

Predicting Sme's Intention to Adopt Accounting Software for Financial Reporting in Medan City, Indonesia

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Abstract

According to North Sumatera University's research in 2006, the main component in SME's equity is owner's equity. It's showed that the SME operate their business with internal equity which is come from the owner's equity. This fact will influence the development of Indonesian's SME because most of the Indonesian's SME have limited equity. Then, the Indonesian's Government released so many programs to push the SME to access external funds. But, most of the Indonesian's SME are bankable. The main reason for this condition is the incapability to produce financial statement. This research proposed an idea to create accounting software that is acceptable for SME. For that, a study to predict the intention to adopt this kind of software is urgently needed. This study aims to predict SME's intention to adopt accounting software to prepare financial statement in Medan City, Indonesia, using UTAUT Model.

Keywords: SME, intention, accounting software

1. Introduction

Small Medium Enterprises (SME) in Indonesia attract so many attention from many parties, such are government, creditor, non-government organization, etc. It is because of their uniqueness and also their contribution for national GDP (Gross National Product). SME in Indonesia contribute 60% total Gross Domestic Product, and in the same time absorb for about 97% manpower. Even the Ministry of Indonesian Cooperative and Small Medium Enterprises stated that Indonesia should increase the amount of SME in according for creating the potential jobs.

President of Indonesia, Mr.Susilo Bambang Yudhoyoo in his speeches, always mention about Small Medium Enterprises. For example, in International Microfinance Conference at October, 22, 2012, he said that the development of small medium enterprises could reduce the poverty and jobless problem, at the end, could balance the country's economics.

In contrary, Small Medium Enterprises also have many weaknesses beside of its strengths. According to Home Affair's Trade General Director of Indonesian Trade Ministry, Gunaryo, Small Medium Enterprises faced some basic problems. And the problems are related with business management capability, human resources quality, and also the limited technology and production's techniques. The other problem is the limited access to the external funds, especially bank's fund. This limited access is because of most of the small medium enterprises could not prepare financial report.

Locally, in North Sumatera Province, there are several problems faced by small medium enterprises. According to North Sumatera Utara's survey in 2006, in majority, most of SME used their own equity to run their businesses (85,64%). The rest of them, access the credit from banks, government loans and also grants. The data showed us that the government programs to distribute loans cannot work properly.

These conditions strengthen with the other fact. According to the report of Deputy of Bank Indonesia's Director Region IX (North Sumatera and Aceh), Mikael Budisatrio, the distribution of SME' s loans still under the budgeted plafond. For that, the banks will do some efforts to raise this numbers.

In other hands, it could be proved that SME in Indonesia reluctant to prepare financial report. Deputy of Entrepreneurship's and Human Resources Development in the Department of Indonesian Cooperative and SME, Taty Ariati explained that there are so many SME that are not bankable, because of the their incapability to prepare financial statement and business plan, which are important in credits proposal. In Medan city, only 28,81% SME prepared financial statement.

Considering this condition, the government should make some solutions for the development of SME in Indonesia. Introducing accounting software to prepare financial statement could be one solution that has to be considered. In Malaysia, the government gave the IT facility to the SME and named this program as The Malaysia Policies, Incentives and Facilities for SME". There are so many benefits if the SME prepare financial report with special software, because the complexity of manual accounting system. Fadhil (2010) found that "It is believe that accounting information is easily produced by the adoption of IT because nowadays, there are many types of accounting software provided in the markets to help management makes decision faster.

SME in Indonesia did not use technology, especially information and communication technology. The Minister of Indonesian Cooperative and SME, Sjarifuddin Hasan stated that even an SME have a sound management, but it they did not have technology they will under-development. He also expected SME to convert their manual accounting system become digitally and integrated accounting system.

Venkatesh et al (2003) formulated model of user acceptance to the information technology, which known as Unified Theory of Acceptance and Use of Technology (UTAUT). This model modified 8 (eight) previous model in technology's acceptance. This model has 4 (four) independent variables, which are performance expectancy, effort expectancy, social influence and facilitating conditions. This model also has 4 (four) control variables which are, age, gender, experience and voluntariness for use. The dependent variables are behavioral intention and use behavior.

This study aims to investigate the adoption of accounting software to prepare financial statement in SME, which are located in Medan City, North Sumatera using the UTAUT Model. Result of this study will show us about the main variable that can push the SME to adopt accounting software in SME financial reporting.

2. Literature Review

2.1 UTAUT Model

The UTAUT aims to explain user intentions to use an information system and subsequent usage behavior. The theory holds that four keys constructs (performance expectancy, effort expectancy, social influence and facilitating conditions) are direct determinants of usage intention and behavior. (Venkatesh et al., 2003).

