

# Factors Influencing Students' Intention to Use Internet for

## Academic Purposes

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## Abstract

This study aimed to investigate the factors influencing students' intention to use the Internet for academic purposes amongst 204 final year business students in public universities in Malaysia. This study integrated theory of planned behavior (TPB) and theory of acceptance model (TAM) as the base model toward that purpose. The research model employs the variables from both theories namely attitudes, subjective norms, perceived behavioral control, perceived usefulness, perceived ease of use, intention, and behavior. A multiple regression analysis provides empirical support for the applicability of integration of TPB and TAM in predicting students' intention to use the Internet for academic purposes. Results of the study show that attitudes, perceived behavioral control, and perceived usefulness are statistically significant in influencing intention to use the Internet for academic purposes. Based on the results, it can be concluded that students' intention to use the Internet for academic purposes could be predicted from their attitudes, perceived behavioral control, and perceived usefulness at 49% level. In view of the results, several implications and recommendations are discussed.

**Keywords:** *attitudes, subjective norms, perceived behavioral control, perceived usefulness, perceived ease of use, intention*

## **Introduction**

In the past few decades, the Internet technology has shaped and transformed the way people live, both at the personal and professional levels. At the personal level, the Internet is now used as an important means of communication. It is common nowadays for people to use the Internet to make their purchases online, do online banking, or make payments for their bills. At the professional level, the Internet is used to communicate with clients and to share knowledge across organizations, to name a few. Because the Internet has been able to open up to various possibilities unthinkable then, it is no longer a jargon. In fact, because it enables people to update themselves with varieties of information, the Internet is also called a gateway of information.

The Internet also affects the way people learn especially in higher learning institutions. Indeed, to stay abreast with the current technological development it is imperative for universities to remain competitive. Thus, many universities now have begun to integrate the current technology in their learning and teaching activities. To enhance the teaching and learning experiences further, many universities have also installed the necessary infrastructure around their campuses. For example, the installation of wireless hotspots have enabled students to access the Internet easily and readily at anytime and anywhere at their convenience. This means that they can use the Internet to search for information, interact with lecturers, access library materials and download notes from their lecturers' websites. Learning therefore is no longer restricted to classroom interactions and teaching, but it is extended beyond the normal class schedule.

Whilst the Internet can be beneficial for students in their learning experiences as it allows them to obtain relevant academic information, it also offers other possibilities that may be harmful to their academic experience. Previous studies that focused on the general pattern of the Internet usage among students in tertiary education found that they tend to use the Internet less for academic purposes but more for social activities. For example, a study by Pew Internet and American Life (as cited in Asfaw & Bo, 2003) found that college students used the Internet more for social activities like communicating with friends rather than for academic-related tasks. A study by Chan and Fang (2007) to investigate the use of Internet among young people in Hong Kong found that the Internet was used for different purposes such as for making friends, shopping, listening to music, having fun, doing homework and finding information for further education. In a different study, Hinson and Amidu (2006) investigated the impact of the Internet on the use of up-to-date information by final year students in Ghana by looking at the purposes of Internet usage. At the local front, Noor Ismawati (2003) investigated computer usage and perceptions among accounting students in Universiti Malaya. This study also sought information on the usage of Internet for communication, online purchasing, doing assignments, personal activities and searching academic resources. She also found that students highly used Internet for social and entertainment purposes compared to academic activities.

Based on the descriptive scenario above, concerns are raised on why students use the Internet less for academic activities and more for social purposes. Such phenomenon is unfortunate because it may affect the students' academic

performance and hence their future career. A study therefore needs to be conducted to examine the factors that motivate and influence the students' intention to use Internet for academic purposes in Malaysia. As this study is exploratory in nature, we will focus the research among final year business undergraduate students enrolled in the Malaysian public universities only.

