

# 2011 Almilia & Supriyadi (UTCC IJBE)

*by* 2011 Almilia & Supriyadi (utcc ljbe)

---

**Submission date:** 16-Jan-2020 10:22AM (UTC+0700)

**Submission ID:** 1242478493

**File name:** 2011\_Almilia\_Supriyadi\_UTCC\_IJBE.pdf (1.19M)

**Word count:** 5735

**Character count:** 31841

## Exploring the Model of Internet Use: Indonesia Context

7  
by

**Luciana Spica Almilia**

Perbanas Business School – Surabaya Indonesia

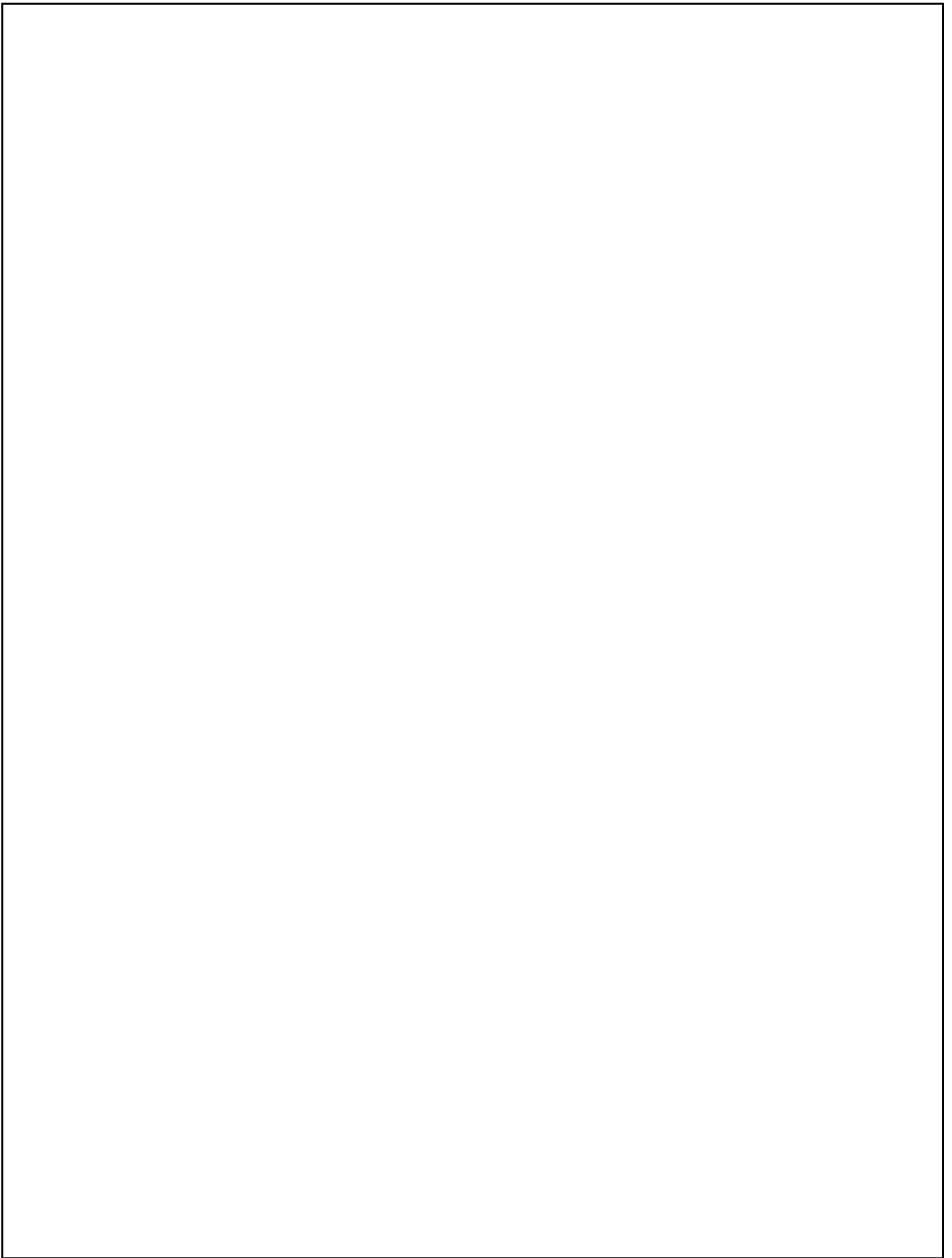
Email: [lucy@perbanas.ac.id](mailto:lucy@perbanas.ac.id)

and

**Supriyadi**

Gadjah Mada University, Indonesia

**UTCC**  
*International Journal of  
Business and Economics* **IJBE**



# Exploring the Model of Internet Use: Indonesia Context

7  
by

Luciana Spica Almia

Perbanas Business School – Surabaya Indonesia

Email: lucy@perbanas.ac.id

and

26 Supriyadi

Gajah Mada University, Indonesia

## Abstract

The purpose of this research is to compare the two models (TPB and TAM); a model that has the best explanatory power of the intensity of the information use on the company's internal counters technology. The respondents in this study are accountants who work in the firm. There were 10 questionnaires received by mail, and 45 by post mail. For the 55 questionnaires, only 43 questionnaires can analysis to examine the hypothesis. The results of this research indicate that: first, subjective norm and perceived behavioral control affect individual users of information technology in using the Internet; second, Perceived Ease of Use affects individual users of information technology in using the Internet; third, the TPB model is the best model to explain the use of the Internet on company accounting professionals; fourth, there is moderate support for experience and gender as moderating variables on TPB and TAM model.

