ISSN: 2278-2389

# Behavioral Intension of University Students in MOOCS with respect to Two Compulsory General Studies in Malaysia

Purushothaman Ravichandran
Part-time Facilitator, Open University Malaysia, Malaysia
Email: computerravi@hotmail.com

Abstract - The Malaysian Qualifications Agency (MQA) requires all Malaysian and non-Malaysian students to complete the General Studies as pre-requisite for the award of a certificate, diploma or undergraduate degree. Added to this, the MQA in Malaysia, has introduced the MQA Rating System, SETARA, to measure the performance of undergraduate teaching and learning in universities and university colleges in Malaysia. Therefore, it becomes imperative for all Universities and Colleges across Malaysia to abide by the rules and regulations of the MQA in maintain the delivery of the General Studies at par with that of the core subjects for all undergraduate students. As such, this study attempts to capture the Behavioral intension of University Students in MOOCS, while taking their two compulsory General Studies, namely, Tamadun Islam and Tamadun Asia (TITAS) and Ethnic relationship (Hubungan Etnik). The result discussed in this study are pertaining to 766 students across Malaysian universities. The results did not show any significant correlations of Intention to Enroll in MOOCs with Tamadun Islam & Tamadun Asia and Hubungan Etnik. Finally the last phase performed a multiple linear regression to test the insignificance effects of Tamadun Islam and Tamadun Asia and Hubungan Etnik on Intention to Enroll in MOOCs which refer to hypotheses H1 and H2. The results indicated that Tamadun Islam and Tamadun Asia and Hubungan Etnik have no significant effects on Intention to Enroll in MOOCs.

Keyworkds: Tamadun Islam & Tamadun Asia (TITAS), Ethnic Relationship (Hubungan Etnik)

#### I. INTRODUCTION

Massive Open Online Courses (MOOCs), which has penetrated into the Higher Learning Institutions in Malaysia seems to be governing the learners' autonomy via online learning (Jennymackness, 2011). Further, Jannymackness (2011) states that being an autonomous learner seems to be a pre-requisite for successful participation in a MOOC/OOC. MOOCs has turned online learning paradigm in Higher Education Institution (HEI) to the next level as this needs a counter support from student acceptance of MOOCs. This is because, student acceptance is often a neglected or taken-for-granted successful implementation of Web-based instructional technologies (e.g., Arbaugh, 2000a; Parikh and Verma 2002; Salmon, 2000). Further, users' acceptance of Information Technology is a precondition before users can recognize IT's value and then utilize it (Jong & Wang, 2009). However, research suggests there are multiple influences upon a user's acceptance of the technology and two critical factors are: (1) an individual's perception of how successfully the existing organizational and technical infrastructure will support

use of the system (facilitating conditions) and (2) an individual's plan to act in a certain way (behavioral intention) (Venkatesh et al., 2003). Further, Behavioral intention is an indication of an individual's readiness to perform a given behavior. It is assumed to be an immediate antecedent of behavior (Ajzen, 2002). This Behavioral intension seem to be a predominant factor in capturing the individual's readiness to perform a behavior. In the context of this study, the readiness to perform in MOOCs platform in completing the General Studies subjects are analyzed.

#### II. BACKGROUND

According to the theory of reasoned action, if people consider the suggestions of others towards the behavior as positive (attitude), and if they think that others wanted them to perform like such significant behavior (subjective norm), this results in a higher intention (motivation) to do so and they are more likely to do so. A high correlation of attitudes and subjective norms to behavioral intention, and subsequently to behavior has been confirmed by this theory. But in some studies, a counterargument against the high relationship between behavioral intention and actual behavior has also been proposed. As per these, behavioral intention does not always leads to actual behavior because of circumstantial limitations. Behavioral intention given in the theory of reasoned action cannot be the exclusive determinant of the behavior because an individual's control over the behavior is incomplete. Thus Ajzen introduced the theory of planned behavior by adding a new component, "perceived behavioral control". This means that the theory of planned behavior adds the concept of perceived behavioral control in addition to attitudes and subjective norms.

