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# A model of using social media for collaborative learning to enhance learners' performance on learning



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#### KEYWORDS

Social media usage; Collaborative learning; Higher education and learners' performance Abstract Social media has been always described as the channel through which knowledge is transmitted between communities and learners. This social media has been utilized by colleges in a way to encourage collaborative learning and social interaction. This study explores the use of social media in the process of collaborative learning through learning Quran and Hadith. Through this investigation, different factors enhancing collaborative learning in learning Quran and Hadith in the context of using social media are going to be examined. 340 respondents participated in this study. The structural equation modeling (SEM) was used to analyze the data obtained. Upon analysis and structural model validities, the study resulted in a model used for measuring the influences of the different variables. The study reported direct and indirect significant impacts of these variables on collaborative learning through the use of social media which might lead to a better performance by learners.

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#### 1. Introduction

In a comparison between the internet used today called as Web 2.0 and the one we used before called 1.0, it is reported that the former is better than the latter in terms of interactivity (Kaplan and Haenlein, 2010). These researchers also add that the inter-

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net of these days provide many interactive items like Facebook, Blogs and YouTube. According to Bercovici (2010), students use social media in general for the purpose of interactive engagement in the social environment. Recently, Higher education is shifting attention to the use of social media in teaching and learning after highlighting research community in the traditional view. Anderson (2012) mentions some conditions under which the use of social media can lead to active collaborative learning in higher education. These conditions are represented by the active collaborative learning and the motivation of cognitive skills reflection and metacognition.

Some researchers like Larusson and Alterman (2009) and Ertmer et al. (2011) reported the positive influence of social media on the process of learning leading to a better level of performance. For example, Junco et al. (2011) examined the

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use of Twitter and Blogs while Novak et al. (2012) investigated the use of several types of social media. They all agreed that these tools play a positive role in enhancing the performance of learners and encourage active collaborative learning at the level of higher education. Much of the research done in the area of social media adopts the model called TAM. From the perspective of other studies, social media is reported to use either utilitarian or hedonic technologies based on corresponding TAM foundations. The hedonic nature of social media is confirmed through literature such as Al-Rahmi et al. (2014), Sledgianowski and Kulviwat (2008), and Hu et al. (1999) which reports positive influences of perceived enjoyment and perceived ease of use on social media adoption behavior. On the other hand, the utilitarian nature of social media is still vague (Ernst et al., 2013; Al-Rahmi et al., 2015). On the light of this, the current study is considered a distinguished effort since it explores TAM factors influencing collaborative learning to learn Quran and Hadith in the context of social media use. At the level of Malaysian higher education, the current study attempts to examine the impact collaborative learning has on the learners' performance through the use of social media. While the second part of the current study deals with the research model and verifies the different hypotheses, the third part is designed to explain the methodology applied as well as the process of data collection. The last two part of the study involve illustrating the findings and providing a summary of the main points and results respectively.

#### 2. Social media use in higher education

Recently, the interest of higher education has shifted from the concentration on knowledge skills into highlighting long-learning in terms of skills (Junco, 2012). One type of these skills that receive special attention by employers is the collaboration skills. The topic of active collaborative learning has received much attention by researchers and scholars. For example, Dillenbourg et al. (1995) described this type of learning as the situation whereby two or more learners engage in the process of learning new knowledge. Several social media tools studied such as MySpace, Facebook and Twitter are tools that could be used for educational purposes. The current study is using the general term of social media for sweeping generalization.

Through the use of social media in the context of learning, high school students will have positive tendencies to appreciate creative work, support toward peer alumni, and have mutual support with the school. Through literature, several factors in relation with higher education were examined. For example, faculty use was examined by Al-Rahmi et al. (2014), Ajjan and Hartshorne (2008), Chen and Bryer (2012), and Roblyer et al. (2010) while student engagement was examined by Junco et al. (2012) and Al-Rahmi and Othman (2013). Moreover, the relation with academic achievement was also explored by Junco (2012), Junco et al. (2011) and Al-Rahmi and Othman (2013). In their study, Yang et al. (2011) found that interactive blogs play a significant role in the peer interaction among students leading to a better academic achievement. In another study, it was reported that the college students were negatively influenced by the time spent on Facebook and it negatively affected their performance. It also has a weak relation with the time provided for class preparation. The transformation of personal learning environments to be a new pedagogical approach is one of the most potential benefits of social media and this transformation aims to improve self-regulated learning (Dabbagh and Kitsantas, 2011). Through this transformation, students will be provided the advantage of having control over their learning activities. Flickr, Wikis and Blogs are examples of web based tools that can be utilized for the purpose of improving learning environments.

#### 3. Research model

Constructivism Theory and Technology Acceptance Model (TAM) are the main grounds from which the research model is originated. The former theory highlights and proposes that interaction among learners and their instructors is an important stage in reaching engagement and active collaborative learning (Vygotsky, 1978; Carlile et al., 2004). The latter model mentioned above is also utilized in this research as it highlights the topic of new technology adoption being strongly influenced by perceived usefulness and ease of use. Much of the research in this field uses TAM, which was developed by Davis (1989), as a theoretical model. The reason why TAM is heavily used is because it determines the future of any computer technology in terms of acceptance or rejection. See Fig. 1.

#### 3.1. Perceived usefulness

As proposed by the TAM model, the use of IT tools among users heavily depends on their perceived usefulness (Davis, 1989; Venkatesh and Davis, 2000; Venkatesh et al., 2003). In one of the studies done in this area, Jackson et al. (1997) reported that there is no relation among perceived usefulness and attitude and social media. Moreover, usefulness was found to have a negative relation with the use of information system (IS) (Venkatesh and Davis, 2000). Other researchers also reported that there is no indication of the perceived usefulness-actual use relationship (Szajna, 1996; Lucas and Spitler, 1999; Bajaj and Nidumolu, 1998). An example for that would be that mentioned by Lucas and Spitler (1999) that the problem was with the researchers' variables that were not significant while studying the model (Venkatesh and Davis, 2000). Considering the above discussion, the researcher proposes the following hypotheses:

H1: There is a significant relationship between perceived usefulness and social media use.

H2: There is a significant relationship between perceived usefulness and collaborative learning.

#### 3.2. Perceived enjoyment

The adoption of a self-service technology can be strongly influenced by the perceived enjoyment as reported by Curran and Meuter (2007). Perceived enjoyment was also found to have a positive impact on the users' choices of surfing the internet (Eighmey and McCord, 1998). Users' attitude and intention of using social media are mainly determined by the level of enjoyment they experience while using social media (Curran and Lennon, 2011). In the context of technology use and adoption, the term of perceived enjoyment (PE) has been described

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