GENDER DIFFERENCES ON PERCEIVED LEARNING EFFECTIVENESS USING FACEBOOK IN BERJAYA UNIVERSITY COLLEGE OF HOSPITALITY

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Abstract:
Without doubt, Facebook represents a huge potential with over 1.44 billion monthly active users worldwide, this powerful tool has definitely influenced most university students' lives especially in this generation. Hence, the main aim of the study is to determine the usage of Facebook as a learning support tool and compare the perceived effectiveness of using Facebook (FB) between male and female undergraduate students from BERJAYA University College of Hospitality. The primary method used was through an online questionnaire distributed to final year degree and diploma students undertaking two different courses. Based on the statistical tests conducted, the overall result shows that male and female students are indifferent in learning effectiveness of using FB. However, the study confirmed that female students perceived that sharing materials increases their learning capability and FB was effective because of its flexibility. Based on the findings, some challenges were highlighted and suggestions were provided on improving the implementation of FB within the classroom setting. All in all, it is hoped that this study will shed some light on some of the key differences between male and female students in order to provide the best learning experience using FB.

Keywords: Social Networking Sites, Gender Difference, Learning Tool, Higher Education, Learning Skills

Introduction

The Internet has revolutionized our communication world since its humble beginnings in 1962. Back then, the early Internet was mainly used by computer experts, engineers, scientists, and librarians (Kahn, et al, 1997). However, the Internet usage and users have since evolved. The Internet technology that gave tones of information to its users has provided a platform to socialize instead. As the Internet has become ubiquitous, faster, and increasingly accessible to non-technical communities, social networking and collaborative services have grown rapidly, enabling people to communicate and share interests in many more ways. The Web 3.0 technologies saw a rapid growth in Social Networking Sites (SNS) like Facebook (FB), Twitter, Linked-in, Youtube, Flickr, blogs, wikis and many more.

Web 3.0 is becoming more and more involved in younger generations, it is not just a tool of entertainment but it can be a tool for learning. Some companies have adopted SNS such as FB to encourage collaboration among colleagues and perhaps other relevant personnel such as external experts, suppliers and other partners (Jahaspra, 2011). You either love it or hate it but one cannot ignore FB when it has over 1.44 billion active users as of May 2015 and the users have increased 13% year after year (Noyes, 2015). Thus, FB is a multi-functional tool that was initially created for social networks, it has useful tool for business activities to function for instance creating the company's fan page, messenger with video call function, voting function, uploading videos, sharing documents, create event notice that invites relevant persons to attend with reminding function (Queensland Government, 2016). Collaboration among relevant personnel is perhaps the main source for learning for students, besides as mentioned earlier, FB has got documents and video sharing functions that are vital source of learning for students.

In terms of gender studies in online participation and preference, various studies established that more females are keen on e-learning and a significant higher number of females are enrolled in e-learning programmes (Willging & Jonhson, 2004; Qureshi, Morton & Antosz, 2002). Since there are differences in between participation and preference in e-learning, will male and female perceive differently in learning effectiveness of Facebook (FB)? This phenomenon of gender differences is also under-studied especially on undergraduate students from private institutions in Malaysia. Hence, the main aim of the study is to determine the usage of Facebook as a learning support tool and compare the perceived effectiveness of using FB between male and female undergraduate students from BERJAYA University College of Hospitality.

Literature Review

In the higher education, today's students are predominantly made up of Generation Y whose lives are centred around the Web 3.0 technologies. The generally accepted range of Generation Y are those born in between the years of 1978 to 2001 (Barron, 2008; Kueh & Boo, 2007; Chen & Choi, 2008). According to Prensky (2001), the Generation Y are also known as *Digital Natives* or *Netizens* spent their entire lives surrounded by computers, videogames, digital music players and cell phones and this has influenced their environment. Specifically in the learning environment, the Generation Y is hungry for stimulation and new

challenges as opposed to structured classroom-based learning (Weyland, 2011). In a broad sense, web-based learning seems to be the most appropriate to engage these students.

