EXPLORING THE PATTERNS OF SOCIAL MEDIA USE AMONG BUSINESS STUDENTS IN MALAYSIA

Mohammad Said Ibrahim Alshuaibi
College of Business, Universiti Utara Malaysia, Malaysia
Ahmad Said Ibrahim Alshuaibi*
College of Business, Universiti Utara Malaysia, Malaysia
Faridahwati Mohd. Shamsudin
College of Economics and Political Science, Sultan Qaboos University, Oman
Othman Yeop Abdullah Graduate School of Business, Universiti Utara Malaysia, Malaysia

ABSTRACT

Social media is an important communication tool, which has substantially changed the way people interact with each other. Its potential use in a learning environment in higher educational institutions has also been debated. If its potential advantage in an academic environment is to be materialized, we need to know the extent university students use the new tool for academic purposes, which is largely unexplored in Malaysia. In this study, we explored the patterns of social media use for academic purposes of 227 business students in one public university in Malaysia. Using descriptive analyses, we observed that majority of our sampled students had Facebook account, further confirming the use of Facebook as the most popular social media platform across the world. Our finding roughly showed that the general level of use was rather high. We showed that female students used more frequently social media than male students. It was encouraging to observe that business students in our sample tended to use social media quite frequently for academic purposes. In general, our findings suggest the potential value of integrating social media in learning activities, as an important learning tool to enhance students' learning experience. Implications of the study for practice and recommendations for future research are offered.

INTRODUCTION

Social media consists of two key words: "social" and "media." According to Safko (2010), the combination of these words reflects the innate desire of a human being to connect with others in one way or another through various media/means (reflected in the contemporary technologies of communication). Closely related to the term "social media" are social networking sites or social network sites (SNSs). As with social media, social networking sites refer to the platforms that individuals can use to connect, relate and communicate with others. In this study, we used SNSs and social media interchangeably. Some of the social media that have a huge number of followers are Facebook, Yahoo, and Twitter.

Like any technological device, social media, too, have purported benefits and harm. However, within the educational sphere, educators seem to generally agree that its integration in the academic environment can be beneficial to students as a way to enhance their learning experience (Barbour & Reeves 2009; Harris 2012). As Malaysia aspires to achieve a developed nation status by the year 2020 in which the economy is expected to be knowledge-oriented rather than export-oriented, the integration of such media is likely to help Malaysia towards achieving the vision. However, despite the excitement and the potential of integrating social media in a learning environment, studies that looked at the degree of use of social media among university students for academic purposes are quite limited, particularly in the Malaysian context, with a few exceptions. Even so, these Malaysian studies did not specifically delineate how social media was used (Al-rahmi et al. 2014), or they investigated a specific social media such as Facebook (Adnan & Mavi, 2015; Sharifah Sofiah et al. 2011), or examined uses of social media rather generally (Hamat et al. 2015; Syed Hassan & Landani 2015). So, although we understand that social media uses are varied, and learning or academic purposes being one of them, we do not have enough knowledge as to how much social media is being used for academic purposes, hence limiting efforts of effective integration. Thus, following the remark made by Maloney et al. (2014) that limited information exists on how university students utilize SNS, be it for educational or strictly social purposes, we embarked on this study to explore the issue. Other researchers have also echoed the same sentiment, urging that

more studies need to be done to enhance our understanding on social media use among university students (Hrastinski & Aghaee 2012; Pempek et al. 2009; Shen & Khalifa 2010).

Toward this end, we organized our paper as follows. First, we reviewed the relevant literatures on social media use for academic purposes before explaining how we practically conducted our study. In the Method section, we discussed who our sample was, how data were collected, and the instruments used. In the Result section, we presented some descriptive results of social media use. We also presented a post-hoc analysis on the measurement validation and also differences in social media use by gender. Next, a discussion on the result was offered by highlighting the key points and outlining the limitations of the study and directions for future research.

LITERATURE REVIEW

With the invention of the Internet and hence the proliferation of social media platforms, such as Facebook, MySpace, LinkedIn, Twitter, and Google Plus, for instance, the social connection is enlarged and expanded beyond physical space, boundary, and time. Now, individuals can connect, relate, and communicate with each other at their own pace and convenience anywhere and everywhere. In other words, social media platforms have transformed the way we communicate with each other, which has bearing on the way we lead our lives.