## **Literature Review and Hypotheses**

### *Theory of Planned Behavior*

Theory of planned behavior (TPB) is a well known model that argues that attitude and subjective norms are the two prominent variables to intention (Fishbein & Ajzen, 1975; Ajzen & Fishbein, 1980). TPB is an extended theory of reasoned action (TRA) by the incorporation of an additional construct, namely perceived behavior control (PBC). Ajzen (1988) adds perceived behavior control to capture the factors beyond individual's control towards the achievement of a behavioral goal. It is used to explain an individual's intention to perform a given behavior. Intentions are assumed to capture the motivational factors that influence behavior. They are indications of how hard people are willing to try, of how much of an effort they are planning to exert, in order to perform the behavior (Ajzen & Driver, 1992). This intention-based model has been widely applied to diverse disciplines such as health, leisure choice, psychology and information technology (Ajzen, 1987; Ajzen & Driver, 1992; Taylor & Todd, 1995; Mathieson, 1991). In the information system related field, researchers have also found empirical support for predicting the intention on the adoption of new technologies by using the TPB (Harrison,

Mykytyn & Riemenschneider, 1977; Taylor & Todd, 1995; Yi, Jackson, Park & Probst, 2006). Figure 1 illustrates the TPB framework.

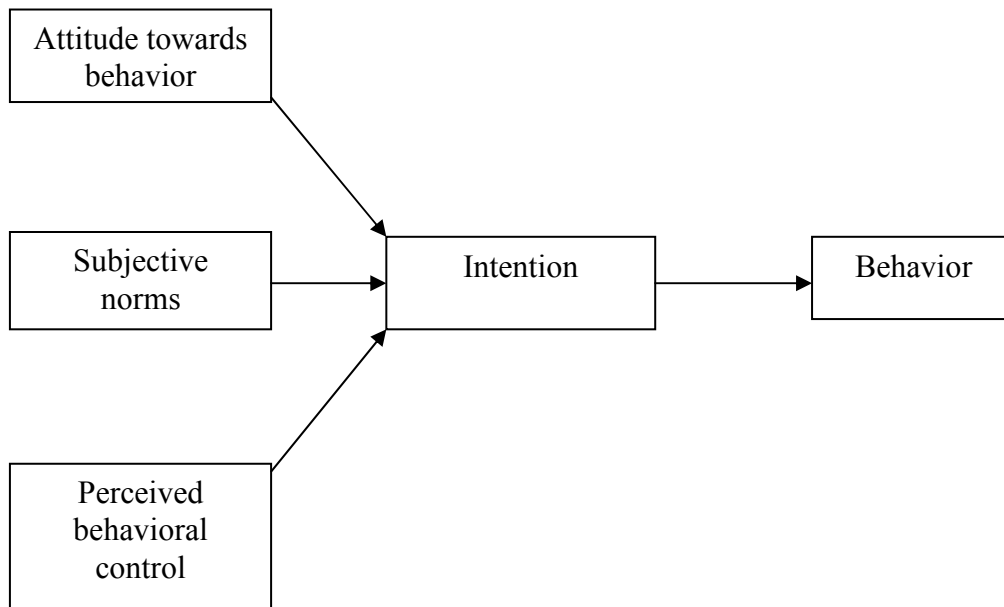


Figure 1: Illustration of Ajzen's Theory of Planned Behavior (Ajzen, 1991)

In TPB, there are three independent determinants of intention towards behavior, namely, attitudes towards the behavior, subjective norm, and perceived behavioral control (Ajzen, 1991).

Attitude towards performing a behavior refers to perceptions of personal desirability to perform the behavior (Ajzen, 1987). It depends on the expectations and beliefs about personal impacts of outcomes resulting from the behavior. According to Ajzen and Fishbein (1980), a person's attitude towards a behavior represents evaluation of the behavior and its outcome. The TPB as well as TRA has found that attitude is an influential factor in defining web-shopping behavior. Mathieson (1991, p. 3) defines attitude toward using

technology as “the user’s evaluation of the desirability of his or her using the system”. In this study, attitude is defined as a student’s subjective evaluation of the consequences of using the technologies. Limayem, Kalifa, and Frini (2000) found that attitude towards web-shopping behavior positively predict intention to use the web for product information search, which consequently affect web-shopping intention. O’Cass and Fenech (2003) also found that attitude towards web for retailing can influence behavior of using web for retail purchases.