Some of the existing e-learning systems are called Learning Management System (LMS), Course Management Systems (CMS), Learning Support Systems (LSS), e-Portal among many others. These e-learning software systems were implemented to facilitate lecturers in managing academic subjects and allowed the lecturers to track the students' progress (Wong, 2010). Some of these systems were linked to e-library resources and online forums to widen its usage. However, these e-learning systems do not seem to impress our students from Generation Y due to its limited ability and lack of connectivity with other learners unlike FB. EDUCAUSE is a nonprofit association that conducted the ECAR (EDUCAUSE Center for Applied Research) study of undergraduate students and information technology, it revealed that device ownership among students' and the usage of social media in the campus has steadily increased over the years (Dahlstrom, Brooks, Grajek & Reeves, 2015).

One of such social media platform is none other than FB which was created in 2004 and is currently the most used global social networking website with over 1.44 billion active users (Noyes, 2015). The most common age demographic of its users are aged 25 to 34 years old (Mahadi, 2013). No wonder FB is popular among university students. However, FB was not created with the purpose of education and hence the applications were not developed for academic learning purposes. Moreover, the function of FB is meant to be used more on a recreational basis for social interaction, gaming and entertainment purposes (Crook, et al., 2008). Yet, FB was selected as the learning support tool in this study because of the advantages of its functions compared to other social networking sites and its immense popularity among university students.

It is worthy to note that individual differences in learning preferences among university students do exist and this pose a serious difficulty among educators. Throughout the years, educators and researchers have put their efforts in understanding these preferences in order to offer the best possible method in teaching. As such, the concept of blended learning and student-centered learning received high acceptance as it is seen as a more effective teaching methodology (Tselios, Daskalakis & Papadopoulou, 2011; Sun, Lin & Yu., 2008). Various studies involving acceptance of social media has also been conducted by applying the basis of the Technology Acceptance Model (TAM) (eg: Cheung & Vogel, 2011, 2013; Moon & Kim, 2001; Lederer, Maupin, Sena, & Zhuang, 2000) and social network analysis (eg: De Laat, Lally, Lipponen, & Simons, 2007; Liccardi et al., 2007; Cross et al., 2002). The social influence model of virtual community participation by Dholakia, Bagozzi and Pearo (2004) was improved based on Bagozzi and Dholakia's (2002) framework of social motivation towards intention to participate in chatrooms.

In terms of gender studies in online participation and preference, various studies established that more females are keen on e-learning and a significant higher number of females are enrolled in e-learning programmes (Willging & Jonhson, 2004; Qureshi, Morton & Antosz, 2002; Halsne & Gatta , 2002; Evans & Haase 2001). To strengthen this view, Kramarae (2001) found out that now there are more married female learners prefer e-learning due to its flexibility that allowing them to juggle family, studies and work commitments. In addition to the preference of female students towards online learning, there were also studies that confirmed that female students had different motivational factors than male students. Sullivan (2001) found that there were significant differences between the way male and female

students in the strengths and weaknesses of the online environment regarding flexibility, face-to-face interaction, shy and quiet students, self-discipline, and self-motivation.

Female students were found to be more confident and academically inclined when using online as a learning platform. They prefer more care in tutoring and they have different interaction styles compared with male students and ultimately perform better than male students (Yukselturk & Bulut, 2009; Price, 2006). In Malaysia, it is concluded that more female learners are keen in e-learning compared to male students (Mahmod, Dahlan, Ramayah, Karia & Asaari, 2005).

Subsequently, past research on gender differences in the usage of SNS showed that the entertainment value plays a more important role in determining satisfaction for male users, while relationship maintenance is more important in determining user satisfaction for female users (Chan, Cheung, Na, & Lee, 2015). Although women posted and read more messages than their male counterparts but it was found that gender was unrelated to motivational level and achievements in an online course (Yukselturk & Bulut, 2009). Motivations for university students to use FB or other SNS may depend on several socio-demographic characteristics such as gender, age, race and so on.

In a study by Haq and Chand (2012) conducted among students from a university in India, the results showed that there was no gender differences found on FB usage on their academic performance despite the fact that female users were spending more time on FB compared to the male counterparts. However, in a more recent study conducted by Iordache (2017), it posited that gender differences existed and it is in the way SNS was used for extending the social relations, information & collaboration and maintaining the social relations. These findings were consistent with Mazman and Usluel (2011) on 870 FB users.

