

Postgraduate Students Motivation for MOOC Enrollment

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Abstract: *This study was conducted in order to identify the motivational factors for student in pursuing Massive Open Online Courses (MOOC). The respondents of this study consisted of 38 postgraduate students studying in Universiti Tenaga Nasional (UNITEN). The results showed that students are motivated to enroll MOOC which are offered by prestigious universities. Student's curiosity to learn the content of MOOC is also another important factor. The study also indicated that students are motivated to pursue MOOC which are supplementary to the content of classes offered by other institutions.*

Keyword: *MOOC, higher education, postgraduate, Malaysia, MOOC motivation*

I. INTRODUCTION

In 2012, massive open online courses (MOOCs) have been developed rapidly and entered the mainstream with the rise of high-profile MOOC platforms primarily with the use of Coursera, EdX and Udacity platforms [1]. These MOOC's platforms offered free courses from most elite universities in the United States and received a great response from media and web coverage [2]. MOOC is commonly offered by universities which covers undergraduate and postgraduate courses. Study has showed there is no significant difference between MOOC for undergraduate and postgraduate in general [3]. A study has showed that MOOC were relevant for advanced degrees like Graduate Diploma, Master and Doctor of Philosophy (PhD)[4]. In this study, a large number of free and publicly available MOOC that are significant to postgraduate medical training have been identified and offered as the complementary modules for the training.

However, it is important to note that learner retention in MOOC could be affected by the content of MOOC, perceived effectiveness and instructor interaction[3]. Although the content is a major factor of perceived effectiveness which greatly contribute to retention of learner, but interaction with the instructor also plays a vital role in retention.

II. LITERATURE REVIEW

In a study of MOOC for the module of equine nutrition at the University of Edinburgh [5], it has been shown that

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interaction between the instructors or tutor with the learners could also affect the rate of completion of the course.

The 'presence' of tutor in which by only a short video for example, and the level of tutor interaction has been proven to contribute to the high completion rate of MOOC. Most of the participants of this study have rated the learning materials and their overall experience with MOOC as good and excellent, which remark their good perception on MOOC.

A study on MOOC for introductory programming course has been conducted by [6] and found that the students from MOOC intake show better achievement as compared to those from the normal intake. In addition, students from MOOC intake tend to hold on longer to the course during their first year [6]. Another study has justified that the causes of students' enrollment to the MOOC are course specific although some of the students are generally interested in learning via MOOC [7]. Besides, the curiosity on the new online platform, the accessibility to the subject materials from prestigious universities, source of supplementary courses, geographical isolation and affordability have also been identified as the reason of MOOC completion [8].

The government has included MOOCs in the Malaysia Education Blueprint 2015-2025, and allocated financial support under Eleventh Malaysia Plan 2016-2020 for public universities to offer MOOC [9]. Several studies have been conducted on MOOC implementation in Malaysian (studies). However, there is still lack of studies on MOOC, particularly among postgraduate students. The study presented in this paper has been designed to identify the motivational factors of pursuing MOOC among postgraduate students. The methodology used in this study will be presented in the next section, followed by analysis and discussion on the results. The conclusion and recommendations for future research will be presented towards the end of this paper.

III. METHODOLOGY

The research was primarily done by using quantitative method to collect the data. A survey was conducted among UNITEN postgraduate students from Engineering, IT and Business fields. The online survey was constructed using questions adapted from [8]. The survey consisted of two sections: the first section was on the demographics and the second section was on factors in pursuing MOOC.

In the first section, seven (7) demographic questions was being asked, including gender, age, nationality, level of degree, field, hours spent using internet per week and tools used for learning activities.

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In the second section, five (5) questions of MOOC-specific motivational items were being asked. The expected answer was in form of Likert scale ranging from 1 to 5 with 1 being the lowest score (Strongly Disagree) and 5 being the highest score (Strongly Agree). The list of questions was as follows:

- 1) Course is offered by a prestigious university
- 2) I am curious to take an online course
- 3) The subject supplements other college/university class
- 4) I am geographically isolated from educational institutions
- 5) I cannot afford to pursue a formal education

IV. RESULTS AND DISCUSSIONS

A. Demographics

A total of 38 respondents answered the survey and the demographics of the respondents are as shown in Table I. The results show that majority of the respondents were male (63%), local students from Malaysia (66%) pursuing master programmes (82%). The distribution of respondents according to the field of Engineering, IT and Business were 36.8%, 34.2% and 28.9% respectively.