Because social media is likely to stay, it has been a subject that attracts much scholarly attention. One group of users that has been increasingly focused on is university or college students. This is because they represent an age group, who, according to a survey conducted by the Pew Research Centre, is the biggest group in the USA that use social media, with Facebook being the most popular social media site (Duggan et al. 2015). The survey also reported that 58% of them have Facebook, 23% LinkedIn, 22% Pinterest, 21% Instagram, and 19% Twitter. Junco et al. (2011) reported in his study that 85% of students at a large research university in the USA had accounts on Facebook. Other common sites among the students in their study included MySpace and Twitter.

Not only university students in the West are embracing social media readily (Hrastinski & Aghaee 2012; Junco et al. 2011; Turner & Croucher 2014), university students in other parts of the world are also doing the same. In a study of university students in Bangladesh, Jahan and Ahmed (2012) found that many students used several social media simultaneously. According to Bennett (2015), Asia Pacific region accounts for more than half of all social media users worldwide. In the case of Malaysia, statistics indicate that social media users represent 53% of the overall population, and users spend on average almost three hours and thirty minutes on social media per day. Facebook is the most common social media site, accounting for 94% of the overall online population, followed by Twitter (59%). In a Connected Life study conducted by TNS, a consultancy group, 62% of Internet users in Malaysia access social media sites daily in comparison to 42% globally, making Malaysian Internet users global social leaders. Facebook and WhatsApp are two most popular social media platforms, with 88% and 72% visitors daily, respectively (TNS 2014). In their study on 6358 students (both undergraduates and postgraduates) in institutions of higher learning in Malaysia, Hamat et al. (2012) found that 80.8% of the participating students had a social media account. Although they did not specify the type of account, we suspected that Facebook may be the most common site used, consistent with the global surveys cited earlier.

Within the context of educational environment, students use social media for variety of purposes, which can be broadly categorized into two groups: for academic and non-academic purposes. The latter is also known as socializing purposes. As social media is being hailed as a promising educational tool in enhancing learning experiences, concerns are raised with regards to whether university students are taking advantage of its potential (Hrastinski & Aghaee 2012). For instance, in their study on the use of Facebook among first year students of a British university, Madge et al. (2009) showed that Facebook was mainly used by the students to help them settle into their university life. They also observed that as the students became more adjusted to the university life, the use of Facebook for informal learning purposes (defined as student-to-student interactions about academic work-related matters that do not involve teachers) increased. That is, more students began to use Facebook for contacting other students to organise group meetings for project work, for revision and for coursework queries. Javed and Bhatti (2015) observed that the majority of students in a large university in Pakistan used social media sites frequently for the purpose of getting information, to keep in touch with their friends, to connect with people they have lost touch with, for entertainment, and learning.

The use of social media as a tool for learning purposes was also reported by Caraher and Braselman (2010), who surveyed more than 1,000 college students in the US. They found that more than half of the students used social media – including Facebook, Twitter, blogs and wikis – as an educational tool to enable real-time dialogue, collaboration and content sharing with classmates. Specifically, they observed that 64% of them used social media to connect with classmates to study or work on class assignments at least several times

per month, 41% to study or work on class assignments at least several times per month, and 27% to connect with faculty to study or work on class assignments, at least several times per month.

Jahan and Ahmed (2012) asked students in one large university in Bangladesh to indicate their likelihood of participation in course-related social network activities on a seven-point scale. They found that the students were more likely to use social networking sites to communicate with other students in the class, followed by viewing the course schedule, joining a SNS group for students in the course, accessing course notes and other materials, and using online discussion that included only students. Johnston et al. (2013) in their study on South African university students showed that 55% of the students surveyed using Facebook to contact other students for questions relating to class work, and 47% making use of Facebook to discuss class work. In Australia, Mahoney et al. (2014) observed that 97% and 60% of participants had been using Facebook and YouTube, respectively, for educational purposes. Majority (85%) believed that SNS could benefit their learning experience.