**Keywords:** Theory of Planned Behavior, Technology Acceptance Model, Internet Use, Gender, Internet Experience

## 1. Introduction

The business world nowadays has been experiencing such a heavy pressures. The environment around organization becomes more complex and fluctuating due to those communication, transportation and technology progresses. International pressures are also inevitable. The competition is *global* and borderless. Various pressures in the business world have forced the business to proprietarily change its practice. A business company must be more proactive and continue making thorough improvements. Various practices such as *business process reengineering*, business alliance and both creative and quantitative decision making have been done in larger amount. Here, the role of Information Technology (IT) is rapidly developed since such a technology is the enabler of successful business practices done by business organizations. Information technology enables a company to do data processing and produce quick and accurate information. Information technology also provides both communication and coordination those are necessary to operate in a scattered geographic location since such a technology will accelerate information distribution to the users and facilitate information collection.

Along with the more increasing industrial globalization, it is very important to have a better understanding about factors those can improve the success of technology development and adoption in the organization. Particularly, there is a need to understand social and psychological factors those affect the adoption and implementation of information technology. By understanding social and psychological factors those affect the application of information technology it will help the organization that will implement data by means of new information technology. There are many studies which focus on psychological variables whether the technology is applied or not. Two preferable models in the study of this type are *planned behavior* (Ajzen, 1991) and *technology acceptance model* (Davis, 1989; Davis et al., 1989).

In addition to TPB and TAM models, there are several studies those try to see the gender and experience impact (Venkatesh and Morris, 2000; Gefen and Straub, 1997; and Baker et al., 2007) (Venkatesh and Davis, 2000; Mahmood et al., 2001; Anandarajan et al., 2000; and Fusilier and Durlabhji, 2005) on information technology application. The contribution of this study compares two models (TPB and TAM), which model that has the best confirmation power to the intensity of information technology application by including the moderating variable such as gender and experience.

## 2. Theoretical Framework and Hypothesis Development

### Planned Behavior Theory (TPB)

Beck and Ajzen (1991) test the capability of TPB to predict the dishonest action of university students. Another study performed by Parker et al. (1995) tests which vehicle riders in their effort to avoid threat. Those two studies prove that in addition to TPB construct of behavior is also affected by individual norm construct that provides extra confirmation power in the model although the effect of interaction is not taken into account.

TPB model is most applied to predict individual behavior in various types of context. In the context of tax payer's obedient behavior, Bobek and Hatfield (2003) shows that TPB construct (attitude, subjective norm, and *perceived behavioral control*) relates to the disobedient behavior of tax payer. Other studies try to use TPB model in the context of predicting ethical behavior and unethical behavior and decision making (Carpenter and Reimers, 2005; Chang, 1998; Buchan, 2005 and Hofmann et al., 2007). Carpenter and Reimers (2005) use TPB model to predict the decision made by company manager (s) with respect to fraudulent financial statement, and the result shows that TPB model can be used to predict whether the company manager takes ethical or unethical action with respect to fraudulent financial statement. Similar study also performed by Chang (1998) shows that TPB model can be used to predict the unethical behavior of university students with respect to illegal software reproduction.

Buchan (2005) tests TPB model in the context of predicting the unethical behavior of public accountant and the result shows that *attitude* has the biggest confirmation power to predict the unethical behavior of public accountant. It is different from the study performed by Hofmann et al. (2007) which shows that attitude and subjective norm, as the components of TPB model, affect the individual investment decision.

TPB model can also be used to predict the application and non-application of information technology. Several studies show that TPB model can be used to predict: new technology application in developed countries such as Saudi Arabia (Baker et al., 2007), internet utilization by university

students in India (Fusilier and Durlabhji, 2005), *information security* utilization (Hazari et al., 2008) and information technology adoption both before and after adoption (Karahanna et al., 1999). The utilization of information technology nowadays becomes a need for many parties, especially for accountants since they can obtain the required information by using information technology without having to be limited by time and place. By virtue of the above argumentation, this study tries to apply TPB model in the context of information technology application internal accountant. The first hypothesis is:

H1 : Attitude, perceived behavioral control, and subjective norm can be used to predict the application of information technology.

### Technology Acceptance Model (TAM) Theory

Technology Acceptance Model (TAM) theory was introduced by Davis (1989) who adapts from *theory of reasoned action* (TRA) with modification in order to create *user acceptance* model from information system. The purpose of TAM is to provide description of determinant factor whether the general application of computer can be accepted or not. TAM ideally can help to not only predict but also provide a description so that both researcher and practitioner are able to identify why certain system cannot be accepted by the system user that a corrective action is required in order that the system can be accepted by the user. The key purpose of TAM is to provide a ground to test the effects of external factors on internal belief, attitude and purpose. TAM theory states that the purpose of behavior to use technology comes from two beliefs namely: (1) *perceived usefulness* defined as an expectation that technology will improve the work performance; (2) *perceived ease of use* defined as a belief that the use of technology will be effortless.

Davis et al. (1989) indicates that *perceived usefulness* is the major determinant factor of an individual to use computer, while *perceived ease* will come later. The similar research is also shown by Szajna (1996) who confirmed the previous study that TAM is a valuable model to predict the application of information system. Taylor and Todd (1989a) indicate that TAM model can also be used to predict the application of information technology by taking the previous experience of information technology action into account.

Venkatesh and Davis (2000) try to develop TAM model. The developed model is called TAM2 in which theoretical construct of *social influence process* (subjective norm, *voluntary*, and *image*) and *cognitive instrumental process* (job relevance, output quality, *result demonstrability*, and *perceived ease of use*) are included. The result of study conducted by Venkatesh and Davis (2000) proves that the *social influence process* and *cognitive instrumental process* can significantly affect the acceptance of information technology application. Therefore, this study tries to apply TAM model in the context of information technology application for educator accountant, corporate/management accountant, public accountant, and accounting student. The second hypothesis is:

H2 : Perceived usefulness and perceived ease can be used to predict the application of information technology.