In TPB, subjective norm is defined as “the perceived social pressure to perform or not to perform the behavior” by the individual (Ajzen, 1991, p.188). Subjective norm refers to the person’s perception of the social pressures for or against performing the behavior in question (Ajzen, 1987). The TPB holds that subjective norm is a function of beliefs. Beliefs that underlie the subjective norm are called normative belief. Thus, if a person believes that the most important referents think that a behavior should be performed, then the subjective norm should influence the intention of the individual to perform the behavior in question. The referents here refer to a group of people who are close to the individual, for instance, family, peers, spouse, close friends, teachers, and any people who are considered important in his/her life. Organizational studies have found subjective norm to be an important determinant of behavioral intention to use information technology (Hartwick & Barki, 1994; Moore & Benbasat, 1993).

Perceived behavioral control reflects the perceived ability to execute a target behavior (Ajzen, 1987). It relates to an individual's perception on the degree of easiness and difficulties in performing such behavior, and it is assumed to reflect past experience as well as anticipated obstacles (Ajzen & Driver, 1992). This construct is affected by perceptions of access to necessary skills, resources and opportunities to perform the behavior. If an individual does not have control over the circumstances, the individuals may not have any or less intention to perform a particular behavior. In behavioral intention research, perceived behavioral control has been found to be of a significant determinant of usage intention (Mathieson, 1991). A study on technology usage such as the effect of computer self-efficacy, user involvement and mandatory use of IT also found the same result (e.g. Compeau & Higgins, 1995; Hartwick & Barki, 1994; Moore & Benbasat, 1993). Therefore, based on the discussion above the following hypotheses are proposed:

*H1:* Attitude towards Internet usage for academic purposes is positively related to Internet usage intention for academic purposes.

*H2:* Subjective norm is positively related to Internet usage intention for academic purposes.

*H3:* Perceived behavioral control is positively related to Internet usage intention for academic purposes.

### *Technology Acceptance Model*

The second model to be tested in this study is Technology Acceptance Model (TAM). The model was developed by Davis (1989) as a theoretical extension to the Theory of Reasoned Action (TRA) which is used to predict and explain user behavior from different domains (Azjen& Fishbein, 1980). TAM focuses on the behavioral intention to accept the usage of information technology.

TAM is a widely studied model based on its application and replication by various studies involving technology especially the use of computers (Davis, Bagozzi & Warshaw, 1989; Miller, Rainer & Corley, 2003; Taylor & Todd, 2001) and to be said as one of the most cited theoretical frameworks (Park, Lee, & Cheong, 2007). TAM has also been used to explain the intention to use Internet in both student subject and non-student subject related studies. Among the student subject related studies on the application of TAM theoretical framework and Internet were done by Cheung, Lee, and Chen (2002), Fusilier and Durlabhji (2005), Lee, and Cheong (2007), Miller, Rainer, and Corley (2003), Park Luan and Teo (2008), and Vasileiou and Spais (2007). The non-student subject Internet studies that applied TAM were conducted by Lu, Yu, Liu, and Yao (2003), Cheong and Park (2005), and Spacey, Goulding, and Murray (2004), among others.

The studies cited above have shown that TAM can be used to explain behavioral intention to accept the usage of information technology mainly the Internet (Davis, Bagozzi, & Warshaw, 1989). TAM is IT specific and suitable for various contexts (Hu, Chau, Sheng, & Tam, 1999). Basically there are two



fundamental variables that determine user acceptance of technology namely perceived usefulness and perceived ease of use. Figure 2 illustrates the TAM framework.