While the above literatures paint an encouraging picture of the use of social media for learning purposes by students, some researchers were not convinced that that was the case. Madge et al. (2009), in particular, examined to what extent Facebook helps British first year undergraduate university students integrate socially into the university life. Using a qualitative technique in which in-depth interviews were conducted, they found that the students felt that Facebook was used most importantly for social reasons, such as, contacting friends about social events, and not for academic purposes especially when it comes to contacting their teachers or tutors. In fact, it was found that 43% of students interviewed strongly remarked that Facebook was a SNS and not a tool for academic work, when asked if there were any ways they thought Facebook could be utilized to enhance teaching and learning. As indicated by one of the interviewee, "… Facebook is a social networking site and the ultimate tool of procrastination, and whilst the social side of university is important and it can help build and sustain bonds between people, asking people to go on it for educational purposes is essentially giving them a green light to NOT do work..." (p. 149). Indeed, many studies have indicated that social media, particularly Facebook, is used primarily for personal and social purposes (Panek 2014; Tsai & Liu 2015). In her study of 1,715 university students aged between 18 and 29) who have joined or used Facebook Groups, Panek (2014) asked the participants to rate their level of agreement with specific reasons for using Facebook Groups, including information acquisition about campus/community, entertainment/recreation, social interaction with friends and family, and peer pressure/self-satisfaction. She found that socializing explained almost 31% of the variance in reasons for participating in Facebook Groups. Tsai & Liu (2015) also found that when Facebook was used for more interpersonal reasons, academic achievement would suffer because students in her study did not have the necessary time management skills, suggesting that her 1052 participants in Taiwan were using Facebook more for social purposes rather than for learning purposes.

In sum, the literatures highlight that social media is used by university students for a variety of purposes, but few actually focused on the level of use for academic purposes, which we attempted to explore.

METHOD

Sample and Data Collection Procedure

We personally administrated 250 sets of questionnaire to business students at the undergraduate and postgraduate levels in one of the public universities in Malaysia. In selecting the participants, we attended several classes that were selected randomly. To ensure that the same students were not chosen more than once, we chose classes of lower and higher levels because first year students were not likely to take higher level subjects and students who were at the final year most likely had completed their introductory level courses. Once the classes were identified, we distributed the questionnaires during class time after gaining approval from the instructors concerned. The students were informed about the purpose of the study, its significance, and assured of their anonymity and confidentiality of answers. They were also told that the participation in the survey was voluntary. Once agreed to participate, they were given between 10 and 15 minutes to complete the survey. With regards to postgraduate students, the selection was not entirely random as these students were most likely not required to take pre-requisite courses. In this regard, assistance from the faculty members teaching the courses was solicited.

The survey was prepared in English because it is the second language in Malaysia. Furthermore, English is used quite extensively at the university under study because it hosts a large number of foreign students. But before the final survey was distributed, it was first pretested to check for any misunderstanding and confusion to the items asked. Pre-testing was conducted among non-business students but who had social media accounts. The final survey incorporated the feedback given by the pre-test group. To ensure that only

users of social media were included in this study, a filtering question was asked. The participants were asked to complete the survey if they said "Yes" to the question of whether they had an account on social media like Facebook, Instagram, and the like.

Of 250 questionnaires distributed, only 225 were eligible for data analysis; 5 had to be discarded because they indicated that they did not have any social media account. The valid responses constituted 90.0% of the response rate. The majority of the participants (78.8%) were females. In terms of nationality, 86.5% were local students, while 13.5% were international. Of 192 local students, 53.6% were Malays, 44.3% Chinese, and 2.1% Indians. Majority were single (94.6%), stayed on-campus (90.5%), were following an undergraduate program in business (82.9%). Only a handful 17.1% were postgraduate students. On average, the participants were 23 years old ($SD = 1.45$).

Measures

Use of Social Media

Use of social media was measured by frequency and type of use. Items on frequency of use were taken from Stagno (2010). The frequency of use was operationalized as how regular the participants use social media in a week and how long they spend on social media when they log in. For the first item, the options given ranged from '1' "Less than once per week" to '5' "Constantly". For the second item, the options ranged from '1' "Less than 5 minutes" to '5' "More than 60 minutes." We also asked whether the use of social media has changed over the years. On the other hand, type of use was operationalized as the use of social media for academic purposes. The items were adopted from Gomez et al. (2012) and Lindberg and Tavakoli (2013). All items were measured on a seven-point scale, ranging from '0' "Never" to '7' "All the time". Some of the items asked were "To resolve queries about content or exams with other students," "To find out what has been covered in class during non-attendance," and "To remain updated on what is happening in a subject (changes, unforeseen events)."

Demographic Information

Several questions regarding the participant's personal information were also solicited such as age, gender, and academic program, year in study, residential context, and college of study.

