Intolerance of Ambiguity in the Behavior of Using Accrual based Accounting Information

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ABSTRACT

This research aimed to examine the effects of 1) beliefs on attitude towards the use of accrual information; 2) attitude, subjective norms and perceived behavioral control on the intention of using accrual information; 3) perceived behavioral control and intention on the behavior of using accrual information; and 4) intolerance of ambiguity as moderator on the effect of intention on the behavior of using accrual information. This study used primary data taken by administering questionnaires to the respondents. The data were analyzed using SEM-PLS approach and WarpPLS software. The results supported the first five hypotheses, except the sixth one. The research results indicated that there was a negative role of intolerance of ambiguity. Research implications suggest that the cognitive theory and the theory of planned behavior can be used to explain the behavior of using accrual information for decision making.

ABSTRAK


1. INTRODUCTION

The quality of governmental financial information is expected to be better after the accounting method is changed from cash-based to accrual-based. Implementing the accrual accounting demands hard work from regional governments because the number of reports resented will be increased and the balance sheets should be restated. This is done in order to start recording and presenting financial statements. Therefore, if the preparation is not performed well, the quality of accountability may suffer. Yet, this financial report organized with accrual basis is more relevant to the public interest. Besides that, accrual-based financial report is also more reliable and it is comparable (Karunia et al., 2019).

The benefit of implementing accrual accounting in governmental organizations is, however, still debated. For example, Davis (2010) found that the Australian government was still debating the implementation of accrual accounting. Another example is that Alijarde and Julve (2014) also found that the implementation of accrual accounting in the Spanish government was not successful. Another evidence is by Adhikari and Mellemvik (2011) who also found that the implementation of accrual accounting in Nepal’s central government also failed. Different results were
found the same evidence (Alijarde & Julve, 2014; Jagalla et al., 2011; Sousa et al., 2013) supporting the implementation of accrual accounting in governmental organizations.

Implementing the accrual accounting can be successful if the information users can make it for decision making. Therefore, the different treatments on accrual accounting information have motivated the researcher to analyze the behaviors of accrual accounting information users. In this case, behavior of using accrual information can be explained by the theory of planned behavior.

Theory of planned behavior (TPB) can predict human behavior in decision making (Ajzen, 1991). The theory posits that behavioral intention is influenced by three factors namely attitude towards behavior, subjective norms, and perceived behavioral control. Attitude is one’s way to accept or decline an object or behavior (Ajzen, 1991). Attitude can be influenced by beliefs. In the context of making decision using accrual accounting information, one’s attitude includes accepting or rejecting the use of accrual accounting information.

Another factor is perception toward other people in which it can affect one’s intention to carry out certain behavior which is called subjective norms (Ajzen, 1991). In using accrual-based accounting information, subjective norms consist of an individual or group that have influence in using accounting information. Perceived behavior control serves as an antecedent of intention and behavior. In addition to it, perceived behavior control is also a belief of how easy or difficult to perform certain behavior (Ajzen, 1991). In a study’s context, perceived behavior control is how easy or difficult to carry out the behavior of using accrual-based accounting information. Besides influencing intention, perceived behavior control is also able to directly influence behavior without going through intention.

The next is the relationship between intention and behavior that has been inconsistent from time to time (Ahmad et al., 2014; Demir, 2010; Thoradeniya et al., 2015; Vinogradov et al., 2013). It is interesting to explore this consistency and therefore it is important to further analyse with a moderating. The variable that can explain it should be also discovered. Such moderating variable can strengthen or weaken or even change the direction of the existing relationship (Baron & Kenny, 1986). The influence of intention can be explained by the cognitive theory. According to the cognitive theory, financial managers of regional governments do not automatically use accrual-based accounting information. Their personality will determine whether to use accrual-based accounting information or not. Ichsan (2013) argues that personality factor becomes a moderator between intention and the behavior of using accrual-based accounting information since any success in implementing accrual accounting in government is determined by the will to accept change.

