

Students' Adoption of Facebook in Higher Education: A gender-based Comparison

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Abstract. This paper aims to examine the gender differences of undergraduate students' educational use of Facebook. The objectives of the study include identifying male and female students' Facebook usage and assessing their perception on the usefulness and ease of use of Facebook in higher education. Using a quantitative research method, results reveal that male students have a higher frequency of Facebook visit (93.9%). Male students are more competent (48.5%) and more satisfied (42.2%) in using Facebook in comparison to female students. Although there were marginal differences between males' and females' perception for both usefulness and ease of use of Facebook (with mean differences ranging from 0.01 to 0.33); the differences in their overall perception on the usefulness and ease of use of Facebook were not significant ($p < .05$). In conclusion, male students had a higher overall score on the perceived usefulness of Facebook in higher education, while female students had a higher overall score on the perceived ease of use of Facebook.

1 Introduction

With the increasing number of research on social media in higher education, the most common and popular social media tool used in higher education is Facebook [1]. Recent years have seen the proliferation of empirical research on Facebook use in higher education particularly in Malaysia [2, 3, 4, 5, 6, 7, 8, 9, 10, 11]. Besides, prior literature revealed that the use and influence of social networking sites in students' daily lives are pervasive as they used it not only for social purposes but also for educational reasons [4]. Drawing on the literature, Facebook has the potential to be used as a platform for online academic discussions [2]; Facebook is used for informal learning [8]; Facebook complements the current teaching and learning practices [3, 7]; Facebook enhances teaching and learning practices in large classes [6]; and Facebook has a positive impact on students' academic performances [9, 10, 11].

In addition, four research [12, 13, 14, 15] focus on investigating gender differences on academic uses of Facebook among undergraduate students because [12] claimed that 'differences in male and female communication are widely known, but peer reviewed research is difficult to find for social networking communication' (p. 89). Although [9] and [10] found no significant gender differences regarding the use of Facebook for academic

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activities, [5] state that an academically viable sense of direction for future research on exploring Facebook especially information about gender differences is much needed.

Therefore, our study aims to examine the gender differences of students on the educational use of Facebook and to gauge their attitude towards adopting Facebook in the classroom. The two research questions guiding this study are: How male and female students differ in terms of Facebook usage? and What are the differences among male and female students' perception on the usefulness and ease of use of Facebook in higher education?

2 Method

We utilised a self-administered questionnaire with undergraduate students of a private university in the Klang Valley from 26 to 29 January 2015. The survey respondents were selected through purposive random sampling from students who use Facebook for educational purposes. The respondents were to provide their usage of Facebook, level of competency and satisfaction of using Facebook as well as perception on the effectiveness of adopting Facebook in higher education. The result of the survey was analysed using both descriptive and inferential statistics. A total of 71 questionnaires were collected with 64 questionnaires were usable (90.14%). Of the total of 64 respondents, 33 (51.6%) were males and 31 (48.4%) were females. Majority of the respondents aged 18 to 24 years old (87.5%, n=56), Chinese (71.9%, n=46) and studying in the Faculty of Arts (70.3%, n=45). Table 1 illustrates the demographic profile of the respondents participated in this study.

Table 1. Respondents' demographic profile (n=64).

Gender	Frequency	Percentage (%)
Male	33	51.6
Female	31	48.4
Age Group		
Below 18	7	10.9
18 – 24 years old	56	87.5
25 – 44 years old	1	1.6
Race		
Malay	5	7.8
Chinese	46	71.9
Indian	4	6.3
Others	9	14.0
Faculty		
Pre-U	10	15.6
Faculty of Arts	45	70.3
Sunway University Business School	3	4.7
Faculty of Science and Technology	6	9.4
Total	64	100.0

3 Results and discussion

3.1 Differences in the use of Facebook between male and female students

In answering research question one, Table 2 shows the differences in terms of Facebook use between male and female students. In general, nearly all male students (93.9%, n=31) reported a higher frequency of visit to Facebook in comparison to female students (80.6%, n=25). This result contrasts with [12, 15] because in their study, female students reported spending a greater percentage of daily Internet time on Facebook than their counterpart. However, in terms of their frequency of updating profile page on Facebook, the number of female students outrides the male students. 13 (42.0%) female students claimed that they update their profile page quite often with at least once a week, whereas only ten (30.3%) male students often updated their profile page. In regard to students' self-reported level of satisfaction and competency in using Facebook, the results unveil that male students were more satisfied (42.2%, n= 14) and more competent (48.5%, n=16) in using Facebook for educational purposes compared to female students.

Table 2. Male and female students' use of Facebook.