Human behavior is guided by three kinds of consideration, 'behavioral beliefs', 'normative beliefs', and 'control beliefs'. Further, 'behavioral beliefs' produce a favorable or unfavorable 'attitude toward the behavior', 'normative beliefs' result in 'subjective norm', and 'control beliefs' gives rise to 'perceived behavioral control'. According to Ajzen (1985, 1987), combination of 'attitude toward the behavior', 'subjective norm', and 'perceived behavioral control formulates the 'behavioral intention'. The theory of planned behavior (TPB) can be expressed in mathematical function as follows:

$$BI = W1 \ AB \ b - e + W2 \ SN \ n + m + W3 \ PBC \ (c + p)$$

Here BI is 'behavioral intention', AB is 'attitude towards behavior', PBC is 'perceived behavioral control', b is 'the strength of each belief', e is 'the evaluation of the outcome or

ISSN: 2278-2389

attribute', SN is 'social norm', n is 'the strength of each normative belief', m is 'the motivation to comply with the referent', c is 'the strength of each control belief', p is 'the perceived power of the control factor', W1 to W3 'empirically derived weight/coefficient'. The theory of planned behavior TPB has been diagrammatically explained by the following diagram by Ajzen (2002).

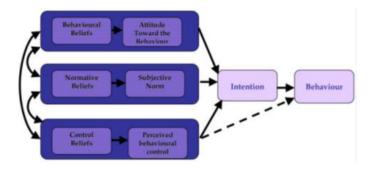


Figure: 1 Theory of planned behavior TPB, Ajzen (2002)

#### Significance and Usefulness of this Research Study

The growing popularity of MOOCs is evident in the millions (e.g. over thirteen million on Coursera in spring 2015) of students across the globe who have registered for the courses, in the growing number of courses offered (e.g. over 1000 on Coursera and over 575 on edX as of summer 2015), and in their breadth of subject areas (Evans, Baker, & Dee, 2016). Despite ongoing discussions over using MOOCs in higher educational institutions, together with various debates and critiques on MOOCs, it becomes inevitable to pay attention to students' perception, attitude and acceptance towards MOOCs. Further, it is unclear how familiar university students are in line with the MOOCs and how they hone their pedagogical belief on MOOCs as a source of learning. Added to it, the MQA rules and regulation has serious implication over the conduct of the courses among the Malaysian universities. This implies, that the most important factor for any Higher Educational institutions is to effectively channelize the compulsory General Studies that are to be completed by the students doing the university courses at undergraduate level. And when such compulsory courses are to be offered via MOOCS, then it amounts to added responsibility to all the practitioners and implementers to monitor if such system meets the requirements of the MQA. Therefore, there seems to be a urgency to identify how students perceive these General Studies and if their intervention using MOOCs has any significant impact on their Behavioral Intension (BI).

#### III. RESEARCH HYPOTHESES

The codes and description of the research hypotheses are represented in **Table 1-1**.

Table 1-1, Research Hypotheses Codes and Descriptions

Code	Path	Description
H1	TITAS →	Tamadun Islam & Tamadun Asia
	IE	(TITAS) has NO effect on Intention to
		Enroll in MOOCs (IE)
H2	HE → IE	Hubungan Etnik (HE) has NO effect
		on Intention to Enroll in MOOCs (IE)

#### **Research Aim and Objectives**

The aim of the this research study, is to find the influence of Behavioral Intension (BI) of students among the undergraduate students of Malaysian Universities while taking the Compulsory General Studies.

Based on the above Aim we have the following objectives of the study:

- 1. To assess the level of adoption of MOOCs among learners in institutions of Higher Educational Institutions (HEI) with respect to the two compulsory General Studies subject;
- 2. To make recommendations to researchers, policy makers and practitioners as to how to increase the learners' adoption of MOOCs;
- 3. Lastly, to find the possibility of a new framework for accessing the learners' adoption of MOOCs by identifying the attributes over and above those specified in the UTAUT 2 Model.

#### IV. RESEARCH METHODOLOGY

This research is based on Quantitative research methods, which involves data collected from one of the public universities in Malaysia. Questionnaire based on the eight attributes of the UTAUT 2 Model was distributed to the users of MOOCs at the University. Statistical analysis test SPSS (Version 21) and AMOS was used to analysis the respondents' data.