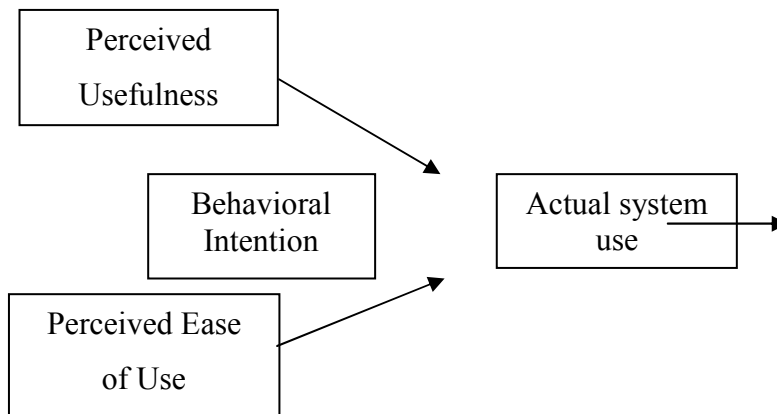


Figure 2: Illustration of Technology Acceptance Model (Venkatesh & Davis, 1996, pg 453)

TAM claims that behavioral intention is determined by an attitude which is influenced by perceived usefulness and ease of use (Davis, Bagozzi & Warshaw, 1989). Thus, the constructs of perceived usefulness and perceived ease of use will be used as predictors of intention to use technology. In the present study, TAM will be used to predict the students' intention to engage in the Internet for academic purposes.

Perceived usefulness explains the tendency of person to believe that using technology might improve job performance. The implied link between use and performance is crucial because perceived usefulness has a direct effect on behavioral intentions to use the technology (Davis, 1989). In the context of this study, perceived usefulness can be interpreted whether or not the usage of

Internet for academic purposes would help students improve their curriculum related outcome.

There was extensive empirical evidence to suggest the impact of perceived usefulness on behavioral intention. Research done in various contexts such as teleworking, computer and telemedicine (e.g. Davis, Bagozzi & Warshaw, 1989; Hu, Chau, Sheng & Tam, 1999; Perez, Sanchez, Carnicer & Jimenez, 2004) found that perceived usefulness was significant in predicting attitude and intention to use technology. In the case of Internet usage by students, studies done by Cheung, Lee, and Chen (2002), and Fusilier & Durlabhji (2005) supported the hypothesis that perceived usefulness predicts students' intention to use the Internet. These findings are also aligned with the finding by Park, Lee, and Cheong (2007), who discovered that perceived usefulness has a direct effect on behavioral intention, as suggested by Davis (1989) in the original TAM model. The same result was obtained by Vasileiou and Spais (2007). They demonstrated that perceived usefulness played an important role in the increment of Internet usage for academic purpose. Therefore, it is expected that students who perceived the usefulness of the Internet would develop an intention to use the Internet for academic purposes.

Davis (1989, p. 320) defined perceived ease of use as “the degree to which a person believes that using a particular system would be free of effort”. This definition can be related to this study in order to see how the Internet is easy to work with from the perspective of students. A number of studies have indicated that perceived ease of use is a predictor of behavioral intention and

acceptance of technology directly and indirectly through its significant influence on perceived usefulness since the enhancement of perceived ease of use may affect to the improvement of performance (Lu, Yu, Liu, & Yao, 2003). From the view of non-students subject studies, Cheong and Park (2005) revealed that perceived ease of use does influence in predicting attitude in using mobile Internet in Korea. Another research finding also indicated that perceived of use had a direct influence on behavioral intention in using electronic courseware (Park, Lee, & Cheong, 2007).

In applying TAM to the Internet usage by students, Davis, Bagozzi, and Warshaw (1989) found that perceived ease of use influenced intention in accepting computer based technology. Taylor and Todd (1995) also claimed that perceived ease of use has a significant effect on behavior towards information technology usage. Other recent studies such as by Cheung, Lee, and Chen (2002) indicated that perceived ease of use influence students' attitude towards Internet-based learning. Fusilier and Durlabhji (2005) later found a similar pattern when they found that perceived ease of use did significantly affect attitude towards the acceptance of the Internet. From the above discussion, it can be predicted that perceived ease of use may affect students' intention of using the Internet for their academic purposes. Thus, the present study proposes the following hypothesis:

H4: Perceived usefulness is positively related to Internet usage intention for academic purposes

H5: Perceived ease of use is positively related to Internet usage intention for academic purpose.

