The factors affecting intention to adopt FAS for SMEs and to use IT in financial report: Empirical study in Central Java Indonesia

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Abstract

The aim of this study is to examine factors affecting the intention to adopt financial accounting standards (FAS) for small to medium-sized enterprises (SMEs) and to use information technology (IT) for financial reporting on SMEs in Indonesia by using several models, i.e.: situational cognitive was measured by perceived ease of use, perceived usefulness, and self-efficacy; performance expectancy was measured by budgetary pressure and evaluation period; while social influence measured by presence of the competitors affect and the last measurement was risk preference. The issue of this research was the phenomenon that both things are still a bit carried in Indonesia, in order to preparing ASEAN economic community. The data obtained from the perception SMEs owners in some cities at Central Java Indonesia, using survey as primary data. Data analysis was using Partial Least Square to test the correlation and t-test to test the different on the two groups. The results showed that the intention to adopt FAS for SMEs construct could be explained by the variability of the eight other variables with the age of company as moderating variable by 24% while intention to use IT was 57.1%, and implementation construct can be explained by the variability of the intention to adopt FAS SMEs and use IT by 41.6%.

Keywords: Financial accounting standards for SMEs, Information Technology, financial reporting, small to medium-sized enterprises

1. INTRODUCTION

Financial reporting is an important corporate activity, particularly in assessing the performance of management and performance of the company during the period. Users of financial report derived from the internal and external company with a diverse background. It takes effort of the company to produces financial reports that have qualitative rules, obey the rules and easy to understand. SMEs (Small and Medium Enterprises) as a kind of business cannot be separated from financial reporting obligations. In relation to the financial reporting of SMEs, IAI (Indonesian Institute of Accountants) has made a special rule namely FAS SMEs (Financial Accounting Standards for Non Public Accountability Entity) in 2009. By compliance FAS SMEs in the financial reports are expected to be generated financial reports properly (IAI, 2013).

The role of information technology (IT) in assisting the process of accounting within the organization has been long underway. The main reason in the use of IT in accounting are efficiency, saving time and costs (Cubriadi, 2003). Other reasons are increased effectiveness, achieving results/outputs correctly and the financial statements.
for the purpose of protection of company assets. In a pyramid organization, the task of accounting is at the lowest level that doing operational and transactional (Isnawan, 2012). This level has characteristics: technical, repetitive, procedural, standards and can create boredom. Nowadays, the use of IT in accounting has important role and become more important. Rapid progress of IT influences the development of accounting knowledge. Ariawan (2010) stated that problems result from the process is how to maximize an accounting information system for use within an organization that can provide benefits.

1.2 Research Problems

Adoption of FAS SMEs should have been part of the financial reporting process of SMEs. However in fact there are many obstacles in adoption process running. There are two sources of constraints: internal and external constraints. The example of internal constraint is the understanding of the FAS SMEs business owners, human resource constraints, and cost constraints. While external constraints associated with conditions such as competitors, usability, and ease obtained when adopting.

SMEs are categorized as the latter in the use of technology (Dans, 2001). SMEs often have a wrong perspective of the benefits of IT in financial reporting. This is due to lack of awareness and the wrong perception that the use of IT will cover the higher of cost demanding. The concern of the owner is how to make employers reluctant to use IT and prefer trails the ordinary path, the conventional reporting of finance. IT can be called as a saviour for SMEs because it gives equipment which is required in the operational and management matter (Maksoud, 2003).

The adoption of FAS SMEs and use of IT in SMEs accounting system is an important phenomenon to be studied given the existence of the higher diverse of SMEs, as well as they are potential to become more open professional organization. However, the realization of IT using still little done in fact, particularly for the SMEs where the technology still considered to be something complicated and fancy. This fact prompted some questions to be answered in this research. This study is the initial (pilot project) for the behaviour of entrepreneurs of SMEs in Central Java in addressing FAS SMEs and IT in financial reporting. According to the explanation above it can be conclude that the research problems in this research is: what are the factors that influence the adoption of FAS SMEs and the use of IT in SMEs financial reporting?

2. STUDY OF THEORY

2.1 Motivation Theory (expectancy)

Theory of Vroom (1964) on the cognitive theory of motivation explains why someone will not do something that he believes he cannot do it, even if he really wants the result of that work. According to Vroom, the level of motivation of a person is determined by three components, namely: 1) expectations of 2) instrumentalists, and 3) valence. Motivation will be high if the effort to produce something that exceeds expectations. Venkatesh et al. (2003) states that performance expectancy constructs is a strong predictor of the intention of the use of IT in the voluntary and mandatory settings. This is consistent with research conducted by Compeau and Higgins, 1995; Davis, 1989; Taylor and Tood, 1995; and Thompson et al., 1991 that expectations of the performance are conducted in this study using measurements based on the budget and the evaluation period.