Personality can be divided into two categories: Tolerance of Ambiguity and Intolerance of Ambiguity (Budner, 1962). Tolerance of ambiguity sees ambiguity as favorable while intolerance of ambiguity sees ambiguity as threatening. An individual with high intolerance of ambiguity will find it difficult to change his behavioral habits, including accepting accrual accounting. Dermer (1973) states that managers with low intolerance of ambiguity will accept and use accounting information more easily compared to managers with high intolerance of ambiguity. This is in line with And & Flamholtz (1978), who stated that individuals with low intolerance of ambiguity will most likely to use accounting information more easily compared to those with high intolerance of ambiguity. Also Chong (1998), stated that individuals with low self-confidence in decision making due to having low tolerance of ambiguity will use accounting information to reduce uncertainty.

Based on the arguments above, it is assumed that personality factor proxied as intolerance of ambiguity can be used as a moderator in the influence of intention on the behavior of using accrual-based accounting information.

2. THEORITICAL FRAMEWORK AND HYPOTHESIS

Theory of Planned Behavior

Theory of planned behavior can explain the behavior of making decision using accrual-based accounting information. The theory assumes that man is a rational being who considers risks of their actions before they carry out a certain behavior. Behavior occurs due to intention to behave and perceived behavior control. Individuals’ internal and external factors that create intention and attitude towards behavior are beliefs towards
the behavior, evaluation on the result of the behavior, subjective norms, normative beliefs, and motivation to obey or perceived behavior control.

The theory of planned behavior explains that the behavior of using accrual accounting information is predicted by measuring how strong one’s beliefs in using accrual accounting. Beliefs that occur will create attitude which in turn will create intention to use accrual accounting information. The intention becomes the primary predictor of the behavior of using accrual-based accounting information in decision making.

In addition to being motivated by beliefs to use accrual accounting, the behavior of using accrual accounting information is also motivated by certain individuals that influence information users to conduct their behavior. The bigger motivation is given, the more users will conduct behavior of using accrual accounting information in decision making. Besides that, the behavior of using accrual accounting information is also influenced by perceived behavior control. The influence can occur directly or indirectly through intention. The more easily the users carry out the behavior of using accounting information, the more frequently they will carry out the behavior.

In the theory of planned behavior, several variables in the context of behavior of using accrual-based accounting information are taken into consideration. They are such as beliefs, attitude, subjective norms, perceived behavior control, intention, and behavior. A moderating variable, personality, is assigned into intolerance of ambiguity variable (Budner, 1962; Debusk et al., 2005; Dermer, 1973) that is expected to explain the effect of intention on the use of accrual accounting information.

Hypothesis Development

Implementation of accrual accounting in regional governments in Indonesia often creates debates regarding beliefs towards the implementation and use. The debates can be avoided by using accrual accounting information as a basis for decision making (Warren, 2012). Information users are expected to use accrual accounting in decision making so that beliefs in using accrual accounting will be developed. Gutherie (1998), stated that the belief in the implementation of accrual-based accounting information if motivated by its benefits, namely 1) the governmental resource will flow according to its moments in which they will be produced or consumed so that a more accurate picture of service expenses can be created and 2) the calculation of service expenses can be performed more accurately, reflecting an effective and efficient service. According to the theory of planned behavior Ajzen (1991), one’s belief towards an object will influence their behavior through attitude and intention. This idea is supported by several studies (Hamid et al., 2016; Wismantoro et al., 2020). The higher one’s belief in the use of accrual-based accounting is, the higher one’s positive attitude of using accrual-based accounting information will be. As intention of using accounting information is influenced by beliefs towards the use of information, therefore, the first hypothesis is formulated as follows:

H1: Beliefs in the use of accrual accounting positively and significantly influences the attitude towards using accrual-based accounting information.

Attitude is one’s evaluation for carrying out certain behavior (Ajzen, 1991). Attitude also includes either positive or negative beliefs to conduct certain behavior. Individuals will conduct certain behavior according to their attitude towards that behavior. Attitude towards a behavior that they consider positive will be acted upon in their lives. With attitude, they will carry out certain behavior that they deem positive. Attitude towards the behavior of using accrual accounting information places information users of regional government’s organizations in two sides: favorable or unfavorable; comfortable or uncomfortable; and useful or useless. When a person has a positive perception and believes that what he does is the result of his control, he will have an intention to behave. This is in line with the theory of planned behavior that attitude will transform into behavior after going through the intention of using accounting information. It is also supported by studies (Ajzen, 1991; Thoradeniya et al., 2015; Warsame & Ireri, 2016; Zemore & Ajzen, 2014) that provide evidence that attitude positively influences intention of behavior. Therefore, the second hypothesis is formulated as follows:

