

## Model of Prediction of Behavioral Use of Accrual Basis Accounting Information on Local Governments in Indonesia

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**Abstract:** This study investigates the behavior of internal users in using accrual accounting information for decision-making with the antecedents of attitude, subjective norm, perceived behavior control and intention use of accrual accounting information. The accrual accounting information describes the usefulness of the implementation of accrual basis accounting for government institution. The main research model is developed based on the Theory of Planned Behavior (TPB). The population target is all financial managers of local governments that have been implementing accrual basis accounting in Indonesia. Questionnaires were distributed to 195 financial managers of which 146 were returned. The results show that the measurement model and structural model are acceptable. Hypothesis testing results show that TPB can explain the behavioral use of accounting information for decision-making in local government institutions in Indonesia. A number of limitations and implications is finally discussed.

**Key words:** Accrual basis accounting, government institution, decision-making, TPB, distributed, institutions

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### INTRODUCTION

In the last three decades, government organizations in the world were preoccupied with the implementation of accrual basis accounting. Although, there are still debates regarding the usefulness of the implementation, the government of Indonesia have specified all government entities to implement accrual basis accounting since 2015.

Conceptually, Guthrie states that there is still a controversy on the accrual implementation of Australian government. The proponents argue that accrual basis accounting helps in focusing on the distributed resources corresponding to the period in which they are produced or consumed, making it convenient to more accurately calculate the cost of services and service fees that are likely to accurately reflect the effective and efficient services. Conversely, the opponents argue that the implementation of accrual accounting can possibly make the government preoccupied with administrative matters and loss of objectives of government services.

It is also apparent that the unsuccessful implementation of the accrual basis accounting for government organizations is caused by several reasons, including the lack of budgetary pressures; the lack of top

management commitment; little attention to the process of change; the retaining of traditional compensation scheme by the government; the lack of notice to the training employee and no effect of the adoption of the accrual basis accounting on the improvement of government services (Bogt and Helden, 2000; Baboojee, 2011; Hyndman and Connolly, 2011). Researches by Jagalla *et al.* (2011), Sousa *et al.* (2013), Kober *et al.* (2010), Anessi-Pessina and Steccolini (2007), also provide support for the implementation of the accrual basis accounting at government organizations.

Some have examined the relevance of accounting information (Khanagha, 2011; Lutfi *et al.*, 2016; Susanto, 2017; Napitupulu and Situngkir, 2016; Susanto, 2016; Barus *et al.*, 2017). Paulsson (2006) finds that the accrual accounting information on the Government of Sweden is rarely used for budget decisions and policy making. Cohen *et al.* (2013) on Greek government also finds that the accounting information generated from cash basis accounting system is more used than that from the accrual basis accounting system. Other studies, however, have found the contrary (Alijarde and Montesinos, 2004; Kober *et al.*, 2010; Jagalla *et al.*, 2011; Nogueira and Jorge, 2012; Nogueira *et al.*, 2013; Sousa *et al.*, 2013).

The fact that the Indonesian Government Organizations implements accrual accounting basis in the midst of debate about the usefulness of the accrual basis accounting information for decision making is the core problem of this research. Therefore, this research aims to investigate the effect of the behavioral use of accrual accounting information on decision making at government organizations in Indonesia.

### **Literature review and hypotheses**

**Theory of Planned Behavior (TPB):** The Theory of Planned Behavior (TPB) has been adopted by a variety of disciplines including the field of behavioral accounting (Buchan, 2005; Carpenter and Reimers, 2005). It was first proposed by Ajzen (1991) stating that an individual behavior can be predicted by behavioral intention and perceived behavioral control. Behavioral intention is the desire to perform the behavior. It has three antecedents in the forms of attitude, subjective norm and perceived behavioral control. Attitude is the amount of affection that is perceived by an individual. Subjective norm is an individual's perception or view of other's beliefs. Perceived behavioral control is the perception on how difficult it is to perform a certain behavior. Primarily, an individual's ability to control the behavior is a factor that influences the behavior itself. The basic assumption of TPB is that not all behavior is under full control of an individual. It is because personal and external limitations may interrupt behavioral performance. Moreover, in performing a behavior, individuals are constrained by time and resources.

Furthermore, Ajzen (1991) states that the belief in the usefulness of the implementation of accrual accounting at government institutions is likely to affect the attitude of internal users of government financial reports. This attitude can be realized in the form of 'good or not good' evaluation in using the accrual basis accounting information. The use of accrual basis implementation refers to how the information on the financial reports of accrual basis is used as a basis for decision-making by internal users of government institutions in Indonesia. Using the TPB as the foundation, it is expected that the belief of individuals in objects or behavior determine the actual behavior after experiencing attitude and intention. In line with this, several studies revealed that the belief in an object or behavior influences the attitudes (Fishbein and Ajzen, 1975; Ajzen, 1991; Kouthouris and Spontis, 2005; Demir, 2010; Zemore and Ajzen, 2014).