Gender, age, experience and voluntariness of use are posited to mediate the impact of four key constructs on usage intention and behavior. The theory was developed through a review and consolidation of the constructs of 8 (eight) models that earlier research had employ to explain information system usage behavior (theory of reasoned action, technology acceptance model, motivational model, theory of planned behavior, a combined theory of planned behavior/technology acceptance model, model of PC utilization, innovation diffusion theory and social cognitive theory).

2.2 Performance Expectancy and Behavioral Intention, moderating by gender and age

Venkatesh et al. (2003) define performance expectancy as the degree to which an individual believes that using the system will help him or her to attain gains in job performance. Behavioral intention is the intention of end user to make use of the new technology (Amako-Gyampah & Salam, 2004 cited from Mei Ling, 2008).

Oswari (2008) also found that gender and age mediated the relationship between performance expectancy and behavioral intention. Fai Lai et al. (2009) found that performance, effort expectancy and social influence have

significant and near positive effects on behavioral intention. Im et al. (2011) found that performance expectancy about a technology has a positive impact on users' intention to adopt technology.

Venkatesh et al (2012) found that there were significant effect for performance expectancy, effort expectancy and social influence on behavioral intention. The effects of performance expectancy, effort expectancy and social influence on behavioral intentions were all moderated by individual characteristics (different combined of age, gender and experience).

Hypothesis 1 : Performance expectancy effected behavioral intention to adopt accounting software for financial statement reporting, moderated by gender and age.

2.3 Effort Expectancy and Behavioral Intention, moderating by gender, age, experience

Venkatesh et al. (2003) define effort expectancy as the degree of ease associated with the use of the system. Behavioral intention is the intention of end user to make use of the new technology (Amako-Gyampah & Salam, 2004 cited from Mei Ling, 2008).

Mei Ling (2008) concluded that effort expectancy and social influence play an important role in affecting behavioral intention to use ERP system and experience play an important moderating role in relationship between effort expectancy and intention to use ERP System.

Oswari (2008) also found that gender, age and experience mediated the relationship between effort expectancy and behavioral intention. Payne and Curtis (2008) found that effort expectancy was a significant determinant of intention to adopt audit technology.

Fai Lai et al. (2009) found that performance, effort expectancy and social influence have significant and near positive effects on behavioral intention. Im et al. (2011) found that effort expectancy about a technology has a positive impact on users' intention to adopt technology. Venkatesh et al (2012) found that there were significant effect for performance expectancy, effort expectancy and social influence on behavioral intention. The effects of performance expectancy, effort expectancy and social influence on behavioral intentions were all moderated by individual characteristics (different combined of age, gender and experience).

Hypothesis 2 : Effort expectancy affected behavioral intention to adopt accounting software for financial statement reporting, moderated by gender, age and experience

2.4 Social Influence and Behavioral Intention moderating by gender, experience and voluntariness of use

Venkatesh et al. (2003) define social influence as the degree to which an individual perceives that important others believe he or she should use the new system. Behavioral intention is the intention of end user to make use of the new technology (Amako-Gyampah & Salam, 2004 cited from Mei Ling, 2008).

Mei Ling (2008) concluded that effort expectancy and social influence play an important role in affecting behavioral intention to use ERP system. Oswari (2008) found that social influence is the strongest independent variables to predict behavioral intention, followed by performance expectancy and effort expectancy. Oswari (2008) also found that gender and experience mediated the relationship between social influence and behavioral intention.

Payne and Curtis found that social influence was individually correlated with intention to adopt audit technology. However, social influence was not significant in the regression analysis, in the presence of the other determinant.

Fai Lai et al. (2009) found that performance, effort expectancy and social influence have significant and near positive effects on behavioral intention. According to Im et al. (2011), it could be concluded that social influence surrounding a technology has a positive impact on user's intention to adopt technology. Venkatesh et al (2012) found that there were significant effect for performance expectancy, effort expectancy and social influence on behavioral intention. The effects of performance expectancy, effort expectancy and social influence on behavioral intentions were all moderated by individual characteristics (different combined of age, gender and experience).

Hypothesis 3 : Social influence affected behavioral intention to adopt accounting software for financial statement reporting, moderated by gender, experience and voluntariness of use

2.5 Facilitating Conditions and Usage Behavior moderating by age and experience

Venkatesh et al. (2003) define facilitating condition as the degree to which an individual believes that an organizational and technical infrastructure exist to support the use of the system. Behavioral intention is the intention of end user to make use of the new technology (Amako-Gyampah & Salam, 2004 cited from Mei Ling, 2008).

