

The Impact of Social Media on Students' Academic Performance

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Abstract

With the advancement of the Internet and telecommunication technologies, social media has become an integral part of our day to day lives. It facilitates the interaction among people by sharing information regardless of the location and time barriers. The use of social media has gradually changed and impacted on every aspect of the society, specially the higher education context. Students in higher educational institutes are using social media for academic as well as non-academic purposes. Thus, understanding the impact of social media on students' academic performance has become inevitable. Even though social media in higher education has been researched by many, the impact of social media on students' academic performance has not been addressed sufficiently, particularly in the Sri Lankan context. Review of literature revealed that there is a lack of comprehensive models and frameworks to summarize the impact of social media on students' academic performance. Hence, the objective of this study was to examine the impact of social media on students' academic performance in higher education. Based on a thorough review of literature, the current study formulated a comprehensive multi-dimensional model integrating Technology Acceptance Model (TAM), Theory of Planned Behavior (TPB) and IS success model. The model developed will be tested for its statistical validity using data collected from the higher education context.

Keywords: Higher Education; Student Learning; TAM; TPB; IS Success Model.

1. Introduction

The enormous use of social media sites has become a global phenomenon over the past years [1].

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It facilitates communication among people, share information, send messages, create blogs and conduct real time conversations [2]. The term social media was defined as electronically mediated technologies to facilitate sharing and creation of information, ideas and interests [3]. According to [4] social media is the platform that uses two-way communication to facilitate interaction between people who have online accounts. Due to the speed, reach and ease of use, social media is changing the public discourse in the society and making new trends [5]. It has variety of applications and tools including social networks, blogs, online videos and other online and electronic tools [6]. The growing attention on social media can be seen in different disciplines such as economics, marketing, health, education and various other industries [7]. Social media has not only changed the communication among people but has also changed the way students learn [8]. According to [9] a considerable number of social media users consists of youth who engaged in higher education. On the other hand, the higher education institutes use social media to connect with students and alumni and to deliver instructional content [3]. The incorporation of social media within the educational context is easy because most of the students tend to create accounts on many social media sites such as Facebook, Twitter, Instagram, YouTube, Google [10]. Collaborative learning, information distribution and communication among peers were the common benefits of using social media in higher education [10,11,12]. Further, social media facilitates investigation-based and collaborative learning among students in higher education and it makes them active learners [10]. However, some other studies found an adverse effect of social media on academic performance [1,13]. Many students are unfocused on their lessons and highly distracted because of using social media during lectures [2]. A significant negative relationship between social media usage and academic performance has been found in some studies [1,13]. According to [8] undergraduates had negative experiences such as lack of time to study, late assignment submissions, poor spelling and grammar due to the heavy use of social media. Further, [4] emphasized that there is no any relationship between social media use and academic performance. Although, a considerable number of studies have been conducted to explore the impact of social media on the higher education context, the findings were inconclusive. Thus, further research is important in this context to identify the effect of social media use on students' academic performance [14,15]. Although there were few studies in relation to social media, much attention had not been given to study the impact of social media on students' academic performance, specifically in the Sri Lankan higher education context. The purpose of this study was therefore, to develop an integrated multi-dimensional model to provide a more comprehensive view of the impact of social media usage on students' academic performance. The rest of the paper is organized as follows: The review of literature is presented in section two. Section three presents the conceptual model developed based on the literature followed by formulation of hypotheses in section 4. Methodology used in the current study is presented in section five. Finally, section six provides the conclusion of the study.

2. Literature Review

Due to the invention of social media, the online world has changed drastically. Billions of people exchange their opinions, personal information, pictures and videos in an amazing rate [1]. It has transformed and impacted on communication as well as health, marketing, education, economics and several other industries [7]. Social media is a platform that allows individuals the opportunity to interact with each other by using an online account to share their ideas with other social media users [4]. It comprises of electronic tools such as blogs, collaborative projects, social networking sites, virtual social worlds, virtual games, virtual second world and content