- H<sub>1</sub>: There is an effect of belief in the usefulness of accrual accounting at government institutions on the attitude in using accrual accounting information

On another aspect, attitude through intention is a strong predictor of behavior (Ajzen, 1991). In accounting information context, attitude is developed in the form of 'good or not good' evaluation on the behavioral use of accrual accounting information. Attitude toward behavioral use of accrual accounting information is likely to engage the users in the two poles of good or bad; detrimental or beneficial; like or dislike; pleasant or unpleasant; helpful or unhelpful opinion to use accrual accounting information for decision making. Intention is a desire of individuals to perform the behavior. Moreover, Sheppard *et al.* (1988), Chiou (1998), Kouthouris and Spontis (2005), Ajzen (1991) in their studies discovered that the attitude toward behavior affects the intention:

- H<sub>2</sub>: There is an effect of attitude use of accrual accounting information on the intention use of accrual accounting information

Subjective norm through intention is a strong predictor of behavior (Ajzen, 1991). Subjective norm, an important aspect to perform or not to perform a particular behavior is the perception or insight of belief of people or groups. In this study, the key people are the internal users of government accounting information (e.g., managers, internal auditors, external auditors and peers) who are capable of influencing the behavioral use of accounting information for decision-making. Several studies discovered that subjective norms affect the behavioral intention (Ajzen, 1991; Kouthouris and Spontis, 2005; Fishbein and Ajzen, 1975; Okun and Sloane, 2002; Zemore and Ajzen, 2014):

- H<sub>3</sub>: There is an effect of subjective norm use of accrual accounting information on the intention use of accrual accounting information

The intention and behavioral use of accrual accounting information for decision-making highly depends on the capability of information users to perform behavioral control. Perceived behavioral control is the resources and opportunities possessed by an individual to determine the behavior completion in a certain limit. Perceived behavioral control refers to the perceived ease or difficulty in doing the behavior. Kouthouris and Spontis (2005), Ajzen (1991), Demir (2010), Zemore and Ajzen (2014) proved that the perceived behavioral control affects the intention and behavior:

- H<sub>4</sub>: There is an effect of perceived behavioral control use of accrual accounting information on the intention use of accrual accounting information

- H<sub>5</sub>: There is an effect of perceived behavioral control use of accrual accounting information on the behavioral use of accrual accounting information for decision-making

Equally important, behavior can be predicted by an individual's intention. Intention and behavior have a significant difference in term of the performance. Intention is the willingness of an individual to perform a behavior while behavior is an actual action performed as a response to a certain situation. Behavioral use of accrual accounting information is to be predicted by the intention use of accrual accounting information. Intention use of accrual accounting information shows how strong the financial report user's desire is in using the accrual accounting information as the base of decision-making. Sheppard *et al.* (1988), Buchan (2005), Fishbein and Ajzen (1975), Demir (2010), Zemore and Ajzen (2014) confirmed that intention affects the behavior.

- H<sub>6</sub>: There is an effect of the intention use of accrual accounting information on the behavioral use of accrual accounting information for decision-making

**MATERIALS AND METHODS**

**Sampling:** The population was the government of Semarang and Banyumas. The target population was the financial managers of local government. The sample was taken from the list of structural positions that allow greater involvement in the financial management of local government. The sampling process was performed through purposive sampling using two criteria. The first criterion includes the internal users of financial report in managerial level of local government organization having implemented accrual basis accounting and the second criterion includes the users obtaining incomes from the provided services. Out of 195 questionnaires distributed, 152 questionnaires were returned and only 147 were eligible for processing. The empirical research model was processed using WarpPLS Version 0.4.

**Measurement of variables:** This research had 6 variables including the Belief of Usefulness accrual accounting (BeU), Attitude Use of accrual accounting information (AtU), Subjective Norm Use of accrual accounting information (SNU), Perceived Behavioral Control Use of accrual accounting information (PBCU), Intention Use of accrual accounting information (IU) and Behavioral Use of accrual accounting information (BU). All items were ranked using a Likert scale ranging from strongly unfair (1) to strongly fair (7).

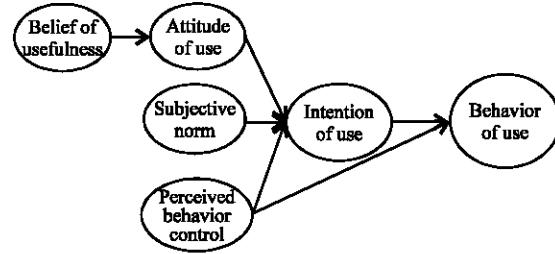


Fig. 1: Model of the study

The Belief in the Usefulness of accrual accounting (BeU) was measured using 6 items adapted from Anessi-Pessina and Steccolini (2007), Sousa *et al.* (2013) and Jagala *et al.* (2011) presented as transparency and accountability; matching method principal; full payment; better information of assets; credit accountability and enhanced information of governmental finance. Attitude Use of accrual accounting information (AtU) was measured using 3 items displayed as preference in using the information, opinion of accrual based decision-making and the idea of using accrual accounting information at local government.