Based on the previous discussion, we propose a conceptual framework that diagrammatically reflects the relationship between the three determinants and intention (see Figure 3).

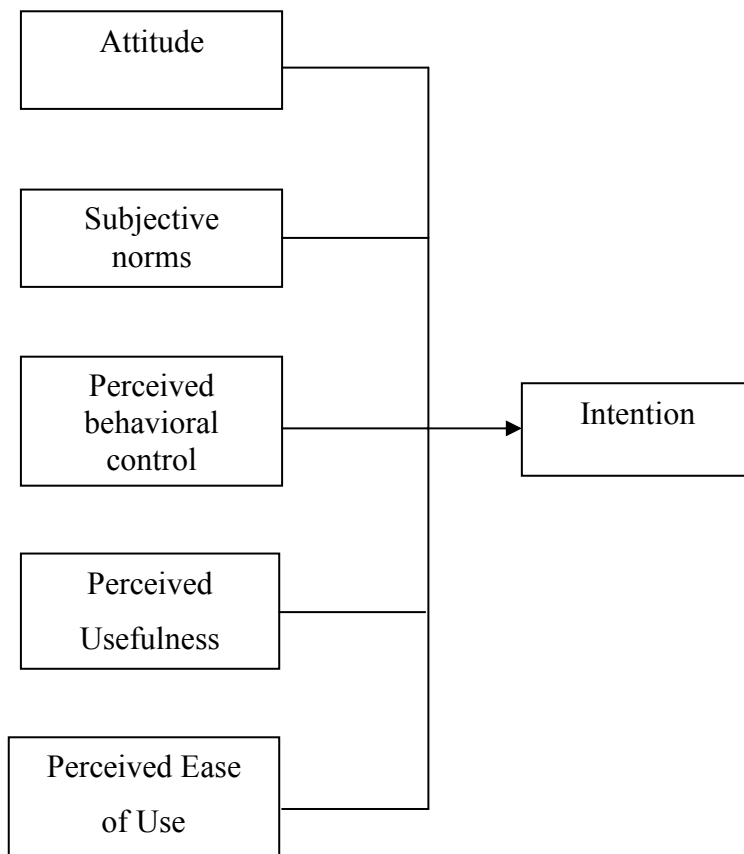


Figure 3: Research Model

## **Methodology**

This study was cross sectional in nature. It involved random distribution of questionnaires to final year business students at the undergraduate level in public universities in Malaysia. Final year business students were chosen to participate in this study because they have been within the higher education environment longer than junior students and hence are better exposed to the Internet applications in their academic experiences.

The questionnaire was divided into two sections: Section A (demographic), and Section B (items on constructs i.e. attitude, subjective norms, perceived behavior control, perceived usefulness, perceived ease of use, intention and actual behavior). Respondents were asked to indicate their agreement or disagreement with several statements on a five-point Likert scale with 1=strongly disagree to 5=strongly agree. The questionnaire contained items that measure attitude, subjective norms, perceived behavior control, perceived usefulness, perceived ease of use, intention and actual behaviour. The items used to measure all constructs were adapted from Taylor and Todd (1995), and Fusilier and Durlabhji (2005). There were four items on attitude, three items on subjective norms, four items on perceived behavior control, four items on perceived usefulness, three items on perceived ease of use, three items on intention, and two items on actual behaviour.

## **Findings**

This section presents the survey findings. It starts with a description of the general characteristics of the respondents and variables. This is followed by

examination of reliability and validity test of research instrument. Finally, the students' perceptions of computers from the viewpoint of attitude, subjective norms, perceived behavioral control, perceived usefulness, and perceived ease of use were examined.

### *Descriptive Analysis*

A total of 350 questionnaires were mailed to key informants in seven public universities in Malaysia, who later distributed them randomly to the participants. Out of these, 250 participants returned the completed questionnaires. However, only 204 questionnaires were usable for data analysis.