2.2 Diffusion of Innovation Theory (Innovation Diffusion Theory or IDT)

This theory describes the process of decision-making in individuals of thinking Rogers (2003), in which the innovation diffusion process consists of four (4) main elements:

1. Innovation is an idea, action, or goods that are considered new by someone.
2. Channels of communication are 'tools' to convey messages which contained innovations from source to receiver.
3. Period is a term of the innovation decision process, starting from someone knowing it until someone decides to accept or reject the innovation, and confirmed the decision was highly correlated with the dimension of time.
4. Social system is a collection of different units connected both functionally and in cooperation to solve a problem in order to achieve a common goal.
2.3 FAS SMEs

Financial Accounting Standards is a principle which is form of rule in recording notes or instructions in a financial transaction. FAS SMEs users expected 24% of the entire entity in Indonesia. FAS SMEs provides much convenience for SMEs compared with SFAs general. The difference can be seen from the rules FAS SMEs is only about a hundred pages load by presenting 30 chapters. FAS SMEs differ quite significantly with the IFRS for SMEs. FAS has been made has undergone many changes with the development of the environment in which shift in financial reporting purposes. SMEs are expected to adopt FAS SMEs in the financial reporting process so as to meet the objective of financial reports and qualitative reports rules.

2.4 Application of Information Technology in the Behavioural

Behavioural is a science which studies human behaviour. In behavioural science, there are three main contributors: psychology, sociology, and social psychology. All three can explain and describe human behaviour. Psychology and social psychology contributes a lot in the behavioural development of the personality, attitude, motivation, perception, value, and learning. (Siegel and Marconi, 1989)

This study emphasizes the social psychology contributors which is a branch of the science of psychology that examines in depth all aspects of the social mind (social thought) and social behaviour. In connection with the explanation, this theory try to explain the aspects of human behaviour in organizations, particularly SMEs entrepreneurs that examine how the behaviour of entrepreneurs of SMEs in relation to the interaction between budgetary pressures and the understanding of the intentions of information systems for the implementation of FAS SMEs and IT.

2.5 Previous Research

There are some previous studies on the implementation of Financial Accounting Standards and the use of Information Technology in the financial reporting of SMEs in some countries. Samujh (2007) concluded that the International Accounting Standards SMEs (IFSM) is not suitable to use in New Zealand and should be rejected. In contrary, Spanish SMEs that use International Accounting Standards (IAS) showed better performance than those which is not using (Grande et al., 2001). While Halabi et.al (2010) stated that the financial reports are very important for the assessment of performance of SMEs in Australia.

There is a large gap between the accounting information systems with accounting standard in Iran, particularly in SMEs (Salehi et al., 2010). And in Malaysia, Ismail and King (2007) stated that there are several factors that affect the alignment of accounting information systems in SMEs, namely: the satisfaction of IT, knowledge of the owner, management commitments, external expertise, internal expertise, and the size of the company. For the use of IT, Sam et al. (2012) concluded that in Malaysia the use of IT in the financial reporting of SMEs is very high, where the size of the company does not affect the implementation of IT. This is similar to the conditions in Spain where the use of IT is quite intensive and SMEs are very interested and satisfied with IT (Estebanez et al., 2010).

2.6 Hypothesis Development

Any organization strives to improve its performance by using a reliable IT system support, particularly in financial reporting. The use of technology in SMEs environment has the potential to improve the efficiency and effectiveness of the financial reporting duties in accordance with GAAP in the long term. In conjunction with situational cognitive factors (cognitive perception) to the intention to adopt FAS SMEs and use of IT in financial reporting, the hypothesis is formed:

H1: Perceived ease of use factors has positive influence on intention to adopt FAS SMEs and use IT in financial reporting with the age of the company as a moderating variable.

H2: Perceived of benefits factors has positive effect on intention to adopt FAS SMEs and use IT in financial reporting with the age of the company as a moderating variable.

H3: Perceived of success has positive effect on intention to adopt FAS SMEs and use IT in financial reporting with the age of the company as a moderating variable.