#### **Discussion and Findings**

Data screening is necessary in ensuring that data of the variables are correctly entered, free from large missing values, outliers and to confirm that the distribution of the data for scale variables is normal. The variables in this study which were examined through data screening are: Score and Final Exam.

### **Removing Outliers**

The treatment of outliers is an imperative step in the data screening method. Outliers refer to observations with a unique combination of characteristics identifiable as distinctly different from the other observations (Hair et al. 1998). Checking for outliers is important as outliers could affect the normality of the data which could then distort the statistical results (Hair et al. 1998; Tabachnick and Fidell 2007).

For outlier detection, besides examining histograms and boxplots, each variable was examined for the standardised (z) score. According to Hair et al., (1998) for sample size above 150, **Absolut** (z) > 4 is evidenced of an extreme observation. Therefor any Z-score greater than 4 or less than -4 is considered to be an outlier. The standardised (z) scores of all cases are summarized in Table 1.2 for each variable. As shown in Table 1.2, the results indicated that the standardised (z) scores of all cases for the research variables ranged from - 2.145 to 2.252, indicating that none of the variable exceeded the threshold of  $\pm 4$ . Thus there is no any outlier among the data.

#### **Assessment of the Data Normality**

The normality test was run, using Kolmogorov-Smirnova (K.S) test, to determine whether the data set of the scale variables was well-modelled by a normal distribution or not. Normality

ISSN: 2278-2389

is the main assumption of parametric tests such as Linear Regression. The K.S p-value above the standard significant level of 0.05 represents a normal distribution of the data. Field (2009) suggested that in the condition of violation the assumption of normality due to significant K.S p-value, it would be sufficient just to inspect the value of the skewness and kurtosis, and virtually observe the shape of the distribution.

Table 1.2, Result of Univariate Outlier Based on Standardized values

Variable	Standardized value (Z- Score)			
	Lower Bound	Upper Bound		
Tamadun Islam & Tamadun Asia (TITAS)	-1.219	0.820		
Hubungan Etnik (HE)	-1.116	0.895		
Intention to Enroll in MOOCs (IE1)	-2.144	1.860		
Intention to Enroll in MOOCs (IE2)	-1.735	2.252		
Intention to Enroll in MOOCs (IE3)	-2.145	1.867		
Intention to Enroll in MOOCs (IE4)	-2.134	2.061		

Table 1.3, Results of Normality Tests

Variable	Kolmogorov- Smirnov	Skewness	Kurtosis
	Statistic		
Tamadun Islam	0.392	-0.4	-1.845
& Tamadun			
Asia (TITAS)			
Hubungan Etnik	0.37	-0.221	-1.956
(HE)			
Intention to	0.246	-0.413	0.259
Enroll in			
MOOCs (IE1)			
Intention to	0.192	-0.059	-0.185
Enroll in			
MOOCs (IE2)			
Intention to	0.246	-0.502	0.275
Enroll in			
MOOCs (IE3)			
Intention to	0.257	-0.387	0.375
Enroll in			
MOOCs (IE4)			

<sup>\*</sup> P< 0.05; \*\* p<0.01; \*\*\* p<0.001

For this reason, in the present study, skewness and kurtosis were employed to assess normality of the data. Skewness values reflect the symmetry of the distribution score and a skewed variable means that the score is not at the centre of the distribution. On the other hand, kurtosis gives information about the "peakness" of the distribution which can be either too peaked (with short and thick tail) or too flat (with long and thin tail) (Tabachnick and Fidell 2007). As a general rule of thumb, the data may be assumed to be normally distributed if skew

and kurtosis is within the range of -1 to +1, or -2 to +2 or even 3 (Schumacker & Lomax 2010). Byrne (2013) suggested using a cut-off point of less than 7 as an acceptable value for the kurtosis. She added that the data which is skewed within the range of -2 to +2 could be considered as being normally distributed.

As shown in Table the p-value of Kolmogorov-Smirnova for all variables was 0.00, below the standard significance level of 0.001 and thus statistically significant. This result could not support the null hypothesis that the data set of the variable was well-modelled by a normal distribution. Nevertheless, the result indicated that the skew and kurtosis of the variables were laid between  $\pm 2$  and  $\pm 7$  respectively. Therefore, it can be concluded that the data set of all variables was well-modelled by a normal distribution. As shown in Table , the skewness ranged between -0.502 and -0.059. The kurtosis ranged between -1.956 and 0.375.