However, measuring a social media's effectiveness has always been a daunting task in a business context (Benson & Morgan, 2013). This is expected to be the same in a higher education context. Piccoli Ahmad and Ives (2001) defined learning effectiveness as a learner's ability to achieve their personal ultimate learning outcome. In a study conducted a study on hospitality university students in Taiwan using structural equation modelling by Hsu (2015), he concluded that perceived ease of use and perceived usefulness were related to learning effectiveness. Facebook as a tool of communication have also effectively enhanced students' learning experience in service learning as confirmed by Safuan and Soh (2013).

Based on the previous studies reviewed, there are still many contradictory views with relations to gender differences in e-learning platforms' effectiveness. Hence, there is a need to uncover the usage of FB among university students and to compare the perceived effectiveness of using FB as an e-learning tool between male and female students. Therefore, the main objective of this study is to find out the difference of perceived effectiveness of FB between male and female students.

Methodology

Through various literature reviews, the authors identified a range of factors that were likely to influence on students' preference of using FB as a learning tool. Using this information as a guide, a questionnaire was developed to collect the data. The study is quantitative in nature and an online questionnaire was employed as the main research tool. The researchers adopted

Google Form as the online questionnaire tool as its user friendly (Huang & Liaw, 2005). In the first section, respondents were asked to provide demographic information such as age, gender and their registered program. In the second section of the survey, questions were asked in the areas related to FB's effectiveness as well as limitations of using the FB learning group. The questions related to the effectiveness of learning through FB required the respondents to indicate their level of agreement using the Likert Scale (on a scale of 1-Strongly Disagree to 5- Strongly Agree). The aggregated mean score more than 3.4 is considered agree in this research, the moderate level is nearly to 3, any mean score less than 2 is considered disagreed as indicated in the Likert scale above. The survey indicators on perceived effectiveness were adopted from Wong (2010).

The institution selected for this study is BERJAYA University College of Hospitality (BERJAYA UCH) that specializes in Hospitality, Tourism, Culinary and Business programs because this young institution emphasizes on experiential learning. Touted as the *'BERJAYA Immersion Methodology',* the institution is said to emphasize on student engagement in practical hands-on sessions that encourage a more contemporary pedagogy. The insititution is also equipped with 2 computer laboratories with 30 computers per laboratory, however student are expected to have their notebook or tablet computers that are easily connected to the free wireless Internet within the campus. Besides, students can also use their smart phones to connect to Facebook application easily. Thus, this seems to be a good reason to conduct this study using this institution.

A convenience sampling was used for this study by selecting students from two courses that implemented FB as a learning tool. One of such courses that was selected to implement the immersion methodology was 'Strategy and Innovation for the Service Industry' course. It is a compulsory course offered to degree students who are in their second year of studies. Instead of the common 2 hours lecture and 1 hour tutorial per week; the 2-hour lecture session was replaced with a role-play of Strategic Meetings being chaired by the students acting as Chief Executive Officer (CEO), Vice Presidents and board of directors to discuss and implement strategical and operational plans for a troubled company. On the other hand, the second course selected for this study is 'Introduction to Business', which is a course undertaken by final year Diploma in Culinary students. These students were required to act as future entrepreneurs and develop a business plan by the end of the semester. A degree and a diploma course were selected to give a better representation of the findings between the genders.

To facilitate this study, a FB Group was set-up for these two particular subjects respectively among the students. As the privacy was set as '*Closed Group'*, only approved members can see the other group members and their postings. These students were pre-informed of this study and consent was received in the beginning of the semester. These students, being in the second year of the diploma and degree programs were expected to be more focused and have the right mind frame to be exposed to such experiential learning setting and to give a more meaningful response in the survey. A total of *forty three (43)* students registered for the 'Strategy and Innovation for the Service Industry' and 'Introduction to Business' courses from September 2012 to March 2014 joined the FB learning group as members and all participated in this survey at the end of the semester.