Achieved budget period will be a significant impact on the implementation of new technologies, while the advantages of the use of technology may appear in the next period (Curtis and Payne, 2008). Budget has a variety of objectives in the organization, such as to control the long-term plan, short-term spending control, monitoring activities, and periodic performance evaluation (Hopwood 1972; Shields and Shields, 1998). It's
also in the SMEs environment where budgets communicate something important and make the level of planned testing on each component of the financial reports, which help monitor the progress reporting and control expenses.

Budget used to evaluate the performance of the personnel in the financial reporting process and each level is responsible for the achievement of members below budget (Shapeero, 2003). At the level where the intention to adopt FAS SMEs and use IT reflecting personal interests over the implementation of the decision, then the hypothesis is formed:

H4: Budget factor has positive influence on intention to adopt FAS SMEs and use IT in financial reporting.

H5: Evaluation period factor has positive influence on the adoption of FAS SMEs and use IT in financial reporting.

Social influence defined as the extent to which a person perceives the individual interests that are believed by others that will influence to use the new system (Jogiyanto, 2008). Thompson et al. (1991) used the term social norm in this construct defines and recognizes this construct together with subjective norms in financial reporting. Competitive circumstances and question of corporate managerial capabilities enabling SMEs entrepreneurs to feel that the competitors have an influence in the intention to adopt FAS SMEs and use IT in financial reporting, so the hypothesis is formed:

H6: Competitors pressure factor has positive influence on intention to adopt FAS SMEs and use IT in financial reporting.

The impact of individual differences in preferences towards new technology implementation decision is quite strong when these impacts disregard the influence of external factors (Curtis and Payne, 2008). In this study there was no interaction expected between risk preferences in the presence of external variables on IT and FAS SMEs implementation. Then the hypothesis is formed:

H7: The risk preferences of SMEs owners on risk has positive effect on intention to adopt FAS SMEs and use IT in financial reporting.

From the intention further will reflected in the behaviour of the implementation. So that formed the hypothesis that using the path:

H8: Intention to use FAS SMEs and IT in financial reporting has positive effect on FAS SMEs and IT implementation in the future period.

While the condition of the respondents were divided into two groups of SMEs where the owner has got good understanding of the FAS SMEs and IT; and groups of SMEs where the owner has not understood of the FAS SMEs and IT. To set up the hypothesis that the difference is:

H9: There are differences in situational cognitive, performance expectancy, social influence, and the intention to use FAS SMEs and IT, and implementation in the two groups of SMEs.

2.7 Framework

Framework developed in this research is to test and test different influences, which can be seen in following figure.
3. RESEARCH DESIGN

3.1 Data, Population and Sample

This study used primary data in the form of answers to questionnaires given to SMEs owners. Sample was done by simple random sampling method where the sample is SMEs owners in various business sectors in the region of Central Java of the entire population of existing SMEs. Participants required that they have been using accounting software or at least using excel. The total number of respondents with legitimate answer were 80 entrepreneurs of SMEs that divided in almost equal proportions in both conditions. Questionnaires were administered by several ways such as coming directly to the location of the business, attending a meeting of entrepreneurs, and through the mail.

3.2 The Empirical Model

According to the consideration of variables and constructs are built, the sample size, the base variant in the model, as well as relationships form latent variables, and grouped in SMEs businesses variants, this study used Partial Least Square (Jogiyanto, 2011, p.47-52 ) to data analyse. Perceived of ease of use constructs measured by the 10 item questions, the perceived of benefits constructs were measured with 8 item questions, the construct of perception of success was measured by 7 item questions, budget pressure constructs was measured with 4 item questions, evaluation period constructs was measured with 3 item questions, the competitor pressure constructs was measured with 5 item questions, the acceptance of risk constructs was measured by 5 item questions, the intention to adopt FAS SMEs and use IT constructs measured with 4 item questions, and the implementation constructs measured by 3 item questions. Respondents were asked to assess how high the intention to implementation FAS SMEs and IT with a 5-points Likert response scale that is 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree. Flowchart or path of this research is:

Conversion of flowcharts into outer equation model which is used (Wiyono, 2011, p. 395-432):

1. Exogenous latent variables X1 and X2 (reflective)

\[ X_{1i} = \lambda x_{1i} \xi_1 + \delta_i \]
\[ X_{2i} = \lambda x_{2i} \xi_2 + \delta_i \]
2. Endogenous latent variable X3 (formative)

\[ X_{3i} = \lambda x_{3i} \eta_{3i} + \varepsilon_i \]