#### **Exploratory Factor analysis (EFA)**

Exploratory factor analysis (EFA) serves the purpose of attaining data reduction, or preserving their original state and character, as well as to remove items that had lower factor loadings and cross loadings. (Hair, et al., 2006). EFA was conducted in this study to examine the stability of the factor loadings of the various constructs and ensure the factorial validity of the instruments employed in the study.

The responses were examined using a **Principal-Components** as the extraction technique and **Varimax** as the orthogonal rotation method. To determine the suitability of the data for EFA, the value of Bartlett's test of sphercity (**BTS**) and Kaiser-Meyer-Olkin (**KMO**) measure of sampling adequacy were checked as the assumptions of EFA (Kaiser, 1974). The KMO tests whether the partial correlations among items are small. The KMO values must be greater than 0.60 (Blaikie, 2003). Bartlett's test of sphericity tests whether the correlation matrix is an identity matrix, which would indicate that the factor model is inappropriate. The test of Bartlett's supposed to be significant at p < 0.05 to present the adequacy of the correlations among variables and thus provide a reasonable basis for factor analysis (Williams, Brown, & Onsman, 2012).

Moreover, Screen plots and **Eigen values** were examined to ensure that the factors number is mainly liable for the data variation (Tabachnick & Fidell, 2007). In the case of Eigen values, For Eigen values, the Kaiser criterion value **1.00** was the determining measure to decide on the number of factors. The **Variance**, as illustrated by the factor result, was taken into account with an objective level of **60** percent and/or more of its entire variance. It has also been proved to be adequate for a factor resolve in the field of social sciences. (Hair, et al., 2006). Diekhoff (1992) considered **50** percent of the described total variance as its entry/verge.

**Communality** procedures were also applied on as a component of the factor analysis. Communalities portray the quantity of the variance in the original variables that is taken into account by the factor solution. The factor solution is expected to describe half of each of the original variable's variance, at best; hence, the communality value for each of the variables should be at **0.50** or more. Therefore, for the purpose

ISSN: 2278-2389

of specification, variables with communalities of less than 0.50 were omitted from any following analysis (Hair, et al., 2006).

In assessing the Convergent validity, items were retained according to the following criteria: 1) factor loading greater than 0.5 and 2) no cross-loading of items. In other words, items were dropped where they have a loading of less than 0.5 or where their loadings are greater than 0.5 on two or more factors (Hair et al., 2006). The reason for choosing cut-off point of 0.5 or greater in this study was because this threshold value was considered crucial in ensuring practical significant for sample sizes of 150 and above and before the analyses proceed to the confirmatory factor analysis (Hair Jr. 2006; Ledesma & Valero-Mora, 2007). The measurement items that were allocated to each individual factor should also be verified through internal reliability analysis. Reliability is the degree to which a measure is error-free. To ensure that the items produce a reliable scale, Cronbach's alpha coefficient of internal consistency should be examined. The higher value of Cronbach's alpha refers to higher reliability, with a range from 0 to 1. Nunnally and Bernstein suggest that for a reliable scale, Cronbach's alpha should not be lower than 0.7 (Nunnally & Bernstein, 1994).

**Discriminant** validity refers to the extent to which factors are distinct and uncorrelated. A primary method exists for determining discriminant validity during an EFA is to examine the factor correlation matrix. Correlations between factors should not exceed **0.7**. A correlation greater than 0.7 indicates a majority of shared variance; 0.7 \* 0.7 = 49% shared variance (Jackson, 1969). The EFA results for the four dimensions of the Intention to Enroll in MOOCs (IE) are represented in Table 1.5.