	Male (n=33)		Female (n=31)	
	Frequency	Percentage (%)	Frequency	Percentage (%)
Frequency of visit (n=64)				
3+ times daily	27	81.8	16	51.6
1-3 times a day	4	12.1%	9	29.0
Once every few days	2	6.1%	4	12.9
Once a week	0	0	1	3.2
Once every few weeks	0	0	1	3.2
Less than once a month	0	0	0	0
Others	0	0	0	0
Frequency of profile update (n=64)				
More than once a day	1	3.0	3	9.7
Once a day	2	6.1	0	0
Once every few days	6	18.2	3	9.7
Once a week	1	3.0	7	22.6
Once a month	10	30.3	9	29.0
Once a few months/ Once a year	10	30.3	7	22.6
Others	3	9.1	2	6.5
Level of satisfaction of using Facebook (n=64)				
Highly dissatisfied	3	9.1	1	3.2
Moderately dissatisfied	4	12.1	2	6.5
Neutral	12	36.4	16	51.6
Moderately satisfied	10	30.3	10	32.3
Highly satisfied	4	12.1	2	6.5
Level of competency of using Facebook (n=64)				
Not competent	0	0	2	6.5
Somewhat competent	7	21.2	7	22.6
Uncertain	10	30.3	7	22.6
Competent	10	30.3	10	32.3
Highly competent	6	18.2	5	16.1

3.2 Differences between male and female students' perceived usefulness and ease of use of Facebook

Finally, the second research question examines the gender differences of students' perception on the usefulness and ease of use of Facebook. Table 3 shows that both genders highly believed that Facebook is easy to use with the mean not less than 3.40 for each category. While the perception on the ease of use of Facebook was fairly moderate for both males and females, with the mean ranging from 3.15 to 3.48 on the former and 2.87 to 3.35 on the latter, neither males nor females held any of the perception categories with low scores.

Although there were differences between males' and females' perception for both usefulness and ease of use of Facebook, such differences were marginal, with the mean differences ranging from 0.01 to 0.33. Despite these considerable differences, the results reveal that male students and female students did not significantly differ in their overall perception on both the usefulness and ease of use of Facebook ($p < .05$). Even though no significant differences were found, males had a slightly higher overall score on the perceived usefulness of Facebook, while females have a higher overall score on perceived ease of use of Facebook.

Besides, as compared to female students, male students reported a higher score in all six (100%) statements on the perceived usefulness of Facebook in higher education. On the other hand, females reported a higher score in four out of six (66.7%) statements on the perceived ease of use of Facebook, excluding "it is easy for me to become skilful when using Facebook" and "learning to operate Facebook is easy for me".

Table 3. Differences in male and female students' perceived usefulness and perceived ease of use of Facebook.

	Male (n=33)		Female (n=31)		<i>t</i>	<i>p</i> -value
	M	S.D	M	S.D		
PU Perceived Usefulness	3.33	0.60	3.16	0.80	1.007	0.318
PEOU Perceived Ease Of Use	3.81	0.72	3.92	0.62	-0.661	0.511
PU1: Using Facebook enables me to complete the tasks more quickly.	3.48	0.76	3.35	0.99	0.095	0.554
PU2: Using Facebook improves my academic performance.	3.15	0.62	2.87	0.89	1.478	0.145
PU3: Using Facebook increases my academic productivity.	3.36	0.78	3.03	1.11	1.387	0.171
PU4: Using Facebook enhances my learning effectiveness.	3.24	0.79	3.23	0.88	0.079	0.937
PU5: Using Facebook makes it easier to learn.	3.33	0.74	3.16	1.00	0.786	0.435
PU6: Overall, I find Facebook useful as an educational tool.	3.42	0.79	3.29	1.13	0.551	0.583

PEOU1. Learning to operate Facebook is easy for me.	4.03	0.88	4.03	0.80	-0.009	0.993
PEOU2. I find it easy to get Facebook to do what I want it to do.	3.79	0.70	3.81	0.95	-.090	0.929
PEOU3. I find Facebook flexible to interact with.	3.73	0.84	4.06	0.63	-1.810	0.075
PEOU4. My interaction / activity on Facebook is clear and understandable.	3.67	0.89	3.94	0.77	-1.287	0.203
PEOU5. It is easy for me to become skilful when using Facebook.	3.58	0.97	3.48	0.96	0.380	0.705
PEOU6. Overall, I find Facebook easy to use.	4.06	0.83	4.19	0.54	-0.755	0.453

4 Conclusion

Our study presents two main findings that explored the use of Facebook by both male and female students of a private university and their perception on the effectiveness of adopting Facebook in higher education. Firstly, majority of the students were heavy users of Facebook who paid frequent visit to Facebook for more than three times in a day with male students reported having a higher frequency of visit, more satisfied and more competent in using Facebook for educational purposes in comparison to female students. Secondly, there were marginal differences between males' and females' perception for both usefulness and ease of use of Facebook for educational purposes; yet it did not significantly differ in their overall perception on both the usefulness and ease of use of Facebook in higher education ($p < .05$).

To conclude, in view with the above, it is clear that there was no gender difference in using Facebook in higher education. Besides, there were no significant differences in their overall perception on the usefulness and ease of use of Facebook as an educational tool. Yet for effective use of Facebook in higher education, positive attitude of both male and female students are crucial.

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