H2: Attitude positively and significantly influences the intention of using accrual-based accounting information.
Subjective norms are motivation from the influential parties to carry out certain behavior (Ajzen, 1991). In this context, influential parties are such as superiors, BPKP (Indonesian state finance and development surveillance committee), BPK (Indonesian Audit Board), Inspectorate or colleagues. Influences from close colleagues and superiors and the motivation for following them lead to an intention to show certain action or behavior. Subjective norms are believed to be a factor that affects intention. Subjective norms can become a primary predictor in decision making because they are can influence, manage and enforce an action or behavior. The theory of planned behavior Ajzen (1991) states that subjective norms are related to behavior after going through intention enforces this argument. It is also supported by several studies (Ajzen, 1991; Chuan et al., 2014; Demir, 2010; Fadilla et al., 2018; Thoradeniya et al., 2015; Warsame & Ireri, 2016; Zemore & Ajzen, 2014) that find that subjective norms are positively related to intention of behavior. Therefore, the third hypothesis is formulated as follows:

H3: Subjective norms are positively and significantly related to the intention of using accrual-based accounting information.

Behavior control is one’s beliefs on whether his performance on certain behavior is easy or difficult (Ajzen, 1991). Perceived behavior control is perception on how easy or difficult to use accrual accounting information. Perceived behavior control refers to perceiving the ease or the difficulty in performing a behavior. Perceived behavior control in the context of the behavior of using accrual-based accounting information is the perception towards the ease or the difficulty in performing a behavior while using accrual-based accounting information. According to the theory of planned behavior, both directly or indirectly through intention, perceived behavior control influences behavior (Ajzen, 1991).

Individuals will intend to perform certain behavior when they perceive the behavior is easy to show and perform and when there are other things that support the behavior. This perceived behavior control reflects past experiences and anticipates existing problems, enforcing the attitude and subjective norms towards a behavior, resulting in greater perceived behavior control and one’s intention to perform a behavior being considered. Several studies (Demir, 2010; Ghozali et al., 2019; Thoradeniya et al., 2015; Warsame & Ireri, 2016; Zemore & Ajzen, 2014) also found evidence that behavior control positively influences intention and behavior. Therefore, the fourth hypothesis is formulated as follows:

H4.a: Perceived behavior control positively and significantly influences the intention of using accrual-based accounting information.

H4.b: Perceived behavior control significantly influences the behavior of using accrual-based accounting information.

The will to carry out behavior is called intention (Ajzen, 1991). An individual will intent to do certain behavior before he really shows the behavior he wants to show. When an individual possesses positive perspective, attitude, and the beliefs that his behavior can be accepted in his surroundings, and that behavior is under his control, then he will intent to show the behavior. In this research context, intention is a will to use accrual accounting information. According to the theory of planned behavior Ajzen (1991) stated that behavior of using anything is related to intention. The intention to use accrual accounting can influence the decision to use accrual accounting. The higher a possessed intention to perform a behavior is, the higher the possibility of the behavior to be performed is. There are several studies on this. Ajzen, 1991; Hamid et al., (2016) found evidence that there is a positive relationship between intention and behavior. Therefore, the fifth hypothesis is formulated as follows:

H5: Intention significantly influences the behavior of using accrual-based accounting information.

Several studies found that intention is positively related to behavior (Ajzen, 1991; Zemore & Ajzen, 2014). However, some other studies (Chuan et al., 2014; Demir, 2010; Thoradeniya et al., 2015) provide weak and negative evidence regarding the relationship between intention and behavior. This inconsistency creates a research gap which demands further examination and can be explained with a moderating variable.

According to Ichsan (2013), a successful implementation of accrual accounting in governmental organizations depends on the will of accepting any change in personal factors of information users which are caused
by accrual accounting. The information users’ personal factors are tolerant or intolerant personality. Human personality, in facing ambiguous situations, can be categorized into tolerance of ambiguity and intolerance of ambiguity (Budner, 1962). Tolerant personality is expected to play a role in the influence of intention on users’ behavior of using accrual accounting information.