Table. I Descriptive statistics of demographic characteristics

Demographic Factor	Amount	Percentage %
Gender		
Male	24	63.2
Female	14	36.8
Nationality		
Local	25	65.8
International	13	34.2
Level of Degree		
Masters	31	81.6
PhD	7	18.4
Field		
Engineering	14	36.8
IT	13	34.2
Business	11	28.9

B. Motivational factors

The means of the five motivation factors by gender are as shown in Table II. The results indicated that the first three factors had a mean greater than 3 which indicated these were motivational factors for both male and female. The highest mean reported by male students was on curiosity to learn while highest mean for female students was on the course offered by prestigious university.

Table. II MEANS of motivational factors by gender

Factor	Mean Value	
	Male	Female
1 – Offered by prestigious university	3.75	3.93
2 – Curiosity to learn	3.79	3.86
3 – Supplementary to other institutions	3.71	3.86
4 – Geographically isolated	2.88	2.86
5 – Affordability	2.46	2.64

The means of the five motivational factors by nationality are as presented in Table III. The first three factors had a mean greater than 3 which indicated these were motivational factors for both international and local students. The highest mean reported were on the course offered by prestigious university and their curiosity to learn. It was observed that the mean of all of five factors for international students were higher than those of local students. Such results hint that international students are possibly more motivated than local students in pursuing MOOC.

Table. III MEANS of motivational factors by nationality

Factor	Mean Value	
	International	Local
1 – Offered by prestigious university	3.85	3.80
2 – Curiosity to learn	3.85	3.80
3 – Supplementary to other institutions	3.77	3.76
4 – Geographically isolated	3.00	2.80
5 – Affordability	2.77	2.40

The means of motivational factors by level of degree are as shown in Table IV. In the Masters column, the first three factors have a mean greater than 3 which indicate these were the motivational factors for master students in pursuing MOOC. Meanwhile in the PhD column, the first four factors have a mean greater than 3. The highest mean reported by master students was on the curiosity to learn while the highest mean reported by PhD students was on the course offered by prestigious university.

Table. IV MEANS of motivational factors by level of degree

Factor	Mean Value	
	Masters	PhD
1 – Offered by prestigious university	3.77	4.00
2 – Curiosity to learn	3.81	3.86
3 – Supplementary to other institutions	3.74	3.86
4 – Geographically isolated	2.74	3.43
5 – Affordability	2.42	3.00

The mean values for the motivational factors of Business, IT and Engineering fields are as presented in Table V. For Business and Engineering fields, the first three factors had a mean greater than 3 which indicate these were their motivational factors for pursuing MOOC. Meanwhile for the IT, the first four factors had a mean greater than 3. The highest mean reported by business students was on the curiosity to learn while the highest means reported by IT students were on the course offered by prestigious university and curiosity to learn. Finally, for engineering students, the highest mean was on the supplementary to other institutions.



Table. V MEANS of motivational factors by field

Field	Mean Value		
	Business	IT	Engineering
1 – Offered by prestigious university	3.73	4.00	3.71
2 – Curiosity to learn	3.82	4.00	3.64
3 – Supplementary to other institutions	3.64	3.85	3.79
4 – Geographically isolated	2.91	3.15	2.57
5 - Affordability	2.55	2.92	2.14

The results of this study provide useful information on motivational factors to pursue MOOC. These findings suggest that students can be MOOC motivated by enhancing the reputation of the university. When students perceive MOOC is offered by highly prestigious university, students report higher motivation to enroll MOOC courses. These findings concur with previous study that show prestigious universities have higher students MOOC enrollment [10]. To exemplify, 155,000 students enrolled in the first MOOC offered by Harvard and MIT[11]. Indeed, MOOC is an alternative access in experiencing world’s top universities.

These findings also suggest that curiosity to learn, and supplementary to other institutions are identified as the main factors to pursue MOOC. The study findings may assist universities in planning and executing MOOC effectively. It is highly important to find the right blend of content and students motivation factors to sustain MOOC students’ retention. Although this study does not make causality inferences from the data, it suggests directions for future MOOC integration in postgraduate courses.

V. CONCLUSION

As a conclusion, three motivational factors had been identified which include course offered by prestigious university, curiosity to learn and the subject supplementary to other institutions. This study indicated that institutions with good reputation were preferred by postgraduate students in pursuing MOOC.

There are some recommendations for the future research. First, the researcher could increase the number of questions. As for this study, only five items were used to identify the MOOC motivational factors. Future research may investigate other motivational factors in pursuing MOOC. The sample size may also be increased to cover postgraduate students from other universities to further justify the results.

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