RESULT

Level of Use of Social Media

The first research question we asked our participants pertained to the level of social media use. When asked which social media participants had an account with, majority indicated Facebook (99.1%). The second most popular social media platform among the participants was WhatsApp (88.1%), and this was followed by Google+ (62.2%), YouTube (59.1%), and Yahoo (52.0%). Table 1 shows the result. The simultaneous accounts of various social media resonate well with Lenhart et al.'s (2010) study. They reported that more than half of social network users had a personal profile on multiple social media websites.

TABLE 1. SOCIAL MEDIA MEMBERSHIP (N = 225)

Social media	Percentage
Facebook	99.1
Twitter	31.1
LinkedIn	8.0
MySpace	6.7
WhatsApp	88.1
Google+	62.2
YouTube	59.1
Yahoo	52.0
Others	32.6

Our finding that Facebook has the highest number of followers is consistent with many previous studies (Aljasir et al. 2014; Celik & Karaaslan 2014; Jahan & Ahmed 2012; Javed & Bhatti 2015), further confirming its position as the most popular social media used (Duggan et al. 2015). Not surprisingly then,

Facebook was reported to have been visited the most by the participants (98.4%), that is more than once a day (see Table 2). Similar finding was also reported by Quan-Haase and Young (2010), who found that 82% of the college students studied reported logging into Facebook several times a day. Sponcil and Gitimu (2013) found that participants reported updating their Facebook page the most (88.5%), and Twitter (11.5%). Frequency of use indicated that 59.4% of the students visited a social networking site several times a day.

Unexpectedly, despite being the second most popular, only a small percentage of the participants used WhatsApp more than once daily (21.8%). Perhaps the differences in the features between Facebook and WhatsApp could explain the result. Twitter was also not frequently used by the participants (6.2%). Because Twitter does not allow users to share pictures and post videos, this may discourage them from using it frequently.

TABLE 2. SOCIAL MEDIA USED MOST FREQUENTLY* (N = 225)

Social media	Percentage
Facebook	98.4
Twitter	6.2
LinkedIn	0.0
WhatsApp	21.8
Googl+	1.8
YouTube	4.0
Yahoo	1.8
Others	0.9

Note: Of the social media you have an account with, which one do you use the most frequently (i.e. more than once per day)?

TABLE 3. FREQUENCY OF LOG IN ON SOCIAL MEDIA (N = 225)

Frequency (in days)	Percentage
Constantly	49.8
More than once per day	41.8
Once per day	5.3
Once per week	3.1

TABLE 4. LENGTH OF TIME ON SOCIAL MEDIA (N = 225)

Frequency (in min)	Percentage
Less than 5 minutes	3.6
5 – 10 minutes	13.3
11 – 30 minutes	21.3
31 – 60 minutes	18.7
More than 60 minutes	43.1

TABLE 5. COMPARISON OF USE OF SOCIAL MEDIA* (N = 225)

Change of use	Percentage
Decreased	3.1
About the same	47.1
Increased	49.8

Note: Generally speaking, when compared to last year, is your using social media now?

In general, majority indicated using social media sites very frequently (i.e. constantly and more than once a day) (91.6%), as shown in Table 3, and when they logged into the sites, close to half (43.1%) spent more than 60 minutes (see Table 4). The frequent use reported by the participants was also reflected by the increasing use of social media over time. When asked whether the use of social media changed or otherwise, Table 5 shows that close to half of the participants indicated that their use of social media had increased compared to last year (49.8%), while 47.1% indicated no change. Unsurprisingly, only 3.1% indicated a decrease in their use. The heavy use of almost half of some of the sampled students in this study (43.1%) is worrying as it shows a sign that the students may be on the verge of addiction. According to Huang (2014), social media addicts spent around three hours daily on social media, while Karaiskos et al. (2010) reported a case of a 24-year old woman who used social networks excessively which severely interfered her daily life, resulting in her dismissal from her job. She used Facebook excessively for at least five hours and continuously checking her SNS instead of working.

In sum, based on these results, it can be said that the level of use of social media sites was rather high, and overall the result mirrored previous studies and surveys (Duggan et al. 2015).