The participants consisted of 59% female and 41% male students. The gender split is consistent with the overall trend in the Malaysian universities where in the recent past the intake of female students was much higher than that of male students. More than half of the participants scored cumulative grade point average (CGPA) quite well between 3.00 and 3.66 (58%). Slightly more than a third of them scored between 2.00 and 2.99 (34%). The participants studied in various public universities in Malaysia, and took various business-related programs.

A basic descriptive analysis was run to determine the average score and the dispersion of score for the constructs of attitude, subjective norms, perceived behavioral control, perceived usefulness, and perceived ease of use, intention

to use Internet, and actual behavior for academic purposes as shown in Table 2.

*Reliability Analysis*

Table 2 also shows the reliability coefficients of each construct. These coefficients were obtained from reliability analysis of each construct. Reliability test was performed to ensure the consistency of the items used to measure the variables. Internal consistency was measured by applying the Cronbach’s alpha test to the individual scales. The Cronbach alphas obtained for the constructs of attitude, subjective norm, perceived behavioral control, perceived usefulness, perceived ease of use, intention, and behavior were .77, .77, .80, .83, .80, .79, and .83, respectively. The reliability coefficients were all above 0.70, and these are considered good (Nunnally, 1978).

Table 2

*Descriptive Statistics on Variables*

Variable/ constructs	Mean	Standard Deviation
Attitude towards Internet usage for academic purpose ( $\alpha = .75$ )		
1) Good idea	3.97	.680
2) Wise idea	3.61	.826
3) Like	3.88	.769
4) Pleasant	3.70	.744
Subjective Norms ( $\alpha = .74$ )		
1) People I know	3.54	.862

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2) People influence	3.51	.802
3) People important	3.56	.788
Perceived Behavioral Control		
$(\alpha = .80)$		
1) Able	3.88	.660
2) Resources	3.85	.674
3) Knowledge	3.89	.682
4) Ability	3.90	.700
Perceived Usefulness ( $\alpha = .80$ )		
1) Improves performance	3.81	.735
2) Enhances effectiveness	3.76	.693
3) Useful	3.88	.703
4) Improves productivity	3.84	.727
Perceived Ease of Use ( $\alpha = .73$ )		
1) Easy to do work	3.97	.826
2) Clear and Understandable	3.84	.810
3) Easy to use	4.07	.769
Intention to use Internet		
$(\alpha = .79)$		
1) Next time	3.83	.735
2) Predict	3.77	.705
3) Recommend	3.84	.767

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### *Factor Analysis*

Factor analysis was performed to ascertain that the variables of attitudes, subjective norms, perceived behavioral control, perceived usefulness, perceived ease of use, intention, and behavior were distinct constructs. Using principle component analysis with varimax rotation, the identified factors were used as inputs for regression analysis. As shown in Table 3, the Kaiser-Meyer-Olkin (KMO) values for attitude, perceived behavioral control, perceived usefulness, perceived ease of use, and intention were .72, .70, .79, .79 and .71, respectively. Those scores are above the recommended value of .70 (Hair, Anderson, Tatham, & Black, 1998).. The variance explained for the constructs ranged between 59.229 and 70.935. The Bartlett's Test of Sphericity for all constructs was statistically significant at .000 level, indicating support for factor analysis to be run. These results confirm that each of these constructs is unidimensional and factorially distinct and that all items used to measure a particular construct loaded on a single factor.

Table 3

#### *Result of Factor Analysis*

Variable/ construct	Factor Loading	KMO	Variance Explained
Attitude		.72	59.229
1) Good idea	.772		
2) Wise idea	.731		
3) Like	.806		
4) Pleasant	.768		

Subjective Norms	.70	68.217
1) People I know	.816	
2) People influence	.855	
3) People important	.806	
Perceived Behavioral Control	.79	62.763
1) Able	.762	
2) Resources	.802	
3) Knowledge	.805	
4) Ability	.799	
Perceived Usefulness	.79	66.225
1) Improves performance	.832	
2) Enhances effectiveness	.799	
3) Useful	.797	
4) Improves productivity	.827	
Perceived Ease of Use	.70	70.935
1) Easy to do work	.836	
2) Clear and Understandable	.840	
3) Easy to use	.836	
Intention to use Internet	.70	70.342
1) Next time	.849	
2) Predict	.839	
3) Recommend	.828	