3. Endogenous latent variables Y (formative)

\[ Y_i = \lambda y_{i} \eta + \varepsilon \]

Conversion of flowcharts into the inner workings of the model equations model which used is:

\[ \eta_1 = \gamma_1 \xi_1 + \gamma_2 \xi_2 + \zeta_1 \]
\[ \eta_2 = \beta_1 \eta_1 + \gamma_3 \xi_1 + \gamma_4 \xi_2 + \zeta_2 \]

3.3 Data Analysis

Due to the data in this study were not assumed by a certain scale measurements with small sample sizes, the method used is a structural method with PLS analysis (Jogiyanto, 2009, p. 1-25). Hypothesis 1 to 8 has free variables as latent constructs. Outer measurement model or models with reflexive indicators were evaluated by convergent and discriminant validity of the indicators and composite reliability indicator for the block. While the outer models with formative indicators are evaluated based on its substantive content is by comparing the relative magnitude of weight and see the significance of the size of the weight, (Chin, 1998, in Ghozali, 2008). Inner structural model or the model which is evaluated by looking at the percentage of variance explained by looking at the value of R2 for the dependent latent constructs using size Stone Greiser Q-square test (Stone, 1974; Greiser, 1975 in Ghozali, 2008) and also look at the magnitude of the structural path coefficients. The stability of these estimates was evaluated using t-test statistics obtained through bootstrapping procedure.

Hypothesis 9 was tested by using independent t-tests for the group of SMEs. Treatment in this study is the difference in the conditions experienced by SMEs of each group of respondents. Group 1 is the group of SMEs in the condition of full support to FAS SMEs and IT; and group 2 is SMEs with less support to the FAS SMEs and IT by management.

4. RESULTS AND DISCUSSION

Based on the outer loadings there are 17 indicators with correlation values below 0.5 and not significant: COM5, EOU1, 2, 3, 4, 5, 6, 9, RSK2, SUC1, 2, 3, 4, 5, 6, 7 and BUD4, and these seventeen indicators must be removed. Smart PLS with bootstrapping results the value of each path. From the Cross Loadings result can be seen that the correlation between the constructs with budget pressure indicators (BUD1, BUD2, BUD3.) are higher than the value of the correlation between budgetary pressures indicators with other constructs (perceived of ease, perceived of benefits, perceived of success, the evaluation period, competitor pressure, risk preferences, intention to adopt FAS SMEs and use IT, and implementation). This also the same form with the correlation of the eight other constructs. This showed that the indicators on the latent constructs predict their blocks better indicator than the other blocks.

The next method was to compare the discriminant validity of the square root of the average variance extracted (\(\sqrt{AVE}\)) in each construct with the correlations between constructs in the model. From the Latent Variable Correlations and root of AVE results appear that the root of AVE of budget pressure constructs is higher than the value of the correlation between the budget pressure constructs with perceived of ease, perceived of benefits, perceived of success, the evaluation period, competitor pressure, risk preferences, intention to adopt FAS SMEs and use IT, and implementation. Competitors pressure construct’s root of AVE is higher than the value of the correlation between the competitors pressure constructs with perceived of ease, perceived of benefits, perceived of success, the period of evaluation, risk preferences, intention to adopt FAS SMEs and use IT, and implementation, and so on. This showed that all constructs were estimated to meet criteria for discriminant validity. The AVE values of the entire constructs were above 0.5 and valid. Reliability test constructs were tested with two criteria: composite reliability and Cronbachs alpha of block indicators that measure the construct. The values of entire constructs reliability are above 0.7 and valid.

4.1 Testing the Structural Model (Inner Model)

Testing the structural model was done by looking at the value of Adjusted R-square which is a test of goodness-fit model. It showed that the intention to adopt FAS SMEs constructs can be explained by the influence variability of perceived ease, perceived benefits, perceived success, budget pressure, the evaluation period, competitor pressure, and risk preferences with the age of company as moderating variable was 24% while intention to use IT was 57.1%.
It can be concluded that the age of company can be moderated only on the perceived of benefits variable to influence the intention to use IT. And the other side, the age of company can be moderated on the perceived of ease of use and benefits variables to influence the intention to adopt FAS SMEs. The implementation construct variability can be explained by the influence variability of the intention to adopt FAS SMEs and use IT amounted to 41.6%, while the remaining 58.4% is explained by other variables outside of the research.