Social Media Use for Academic Purposes

As we were more interested in understanding the use of social media for academic purposes, we asked the participants the frequency of using social media for the activities listed in Table 6. As shown, the mean values for social media use for academic purposes were between 5.87 and 4.16, with standard deviations ranging from 1.10 to 1.70. The result suggests that the participants tended to be using social media quite frequently for academic purposes, as the standard deviations of all the variables were not larger than 3, as recommended by Hair et al. (2009). Of 12 uses, the participants reported that they used social media most frequently to join in the project groups/group discussion (mean = 5.87) and the least frequently for tutorials and consultations with teachers (mean = 4.16). The frequent use of social media for academic purposes as indicated by our findings is encouraging for the promotion and integration of such media in a learning environment.

TABLE 4. SOCIAL MEDIA USE FOR ACADEMIC PURPOSES (N = 225)

Activities	Mean	SD
1. To join in the project groups/group discussion	5.87	1.19
2. To do coursework	5.66	1.10
3. To exchange useful documentation and resources for the subject	5.38	1.19
4. To remain updated on what is happening in a subject (changes, unforeseen events)	5.34	1.14
5. To find out about activities organized by my university	5.24	1.23
6. To resolve queries about content or exams with other students	4.87	1.35
7. To organize extracurricular activities	4.80	1.50
8. To resolve doubts about my life at university	4.69	1.35
9. To find out what has been covered in class during non-attendance	4.51	1.44
10. To consult recommendations on books or resources made by the teacher	4.47	1.41
11. To contact experts on the topics of the study	4.38	1.70
12. Tutorials, consultations with teachers	4.16	1.60

Note: SD = Standard deviation.

How does the finding fare with previous studies? It appears that the use of social media for academic purposes by students in this study did not differ significantly from what was reported in the literature (Caraher & Braselman 2010; Jahan & Ahmed 2012; Johnston et al. 2013; Maloney et al. 2014). Interestingly, students in our study were more likely to use social media for informal learning purposes. In explaining their finding, Jahad and Ahmed (2012) speculated that student-teacher relationships are considered to be formal in Bangladesh and thus many students seem reluctant to use social network for online discussion with their teachers. As a society that is characterized by high power distance (Hofstede et al. 1997), such speculation may be plausible. However, more studies need to be carried out to validate such claim. But, if indeed it is true then using social media for formal learning purposes may pose quite a big challenge to educators in terms of how to get students to interact online with their teachers actively.

Post-hoc Analysis of Social Media Use: Factor Analysis and Reliability of Measure

We extended our investigation by validating the measure of social media use for the sake of parsimony. Exploratory factor analysis (EFA) with principal component analysis employing an orthogonal varimax rotation was used. To identify and interpret the factors, the guidelines of Tabachnick & Fidell (2007) and Worthington & Whittaker (2006) were used. That is, the loadings of each of the items on the factors should be at least 0.32 and not double-load or cross-load. Double-loading is determined both by the 0.32 loading guideline, as well as by a separation in loadings of at least .15. For example, an item that loads 0.35 onto one factor and no higher than 0.20 onto any other factor may be considered representative of that factor; but an item that loads 0.44 onto one factor and 0.30 onto another factor would be considered double-loading (Brundick, 2011).

Based on the analysis, a three factor solution that explains 64.9% of the total variance explained in social media use was found. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was .83, whereas the Bartlett's test of sphericity was significant ($\chi 2 = 1215.31$, df = 66, p < 0.01), indicating sufficient intercorrelations for the factor analysis. We named the three components as Queries, Exchange of Information, and Consultation.

Next, we checked the internal reliability of each factor. Using the guidelines that reliabilities less than 0.60 are considered poor, those in the range of 0.7 are acceptable, and over 0.8 are good (Nunnally 1978), we found that each factor's internal reliability was above the minimum of 0.6. Specifically, the Cronbach's alpha values were 0.65 for Queries, 0.818 for Exchange of information, and 0.883 for Consultation. Result of factor analysis and internal reliability coefficients (Cronbach's alpha) is shown in Table 5.