Dermer (1973), stated that managers with low intolerance of ambiguity will be easier to accept and use accounting information compared to managers with high intolerance of ambiguity. Chong (1998) stated that self-confidence in decision making will be possessed by managers with low tolerance of ambiguity and they will use accounting information to reduce uncertainty. Moreover, Chong (1998) found that tolerance of ambiguity as moderating for the relationship between management accounting system and managerial performance. It is believed that individuals with tolerance of ambiguity can accept accrual accounting information compared to individuals with intolerance of ambiguity. Therefore, the sixth hypothesis is formulated as follows:

H6: There is a negative moderating role of intolerance of ambiguity on the influence of intention on the behavior of using accrual-based accounting information.

3. RESEARCH METHOD
This research belongs to a fundamental research category because it aims to obtain new knowledge without prior consideration on its practical application or use. It answers the fundamental question in accounting, i.e. whether accounting numbers can indeed serve as important information for decision making. The population target in this research is financial managers as the users of internal financial reports of regional governments in every regional work unit in Toba and Samosir regency. They were chosen because those respondents had greater exposure towards the financial reports of the regional government and greater involvement in decision making. The census method was implemented in selecting the sample. The primary data were used and acquired from questionnaires. Questionnaires were developed through questionnaire adoption and pilot test phases.

The validity and reliability tests were performed using SPSS software and the data were processed using WarpPLS software. The software was chosen because 1) the aim of this research was theory exploration; 2) the software could process complex models and display coefficient result and p value for moderating variable directly; and 3) it does not require normality assumption (Hair et al., 2012).

4. DATA ANALYSIS AND DISCUSSION
Model Measurement (Confirmatory Factor Analysis/Outer Model)
Results displayed in Table 1 indicate that the instruments used to measure variables are reliable.

The composite reliability scores for all constructs are greater than 0,70 Therefore, the reliability requirements of the instruments’ internal consistency are met. Scores of Cronbach’s alpha are higher than (≥) 0,70 Therefore, the reliability requirements of the instruments’ internal consistency are also met. The average scores of variances extracted show scores greater than 0,50 Therefore, the research instruments meet the convergent validity.

<table>
<thead>
<tr>
<th>Latent Variables</th>
<th>Composite Reliability</th>
<th>Cronbach’s Alpha</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beliefs</td>
<td>0,937</td>
<td>0,919</td>
<td>0,713</td>
</tr>
<tr>
<td>Attitude</td>
<td>0,921</td>
<td>0,870</td>
<td>0,794</td>
</tr>
<tr>
<td>Subjective norms</td>
<td>0,973</td>
<td>0,944</td>
<td>0,947</td>
</tr>
<tr>
<td>Perceived behavior control</td>
<td>0,945</td>
<td>0,883</td>
<td>0,895</td>
</tr>
<tr>
<td>Intention</td>
<td>0,955</td>
<td>0,929</td>
<td>0,876</td>
</tr>
<tr>
<td>InAmbig</td>
<td>0,984</td>
<td>0,983</td>
<td>0,797</td>
</tr>
<tr>
<td>Behavior</td>
<td>0,949</td>
<td>0,933</td>
<td>0,789</td>
</tr>
<tr>
<td>InAmbig* Intention</td>
<td>0,995</td>
<td>0,995</td>
<td>0,808</td>
</tr>
</tbody>
</table>

Source: Result of Data Processing, 2020
Table 2 displays R-squared, adjusted R-squared, and Q-squared scores. Based on Table 2, beliefs in using accrual information explains variation in the attitude towards using accrual basis of accounting information which is 38.1%. Attitude, subjective norms and perceived behavior control explain variation in the intention of using accrual accounting information which is 88.8%. Variation in the behavior of using accrual accounting information can be explained by intention, perceived behavior control, and moderating variable intolerance of ambiguity which is 33.0%. The results also indicate that predictive validation is good because the Q-squared score for attitude is 0.382, for intention 0.888, and for the behavior of using accrual accounting information 0.296.

**Discussion**

The results of data processing using WarpPLS software indicate measurement results as follows (Figure 1).