4.2. Hypothesis Testing

The next test was a significant effect of the eighth hypothesis by looking at the value of the parameter coefficients and statistical significance of t values in Table 1. Testing hypothesis 1 showed the magnitude of the coefficient parameter 0.962 parameter means there are positive and insignificant impact on the perceived ease of use to the intention to adopt FAS SMEs; and there is moderating relation occurs between the ages of company with perceived of ease with the t statistic value of 1.220. The second hypothesis showed that the magnitude of the coefficient parameters 0.161 and 0.136 mean there are positive and insignificant impact on the perceived of benefit to the intention to adopt FAS SMEs and use IT. It means that respondents still do not understand the benefits of using IT and FAS SMEs in financial report. Based on this result the moderating relation did not occur between the age of company with the perceived of benefits.

Table 1: Path Coefficients (Mean, STDEV, T-Values) T=1.6663

The third hypothesis could not be tested because of removing all the constructs due to discriminant validity test. The fourth hypothesis showed that the magnitude of the coefficient parameters 0.185 and 0.390 mean there are positive and significant impact of the budget pressure variable to the intention to use IT. The higher the budget provided for FAS SMEs and IT implementation, the higher the intention to use. The fifth hypothesis showed that the magnitude of the coefficient parameters 0.118 and -0.268 mean there are negative and insignificant impact of the evaluation period variable to the intention to use FAS SMEs and IT. Testing sixth hypothesis showed the magnitude of the coefficient parameters 0.094 and 0.540 mean there are positive and significant impact of competitor pressure variable against the intention to use IT. This means that the faster competitors use IT in accounting report the higher the intention to use. They use IT and FAS SMEs as needs. Testing the seventh hypothesis showed the magnitude of the coefficient parameters 0.102 and 0.206 parameters mean there are positive and insignificant impact of risk preference variable to the intention to adopt FAS SMEs and use IT.
Testing the 8 hypothesis showed the magnitude of the coefficient parameters 0.144 and 0.548 mean there are positive and insignificant impact of the intention to use FAS SMEs and IT variable to the implementation. This means that the intention would not provide encouragement and motivation to take action to further the implementation and adoption of FAS SMEs and using IT in financial reporting. While the ninth test examination about differences between two groups by support of management condition. Form the t-test table showed that there are differences on all variables between groups. It means that SMEs with full support on FAS SMEs and IT are different with SMEs with less support on FAS SMEs and IT. It suggests that the FAS SMEs and IT implementation were considered as an expensive thing and requires special budgets, whereas conditions of SMEs in Central Java mapping belonging to small and micro enterprises therefore the cost was a significant problem in daily decision making.

4.3 Conclusions

From the analysis and discussion of the output can be concluded that:
1. The age of company is a moderating variable in the perceived of ease of use and benefits, while on the perceived of success variable did not occur moderation relation.
2. Testing the path coefficient on each hypothesis gives the following results:
   1) Perceived ease of use did not influence the intention to adopt FAS SMEs and use IT in financial report and the age of the company did not occur as a moderating variable.
   2) Perception of benefits did not influence the intention to adopt FAS SMEs and use IT in financial report and the age of company did not occur as a moderating variable.
   3) Perception of success did not influence the intention to adopt FAS SMEs and use IT.
   4) Budget pressure has positive influence on the intention to adopt FAS SMEs and use IT in financial reporting.
   5) Evaluation period has did not influence the intention to adopt FAS SMEs and use IT in financial reporting.
   6) The presence of a competitor pressure has positive influence on the intention to adopt FAS SMEs and use IT in financial reporting.
   7) The risk preference of SMEs owners did not influence the intention to adopt FAS SMEs and use IT in financial reporting.
   8) Intention to adopt FAS SMEs and use IT in financial reporting did not influence the FAS SMEs and IT implementation; and
   9) There are differences in situational cognitive, performance expectancy, social influence, risk preference, and the intention to adopt FAS SMEs and use IT, as well as the implementation of the two groups of SMEs condition.
3. From the results above it can be concluded that many SMEs in Central Java are still do not understand the FAS SMEs and IT in financial reporting, but they have the intention to learn and implement. FAS SMEs and IT implementation in SMEs is still considered as something expensive and requires special budgets. They need future training from the policy maker.

4.4 Limitations and Suggestions

This study has limitations on the latent variable constructs and indicators that build construct only the eight variables. The other limitation problem is the respondent in question are only on SMEs in Central Java. The suggestion for further research is the addition of constructs and indicators as well as the expansion of the territory of the respondents in order to generalize the results obtained.

REFERENCES