TABLE 5. FACTOR ANALYSIS ON SOCIAL MEDIA USE

	Component			
Items	**1**	**2**	**3**	**A**
Queries				.654
1. To resolve queries about content or exams with other students	.206	.192	**.794**	
2. To find out what has been covered in class during non-attendance	.066	.368	**.696**	
Exchange of information				.818
1. To do coursework	**.697**	.002	.363	
2. To remain updated on what is happening in a subject (changes, unforeseen events)	**.618**	.025	.442	
3. To exchange useful documentation and resources for the subject	**.761**	.149	.112	
4. To find out about activities organized by my university	**.690**	.391	-.100	
5. To organize extracurricular activities	**.656**	.447	-.095	
6. Join project groups	**.683**	-.050	.226	
Consultation				.883
1. To consult recommendations on books or resources made by the teacher	.176	**.808**	.265	
2. To contact experts on the topics of the study	.063	**.878**	.184	
3. Tutorials, consultations with teachers	.120	**.831**	.198	
Eigenvalue	40.671	14.722	9.549	
Percentage of variance explained = 64.94%				
Kaiser-Meyer-Olkin Measure of Sampling Adequacy	.826			
Bartlett's Test of Sphericity (χ^2)	1215.312			
df = 66, Sig. = .000				

Next, we attempted to examine whether there is a gender difference in social media use among the sampled business students, as suggested in the literatures (Sharifah Sofiah et al. 2011). First, we ran independent t-test to investigate whether male and female students differ in how they use social media for Queries, Exchange

of Information, and Consultation. No significant difference was found at significance level of 10%, which means that male and female students were not different in how they used social media for academic purposes. We also did not find any significant difference by nationality (i.e. Malaysian or non-Malaysian). Surprisingly, we found a significant difference by race in Consultation (F = 11.310, df = 2, p < 0.001). Tukey's HSD test showed that Malay and Chinese students were significantly different from Indian students in using social media for Consultation purposes.

Next, we examined whether there was a difference in the frequency of logging into social media in a day by gender. Cross-tabulation was run and our finding showed that female students tended to frequent social media more than male (χ^2 = 8.211, df = 3, p < 0.05). But no significant difference was observed in the length of time of logging into social media (χ^2 = 7.504, df = 4, p > 0.05) and the change of use over the last year (χ^2 = 3.163, df = 2, p > 0.05) between male and female students.

We also found no significant result by nationality in the frequency of logging into social media in a day (χ^2 = 0.351, df = 3, p > 0.05). However, Malaysian students tended to spend more time logging into social media than non-Malaysian students (χ^2 = 10.768, df = 4, p < 0.001). Our result showed that of 192 Malaysian students, 45% of them spent more than 60 minutes on social media when logging in. No significant result was found with regards to change of use over the previous year by nationality (χ^2 = 1.403, df = 2, p > 0.05) or by race (χ^2 = 1.199, df = 4, p > 0.05).

DISCUSSION

We explored the patterns of social media use of business students for academic purposes of one public university in Malaysia. As social media has become an important communication tool for many and has changed substantially the way people communicate (Madge et al. 2009), we were interested to know to what extent university students are using the media for academic purposes. Although much has been debated on the potential value of integrating social media in a learning environment to enhance the academic experiences of students, nothing much has been done to investigate the use of it among students especially for academic purposes. Such information is particularly pertinent if educators are serious in promoting and integrating the new tool in an academic environment.

Our findings demonstrated that majority of university students in our sampled had accounts in various social media platforms, with Facebook being the most popular among them. While it was encouraging to see that the participants indicated the frequent use of social media for academic purposes, we do not know whether the use for academic purposes and for non-academic purposes (i.e. socializing) is significantly different as we did not have the data to test our concern. Such difference is important because we can have a full picture of how much time the students spend on social network sites. Our finding roughly showed that the level of use was rather high, prompting us to suspect that the social media may be used more for socializing purposes. In fact, previous works have found that social media tends to be used more for socializing (Duggan et al. 2015; Johnston et al. 2014; Madge et al. 2009). If indeed this is case, how such use affects the academic performance of students is something that requires scholarly attention.

As this study is exploratory in nature, concrete measures on how to promote the use of social media for academic purposes among students are not readily possible. However, our findings have provided some initial insight into the patterns of social media use. In general, our findings suggest the potential value of integrating social media in learning activities, as an important learning tool to enhance students' learning experience.

Our study is not without limitations. One of the key limitation is with respect to the ggeneralizability of the finding to a much larger population of students. As the participants were business students in one public university in Malaysia, the external validity of the findings may be suspect. Perhaps students in different universities and in different academic fields may show a different pattern of using the social media. For instance, Kanagavel & Velayutham (2010) found that Indian students spent more time in social media sites than Dutch students but they were mostly passive. Dutch students, on the other hand, participate more actively than Indian students by posting to these sites. Judging from this evidence, more studies should be conducted on diverse population groups for generalizability purposes.