### Planned Behavior (TPB) Theory and Technology Acceptance Model (TAM) Theory in the Prediction of Information Technology Application

Several studies have tried to compare two models with common purpose as the criteria to predict the application of technology. Matheson (1991) shows that TAM explains 69% behavior

variation of university student in *spreadsheet* application, TPB explains 62% behavior variation of university student *spreadsheets* application. Gentry and Calantone (2002) show that TAM's capability is superior to explain the behavior of university student in terms of e-purchase technology application. Taylor and Todd (1995b) also show that TAM explains 52% and TPB explains 57% of behavior intensity variation of *computer center* employment. Fusilier and Durlabhji (2005) indicate that TAM model explains about 36% and TPB explains 32% of internet utilization by university students in India. Based on the above argumentation, this study tries to test whether TAM model is better model than TPB in the context of information technology application for educator accountant, corporate/management accountant, public accountant, and accounting student. The third hypothesis is:

H3 : *Technology Acceptance Model* is a better than *Theory of Planned Behavior* model in the context of information technology application.

### The Effect of Experience on Technology Application Prediction

The study conducted by Venkatesh and Davis (2000) indicates that the experience of user will affect the relationship between model components and intensity. The experience can be considered as another important factor that can affect the application of both models. It is shown in the study of Mahmood et al. (2001) that TAM *perceived usefulness* and *ease of use* component has the largest effect on technology application so does the level of experience that has large effect on technology application. Anandarajan et al. (2000) provides evidence that *perceived usefulness* is related to the period of time required to use internet.

Fusilier and Durlabhji (2005) provide evidence that experience does not give any major effect on technology application. However, when experience is interacted in the components of TAM and TPB, it shows that experience can be used to explain the variation of internet utilization by university students in India. Based on the above argumentation, this study tries to apply TAM and TPB models in the context of information technology application for educator accountant, corporate/management accountant, public accountant, and accounting student by taking the previous individual experience of technology application into account.

H4a : *Attitude, perceived behavioral control* and *subjective norm* can be used to predict the application of information technology moderated by experience variable.

H4b : *Perceived usefulness* and *perceived ease* can be used to predict the application of information technology moderated by experience variable.

### The Effect of Gender on Technology Application Prediction

Several study examine the effect of gender on technology application prediction. The psychological study that tests *gender* classification in decision making process shows that there is inter-gender difference in *self-esteem* determinant (Tashakkori, 1993). Bem (1981) argues that man and woman codes and processes information by means of different social cognitive structure construct to help determining and directing individual perception. Consequently, an individual tends to make a decision that reflects *bias inherent* in individual perception and action (Nisbett and Ross, 1980, in Venkatesh and Morris, 2000). It means that *gender* scheme can be considered as normative guidance (Kagan 1964; and Kohlberg, 1996, in Venkatesh and Morris, 2000) that causes unconscious action or internalization action that is consistent with *gender* scheme.

The study result of *gender* effect in the decision to apply information technology is highly varied. Venkatesh and Morris (2000) indicate that men are highly affected by utility perception, while women are highly affected by easiness perception and subjective norm, although the effect of subjective norm will decrease along with the time spent by information technology application. Similar study performed by Geffen and Straub (1997) shows similar result that there is a different perception based on *gender* with respect to information technology application. It is different with the study performed by Baker et al (2007) which shows that there is not any effect of gender variable moderation on new technology application. Based on the above argumentation, this study tries to apply TAM and TPB models in the context of information technology application for educator accountant, corporate/management accountant, public accountant, and accounting student by taking *gender* variable into account.

H5a : Attitude, perceived behavioral control and subjective norm can be used to predict the application of information technology moderated by gender variable.

H5b : Perceived usefulness and perceived ease can be used to predict the application of information technology for educator accountant moderated by gender variable.

TPB model shows that TPB construct includes attitude, subjective norm, and perceived behavioral control. TAM states that the purpose of behavior to use technology comes from two beliefs namely: (1) *perceived usefulness* defined as an expectation that technology will improve the work performance; (2) *perceived ease of use* defined as a belief that using technology will be effortless. The hypotheses are illustrated in Figure 1 and 2.

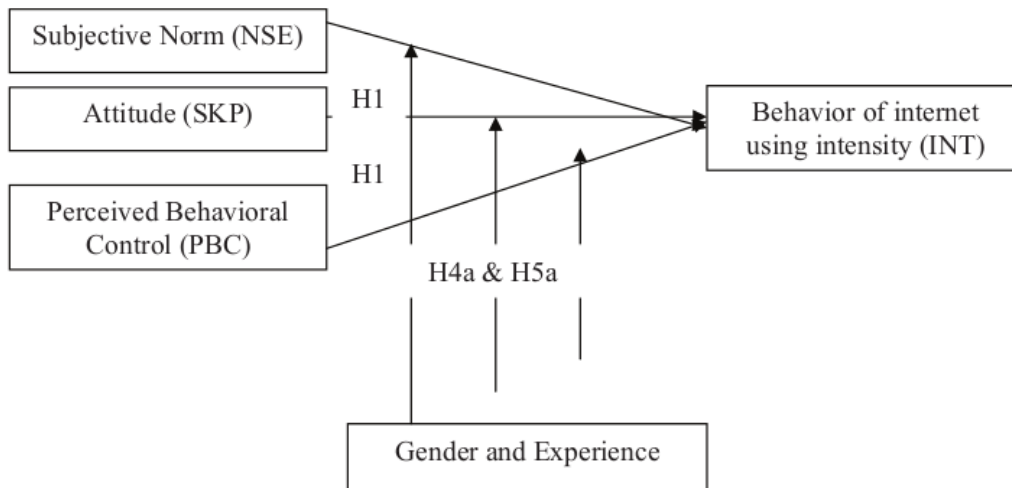
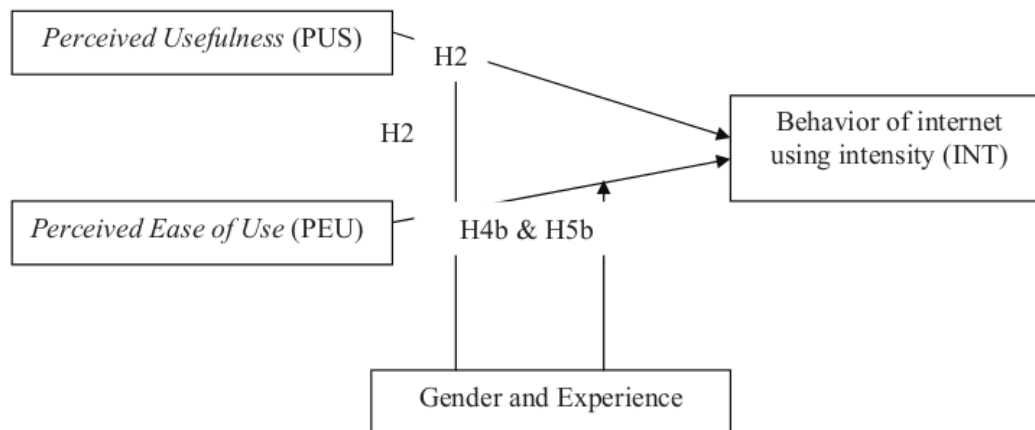