Oswari (2008) found that facilitating condition significantly affect the performance of SME in Jakarta, Indonesia. Payne and Curtis (2008) concluded that facilitating conditions was a significant determinant of intention to adopt audit technology.

Im et al (2011) found that facilitating conditions of a technology have a significant impact on users' actual use of technology. Venkatesh (2012) found that behavioral intention and facilitating conditions had significant impact on use. The effect of facilitating conditions on technology use was moderated by age and experience.

Hypothesis 4 : Facilitating conditions affected usage of accounting software for financial statement reporting moderated by age and experience.

2.6 Behavioral Intention and Usage Behavior

Behavioral intention is the intention of end user to make use of the new technology (Amako-Gyampah & Salam, 2004 cited from Mei Ling, 2008). Usage is the actual use of the system (Mei Ling, 2008).

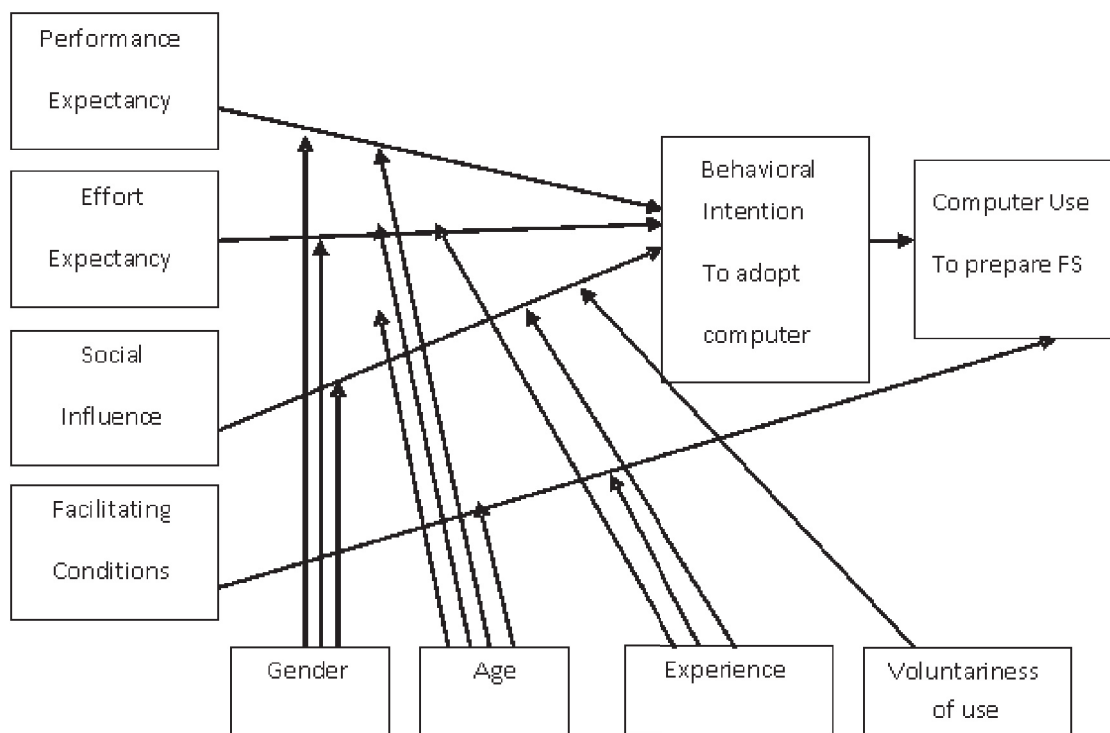
Im et al (2011) found that the users' intention to adopt technology has a significant impact on users' actual use of technology. Venkatesh (2012) found that behavioral intention and facilitating conditions had significant impact on use.

Hypothesis 5 : Behavioral intention affected usage of accounting software for financial statement reporting

2.7 Research Model

Based on the literature review above, we can figure out the research model as below:

Figure 1. Research's Model



3. Data/Methodology

3.1 Sample

Sample of this study are SME's owner who become the partner of State-Owned Company in Medan City. These samples are the owner who is attended management and finance training conducted by one of state university in Medan. Total respondents are 60 (sixty) SME which are representing by the owner of those SME.

3.2 Data collection

Data collected via questionnaire which is develop by Venkatesh (2003) and modified by the author to fit with the real condition. This questionnaire is being simplified because of the limited capability of the SME. Period of data collection is 2 (two) days, start from March, 6, 2013 and finished, March, 7, 2013.