communities [5]. Examples include Facebook, Twitter, Myspace [6], YouTube [7] and [17] and [12] identified Wikipedia also as a social media. In this study, social media refers to the applications, services and systems that allow users to create, remix, and share content [2]. Most of the social media users were in the 15-25 age range representing the youth generation [18]. Further, majority of social media users are college students or undergraduates [3]. Hence, a number of researchers have examined the impact of social media within the educational context [10,19,20,21] found four major advantages of using social media; improve motivation for learning, enhance relationships, personalized course materials and enhanced collaborative learning. With the popularity of social media, universities use them as a marketing tool and as a tool to communicate with students as well as with the alumni [2]. Prior studies have found positive effects [2,3,22] as well as negative effects [1,8] of social media on students' academic performance. Further, use of social media increases collaborative information sharing without considering time and geographical barriers and it is helpful for the educational purposes [7]. College students can have opportunities to enhance creative work, get the support from peers and alumni and have mutual contacts with school by associating with social media [7]. Social media also helps students to become active learners [9,10] highlighted that social media enhanced academic performance through collaborative learning along with the interactivity with teachers, peers and engagement. [23] revealed that by creating and sharing information via social media people can learn from other's multiple intelligences, which means they can analyze the way others think and can understand course materials correctly. [24] identified YouTube as an effective media for the students in a learning process if the videos are relevant to their courses. Using social media for nonacademic purposes and multitasking in social media have negatively affected on academic performance [20]. To examine multitasking performance, [25] used cognitive load theory that explains the role of working memory in educational aspects. Despite the advantages of social media, its misuse leads to negative impact on learning such as less study time, late submissions and spelling and grammar mistakes [8]. Reference [8] adopted Social Learning Theory [8] and Use and Gratification theory [26] to cover two separate aspects; academic performance and competition. According to [27] Social Learning Theory, individuals, peers and situations, possibly affect individuals' learning outcomes. Furthermore, higher usage of social media leads to lower performance of tasks as well as increase technostress and lower happiness [9]. Although students gain many advantages by using social media such as information sharing, discussions with others and building relationships, its usage may lead to addictions to some extent resulting reduced concentration that would seriously affect the academic lives [28]. By considering these aspects [28] has identified social media as a "useful servant but a dangerous master" which can be further described as a "two-edged sword". Reference [3] argued that there should be a balance between social media usage for academic and nonacademic purposes. Further, they stressed that restrictions on social media is not desirable in this globalized era. Nevertheless, students should be encouraged to use social media more and more for academic purposes [3,8]. Review of literature highlighted that prior studies have used Technology Acceptance Model (TAM) [29], Theory of Reasoned Action (TRA) [30], Theory of Planned Behavior (TPB) [31], and the Unified Theory of Acceptance and Use of Technology and Technology Acceptance (UTAUT) [32] model to predict the acceptance and adoption of information technology, and they are commonly applied in social media research as well [7,33,34]. Amongst them TAM and TPB were commonly used in predicting IT acceptance and adoption [33,34,35,36]. Much research on social media usage in higher education has emphasized on TAM and TPB as prominent models in explaining user behavior. However, to understand better the role played by social media in higher

education, apart from the usage, how social media impact students’ academic performance is also equally important. Thus, literature lacks models providing an integrated view of the impact of social media on students’ intention to use social media in their learning and its impact on their academic performance. TAM [29] and TPB [31] are models used to explain and predict beliefs and behavior of individuals. TAM predicts that Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) determine attitude towards using and intention to use a specific technology while TPB states that attitude toward behavior, subjective norm and perceived behavioural control (PBC) shape an individual's behavioural intentions and behavior. Besides, [37] proposed the IS Success model and updated it to predict the net benefits in the updated version. IS Success Model provides the theoretical foundation to predict the systems success through the outcomes (net benefits) determined by the intention to use/use of a system and the user satisfaction [38]. Hence, the current study hypothesized a comprehensive model synthesizing the concepts of TAM, TPB and IS Success Model in a complementary manner to predict students’ academic performance (outcome) based on user beliefs and user behaviour.

3. The Research Model

The comprehensive review of literature revealed the importance of identifying the impact of social media on students’ intention to use social media in their learning as well as identifying the effect of social media on their academic performance. Although the TAM and TPB alone properly reflect the behavioural intention to use, there were no prior research to demonstrate the impact of students’ beliefs on his/her intention to use social media in their learning and how it affects their academic performance. Therefore, this study attempts to synthesize the important aspects from TAM, TPB and IS success model to predict students’ intention to use social media and its impact on their academic performance. The conceptual model is given in Figure 1, reflecting the relationships among all theoretical constructs used in the model. PU and PEOU were taken from TAM to reflect students’ perception about system features. Attitude, subjective norm and PBC were taken from TPB to reflect the effect of individuals control beliefs and normative beliefs on their behavior. Intention to use, user satisfaction and academic performance (net benefit) were three success dimensions from the IS success model to reflect how control beliefs and normative beliefs impact user satisfaction and intention to use and which in turn affects the individuals' perception of the impact of social media on their academic performance. Academic performance is referred to as “The apparent demonstration of understanding, concepts, skills, ideas and knowledge of a person and proposed that grades clearly depict the performance of a student” [39].