Figure 1 shows that all paths in the research model indicate significant results in 0.05 level. The coefficient score of relationship
between beliefs in the use of accrual accounting and attitude towards the use of accrual information is 0,617 with \( p=0,001 \). This implies that the increased attitude towards the use of accrual information is caused by the level of beliefs in its use. Users of internal information have high level of beliefs in using accrual accounting. This may be caused by the fact that the regions in this research have been implementing accrual accounting deliberately and they have understood the benefits of the use of accrual accounting. Therefore, the first hypothesis is accepted. In line with the theory of planned behavior where beliefs in the benefits of accrual accounting is high, the results indicate that the implementation of accrual accounting can support the new management public concept that prioritizes efficiency, effectiveness, transparency and accountability (Tholaya, 2013). The theory of planned behavior states that beliefs in object or behavior will influence the attitude towards the use of accrual-based accounting information. Therefore, the theory can be used to explain the influence of beliefs in accrual-based accounting on the attitude towards the use accrual-based accounting information. The results also support findings of several studies (Hamid et al., 2016; Wismantoro et al., 2020).

The coefficient of attitude towards the intention of using accrual accounting information is 0,148 with \( p=0,05 \). This implies that the higher the attitude towards the use of accrual accounting information, the higher the intention of using accrual information will be. It is due to a highly positive attitude towards the use of accrual accounting information has been possessed by internal users. Therefore, the second hypothesis is accepted. This is in line with the theory of planned behavior that one’s intention is influenced by their attitude. Their positive attitude towards the use of accrual accounting information is indicated by their evaluation that making decision based on the information is considered a good behavior. The theory of planned behavior can explain behaviors in the accounting field, especially regarding the influence of attitude towards the intention of using accrual-based accounting information. This finding supports several studies (Hays, 2013; Thoradeniya et al., 2015).

The coefficient of subjective norms towards the intention of using accrual information is 0,525 with \( p=0,001 \). Therefore, the third hypothesis is accepted. The result indicates that the intention of using accrual accounting information is increased because the subjective norms are high. The internal users already have high subjective norms: they receive motivation from influential individuals in their organizations when using the accrual information besides their intention of using accrual information in decision making. This finding is in line with the theory of planned behavior that subjective norms influence intention and it also in line with findings of other studies (Hays, 2013; Thoradeniya et al., 2015; Warsame & Ireri, 2016) found that subjective norms influence intention. Therefore, the theory of planned behavior can explain behavior in the accounting field, especially regarding the influence of subjective norms on the intention of using accrual-based accounting information.

The coefficient between behavior control and intention of using accrual accounting is 0,328 with \( p=0,001 \). Therefore, the fourth (a) hypothesis is accepted. It implies that the intention of using accrual accounting information will increase as the perceived behavior control of using accrual accounting is increased. The rationale is that the internal users possess high perceived behavior control in using accrual accounting information because of the existence of authority and technical capabilities in using the information in decision making. This result is in line with the theory of planned behavior that intention is influenced by perceived behavior control. This result also supports several studies’ findings (Hays, 2013; Thoradeniya et al., 2015; Warsame & Ireri, 2016) but not others’ (Su & Ni, 2013) where found that intention is not influenced by perceived behavior control.

The coefficient of perceived behavior control of using accrual information is 0,219 with \( p=0,009 \). Therefore, the fourth (b) hypothesis is accepted. It implies that the behavior of using accrual accounting information is caused by the level of perceived behavior control in using the information. High perceived behavior control in using the information of accrual accounting is possessed by internal users, indicated by authorship and technical skills they use in using accrual accounting information in decision making. This result is in line with the theory of planned behavior that behavior is influenced by perceived behavior control and it also supports another study (Warsame & Ireri, 2016).