3.3 Data Analysis

Data analyzed with PLS (Partial Least Square) which is developed by Herman Wold. PLS is common in the theoretical testing's study and also in exploratory study. PLS also fit with the sample size between 30 – 50 samples.

4. Finding/Analysis

4.1 Model Validation

In a model containing multi-item, it is important to test the reliability of the construct. Cronbach α is commonly used to check the internal validity of the construct (Im et al., 2011). Table 1 showed the cronbach α 's values in this study. All have the Cronbach α 's greater than 0.7; which is the normally agreed upon minimum value.

Table 1. Constructs' reliability

Construct	Cronbach's α
Performance expectancy	0.850
Effort expectancy	0.890
Social influence	0.830
Facilitating conditions	0.87
Behavioral intention	0.853
Use behavior	0.80

Confirmatory factor analysis was conducted to check the statistical validity of the constructs. Table 2 showed that all AVE values are greater than 0.5; which indicates that the model had convergent validity.

Table 2. Statistical validity of the constructs

Construct	Measures	Estimate	S.E	C.R	P
Performance expectancy	PE1	1.000			
	PE2	.885	.188	4.711	***
	PE3	1.179	.206	5.729	***
	PE4	1.242	.203	6.116	***
Effort expectancy	EE1	1.000			
	EE2	.368	.291	1.262	.207
	EE3	1.016	.616	1.650	.099
Social influence	SI1	1.000			
	SI2	.766	.300	2.553	.011
	SI3	.555	.226	2.453	.014
	SI4	.424	.221	1.915	.055
Facilitating conditions	FC1	1.121	.237	4.739	***
	FC2	.623	.182	3.435	***
	FC3	1.000			
Behavioral intention	BI1	1.000			
	BI2	1.029	.153	6.708	***
	BI3	.910	.156	5.831	***

$\chi^2 = 430.783$ (df = 256), GFI = 0.926, AGFI = 0.856, CFI = 0.945, RMR = 0.043, RMSEA = 0.075

4.2 Test of UTAUT Model

In SEM analysis, there are several commonly used goodness of fit indicators such as GFI, AGFI, CFI, RMR and RMSEA. A model is considered appropriate when its GFI, AGFI, CFI are greater than 0.9 and its RMR and RMSEA are between 0.05 and 0.08 (Im et al., 2011). In this study, the value of GFI = 0.926, AGFI = 0.856 and CFI = 0.945. While the RMR value is 0.043 and the RMSEA value is 0.075.

Table 3 showed that all hypotheses are accepted. It means that, performance expectancy (moderated by gender and age), effort expectancy (moderated by gender, age and experience) and social influence (moderated by gender, experience and voluntariness of use) significantly affected behavioral intention. Behavioral intention and facilitating conditions (moderated by age and experience) significantly affected usage behavior.

Table 3. Results

Hypothesis		Estimate	P	Result
H1	Performance expectancy-behavioral intention (moderated by gender and age)	0.309	0.002	Accepted
H2	Effort expectancy – behavioral intention (moderated by gender, age and experience)	0.326	0.000	Accepted
H3	Social influence – behavioral intention (moderated by gender, experience and voluntariness of use)	0.360	0.000	Accepted
H4	Facilitating conditions – usage behavior (moderated by age and experience)	0.476	0.001	Accepted
H5	Behavioral intention – usage behavior)	0.164	0.010	Accepted

5. Conclusion And Limitation

According to the data analysis, it can be concluded that performance expectancy, effort expectancy and social influence affected behavioral intention which are moderated by age, gender, experience and voluntariness of use. Meanwhile, behavioral intention and facilitating conditions are affected the usage behavior of the accounting software in SME's financial reporting and also moderated by age and experience.

In this study, the younger men had a more significant relationship between performance expectancy and behavioral intention and vice versa for the women. It means that younger men will have a higher intention based on performance expectancy, but the younger women had a lower intention.

For the effort expectancy variable, the younger men and younger women thought that the length of experience using a technology didn't affect their intention to adopt accounting software. But, it contrast with the older respondents, thought that the length of experience in using a technology affect them to adopt accounting software.

For the social influence variable, the older men had a lower voluntariness. Instead, the younger women had a lower voluntariness. For facilitating conditions variable, the older respondents with longer experience in using technology will have higher intention to adopt accounting software.

Beside of that, this study had several limitations. First, the sampling method used in this study closely with the convenient sampling method, which is categorized as the non-random sampling method. Random sampling method is more reliable in representing the population than the non-random sampling method.

Other limitation is the period of data collection. The data collection takes 2 (two) days only, and also only captured the SME that attending the management and financial training. In the future, longer period of data collection would help the data, and at the end will improve the result that really representing the real population of the SME in Medan City.

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