Table 1.5, Results of Exploratory Factor Analysis (EFA) for Intention to Enroll in MOOCs (IE)

Cons truct	It e m	Comm unalitie s	Fac tor Loa din g	K M O	B T S	Ei ge n Va lue	Vari ance (%)	Cr on ba ch Al ph a
Inten	ΙE	0.841	0.91	0.8	0.	3.3	82.9	0.9
tion	1		7	55	00	18	47	31
to	ΙE	0.816	0.90		0			
Enro	2		4					
ll in	ΙE	0.840	0.91					
MO	3		7					
OCs	ΙE	0.820	0.90					
(IE)	4		6					

As shown in **Table 1.**, in the first iteration of running the EFA, factor communalities for all four items were above the cut-off 0.50 as recommended by Hair et al 2006, ranging from 0.816 to 0.841. Therefore, it was not necessary to remove any items from communalities table. As shown in Table 1., upon the four items assessed through the iteration of EFA, a unit factor structure was identified. In assessing the convergent validity, the factor loadings of all four items were above the minimum acceptable value of 0.50, ranging from 0.904 to 0.917. Therefore, it was not necessary to remove any item from the

constructs. Since only one factor was defined through EFA for the items, the correlations between factors and discriminant validity was not applicable to be checked. The resulting value of KMO was 0.855, above the cut-off value of 0.5 as recommended by Blaikie, 2003. The Bartlett's test of Sphericity was 0.000, below the standard significance level of 0.05 as recommended by Williams, Brown, & Onsman, 2012.

Based on the validity results, the Eigen value was 3.318, exceeded the cut-off 1 as recommended by Tabachnick & Fidell, 2001. The values of variance was 82.947, above the cut-off 60 percent as recommended by Diekhoff (1992) and Heck (1988). The Cronbach's Alpha value was 0.931, above the threshold of 0.7 as suggested by Nunnally and Bernstein (1994). Therefore, the achieved Cronbach's Alpha for the extracted factor was considered as sufficiently error-free. These results indicated that the study can assume to have yielded reliable single factor for the four items of Intention to Enroll in MOOCs (IE).

## V. DESCRIPTIVE ANALYSIS AND SAMPLE PROFILE

The descriptive statistic of the Intention to Enroll in MOOCs (IE) and its four dimensions was examined. The mean was applied as a measure of central tendency while the standard deviation was applied as a dispersion index to indicate the degree to which individuals within each variable differ from the variable mean. Table demonstrates the results of descriptive statistic of the Intention to Enroll in MOOCs (IE) and its four dimensions.

Table 1.6, Results of Descriptive Statistics for Intention to Enroll in MOOCs (IE) and its Four Dimensions

Variable	Mean	Standard Deviation	Minimum	Maximum
Intention to Enroll in MOOCs (IE)	4.021	1.350	1	7
Intention to Enroll in MOOCs (IE1)	4.212	1.499	1	7
Intention to Enroll in MOOCs (IE2)	3.611	1.505	1	7
Intention to Enroll in MOOCs (IE3)	4.208	1.496	1	7
Intention to Enroll in MOOCs (IE4)	4.052	1.430	1	7

The mean values of Intention to Enroll in MOOCs (IE) and its four dimensions were above their midpoint level (4) as indicated in **Table**. The phenomenon indicated that the consensus respondents' perception toward these variables were

ISSN: 2278-2389

above the average. The highest mean rating belonged to Intention to Enroll in MOOCs (IE1) with the mean value of 4.212. The lowest mean rating belonged to Intention to Enroll in MOOCs (IE2) with the mean value of 3.611. The standard deviation was applied as a dispersion index to indicate the degree to which individuals within each variable differ from the variable mean. Among the studied variables, the individual value of Intention to Enroll in MOOCs (IE2) deviated the most from its mean (SD = 1.505). This standard deviation suggested reasonably high variability in respondents' perception toward Intention to Enroll in MOOCs (IE2). In other word, the survey participants were most varying in this variable from each other. At the other side, the lowest deviation from mean belonged to Intention to Enroll in MOOCs (IE) with the standard deviation of 1.350. Figure gives a good illustration for the mean of all variables together with their standard deviations.

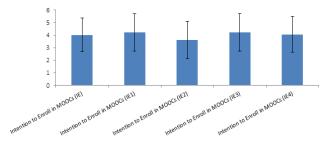


Figure 2, Means and Standard Variations of All Variables

#### **Correlations between the Variables**

Correlation analysis is run to describe the strength and direction of the linkage between two variables (Sekaran, 2006). The direction of the relationship can either be positive or negative. A positive correlation shows that as one variable increases, so does the other. While a negative one shows that as one variable increases, the other decreases (Pallant, 2001). In the present study **Spearman** correlation was used as a non-parametric test to evaluate the relationships between Tamadun Islam & Tamadun Asia (TITAS) and Hubungan Etnik (HE) as the ordinal variables and Intention to Enroll in MOOCs (IE) as the scale variable.