T-test is the analysis method used in this research to determine whether there is any significant difference between two groups towards the same numeric variable (i.e. male versus female students) with smaller sample size below 30 (Sanders & Smidt, 1999). Besides,

t-test can be used to compare whether the mean value of one group is significantly larger than the other or vice versa (Sanders & Smidt, 1999). Before conducting t-test, F-Test was conducted to test the variance (Sanders & Smidt, 1999).

However, the researchers utilized basic Statistical Analysis tool (i.e. t-test assume equal variances) in Microsoft Excel to test the significant differences and the significant level is set at $\alpha = .05$. The following hypothesis is tested as below to provide answers to the study's main objective:
H_0 = There is no significant difference in learning effectiveness using FB between male and female students.

The researchers also analyzed the questionnaire using descriptive statistics in particular summary statistics such as mean and standard deviation. This is an additional variable in which the researcher calculated all variables' mean scores of a respondent as the overall mean, the overall mean scores are again aggregated based on the gender differences to derive the overall mean scores for female and male students, Table 3 shows this overall mean information at the last row.

Findings

In total, forty (43) questionnaires were received and analysed. There were a total of 21 (48.8%) male students and 22 (51.2%) female students as shown in Table 1. Most students are Malaysians (88.4%) whereas the balance 11.6% is made up of international students. In total, 29 students were from the Bachelor degree program (67.4%), followed by 14 students from the diploma program (32.6%). Additionally, the respondents all fall into the Generation Y category with more than half of the students in the age group of 21 to 25 years (60.5%) and the rest are younger than 21 years (39.5%).

Table 1: Respondents' Demographics

Variable	Details	Number	Percentage (%)
Gender	Male	21	48.8
	Female	22	51.2
Age	17-20	17	39.5
	21-25	26	60.5
Student Type	Malaysian	38	88.4
	International	5	11.6
Degree or Diploma Programme	Degree	29	67.4
	Diploma	14	32.6

Figure 2 depicts the usage intensity and frequency of accessing the FB Group. Majority students - 28 of them (65%) accessed the FB group for interaction or learning purposes at least once a day, followed by 11 (26%) students access the group at two to three times a week. Only four (9%) students rarely access the FB group with either once a week or a few times a month.
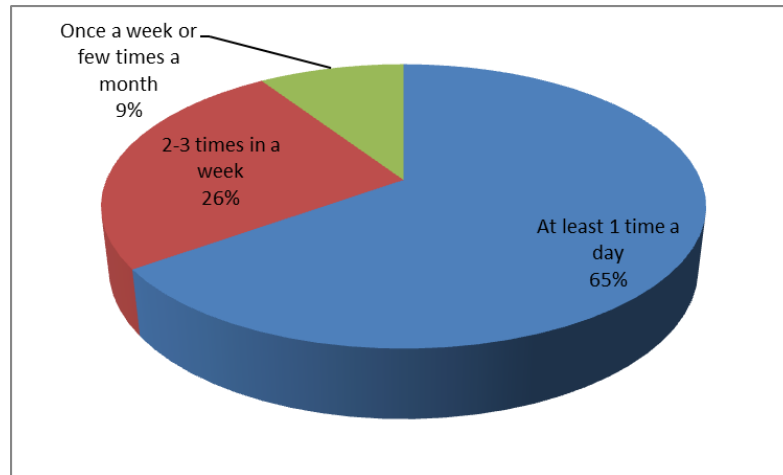
Figure 1: Frequency of accessing to FB's Learning Group

Table 2: Reasons for Accessing to FB's group

Responses	Counts
Read posts/comments	38
Download file(s)	21
Post Comments	20
Ask questions	18
Upload photos/videos or other files	14
Create events	4

*Respondents are allowed to give more than 1 response.

From Table 2, majority of the students accessed the FB group to read posts and comments, followed by to download files, post comments and to ask questions related to the subject. Based on the FB Group survey, it can be inferred that most students actively read each other's posts and provided remarks when necessary with 38 selected this response. This is an interesting finding as the students showed response and connectivity. This is a positive aspect of blended learning as FB Group is able to help students that are shy or introverts by providing a more comfortable platform to connect with their peers.