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Note: KOM= Kaiser-Meyer-Olkin

### *Multicollinearity*

A correlation matrix was performed to examine the relationship between the different constructs of the TPB. The results in Table 4 show that the constructs are positively and significantly intercorrelated. The highest correlation is the perceived ease of use and intention variables ( $r = .655$ ). Because the correlation values are below .80, there is no indication of serious multicollinearity problem (Hair et al., 1998). Besides, two methods were used in order to determine the presence of multicollinearity among independent variables. This involves calculation of tolerance test and variance inflation factor (VIF) (Kleinbaum, Kupper & Muller, 1988). The results of these analyses are shown in Table 5. None of the tolerance levels are  $< .01$  and all VIF values are below 10.

Table 4

#### *Intercorrelations amongst Independent Variables*

	Att	SNorm	Pbc	Puse	Peuse	Int
Att	-	.455**	.475**	.523**	.300**	.555**
SNorm		-	.413**	.449**	.223**	.451**
Pbc			-	.524**	.466**	.509**
Puse				-	.376**	.655**
Peuse					-	.367**
Int						-

Note. Att = Attitude; SNorm = Subjective norm; Pbc = Perceived behavioral control; Puse = Perceived usefulness; Peuse = Perceived ease of use; Int = Intention to use Internet.

All correlations are significant at .01 level.

Table 5

*Test of Collinearity*

Variables	Tolerance	VIF
Attitude	.569	1.698
Subjective norm	.648	1.544
Perceived behavioral control	.554	1.806
Perceived usefulness	.487	1.770
Perceived ease of use	.751	1.331
Intention to use Internet	.760	1.317

*Multiple Regression Analysis*

Multiple regressions were run to test the hypotheses. The results indicate that 49% of the intention to use the Internet for academic purposes is significantly explained by the original constructs from the TPB and TAM. As shown in Table 6, all constructs are positively related to intention. Table 6 shows that attitude and perceived usefulness significantly influence the intention to use the Internet for academic purposes at  $p < .01$ , while perceived behavioral control is significant at  $p < .10$ . Perceived usefulness provides the strongest effect among the five constructs with the standardized coefficients of .455. This is followed by attitude ( $\beta=.209$ ) and perceived behavioral control ( $\beta=.121$ ). Thus, H1, H3, and H4 are supported.

Table 6

*Results of Regression Analysis*

	Unstandardized		Standardized		
	coefficients		coefficients		
	<i>B</i>	Std. error	Beta	<b>T</b>	<b>Sig.</b>
Constant	.001	.050		.025	.980
Attitude	.209	.067	.209	3.141	.002 <sup>a</sup>
Subjective norm	.011	.063	.010	0.168	.867
Perceived behavioral control	.123	.069	.121	1.789	.075 <sup>b</sup>
Perceived usefulness	.456	.067	.455	6.800	.000 <sup>a</sup>
Perceived ease of use	.092	.058	.091	1.583	.115

Note: <sup>a</sup>  $p < .01$ , <sup>b</sup>  $p < .10$

Dependent variable = Intention to use Internet

Adjusted  $R^2 = .493$ ,  $F$ - statistics = 40.028, Sig at .000

## Discussion

This research paper sought to investigate behavioral intention to use the Internet for academic purposes amongst students. Integrating the two theories, namely Theory of Planned Behavior and Technology Acceptance Model as the underlying theoretical framework, the present study developed six hypotheses. Attitude, subjective norms, perceived behavioral control, perceived ease of use, and perceived usefulness explained 49% of the variance in intention. In essence, the present study has shown the applicability of TPB and TAM in predicting intention to use and use of Internet within the academic

environment. Such finding is consistent with previous studies conducted in a number of different fields (e.g. Moore & Benbasat, 1993; Hartwick & Barki, 1994; Fusilier & Durlabhji, 2005; Jong & Wang, 2009).