Figure 1 Theory of Planned Behavior (TPB) Model





**Figure 2** Technology Acceptance Model (TAM) Model

### 3. Research Method

#### Population, Sample and Sampling Technique

The study population is the users of information technology application. *Purposive sampling* is used to determine the sample of study namely sampling technique by means of certain consideration and limitation. In other words, purposive sample is carefully selected the sample so that it is relevant with the aim of study. The research sample is internal accountants who have been working at least for 3 months at a company of service, trading or manufacture in Java.

#### Research Variables

This study uses two models: *Theory of Planned Behavior* and *Technology Acceptance Model* to predict the application of information technology. In this study, information technology application is projected as internet use. Dependent and independent variables in this study will be categorized according to the two models those are going to be tested. Each instrument of *Theory of Planned Behavior* model is measured by means of seven (7) likert scale from very disagree (1) to very agree (7). In *Theory of Planned Behavior* model (TPB), those dependent and independent variables are:

1. Dependent variable is the behavior of internet using intensity (INT) measured by means of instrument developed by Ajzen (1991) that consists of 3 instruments.
2. Independent variable shall include:
  - a. Subjective Norm (NSE) that is measured by means of instrument developed by Ajzen (1991) consisting of 3 instruments.
  - b. Attitude (SKP) that is measured by means of instrument developed by Ajzen (1991) consisting of 5 instruments.
  - c. *Perceived behavioral control* (PBC) that is measured by means of instrument developed by Ajzen (1991) consisting of 3 instruments.

Each instrument of *Technology Acceptance Model* is measured by means of seven (7) likert scale from very disagree (1) to very agree (7). While in *Technology Acceptance Model* (TAM), the followings are dependent and independent variables:

1. Dependent variable is the behavior of internet using intensity (INT) measured by means of instrument developed by Ajzen (1991) consisting of 3 instruments.
2. Independent variable shall include:
  - a. *Perceived Usefulness* (PUS) that is measured by means of instrument developed by Davis (1989) consisting of 4 instruments.
  - b. *Perceived Ease of Use* (PEU) that is measured by means of instrument developed by Davis (1989) consisting of 4 instruments.

There are also 2 (two) moderation variable used in this study: *gender* and experience. The measurement for those moderation variables respectively shall be as the followings:

1. *Gender* (GEN) is measured by means of category data namely 1 for women and 2 for men.
2. *Experience* (EXP) is measured by means of instrument developed by Fusilier and Durlabhji (2005) consisting of 8 instruments. Each instrument of EXP is measured by means of seven (7) LIKERT scale from NEVER (1) to VERY OFTEN (7). The maximum total scores is 56 (8 instruments times 7) and the minimal score is zero. The subject is classified into a group of high experience or low experience by means of *median score split* method. If the respondent has a low experience then he/she will be coded 1 and if the respondent has a high experience then he/she will be coded 2.

### Data Analysis Technique

Before making any hypothesis test, reliability and validity test of instrument used in the study was performed. In this study, all instruments used to measure the variable of study will be tested for its validity and reliability by using *try-out* method. In this study, the validity is only limited to items validity (questions provided in the questionnaire) by correlating between item score and total scores of Pearson Correlation except for the instrument of cognitive style that uses *factor analysis item parceling* method as recommended by Allison and Hayes (2000).

In this matter, such a high correlation coefficient indicates the compatibility between the function of item and test as a whole. One point theory or indicator is said to be valid when the score of its correlation coefficient is under 0.8, those points or indicators which correlation coefficient is higher than 0.8 or inter-correlated will be considered as invalid. This validity test is computerized by means of *person product moment* correlation concept. Cronbach alpha used to analysis the reliability test of this study is considered as reliable when its alpha is more than 0.6.

**Table 1** Research Model

No.	Hypothesis	Research Model
1.	H1	<b>TPB Model:</b> $INT = \beta_0 + \beta_1 NSE + \beta_2 SKP + \beta_3 PBC + \varepsilon_t$ <b>(Model 1)</b>
2.	H2	<b>TAM Model:</b> $INT = \beta_0 + \beta_1 PUS + \beta_2 PEU + \varepsilon_t$ <b>(Model 2)</b>
3.	H3	Comparing $R^2$ value for TPB Model and TAM Model.
4.	H4a	<b>TPB model with experience as moderating variable:</b> $INT = \beta_0 + \beta_1 NSE + \beta_2 SKP + \beta_3 PBC + \beta_4 EXP + \beta_5 NSE \times EXP + \beta_6 SKP \times EXP + \beta_7 PBC \times EXP + \varepsilon_t$ <b>(Model 3)</b>
5.	H4b	<b>TAM model with experience as moderating variable:</b> $INT = \beta_0 + \beta_1 PUS + \beta_2 PEU + \beta_3 EXP + \beta_4 PUS \times EXP + \beta_5 PEU \times EXP + \varepsilon_t$ <b>(Model 4)</b>
6.	H5a	<b>TPB model with gender as moderating variable:</b> $INT = \beta_0 + \beta_1 NSE + \beta_2 SKP + \beta_3 PBC + \beta_4 GEN + \beta_5 NSE \times GEN + \beta_6 SKP \times GEN + \beta_7 PBC \times GEN + \varepsilon_t$ <b>(Model 5)</b>
7.	H5b	<b>TAM model with gender as moderating variable:</b> $INT = \beta_0 + \beta_1 PUS + \beta_2 PEU + \beta_3 GEN + \beta_4 PUS \times GEN + \beta_5 PEU \times GEN + \varepsilon_t$ <b>(Model 6)</b>