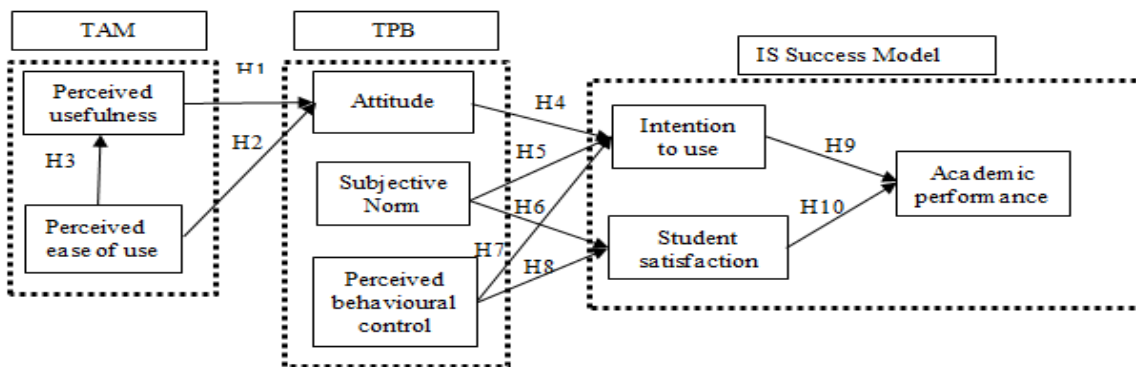


Figure 0: Research Model

4. Hypotheses of the study

4.1 Perceived usefulness

PU refers to “The degree to which individuals believe that their performance will enhance by using the technology” [29]. Reference [34] have identified PU as a key motivator of consumers’ intention and attitudes towards using blog services. According to [33] there is a significant positive relationship between PU and attitude towards using instant messaging. [40] in their study on use of social media in higher educational institutes emphasized that PU influence attitudes and which in turn leads to behavioural intention to use social media. Further, [7] have adopted TAM in their study and found a positive relationship between PU and attitude to use social media. Based on the above justification following hypothesis was formulated:

H1: Perceived usefulness has a positive effect on attitude towards using social media in student learning.

4.2 Perceived ease of use

PEOU refers to “The degree to which an individual feel that using a particular technology will be free of effort” [28]. PEOU has a positive effect on behavioural intension to use systems as well as with PU. The less effort in using a system leads for better performance [32]. In the social media context, PEOU can be described as the degree to which a student believes that social media (ELS) will be easy to use and free of effort to use. Reference [41] emphasized that PEOU positively affects attitude towards using e-Learning systems. Further, [42] identified PEOU as the main determinant of PU and has a direct and indirect effect on behavioural intention to use in mobile banking. Hence, the following hypotheses were formulated:

H2: Perceived ease of use has a positive effect on attitude towards using social media in student learning.

H3: Perceived ease of use has a positive effect on perceived usefulness of social media in student learning.

4.3 Attitude

In both TAM and TPB, attitude is the antecedent of behavioural intention to use [29,31]. It can be defined as “An individual’s positive or negative feelings about performing the target behavior” [31]. Reference [38] found that attitude has a positive effect on intention to purchase products online. According to [43] there is a significant positive effect of attitude on intention to use e-Learning systems. Further, [44] Identified a positive relationship between students’ attitude and behavioural intention to use banking systems. Reference [45] emphasized that attitude towards e-learning positively impact on students’ intention to use e-learning. Moreover, [46] revealed that consumers’ attitudes positively affect their intentions when they are purchasing organic foods in the market. Further, [47] found a positive relationship between attitude towards the usage of learning management systems (LMS) and the behavioural intention to use LMS among academics. Another study has found that attitude positively influences on the intention to use bike-sharing systems in the todays sharing economy [48]. Based on the above discussion the following hypothesis was formulated:

H4: Attitude has a positive effect on intention to use social media in student learning.

4.4 Subjective norm

Subjective norm refers to “The degree to which a person perceives that others believe he/she should use the technology” [49]. In TRA model [30], social influence was tested on behavioural intention. They said that a person thinks that he should/should not perform a behavior according to a social referent. These referents may be parents, teachers, friends, classmates, etc. [49]. For example, if a teacher believes his/her students should use e-learning systems, students may strongly motivate to comply with the expectations of the teacher, and they tend to use it more and more [41]. Hence, based on the above justification, following hypotheses were formulated:

H5: Subjective Norm has a positive effect on intention to use social media in student learning.