The coefficient of intention with the behavior of using accrual information is 0,375
with \( p = 0.001 \). Therefore, the fifth hypothesis is accepted. It implies that the higher intention of using accrual accounting information is, the higher behavior of using the information will be. The rationale is that high intention of using accrual accounting information is possessed by internal users as indicated by their searching information regarding how to use accrual information and their intention of using accrual accounting information as soon as they can. This proves that a successful implementation of accrual accounting in government is indicated by the use of accrual accounting information in decision making. A successful implementation of accrual-based accounting can be viewed from the use of accrual-based accounting information in financial report as basis for decision making. Several rules that govern accrual accounting in decision making are also needed. This result is in line with the theory of planned behavior, which explains the influence of intention on the behavior of using accrual-based accounting information and findings of other studies (Chuan et al., 2014; Fadilla et al., 2018; Hamid et al., 2016; Wahyuni, 2012; Wismantoro et al., 2020; Zemore & Ajzen, 2014) that found intention influences behavior, but are contrast with a study (Thoradeniya et al., 2015) that found a weak relationship between intention and behavior and another (Warsame & Ireri, 2016) that found no relationship between intention and behavior.

The moderating coefficient of Intolerance of Ambiguity is -0.074 with \( p = 0.22 \) (>0.05). This indicates a negative, insignificant influence of intolerance of ambiguity in the influence of intention on the behavior of using information of accrual accounting. Therefore, the sixth hypothesis is rejected. The negative coefficient indicates that higher intolerance of ambiguity weakens the intention of using accrual information. An elaboration regarding the negatively moderating role of intolerance of ambiguity is presented in Figure 2.

Figure 2, shows that the intention on the behavior of using accrual accounting is weak when the intolerance of ambiguity is high compared to the one with low intolerance of ambiguity. The strong effect of intention on the behavior of using information of accrual accounting is on low Intolerance of Ambiguity. This result implies that high intolerance of ambiguity weakens the influence of intention on the behavior of using accrual-based accounting information. It also indicates a great gap between expected accounting change and its realization. The gap was caused by the lack of attention for the change process. This result is in line with a study Dermer (1973) that managers’ preferred information is influenced by their tolerance of ambiguity.

Managers with low tolerance are difficult to accept and use accrual information compared to those with high tolerance. In addition, managers with low intolerance of ambiguity will possess high self-confidence in decision making; they will use more accounting information to reduce uncertainty. Ichsan
(2013), states that readiness and willingness to accept change will determine the success of implementing accrual accounting. This result is contrast with several studies (And & Flamholtz, 1978; Chong, 1998) in which accounting information are more easily used by managers with low tolerance of ambiguity. In Han (2015), there is no influence of tolerance of ambiguity in making decision using IFRS. Students have low self-confidence in decision making due to their low tolerance of ambiguity and lack of adequate information for making significant accounting judgment or preference in choosing standards based on principle or rule appropriately.

These results show that the influence of intention on the behavior of using information of accrual accounting can be explained by different personalities in the cognitive theory. The theory of planned behavior and the cognitive theory can be combined to predict the behavior of using information of accrual accounting in regional governments.

5. CONCLUSION, IMPLICATION, SUGGESTION AND LIMITATION

Based on the results and discussion, this research concluded that 1) the influence of beliefs on the attitude of using accrual information is positive and significant; 2) the influence of attitude, subjective norms and perceived behavior control on the intention of using accrual information is positive and significant; 3) the influence of perceived behavior control on the behavior of using accrual information is positive and significant; 4) the influence of intention on the behavior of using accrual information is positive and significant; and 5) the influence of intention on the behavior of using accrual information is not moderated by intolerance of ambiguity. Nevertheless, the research results indicate a negative role of intolerance of ambiguity. The personality of intolerance of ambiguity possessed by financial managers that tend to be neutral towards the acceptance of new accounting information should be encouraged continuously to transform into tolerance of ambiguity. This is in line with the cognitive theory that does not reject the environment and long-life learning factors in changing one’s personality.

This research implies that the behavior of making decision using accrual information can be explained by the theory of planned behavior. It has been proved empirically that the behavior of using accrual information can be predicted by beliefs, attitude, subjective norms, perceived behavior control, and intention.

The financial managers in Toba and Samosir regency have been using accrual information so that their doubt on the implementation of accrual accounting in the regional government can be eliminated. The managers’ beliefs on the use of accrual accounting should be improved continuously. Improvement of beliefs on accrual accounting can be carried out through education and training courses for regional financial managers. Such courses are also expected to improve their use of accrual accounting information.

REFERENCES