**Note:**  
 INT = Behavior of internet using intensity  
 NSE = Subjective Norm  
 SKP = **12** itude  
 PBC = *Perceived Behavioral Control*  
 PUS = *Perceived Usefulness*  
 PEU = *Perceived Ease of Use*  
 EXP = Experience  
 GEN = *Gender*

40

Hypothesis test in this study uses multiple linear regression analysis. The research equation can be summarized as shown in table 1. The followings are the criteria of hypothesis acceptance and rejection in the study:

1. Hypothesis H1 will be accepted when regression coefficients  $\beta_1$ ,  $\beta_2$  and  $\beta_3$  on model 1 are significant.
2. Hypothesis H2 will be accepted when regression coefficients  $\beta_1$  and  $\beta_2$  on model 2 are significant.
3. Hypothesis H3 will be accepted when the  $R^2$  score of model 2 is higher than  $R^2$  score of model 1.
4. Hypothesis H4a will be accepted when regression coefficients  $\beta_5$ ,  $\beta_6$  and  $\beta_7$  on model 3 are significant.
5. Hypothesis H4b will be accepted when regression coefficients  $\beta_4$  and  $\beta_5$  on model 4 are significant.
6. Hypothesis H5a will be accepted when regression coefficients  $\beta_5$ ,  $\beta_6$  and  $\beta_7$  on model 5 are significant.
7. Hypothesis H5b will be accepted when regression coefficients  $\beta_4$  and  $\beta_5$  on model 6 are significant.

#### 4. Analysis

The key participants in this study were the accountants who work in the firm. Questionnaires were distributed by mail and email. There were 125 questionnaires sent by post mail and 55 questionnaires sent by email. There were 10 questionnaires received by mail, and 45 by post mail, and total data collected is 55. For the 55 questionnaires, only 43 questionnaires can be analyzed to examine the hypothesis. The respondents of this research consist of 44% male and 56% female. The average of work experience of the respondent is 3.44 years, with minimal work experience 3 months and maximal work experience 24 years.

The validity test used in this research correlates between item score and total scores of Pearson Correlation. The results of validity test indicated that all items are valid. The reliability test of this study use *Cronbach Alpha*, the variable states are reliable if the *Cronbach Alpha* is more than 0.6. The reliability of these variables showed that all variables are reliable because all variables have *Cronbach Alpha* more than 0.6.

The results showed that the regression coefficient for *subjective norm* variable is positive and significant as shown in Table 2. This suggests that *subjective norms* affect individual users of information technology in using the Internet; the results also indicate that the higher the individual's *subjective norms* on the internet, the higher the individual internet usage. The *attitude* variable is positive but not significant; the results indicate that the *attitude* did not affect individual users of information technology in using the Internet.

The research results also showed that the regression coefficient for *perceived behavioral control* variable is positive and significant. This suggests that *perceived behavioral control* affect individual users of information technology in using the Internet; the results also indicate that the higher the individual's *perceived behavioral control* on the internet, the higher the individual internet usage. All result for TPB model showed that *subjective norm* and *perceived behavioral control* affect individual use of information technology in using the Internet; these results support hypothesis 1 especially for *subjective norm* and *perceived behavioral control* variables.

**Table 2** The Results of Hypothesis 1, 2 and 3

	<b>TPB Model:</b> INT = $\beta_0 + \beta_1$ NSE + $\beta_2$ SKP + $\beta_3$ PBC + $\epsilon_t$	<b>TAM Model:</b> INT = $\beta_0 + \beta_1$ PUS + $\beta_2$ PEU + $\epsilon_t$
Intercept	1.115 (1.530)	1.727 (2.505)
NSE	0.265 (2.721)*	-
SKP	0.012 (0.069)	-
PBC	0.569 (4.025)*	-
PUS	-	0.226 (1.555)
PEU	-	0.491 (3.066)*
N	43	43
R <sup>2</sup>	0.553	0.462

Adj R <sup>2</sup>	0.519	0.435
F	16.085*	17.187*

**Note:** INT = Behavior of internet using intensity; NSE = Subjective Norm; SKP = Attitude; PBC = Perceived Behavioral Control; PUS = Perceived Usefulness; PEU = Perceived Ease of Use

\* significant at 1%

The TAM model showed that the regression coefficient for *Perceived Usefulness* variable is positive but not significant as shown in Table 2; the results indicate that the perceived usefulness did not affect individual users of information technology in using the Internet. The research results also showed that the regression coefficient for *Perceived Ease of Use* variable is positive and significant. This suggests that *Perceived Ease of Use* affect individual users of information technology in using the Internet; the results also indicate that the higher the individual's *Perceived Ease of Use* on the internet, the higher the individual internet usage. All result for TAM model showed that *Perceived Ease of Use* affect individual user of information technology in using the Internet; these results support hypothesis 2, especially for *Perceived Ease of Use* variable.