As social media has the potential effect on students' academic achievement (Junco et al., 2011), it offers a lot of exciting opportunities for research. While social media has purported advantages of enhancing students' learning experiences, it may also be used for negative activities. As Malaysia aims to become a knowledge-based society, such direction is timely.

REFERENCES

Aljasir, S, Woodcock, A, and Harrison, S 2014, 'Usage of social network sites amongst Saudis: Why do Saudi university students have multiple Facebook accounts?', *International Journal of Social Science and Humanity*, vol *4*, no. 4, pp. 293–297.

Al-rahmi, WM, Othman, MS, and Musa, MA 2014, 'The improvement of students' academic performance by using social media through collaborative learning in Malaysian higher education', *Asian Social Science*, vol. 10, no. 8, pp. 210–221.

Adnan, HM, and Mavi, SR 2015, 'Bridging social capital on Facebook as a platform: A case study of Malaysian college students', *Asian Social Science*, vol. 11, no. 15, pp. 1–9.

Barbour, MK, and Reeves, TC 2009, 'The reality of virtual schools: A review of the literature,' *Computers and Education*, vol. 52, no. 2, pp. 402–416.

Bennett, S. January, 2015, *Social media usage in the Asia Pacific: Statistics & trends* [Infographics].Available from: http://www.adweek.com/socialtimes/social-media-asia-pacific-stats/614053

Brundick, MJ 2011, *The development of scales to measure QISA's three guiding principles of student aspirations using the My Voice^{TM} Survey,* Quaglia Institute for Student Aspirations. Retrieved from http://www.qisa.org/dmsView/MV_Scale_Development

Caraher, K, and Braselman, M 2010. *The 2010 21st-Century Campus Report: Campus 2.0. 2010 CDWGovernment LLC.* Retrieved from http://webobjects.cdw.com/webobjects/media/pdf/newsroom/CDWG-21st-Century-Campus-Report-0710.pdf

Çelik, A. K., & Karaaslan, A. (2014). Predictors of college students' willingness to use social network services. *Campus-Wide Information Systems, 31*(5), 304 – 318.

Duggan, M, Ellison, NB, Lampe, C, Lenhart, A, and Madden, M 2015. *Social media update 2014.* Retrieved from: http://www.pewinternet.org/2015/01/09/social-media-update-2014/

Gomez, M, Roses, S, and Malaga, PF 2012, 'The academic use of social networks among university students. *Comunicar: Scientific Journal of Media Communication,* vol. 19, no. 38, pp. 94–100.

Hamat, A, Embi, MA, and Abu Hassan, H 2012, 'The use of social networking sites among Malaysian university students,' *International Education Studies,* vol. 5, no. 3, pp. 56–66.

Harris, CW 2012, 'The uses of Facebook technologies in hospitality curriculum on an experiential learning platform for a new generation of students,' *Asia Pacific Journal of Marketing and Logistics,* vol. 24, no. 5, pp. 805–825.

Hofstede, G, Hofstede, GJ, and Minkov, M 1997. *Cultures and organizations,* McGraw Hill, New York.

Hrastinski, S, and Aghaee, NM 2012, 'How are campus students using social media to support their studies? An explorative interview study,' *Education and Information Technologies*, vol. 17, no. 4, pp. 451–4464.

Huang, H 2014. *Social media generation in urban China: A study of social media use and addiction among adolescents,* Springer, Verlag Berlin Heidelberg.

Jahan, I, and Ahmed, SZ 2012, 'Students' perceptions of academic use of social networking sites: A survey of university students in Bangladesh,' *Information Development*, vol. 28, no. 3, pp. 235–247.

Javed, MW, and Bhatti, R 2015, 'Usage of social media by medical and dental students at Nishtar Medical College, Multan, Pakistan,' *Journal of Hospital Librarianship*, vol. 15, no. 1, 53–64.

Johnston, K, Tanner, M, Lalla, N, and Kawalski, D 2013, 'Social capital: The benefit of Facebook 'friends',' *Behaviour & Information Technology*, vol. 32, no. 1, pp. 24–36.

Junco, R, Heiberger, G, and Loken, E 2011, 'The effect of Twitter college student engagement and grades,' *Journal of Computer Assisted Learning,* vol. 27, no. 2, pp. 119–132.