Table 1-4, Results of Pearson Correlation between Variables

		Intention to Enroll in MOOCs (IE)
Tamadun	Correlation Coefficient	051
Islam &	p-value	.159
Tamadun Asia (TITAS)	Correlation Strength	Very Weak
Hubungan	Correlation Coefficient	051
Etnik (HE)	p-value	.161
	Correlation Strength	Very Weak

\*p<0.05, \*\*p<0.01, \*\*\*p<0.001

The correlation coefficient, r, symbolizes the estimated strength of a linear association and its direction. The correlation coefficient can range from + 1 to -1 whereby the prefix (+, -) indicates the direction of the relationship (positive or negative). While the number represents the strength of the relationship which were described as being weak, moderate, strong, or very strong. The closer value of (r) to 1 refers to

stronger correlation. The r value of 0 means no relationship (Shanthi Gopalakrishnan & Damanpour, 1994). In interpreting the strength of the relationship based on the r coefficient, Salkind's (2007) recommendation was used. As noted by Salkind (2007), the relationship between variables can be described as very weak if the correlation coefficient (r) ranges from 0.01 to 0.19, weak if ranges from 0.20 to 0.39, moderate if ranges from 0.40 to 0.59, **strong** if ranges from 0.60 to 0.79, and very strong if the correlation coefficient ranges from 0.80 to 1.0. Table 1-4 shows the correlations between the three main variables in this study. As shown in Table 1-4, the results demonstrated that Intention to Enroll in MOOCs (IE) were in insignificant mutual relationship with Tamadun Islam & Tamadun Asia (TITAS) and Hubungan Etnik (HE) with the Spearman correlation coefficient of -0.051 and -0.051 and the p-values of 0.159 and 0.161 respectively.

The directions of both correlations were negative, indicating by increasing Tamadun Islam & Tamadun Asia (TITAS) and Hubungan Etnik (HE), the level of Intention to Enroll in MOOCs (IE) will be decreased and vice versa. Nevertheless, as it mentioned before, the correlations were not found as statistically significant as their p-values were both above the standard significance level of 0.05. The strength of both correlations were very weak as their correlation coefficients were laid between 0.01 to 0.19. Therefore, it can be concluded that Intention to Enroll in MOOCs (IE) were in insignificant negative and very weak relationships with Tamadun Islam & Tamadun Asia (TITAS) and Hubungan Etnik (HE).

#### VI. RESULTS OF LINEAR REGRESSIONS

Upon ensuring all of assumptions of linear regression were adequately met, linear regression analysis was used to analyze the relationship between independent variables and dependent variable in this study. The significance of the regression coefficients of the hypothesized predictor was examined to determine support for the hypothesis. The linear regression was used to examine the effect of Tamadun Islam & Tamadun Asia (TITAS) and Hubungan Etnik (HE) as predictors on the Intention to Enroll in MOOCs (IE) as criterion. Thus, the hypotheses H1 and H2 were examined in this regression model. **Table** shows the results of the linear regression.

Table 1.9, Results of Linear Regression to Predict Intention to Enroll in MOOCs (IE)

Predictors	Unstand ardized Coefficie nts		Stand ardize d Coeffi cients	t	p - v al u	Hyp othe sis Res ult
	В	Std Er ror	Beta		e	
(Constant)	4. 1 8 3	.09		4 3 8 8 0	.0 0 0	

ISSN: 2278-2389

zero. Thus, H2 was supported. Further, the standardized
estimate of Beta was -0.050, indicating a negative relationship.
It means, when Hubungan Etnik (HE) goes up by 1 standard
deviation, Intention to Enroll in MOOCs (IE) goes down by
0.050 standard deviations. The result of the linear regression
model is shown in

Figure 1.

