mobile application for managing learning, as well as the relationship between education purposes, information-seeking motive and interactivity and behavioural intention of adoption Facebook mobile application for managing learning. A multiple linear regression was carried out to predict students' adoption of Facebook mobile application for managing learning based on perceived ease of use, perceived usefulness, and three motivations of usage (education purposes, information seeking and interactivity). The R values for the perceived ease of use and perceived usefulness as well as motivations of usage are 0.774 and 0.797 respectively, which indicate a high degree of correlation with the students' adoption of Facebook mobile application.

Besides, a significant regression equation was found (F(15, 85)=8.445, p<.000), with an R2 of .598. This shows that the respondents' perceived ease of use and perceived usefulness of Facebook mobile application are accounted for 59.8% of variance towards the adoption of Facebook mobile application for managing learning. In another analysis, a significant regression equation was found

($F_{(15, 85)}=9.884$, $p<.000$), with an R2 of .636. This indicates that respondents' perception on the motivations of usage is accounted for 63.6% of variance towards the adoption of Facebook mobile application for managing learning. The findings show that all independent variables (perceived ease of use, perceived usefulness, education purposes, information-seeking motive and interactivity) were significant predictors of behavioural intention of the students in adopting Facebook mobile application for managing learning.

4. Discussion and Conclusion

This study investigated the likelihood of adoption of Facebook mobile application for managing learning by students of a private university in Malaysia. To answer the question on the likelihood of adoption, 30.7% of the respondents agreed and strongly agreed that they intend to continue using Facebook mobile application to manage learning. The motivations to adopt Facebook mobile application were due to knowledge-sharing, supporting informative discussions related to education between friends, providing others with information and the exchanging of information among peers. The results are consistent with the studies of Hamat, Embi and Hassan (2012), Al-Rahmi and Othman (2013), Chen (2015), Balakrishnan (2016), and Lee (2019) that the benefits of Facebook mobile are for sharing of information and knowledge, supporting educational communication between students and lecturers as well as discussing academic matters. This study concludes that students' perceived ease of use, perceived usefulness, education purposes, information-seeking motive and interactivity were statistically significant, positively correlated and significant predictors of behavioural intention of adopting Facebook mobile application for managing learning.

The study has practical implications for scholars, educators, students and policy-makers in Malaysia who are interested in the use of Facebook mobile application for higher education. The importance of this study is to offer Malaysian higher education a new perspective on the role of Facebook mobile for educational purposes, a new framework of practice within Malaysian higher education to support optimum use of Facebook mobile in formal classroom education, as well as to show evidence that Facebook mobile has a major role in supporting the management of learning activity. Nevertheless, the two limitations of this study are that its focus is mainly on students of one private university in Malaysia and the predictor of Facebook mobile adoption is limited to five variables - perceived ease of use, perceived usefulness, education purposes, information-seeking motive and interactivity. Similar studies could be conducted with students of other universities in Malaysia for generalisation to the Malaysian student population as well as to examine other predictors of behavioural intention for adopting Facebook mobile application in managing learning.

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