In contrast, this study indicated that some of the students still lack the initiative as many still prefer to download materials rather than to provide materials for their peers. This notion is supported by Dholakia et al. (2004) that concluded that information-seekers have low participation until they are able to discover other participants who has similar motivations. Additionally, there are quite substantial number of students responded that they upload documents, ask questions and post comments. These results point out that they perceive that FB is an effective social collaboration tool.

After conducting F-test to test whether $\partial 1 = \partial 2$ (i.e. any significant different between the means of two groups), the researcher found out that all variables are of equal variances as shown Table 3 since there is no test result at significant level in F-test. Therefore t-test assuming equal variance is used.

In the second section of the survey, there are a total of 18 questions. Based on the response, there are 12 questions that reflected high mean value (i.e. Mean >=3.5 and equivalent to agree level) for the female students, which indicates that they generally agree on the learning

benefits that the FB Group possess. Comparatively, there are only four questions which the male students agree. In the overall mean, Female students perceive slightly higher effectiveness than male students (Female = 3.498, Male = 3.249, 2 tailed t-test p=0.204) but not significant.

Table 3: Analysis of FB's Effectiveness and other benefits

Item indicators	Mean (Female)	Mean (Male)	F-Test Result	t-test assuming equal variance P Value at 5%	t-test assuming equal variance P Value at 5% (1-tailed test)
Sharing materials increases your learning capability	4.136	3.095	0.426	0.0006*	0.0003*
FB enables you to learn from anywhere and anytime	3.818	3.286	0.670	0.0905	0.0453*
FB enables you to learn at your own pace	3.773	3.143	0.368	0.039*	0.019*
Interaction in FB helps you to learn more	3.546	3.333	0.285	0.450	None
Interaction in FB helps you to get more materials about the subject	3.546	3.286	0.843	0.415	None
FB helps you to think critically	3.591	3.191	0.916	0.262	None
FB enables you to repeat learning as many time as you like	3.636	3.381	0.564	0.402	None
FB should be used for other subjects	3.636	3.238	0.860	0.248	None
Interaction in FB helps you to get fast feedback	3.682	3.667	0.964	0.967	None
Interaction in FB helps you to get up to date information	3.864	3.810	0.776	0.854	None
FB is good as we can track postings	3.909	3.762	0.697	0.675	None
Interaction in FB helps you to remember the subject topic better	3.000	2.667	0.380	0.290	None
FB enables you to discuss more easily compared to face to face discussion	3.227	3.048	0.962	0.637	None
FB saves you time	2.909	2.762	0.851	0.691	None
Learning the subject is more interesting through FB	3.136	2.952	0.629	0.613	None
FB helps you to learn faster	2.955	3.000	0.095	0.879	None
Interaction in FB helps you to understand the subject	2.909	3.000	0.711	0.758	None
FB has helped you in your assignment	3.682	3.857	0.762	0.588	None
Overall mean	3.498	3.249	0.982	0.204	None

*Significant at 0.05 level

The first effectiveness indicator that showed high mean value for the female students is "sharing materials such as video and other files in FB increases your learning capability" which is significant higher than male students (4.136 > 3.095, 1 tailed t-test p=0.0003). Female students are found to be fonder of sharing multimedia materials compare to male counterparts. Caspi, Chajut and Saporta (2008) discovered in their study that women posted nearly three times more than the men in online discussions but men tend to engage more in face-to-face discussions. As Gilligan (1993) suggests, differing genders have different communication patterns. This shows that male and female students do have different learning styles and majority of female students prefer visual learning from graphs, charts, and flow diagrams (Wehrwein, 2007) and multimedia materials can improve learning (Wong, 2010).

Female students seem to favour FB as it enables them to learn from anywhere and anytime (Female = 3.818, Male =3.286, 1 tailed t-test p=0.0453) and enables them to learn at their

own pace (3.773 > 3.143, 1 tailed t-test p=0.019). The flexibility that FB provides is not only motivational but also effective in helping them to adjust learning in their schedule as supported by past studies that applied Technology Acceptance Model (TAM) (Tselios et al., 2011; Davis, 1989).