**Table 3** The Results of Hypothesis 4 and 5

	TPB Model		TAM Model	
	Moderating Variable		Moderating Variable	
	<i>Experience</i>	<i>Gender</i>	<i>Experience</i>	<i>Gender</i>
Intercept	4.583	3.776	5.998	2.392
	1.864	1.441	2.514	0.973
NSE	0.432	0.508	-	-
	1.370	1.383		
SKP	0.212	0.299	-	-
	0.422	0.496		
PBC	-0.272	-0.320	-	-
	-0.583	-0.636		
PUS	-	-	-0.675	1.431
			-1.577	2.908*
PEU	-	-	0.616	-0.821
			1.211	-1.468
GENDER	-	-1.596	-	-0.357
		-1.037		-0.253
G*NSE	-	-0.135	-	-
		-0.634		
G*SKP	-	-0.198	-	-
		-0.557		
G*PBC	-	0.545	-	-
		1.836***		
G*PUS	-	-	-	-0.734
				-2.552**
G*PEU	-	-	-	0.790
				2.447**
EXPERIENCE	-2.452	-	-2.884	-
	-1.522		-1.937	
E*NSE	-0.079	-	-	-

	-0.366			
E*SKP	-0.175	-	-	-
	-0.507			
E*PBC	0.588	-	-	-
	1.980***			
E*PUS	-	-	0.316	-
			2.199**	
E*PEU	-	-	0.338	-
			-0.546	
N	43	43	43	43
R <sup>2</sup>	0.619	0.595	0.542	0.554
Adj R <sup>2</sup>	0.542	0.514	0.480	0.493
F	8.106*	7.351*	8.746*	9.178*

*Note:* INT = Behavior of internet using intensity; NSE = Subjective Norm; SKP = Attitude; PBC = Perceived Behavioral Control; PUS = Perceived Usefulness; PEU = Perceived Ease of Use  
\* significant at 1%; \*\* significant at 5%; \*\*\* significant at 5%

The hypothesis 3 of this research was examined by comparing the adjusted R<sup>2</sup> for both TPB and TAM models. The adjusted R<sup>2</sup> for TPB model is 51.9% and for TAM model is 43.5%. This indicates that the value of adjusted R<sup>2</sup> for the TPB model is larger than TAM model. The results of this study indicate that the TPB model is the best model to explain the use of the Internet on company accounting professionals. This can be shown that the TPB model can explain 51.9% of internet usage and TAM model only explain 43.5% of internet usage. These results does not support hypothesis 3.

The results show that experience as moderating variable only has significant and positive impact on perceived behavioral control in TPB model and perceived usefulness in TAM model as shown in Table 3. The results of this research indicate that: first, interaction of higher perceived behavioral control and higher experience affect individual to use internet more frequently; second, interaction of higher perceived usefulness and higher experience affects individual to use internet more frequently. These results moderately support hypothesis 4.

The results also examine gender as moderating variable in the TPB and TAM models. The results show that gender as moderating variable only has significant and positive impact on perceived behavioral control in TPB model as shown in Table 3. These results also show that gender has significant and positive impact on perceived ease of use; and has significant and negative impact on perceived usefulness in TAM model. The results of this research indicates that: first, interaction of higher perceived behavioral control and female affect individual to use internet more frequently; second, interaction of higher perceived usefulness and male affects individual to use internet more frequently; third, interaction of higher perceived ease of use and female affects individual to use internet more frequently. These results moderately support hypothesis 5.

## 5. Conclusion

The development of information technology is quite rapid. Information technology also provides both communication and coordination those are necessary to operate in a scattered geographic location since such a technology will accelerate information distribution to the users and facilitate information collection. There is need to understand social and psychological factors those can improve the success of technology development and adoption in organization. These study focus

on psychological variables of whether the technology is applied or not. The purpose of this research is to compare the two models (TPB and TAM); a model that has the best explanatory power of the intensity of the use of information on the company's.

The results of this research indicates that for TPB model, *subjective norm* and *perceived behavioral control* affect individual users of information technology in using the Internet; and for TAM, *Perceived Ease of Use* affect individual users of information technology in using the Internet. The results of this study also indicate that the TPB model is the best model to explain the use of the Internet on company accounting professionals than TAM. The results of moderating variabel show that experience only has significant and positive impact on *perceived behavioral control* in TPB model and *perceived usefulness* in TAM model; and *gender* only has significant and positive impact on *perceived behavioral control* in TPB model.

The implication of this research shows that it is very important to have a better understanding about factors those can improve the success of technology development and adoption in the organization. Particularly, there is a need to understand social and psychological factors those affect the adoption and implementation of information technology. The organization needs understanding the social and psychological factors those affect the application of information technology and it will help the organization that will implement data by means of new information technology.

The limitations of this research are: *first*, the sample of this research only use the internal accountant that causes low generalization of research result. *Second*, this research only explore two models that explain the intensity of the use of information technology. The future research can use and compare the other group respondent who utilize information technology; and use the other models that have more explanatory power of the intensity of the use of information technology.

## References

- Ajzen, I. (1991), "The Theory of Planned Behavior", *Organizational Behavior and Human Decision Proces*", Vol. 50, pp. 179 – 211.
- Allinson, C. W. and J. Hayes. (2000), "Cross National Differences in Cognitive Style: Implication for Management", *International Journal of Human Resource Management*, Vol. 11 No. 1, pp. 161 – 170.
- Anandarajan, M., C. Simmers and M. Igbaria. (2000), "An Exploratory Investigation of the Antecedents and Impact of Internet Usage: An Individual Perspective", *Behavior & Information Technology*, Vol. 19 No. 1, pp. 69 – 85.
- Baker, E. W., S. S. Al-Gahtani and G. S. Hubona. (2007), "The Effect of Gender and Age on New Technology Implementation in a Developing Country: Testing the Theory of Planned Behavior", *Information Technology & People*, Vol. 20 No. 4, pp. 352 – 375.
- Bem, S. L. (1981), "The BSRI and Gender Schema Theory: A Relpy to Spence and Helmreich", *Psychologica Review*, Vol. 81, pp. 506 – 520.
- Buchan, H. F. (2005), "Ethical Decision Making in the Public Accounting Profession: An Extension of Ajzen's Theory of Planned Behavior", *Journal of Business Ethics*, Vol. 61, pp. 165 – 181.