#### VII.CONCLUSION

In this research, data analysis was conducted in five major phases. The first phase involved a preliminary analysis of the data. This process is crucial to ensure that the data adequately meet the basic assumptions in parametric tests. In general, the data set of all variables was normally distributed and was free from failure, missing values and univariate outliers. The second phase included the establishment of exploratory factor analysis (EFA) to examine the stability of the factor loadings of the four items of Intention to Enroll in MOOCs on an united construct. As the results, a reliable single factor for the four items of Intention to Enroll in MOOCs (IE) was detected. The third phase represented the descriptive results of the Intention to Enroll in MOOCs and its four dimensions. As the results, the consensus respondents' perception toward these variables were above the average. The frequency of the Tamadun Islam & Tamadun Asia and Hubungan Etnik was also examined. The results indicated that 59.8% of the respondents studied Tamadun Islam & Tamadun Asia while 55.5% studied Hubungan Etnik. This is a serious concern as these both subjects are considered to be compulsory subjects to be offered for the First year degree students and the difference in the completion percentage is not a healthier news for all those who wish to deliver the course though MOOCS platform. The fourth phase conducted the Spearman correlation test between the variables. The results did not show any significant correlations of Intention to Enroll in MOOCs with Tamadun Islam & Tamadun Asia and Hubungan Etnik. Finally the last phase performed a multiple linear regression to test the insignificance effects of Tamadun Islam & Tamadun Asia and Hubungan Etnik on Intention to Enroll in MOOCs which refer to hypotheses H1 and H2. The results indicated that Tamadun Islam & Tamadun Asia and Hubungan Etnik have not any significant effects on Intention to Enroll in MOOCs. Therefore the hypotheses H1 and H2 were supported. Therefore, the behavioral intention for the students to Enroll in these General Studies subjects is not favorable using MOOCs intervention. However, other direct effect in this research showed a positive learners ownership in completing the MOOCs. Thus, there may be further research needed using a different setup of predicted variables in the UTAUT2 model to support these findings.

#### Tamadun .10 -.053 H1) .1 Islam & .1 0 1 4 Supp 7 Tamadun 4 orted 5 4 Asia (TITAS) 5 3 .09 -.050 Hubungan .1 H2) 1 Etnik (HE) .1 8 6 Supp 3 4 orted 3 7 9 2

\* P< 0.05; \*\* p<0.01; \*\*\* p<0.001

As shown in **Table**, the results for multiple linear regression indicated that the effects of Tamadun Islam & Tamadun Asia (TITAS) and Hubungan Etnik (HE) on Intention to Enroll in MOOCs (IE) were statistically insignificant as their p-values were both above the standard significance level of 0.05. Thus the hypotheses H1 and H2 were supported.

The following section discusses the results of multiple linear regression analysis in relation to the above hypotheses:

## H1) Tamadun Islam & Tamadun Asia (TITAS) has NO effect on Intention to Enroll in MOOCs (IE)

As shown in **Error! Reference source not found.**, the t-value and p-value of Tamadun Islam & Tamadun Asia (TITAS) in predicting Intention to Enroll in MOOCs (IE) were -1.453 and 0147 respectively. It means that the probability of getting a t-value as large as 1.453 in absolute value is 0.147. In other words, the regression weight for Tamadun Islam & Tamadun Asia (TITAS) in the prediction of Intention to Enroll in MOOCs (IE) is not significantly different from zero. Thus, H1 was supported. Further, the standardized estimate of Beta was -0.053, indicating a negative relationship. It means, when Tamadun Islam & Tamadun Asia (TITAS) goes up by 1 standard deviation, Intention to Enroll in MOOCs (IE) goes down by 0.053 standard deviations.

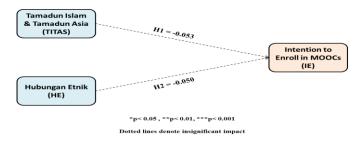


Figure 1, Results of Linear Regression

## H2) Hubungan Etnik (HE) has NO effect on Intention to Enroll in MOOCs (IE)

As shown in **Error! Reference source not found.**, the t-value and p-value of Hubungan Etnik (HE) in predicting Intention to Enroll in MOOCs (IE) were -1.392 and 0.164 respectively. It means that the probability of getting a t-value as large as 1.392 in absolute value is 0.164. In other words, the regression weight for Hubungan Etnik (HE) in the prediction of Intention to Enroll in MOOCs (IE) is not significantly different from