There are 12 other variables in which female and male students show no difference even female perceive slightly higher than male students. This paragraph discusses all these 12 variables. Female agree and but male students only perceive moderately on the benefits of interaction in FB helping them to learn more (Female =3.546, Male =3.333), getting more materials about the subject (Female =3.546, Male =3.286), thinking critically especially in replying others' posts by their course mates (Female = 3.591, Male = 3.191), repeating learning (Female = 3.636, Male = 3.381) and FB should be used for other subjects (Female =3.636, Male =3.238). Both student groups agree that they get fast feedback (Female = 3.682, Male = 3.667), getting up to date information (Female =3.864, Male =3.810), and FB's ability to track postings as useful to help them in their learning process (Female=3.909, Male =3.762). In addition, both female and male students also felt moderately, they are "interaction and discussion on subject matter will help them to remember the subject topic" (Female =3.000, Male =2.667). Both group of students only reflect moderately that FB enables them to discuss more easily compared to face-to-face method (Female =3.227, Male =3.048). Based on the results concerning learning time, both the male and female students respond moderately that FB helped them to save time in learning (Female =2.909, Male =2.762). Lastly, female and male students only perceive moderately that learning the subject through FB group made it more interesting (Female =3.136, Male =2.952).

The last three questions also show indifferent in both groups even though male students perceive slightly higher, the male and female students perceive moderately that FB enables them to learn faster (Male =3.00, Female=2.955) and understanding the subject better (Male =3.00, Female=2.909). Both male and female students agree that FB helped them in the assignment (Male =3.857, Female =3.682).

The overall finding is consistent with previous research done by Harris (2012), revealed that students and teachers are accessing FB out of class hours and this enables continuous learning to take place especially among the female students. This is supported by the discussion of various authors such as Evans and Hasse (2001) and Kramare (2001). A more recent study by Yukselturk and Bulut, (2009) concluded that female students were more keen in e-learning as shown in performance, even though there are a number of other variables did not show difference between male and female students that is similar with the this study. Female students are more concerned about their performance and therefore sharing of materials may enable them to learn from each other.

Undeniably, one of the major advantages of using FB is the convenience because it is a borderless support learning tool. The survey also indicated that there is no difference between the male and female students where both groups find that FB really helps them in getting up to date information (Female =3.864, Male M=3.81). Since the materials are readily available to the FB Group members, most students find this favorable as they could access these materials and read them at their own pace while preparing their assignments. Both groups of students agree on FB's usage as a common platform for sharing information.

Table 4: Limitations of learning through FB

Responses	Number
Lack of physical (face to face) interactions	26
Irrelevant FB posts	25
FB does not have many learning tools	20
Cannot access to FB sometimes	16
Must know how to use FB	11

*Respondents are allowed to give more than 1 response.

In the last section of the survey, students were asked to provide response on some of the limitations that they felt existed. The results are reflected in Table 4. Majority of them felt that FB lack of physical interaction compared to the traditional classroom-setting. In other words, they felt that some of the information must be conveyed face-to-face as communication through social media may not reflect their real emotions.

Implication and Suggestions

According to Aristotle, human beings are social animals that require constant interaction with others (Lear, 2013). The social media tools not only provided human beings with the arena to communicate but it has also transformed the way we learn. The educator's role is not only to impart knowledge and experience but also to invent new strategies to deliver them. By integrating the results of this study, there are some suggestions that are provided for educators who are seeking to use FB as a supporting tool or to trigger future research in this area.

Firstly, we must know our learners. This study provided a platform for understanding the differences of perspectives between the male and female learners towards the usage of FB. In fact in this case, female students preferred FB because of its flexibility and thus perceived that by sharing online materials, this could enhance their learning experience compared to the male counterparts. According to Liu (2010), social media tools are wonderful communication tools that if integrated in teaching process can leverage students' technological skills and even cut back on local technological investment to a universal investment as students can take full advantage of this public resource to facilitate learning rather than relying on on-campus e-learning systems. From the academicians' point of view, many still believe that traditional classroom setting and teacher-centered teaching style is the most effective way to deliver knowledge to our students. As such, the challenges for higher education institutions are to explore the usage of other supporting platforms such as FB.