- Carpenter, T. D. and J. L. Reimers. (2005), "Unethical and Fraudulent Financial Reporting: Applying the Theory of Planned Behavior", *Journal of Business Ethics*, Vol. 60, pp. 116 – 129.
- Chang, M. K. (1998), "Predicting Unethical Behavior: A Comparison of the Theory of Reasoned Action and the Theory of Planned Behavior", *Journal of Business Ethics*, Vol. 17, pp. 1825 – 1834.
- Davis, F. D. (1989), "Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology", *Management Information Systems Quarterly*, Vol. 13 No. 3, pp. 319 – 339.
- Davis, F.D., R.P. Bagozzi and P. R. Warshaw. (1989), "User Acceptance of Computer Technology: A Comparison of Two Theoretical Models", *Management Science*, Vol. 35 No. 8, pp. 982 – 1003.
- Fusilier, M. and S. Durlabhji. (2005), "An Exploration of Student Internet Use in India: the Technology Acceptance Model and the Theory of Planned Behavior", *Campus-Wide Information Systems*, Vol. 22 No. 4, pp. 233 – 246.
- Gefen, D. and D. W. Straub. (1997), "Gender Differences in the Perceptions and Use of E0mail: An Extension to the Technology Acceptance Model", *Management Information Systems Quarterly*, December, pp. 389 – 400.
- Gentry, L. and R. Calantone. (2002), "A Comparison of Three Models to Explain Shop-boot Use on the Web", *Psychology and Marketing*, Vol. 19 No. 11, pp. 945 – 956.
- Hanno, D. M. and G. R. Violette. (1996), "An Analysis of Moral and Social Influences on Taxpayer Behavior", *Behavioral Research in Accounting*, Vol. 8, pp. 57 – 75.
- Hazari, S., W. Hargrave and B. Clenney. (2008), "An Empirical Investigation of Factors Influencing Information Security Behavior", *Journal of Information Privacy & Security*, Vol. 4 No. 4, pp. 3 – 20.
- Hofmann, E., E. Hoelzl and E. Kirchler. (2007), "A Comparison of Models Describing the Impact of Moral Decision Making on Investment Decisions", *Journal of Business Ethics*, Vol. 82, pp. 171 – 187.
- Karahanna, E., D. W. Straub and N. L. Chervany. (1999), "Information Technology Adaption Across Time: A Cross-Sectional Comparison of Pre-Adoption and Post-Adoption Beliefs", *Management Information Systems Quarterly*. Vol. 23 No. 2, pp. 183 – 213.
- Mahmood, M. A., L. Hall and D. L. Swanberg. (2001), "Factors Affecting Information Technology Usage: A Meta-analysis of the Empirical Literature", *Journal of Organizational Computing and Electronic Commerce*, Vol. 11 No. 2, pp. 107 – 130.
- Mathieson, K. (1991), "Predicting User Intentions: Comparing the Technology Acceptance Model with the Theory of Planned Behavior", *Information System Research*, Vol. 2 No. 3, pp. 173 – 191.
- Taylor, S. and P. A. Todd. (1995a), "Assessing IT Usage: The Role of Prior Experience", *Management Information Systems Quarterly*, December, pp. 561 – 579.
- Taylor, S. and P. A. Todd. (1995b), "Understanding Information Technology Usage: A Test of Competing Models", *Information Systems Research*, Vol. 6 No. 2, pp. 144 – 176.



Szajna, B. (1996), "Empirical Evaluation of the Revised Technology Acceptance Model", *Management Science*. Vol. 42 No. 1, pp. 85 – 92.

Venkatesh, V. and F. D. Davis. (2000), "A Theoretical Extension of the Technology Acceptance Model: Four Longitudinal Field Studies", *Management Science*, Vol. 46 No.2, pp. 186 – 204.

#### About the Author



Luciana Spica Almilia hold Master of Science on Accounting Departement at Gadjah Mada University – Indonesia. She is a Senior Lecturer in the Department of Accounting, Perbanas Banking and Business College, Surabaya, Indonesia and PhD Student on Accounting Department at Gadjah Mada University, Yogyakarta, Indonesia. His research interest is in the fields of information system and financial accounting. International journal publication had conducted: International Journal of Business Information Systems; Journal of Indonesia Economic and Business; University of the Thai Chamber of Commerce – International Journal of Business and Economics; and Accounting and Taxation.



Dr. Supriyadi is a Senior Lecturer in the Department of Accounting, at the Faculty of Economics and Business, Gadjah Mada University, Yogyakarta, Indonesia. He received his Ph.D in Accounting from the University of Kentucky, U.S.A. His research interest is in the area of behavioral accounting in the fields of managerial accounting, taxation, information system, auditing, and financial accounting. Now, he chairs the Master of Science and Ph.D. Program at the Faculty of Economics and Business, Gadjah Mada University, Yogyakarta, Indonesia.