H6: Subjective Norm has a positive effect on student satisfaction of social media use in their learning.

4.5 Perceived behavioural control

Behavioural control refers to “People’s perception of ease or difficulty in performing the behavior of interest” which simply means the degree to which an individual believes that there is a control factor which supports or hinders the performance of his/ her behavior [31]. According to TPB [31] PBC effects on intention which ultimately determine the behavior. Reference [50] emphasized that PBC directly influence on intention to use web 2.0. Further, [51] found a significant effect of PBC on user satisfaction. In this study PBC referred to as, students’ belief that using social media is under their control. According to the above justification, following hypotheses were formulated:

H7: Perceived behavioural control has a positive effect on intention to use social media in student learning.

H8: Perceived behavioural control has a positive effect on student satisfaction of social media in their learning.

4.6 Intention to use

Intention is defined as “Individual’s intention to perform or not to perform a behavior” [30]. According to both TAM and TPB intention to use systems leads to perform a behaviour or the actual use. Some studies justified the relationship between intention to use social media and the actual usage [4,52]. Further, intention to use systems predict the net benefits of using information systems as mentioned in the IS Success Model [37]. In this study intention refers to students’ intention to use social media in their learning. Based on the above justification, the following hypothesis was formulated:

H9: Intention to use social media has a positive effect on students’ academic performance.

4.7 Student satisfaction

User satisfaction is a key indicator of deciding the continued use [53,54]. User satisfaction is defined as “whether the user feels the system is useful and plans to be a repeat visitor” [55]. Reference [56] also indicated that there is a positive relationship between user satisfaction and system use. Satisfaction is a predecessor of net benefits of a behaviour as mentioned in IS Success Model [37]. Further, [17] revealed a positive relationship between satisfaction and learner performance in social media. Hence, the following hypothesis was formulated:

H10: Student Satisfaction has a positive effect on students’ academic performance.

5. Methodology

In this quantitative study, questionnaire survey method will be used to collect data from a sample of undergraduate students of a leading university in Sri Lanka. The questionnaire was developed based on the items already validated in prior research, with a seven-point Likert scale with 0 as “Strongly Disagree” and 7 as “Strongly Agree”. Convenience sampling method will be used in selecting the sample for the data collection. Online survey method will be used to administer the questionnaire. The collected data will be analyzed by using statistical software. In the data analysis SPSS 23 will be used for data screening and for descriptive data analysis and structural equation modeling (SmartPLS 3.0) will be used for model testing and hypotheses testing.

6. Limitations

Although this study would provide meaningful findings, it does have few limitations as well. First, the sample used in this study was from a single university with a comparatively a smaller sample size. Second, the sampling method (convenience sampling) may cause bias in the study, although the students were from various disciplines. Third, in the current study, constructs from three models were integrated to predict the impact of social media on students’ academic performance. However, to generalize this model, further studies are needed to examine its appropriateness. Further, the study was limited to perceptions of university students. In future, research should be carried out considering all possible stakeholder groups to provide a holistic view.

7. Conclusion

The objective of this study is to identify the impact of social media on students’ academic performance. Social media is becoming the most imperative tool for the communication among students specially in higher educational institutes. Students are using social media for academic as well as non-academic purposes. Hence, it is critical to recognize the impact of social media on students’ academic performance as identified by several researchers [2,5]. This study was devoted to identifying the impact by integrating TAM [29], TPB [31] and IS Success Theory [37]. It will provide a comprehensive view and a better understanding of the impact of social media on students’ academic performance. Since, social media is widely used by students, the findings of this study would be very useful to the lecturers/content designers and developers in higher education institutions in incorporating social media effectively and efficiently in their courses. The suggested conceptual model will be statistically tested in the future. The findings of this study would help narrow the knowledge gap to a some extent in this context.

8. Recommendations

In order to overcome the limitations of the present study, future research is recommended to cover a more comprehensive student sample from different higher education contexts to cover a large proportion of the population. It should take a random sample across colleges, universities and other higher educational institutes. Moreover, future studies could include additional constructs that would be meaningful to identify the impact of social media in students' academic performance in the higher education context. Further, the proposed model can be examined in different contexts as social media is commonly used by students in higher education as well as employees in business organizations in this millennial era.

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