Results demonstrated that attitude, perceived behavioral control variables, and perceived usefulness are related significantly to behavioral intention. With respect to predictive power, perceived usefulness toward Internet was found to be the strongest predictor of intention to use the Internet for academic purposes, followed by attitude and perceived behavioral control. Based on this finding, it can be concluded that the use of the Internet amongst final year business students in Malaysia is determined by the three important variables, as proposed by TPB and TAM. This finding is parallel with that by previous work (e.g. Fusilier & Durlabhji, 2005; Noor Ismawati, 2003).

The significant effect of attitude on the intention to use the Internet and subsequently on the Internet usage itself is as expected. According to TPB, the more positive attitude a person has toward some behavior, the higher the intention to engage in this behavior. It is generally acknowledged that students tend to have favorable attitudes toward the Internet because it allows them to explore various possibilities that were not available then (Hinson & Amidu, 2006; Noor Ismawati, 2003). Indeed, because students in higher education are generally relatively young, they tend to be more receptive to the new technology and embrace it more willingly (Roe & Broos, 2005). As such, it is not surprising that that they develop a favorable attitude toward the Internet,

which in turn increases their intention to use the Internet and eventually to actually use it for their academic benefits.

The present study also revealed that the usefulness to use the Internet is also significant determinants of the Internet use for academic purposes. Previous studies in ICT have generally shown that the more useful an individual in new technologies, the more likely he/she will embrace and use it (Chu & Tsai, 2009; Uli, D'Silva, Shafrill & Samah, 2010). The Internet has been praised as an important technological breakthrough as it opens up to numerous possibilities (Bakardjieva, 2005). Because it is useful, it is therefore not surprising to find that it attracts people to use it. In fact, because the participants in this study were relatively young and more receptive to new developments, the use of Internet for academic purposes is enhanced.

The results of this study have important implications to the management university in seeking for ways to enhance students' learning experiences with the use of the Internet for academic purposes. Web-based learning and on-line communications are some of the measures that can be taken toward this end. In addition to providing relevant and appropriate learning infrastructure, the management university can think of offering training courses and modules related to the Internet usage to further capitalize on the Internet technology.

The findings should be interpreted by taking into account the limitations of the present study. Firstly, because of the limited scope of participation, generalizing the findings to wider population of students may be suspect.

Secondly, different learning environment across higher educational settings may differently shape students' perceptions and opinions on the Internet use. For these reasons, it is recommended that future research should be extended by considering a wider student population both in public and private universities in Malaysia. It is also suggested that future research explore other determinants of intention to use the Internet and Internet usage of because some of the variance remains unexplained. Perhaps, other relevant theories may be invoked towards this end to add to the existing insight obtained from the present study.

Respondents of the present study only covers final year business students in selected Malaysian public universities. This group of students is chosen due to the reason that they have been adequately exposed to the higher education environment. Thus, it can be assumed that they have the relevant experience and knowledge of information technology especially the Internet applications. Therefore, the findings may not be able to be generalizeable to all university students in Malaysia. Different learning environment and settings such as facilities and method of teaching might cause differences in students' perceptions and opinions on the Internet use. For these reasons, it is recommended that future research be extended by examining public and private universities in Malaysia and consider students from various programs such as social sciences and pure sciences. In addition, the application of modified TPB model and TAM should be explored to maximize the predictive effectiveness of the models. An integration analysis on both models by using a more rigorous application such as Structural Equation Modelling (SEM) may



provide a more meaningful explanation on the relationship between TPB, TAM, and the intention of using the Internet for academic purposes.

### **Conclusion**

The present study has examined the relationship between attitudes, subjective norms, perceived behavioral control, perceived usefulness, perceived ease of use, intention, and behavior. The results of the study show that attitudes, perceived behavioral control, and perceived usefulness variables are statistically significant in influencing intention to use the Internet for academic purposes. Perceived usefulness of the Internet was found the strongest predictor of intention to use the Internet for academic purposes. This is followed by attitude, and perceived behavioral control. Based on these results, it can be concluded that the use of the Internet amongst final year business university students in Malaysia is determined by the three important constructs, as proposed by TPB and TAM.

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