ORIGINALITY REPORT

---

16%

SIMILARITY INDEX

11%

INTERNET SOURCES

14%

PUBLICATIONS

%

STUDENT PAPERS

---

PRIMARY SOURCES

---

1	<a href="http://www.emeraldinsight.com">www.emeraldinsight.com</a> Internet Source	2%
2	Miriam Dornstein, Yossi Matalon. "A comprehensive analysis of the predictors of organizational commitment: A study of voluntary army personnel in Israel", Journal of Vocational Behavior, 1989 Publication	1%
3	<a href="http://etds.stu.edu.tw">etds.stu.edu.tw</a> Internet Source	1%
4	<a href="http://bura.brunel.ac.uk">bura.brunel.ac.uk</a> Internet Source	1%
5	Barbara H. Wixom. "A Theoretical Integration of User Satisfaction and Technology Acceptance", Information Systems Research, 03/2005 Publication	1%
6	Ifinedo, Princely. "Information systems security policy compliance: An empirical study of the effects of socialization, influence, and cognition", Information & Management, 2013. Publication	1%

---

7	<a href="http://www.yumpu.com">www.yumpu.com</a> Internet Source	1%
8	Ricky Y. K. Chan, Loretta B. Y. Lau. "Explaining Green Purchasing Behavior", Journal of International Consumer Marketing, 2002 Publication	1%
9	Campus-Wide Information Systems, Volume 22, Issue 4 (2006-09-19) Publication	1%
10	<a href="http://www.deg.uac.pt">www.deg.uac.pt</a> Internet Source	<1%
11	<a href="http://www.pngba.org">www.pngba.org</a> Internet Source	<1%
12	<a href="http://ira.lib.polyu.edu.hk">ira.lib.polyu.edu.hk</a> Internet Source	<1%
13	American Journal of Business, Volume 25, Issue 2 (2012-08-06) Publication	<1%
14	<a href="http://iamsr.abo.fi">iamsr.abo.fi</a> Internet Source	<1%
15	<a href="http://www.coba.usf.edu">www.coba.usf.edu</a> Internet Source	<1%
16	Joanna Giota. "Why do all children in Swedish schools learn English as a foreign language? An analysis of an open question in the national evaluation programme of the Swedish	<1%

compulsory comprehensive school", System,  
1995

Publication

17

Naresh Kumar, Raduan Che Rose, Jeffrey Lawrence D`Silva. "A Review on Factors Impinges Computer Usage in Education", Journal of Social Sciences, 2008

Publication

<1 %

18

[www.ucalgary.ca](http://www.ucalgary.ca)

Internet Source

<1 %

19

[www.nis.bxb.ro](http://www.nis.bxb.ro)

Internet Source

<1 %

20

"Industrial Engineering in the Big Data Era", Springer Science and Business Media LLC, 2019

Publication

<1 %

21

[ro.uow.edu.au](http://ro.uow.edu.au)

Internet Source

<1 %

22

Dhoha A. Alsaleh, Michael T. Elliott, Frank Q. Fu, Ramendra Thakur. "Cross-cultural differences in the adoption of social media", Journal of Research in Interactive Marketing, 2019

Publication

<1 %

23

J. Lim, B. Gan, Ting-Ting Chang. "A survey on NSS adoption intention", Proceedings of the 35th Annual Hawaii International Conference on System Sciences, 2002

<1 %

---

24	Publication	<1 %
25	<a href="http://www.inderscienceonline.com">www.inderscienceonline.com</a> Internet Source	<1 %
26	Asian Review of Accounting, Volume 23, Issue 2 (2015) Publication	<1 %
27	T. Ramayah, Pedro Soto-Acosta, Ricardo Colomo-Palacios, M. Gopi, Simona Popa. "Explaining the adoption of Internet stock trading in Malaysia: comparing models", Asian Journal of Technology Innovation, 2014 Publication	<1 %
28	Chi-Yo Huang, Yu-Sheng Kao. "UTAUT2 Based Predictions of Factors Influencing the Technology Acceptance of Phablets by DNP", Mathematical Problems in Engineering, 2015 Publication	<1 %
29	<a href="http://www.myjurnal.my">www.myjurnal.my</a> Internet Source	<1 %
30	Bobek, Donna D., and Richard C. Hatfield. "An Investigation of the Theory of Planned Behavior and the Role of Moral Obligation in Tax Compliance", Behavioral Research in Accounting, 2003. Publication	<1 %

---

31

Internet Source

<1 %

32

[faculty.business.utsa.edu](http://faculty.business.utsa.edu)

Internet Source

<1 %

33

[etd.uum.edu.my](http://etd.uum.edu.my)

Internet Source

<1 %

34

[vuir.vu.edu.au](http://vuir.vu.edu.au)

Internet Source

<1 %

35

Information Technology & People, Volume 28, Issue 1 (2015)

Publication

<1 %

36

Dowling, Carlin. "Appropriate Audit Support System Use: The Influence of Auditor, Audit Team, and Firm Factors", The Accounting Review, 2009.

Publication

<1 %

37

[people.umass.edu](http://people.umass.edu)

Internet Source

<1 %

38

[publications.aston.ac.uk](http://publications.aston.ac.uk)

Internet Source

<1 %

39

B. A. Ramadhana, R. Govindaraju, Y. Y. Wibisono. "ERP system usage and panoptic control: The role of perceived organizational support", 2016 IEEE International Conference on Industrial Engineering and Engineering Management (IEEM), 2016

Publication

<1 %

40

Kybernetes, Volume 42, Issue 6 (2013-09-21)

Publication

&lt;1 %

41

Teodoro Luque-Martínez, J. Alberto Castañeda-García, Dolores Ma Frías-Jamilena, Francisco Muñoz-Leiva et al. "Determinants of the Use of the Internet as a Tourist Information Source", The Service Industries Journal, 2007

Publication

&lt;1 %

42

Chin-Shan Lu, Kee-Hung Lai, T. C. E. Cheng. "Adoption of Internet Services in Liner Shipping: An Empirical Study of Shippers in Taiwan", Transport Reviews, 2006

Publication

&lt;1 %

43

Wei Gu, Ye Liu. "SaaS-Based Services Information Technology Acceptance Model", 2011 International Conference of Information Technology, Computer Engineering and Management Sciences, 2011

Publication

&lt;1 %

44

Ya-Yueh Shih, Kwoting Fang. "Effects of network quality attributes on customer adoption intentions of Internet Banking", Total Quality Management & Business Excellence, 2006

Publication

&lt;1 %

Exclude quotes  On

Exclude bibliography  On

Exclude matches  < 3 words