#### Reference

- [1] Ajzen, I. (2002). Perceived Behavioral Control, Self-Efficacy, Locus of Control, and the Theory of Planned Behavior. Journal of Applied Social Psychology, 32, 665-683.
- [2] Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In J. Kuhl & J. Beckmann(Eds.), Action-control: From cognition to behavior (pp. 1 1-39). Heidelberg: Springer.
- [3] Ajzen, I. (1987). Attitudes, traits, and actions: Dispositional prediction of behavior in personality and

ISSN: 2278-2389

- social psychology. In L. Berkowitz (Ed.), Advances in experimental social psychology (Vol. 20, pp. 1-63). New York: Academic Press.
- [4] Blaikie, N. (2003). Analyzing quantitative data: From description to explanation: Sage Cohen, J. (1983). The cost of dichotomization.
- [5] Diekhoff, G. (1992). Statistics for the social and behavioral sciences: Univariate, bivariate, multivariate: Wm. C. Brown Publishers Dubuque, IA.
- [6] Field, A. (2009). Discovering statistics using SPSS: Sage publications. https://books.google.com.my/books?id=c0Wk9IuBmAoC &dq=Discovering+statistics+using+SPSS&lr=&source=g bs\_navlinks\_s
- [7] Gopalakrishnan, S., & Damanpour, F. (1994). Patterns of generation and adoption of innovation in organizations: Contingency models of innovation attributes. Journal of Engineering and Technology Management, 11(2), 95-116
- [8] Hair, J. F., Anderson, R. E., Tatham, R. L., & William, C. (1998). Black (1998), Multivariate data analysis: Upper Saddle River, NJ: Prentice Hall.
- [9] Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006). Multivariate data analysis (sixth ed.). United State of Amreica: Pearson prentice hall.
- [10] Hair, J.F., Black, W.C., Babin, B.J. and Anderson, R.E. (2010) Multivariate Data Analysis, Prentice-Hall, Upper Saddle River, NJ.
- [11] Jackson, D. N. (1969). Multimethod factor analysis in the evaluation of convergent and discriminant validity. Psychological bulletin, 72(1), 30.
- [12] Kaiser, H. F. (1974). An index of factorial simplicity. Psychometrika, 39(1), 31-36.
- [13] Ledesma, R. D., & Valero-Mora, P. (2007). Determining the Number of Factors to Retain in EFA: an easy-to-use computer program for carrying out Parallel Analysis. Practical Assessment, Research & Evaluation, 12(2), 1-11.
- [14] Little, Roderick JA, & Schluchter, Mark D. (1985). Maximum likelihood estimation for mixed continuous and categorical data with missing values. Biometrika, 72(3), 497-512.
- [15] Myers, M. D., & Avison, D. (2002). An introduction to qualitative research in information systems. Qualitative research in information systems, 4, 3-12.
- [16] Norusis, M. J. (1995). SPSS 6.1 Guide to data analysis Prentice-Hall. Inc., A Simon & Schuster Company, Englewood, liff, New Jersey.
- [17] Nunnally, J.C. and Bernstein, I.H. (1994) Psychometric Theory, McGraw-Hill, New York.
- [18] Pallant, J. (2001). SPSS survival manual. Maidenhead, PA: Open University Press
- [19] Quaddus, M., Hofmeyer, G (2007).: An investigation into the factors influencing the adoption of B2B trading exchanges in small business. European Journal of Information Systems 16, 202–215 (2007)
- [20] Salkind, N. J. (2007). Encyclopedia of measurement and statistics (Vol. 1): Sage Publications, Inc.
- [21] Schumacker, R., & Lomax, R. G. (2010). A beginner's guide to Structural Equation Modeling (Third ed.). New York: Routledge: Taylor & Francis Group.

- [22] Tabachnick, B., & Fidell, L. (2007). Multivariate analysis of variance and covariance. Using multivariate statistics. Boston: Allyn & Bacon, 243-310.
- [23] Williams, B., Brown, T., & Onsman, A. (2012). Exploratory factor analysis: A five-step guide for novices. Australasian Journal of Paramedicine, 8(3), 1.