Kanagavel, R, and Velayutham, C 2010, 'Impact of social networking on college students: A comparative study in India and the Netherlands,' *International Journal of Virtual Communities and Social Networking*, vol. 2, no. 3, pp. 55–67.

Karaiskos, D, Tzavellas, E, Balta, G, and Paparrigopoulos, T 2010, 'Social network addiction: A new clinical disorder?,' *European Psychiatry*, vol. 25, Supplement 1, p. 855.

Lenhart, A, Purcell, L, Smith, A, and Zickuhr, K 2010. *Social media and young adults: Pew Internet and American Life Project.* Retrieved September 27, 2015, fromhttp://www.pewinternet.org/Reports/2010/Social-Media-and-Young-Adults.aspx

Lindberg, D, and Tavakoli, S 2013. *Student's usage of social media as a supplement to their studies: A comparison between two universities in Sweden and Argentina*, Unpublished bachelor's thesis, Royal Institute of Technology, Stockholm, Sweden.

Madge, C, Meek, J, Wellens, J, and Hooley, T 2009, 'Facebook, social integration and informal learning at university: It is more for socializing and talking to friends about work than for actually doing work,' *Learning, Media and Technology,* vol. 34, no. 2, pp. 141–155.

Maloney, S, Moss, A, and Ilic, D 2014, 'Social media in health professional education: A student perspective on user levels and prospective applications,' *Advances in Health Sciences Education*, vol. 19, no. 5, pp. 687–697.

Nunnally, JC 1978. *Psychometric theory*, McGraw-Hill, New York.

Panek, E 2014, 'Left to their own devices: College students' "guilty pleasure" media use and time management,' *Communication Research*, vol. 41, no. 4, pp. 561–577.

Pempek, TA, Yermolayeva, YA, and Calvert, SL 2009, 'College students' social networking experiences on Facebook,' *Journal of Applied Developmental Psychology*, vol. 30, no. 3, pp. 227–238.

Quan-Haase, A, and Young, AL 2010, 'Uses and gratifications of social media: A comparison of Facebook and instant messaging,' *Bulletin of Science, Technology & Society*, vol. 30, no. 5, pp. 350–361.

Safko, L 2010. *The social media bible*, John Wiley & Sons, Hoboken, New Jersey.

Sharifah Sofiah, SS, Omar, SZ, Bolong, J, and Osman, MN 2011, 'Facebook addiction among female university students,' *Revista De Administratie Publica Si Politici Sociale*, vol. 2, no. 7, pp. 95–109.

Shen, K, and Khalifa, M 2010, 'Facebook usage among Arabic college students: Preliminary findings on gender difference,' *International Journal of e-Business Management*, vol. 4, no. 1, pp. 53–65.

Sponcil, M, and Gitimu, P 2012, 'Use of social media by college students: Relationship to communication and self-concept,' *Journal of Technology Research*, vol. 4, pp. 16–28.

Stagno ZMC 2010, *Use of social media by future university students*, Unpublished bachelor's thesis, University of Twente Enschede, The Netherlands. Retrieved from: http://wwwutwente.n//mb/actuee/arch.ef/2010/final report Mark Zickstagno.pdf.potential

Syed Hassan, SS, and Landani, ZM 2015, 'The use of social networks sites (SNSs) among university students: How far do they learn,' *International Journal of Social Science and Humanity*, vol. 5, no. 5, pp. 436–439.

Tabachnick, BG, and Fidell, LS 2007, 'Using multivariate statistics, 5th edition, Allyn and Bacon, New York.

TNS 2014. *Malaysian Internet users amongst the global social leaders.* Retrieved September 27, 2015, from http://www.tnsglobal.com/press-release/malaysian-internet-users-amongst-global-social-leaders

Tsai, H-C, and Liu, S-H 2015, 'Relationships between time-management skills, Facebook interpersonal skills and academic achievement among junior high school students,' *Social Psychology of Education*, vol. 18, no. 3, pp. 503–516.

Turner, JS, and Croucher, SM 2014, 'An examination of the relationships among college students' use of socially interactive technologies, need for cognition, and grade point average,' *Learning, Media, and Technology*, vol. 39, pp. 199–214.

Worthington, RL, and Whittaker, TA 2006, 'Scale development research: A content analysis and recommendations for best practices,' *The Counseling Psychologist*, vol. 34, pp. 806–838.