Also, using the FB learning group as a learning tool really appeals to them especially the degree students (Abdullah & Wong, 2012). Indeed, educators not only need to equip themselves but by embracing this social media technology and integrating it in class, they are also able to provide the students with the opportunity to learn at their own time and pace. As an educator, knowing the gender differences in learning style may help to capture the attention of male learners as a more practical approach towards learning. The argument remains if it is ethical for educators to focus or "target" specific group of students to become early adopters of such techniques. Nonetheless, through good understanding of the students' learning pattern, an educator can customize specific learning activities or lesson delivery.

Reiterating from this research finding, both groups of students are able to gain speedy feedback and such interaction plays a major role in their learning progress. As FB was not

created to be used for educational purpose, some learners often get distracted by other social activities while accessing the learning group. This is one of the major challenges discovered in this research. Since both male and female students agreed that FB helped them tremendously in their assignments, then it should be integrated within their coursework. The method used in assessment should be reflective of quality information that transpired through FB rather than the quantity.

Lastly, one must know how to use the FB's group interface in order to maximize the benefits. Although Hussin, Bunyarit & Hussein (2009) study indicated positive perceptions of e-learning among students in selected universities in Malaysia, one of the limitations is that the students need to be pre-acquainted with course content to achieve desired learning outcomes. Hence, all the above limitations could actually hinder both groups of students from fully utilizing the FB group's interface to their advantage especially for academic purposes. Moreover, the ECAR's (EDUCAUSE Center for Applied Research) study in 2015 revealed that nearly 75% of the undergraduate students preferred to keep their academic life and social life separate (Dahlstrom, et al., 2015).

Conclusion

As the world becomes more ubiquitous and transfer of information advances, educators are compelled to seek new ways to reach the learners. There are still very few valid researches on the effectiveness of social media as a learning tool, especially in the context of higher education in Malaysia. This paper hopes to hone in on this as the researchers explored the usage of FB to facilitate learning among students from two different genders in BERJAYA University College of Hospitality. The findings were positive and indicated that the students benefitted in some way especially for the male students. Based on the findings, specific suggestions were provided for educators' consideration. Noteworthy that a successful fusion of classroom and web-based learning allows active learning that involves students regardless of gender to read, speak, listen, think deeply and write (Dodge,2001). In summary, using FB in an analogous form with the current e-learning system and curriculum design will be able to reach both male and female learners.

Recommendation for Future Research

The sample size for this research is relatively small; only 43 respondents were solicited due to the specific modules that were sampled. For a better comparison, a bigger sample could be more representational. According to Sekaran (2000), the sample size appropriate for a quantitative study should be about 300 for a population of 1000 (i.e. the population of students in BERJAYA was estimated to be around 1000 students at the time of this study). Thus, it is not the intention of this study to generalize the findings across other students in all the Malaysian universities. As such, it would be interesting to extend this study to include other universities in Klang Valley or even whole Malaysia to give a more accurate depiction of the differences between genders. Further research could also consider extending the knowledge by investigating the impact of social media on Generation Y learners in general.

The privacy issues and cybercrime remains rampant and by having a closed FB group and active monitoring, this ensures that the virtual learning environment is conducive for all the students. However, this issue may also be an influencing factor or constraint especially among female users preference of using FB. This study focused more on the internal factors of FB

functions to measure learning effectiveness. More external factors may be uncovered such as perceived risk, teacher-student interaction, and further study can be conducted by taking into consideration these external factors that could influence their usage and learning effectiveness by using mixed method.

Additionally, many business organisations and even government agencies have realised that not just FB, but also other SNS can be used as a strategy to create public awareness and influence the masses. FB allows students to maintain and even grow their social circle with peers, junior and even senior students from various cohorts, across different academic programs and even with students from other education institutions. In fact, in a study conducted by Wu and Chen (2015), it has shown that social influence and information quality are among the critical and direct determinants that affect users' continuous intention to use FB in learning. A longitudinal study can be conducted to confirm which gender is most likely to stay connected with their peers and use FB for future career prospects.

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