Subjective Norm Use (SNU) was measured using 2 items, i.e., key people opinions and supports in using accrual accounting information for decision-making. Perceived Behavioral Control Use (PBCU) was measured using 2 items authority and technical skill in using accrual accounting information for decision-making. Intention Use (IU) was measured using 3 items presented as information; the use and the unavailability of information about accrual accounting for decision-making. These variables were measured by questions adapted from Demir (2010).

Behavioral Use of accrual accounting information (BU) was measured using 5 items adapted from Ross *et al.* (2009), Andriani *et al.* (2010), Kober *et al.* (2010), Nogueira *et al.* (2013), Sousa *et al.* (2013) and Paulsson (2006), i.e., accrual accounting information used for regional work units (Satuan Kerja Perangkat Daerah/SKPD) measurement and planning estimation; credit information used for credit movement planning; asset reduction information used for service unit cost calculation and asset value information for decision-making (Fig. 1).

**RESULTS AND DISCUSSION**

**Validity and reliability:** The result of construct reliability and average variant extracted of each construct shows that the composite value of reliability coefficient for all variables is greater than 0.70 and the value of Cronbach's alpha coefficient of all the indicators is

Table 1: Validity and reliability testing

Latent variable	Loading
<b>BeU (Composite reliability = 0.907; AVE = 0.619)</b>	
1	0.828
2	0.830
3	0.801
4	0.781
5	0.764
6	0.710
<b>AtU (Composite reliability = 0.869; AVE = 0.689)</b>	
1	0.819
2	0.862
3	0.809
<b>SNU (Composite reliability = 0.917; AVE = 0.847)</b>	
1	0.920
2	0.920
<b>PBCU (Composite reliability = 0.934; AVE = 0.877)</b>	
1	0.936
2	0.936
<b>IU (Composite reliability = 0.909; AVE = 0.770)</b>	
1	0.858
2	0.930
3	0.841
<b>BU (Composite reliability = 0.961; AVE = 0.830)</b>	
1	0.920
2	0.935
3	0.923
4	0.917
5	0.858

BeU: Belief of Usefulness accrual accounting; AtU: Attitude Use of accrual accounting information; SNU: Subjective Norm Use of accrual accounting information; PBCU: Perceived Behavioral Control Use of accrual accounting information; IU: Intention Use of accrual accounting information; BU: Behavioral Use of accrual accounting information

Table 2: Goodness of fit

Indicator	Result
Average Path Coefficient (APC)	= 0.357, $p < 0.001$
Average R <sup>2</sup> (ARS)	= 0.425, $p < 0.001$
Average Adjusted R <sup>2</sup> (AARS)	= 0.417, $p < 0.001$
Average VIF (AVIF) (AFVIF)	= 1.627, acceptable if $\leq 5$ , ideally $\leq 3.3$
Average full collinearity VIF	= 1.975, acceptable if $\leq 5$ , ideally $\leq 3.3$

greater than 0.70. It means that the item indicators are reliably qualified. The table above shows that the value of the loading factor of all the indicators is greater than 0.70, significant level  $< 0.05$  and has a value of  $AVE > 0.50$ . From the results, it is concluded that the research instrument has met the elements of convergent validity so that the instrument can collect data on the same pattern to measure the same construct (Table 1).

**Goodness of fit test:** To determine the accuracy of the model with the research data, the goodness-of-fit testing was conducted. The table shows that the research model has met the criteria of goodness of fit model. It is seen that  $APC = 0.357$ ,  $ARS = 0.425$ ,  $p < 0.001$ ,  $AVIF = 1.627$ ,  $VIF = 1$ . Furthermore, this model passes the test of non-response bias and the test of robustness (Table 2).

Table 3: Hypothesis testing

Variables	Path to					
	BeU	AtU	SNU	PBCU	IU	BU
BeU						
AtU	0.562*					
SNU						
PBCU						
IU		0.245*	0.177**	0.570*		
BU				0.216*	0.372*	
R <sup>2</sup>		0.316			0.664	0.293***

\* $p < 0.01$  (two-tailed), \*\* $p < 0.05$  (two-tailed), \*\*\* $p < 0.10$  (two-tailed). BeU: Belief of Usefulness accrual accounting; AtU: Attitude Use of accrual accounting information; SNU: Subjective Norm Use of accrual accounting information; PBCU: Perceived Behavioral Control Use of accrual accounting information; IU: Intention Use of accrual accounting information; BU: Behavioral Use of accrual accounting information

**Hypothesis testing:** Based on the results of the data processing, the following is the results of hypothesis testing.

Table 3 shows the relationship between variables. The hypothesis of the relationship between the belief in the usefulness of accrual accounting and attitude use of accrual accounting information is accepted with the value of  $\beta = 0.562$  and  $p < 0.01$ . It means that there is an effect of the belief in the usefulness of accrual accounting on the attitude use of accrual accounting information. The hypothesis stating that there is an effect of attitude use of accrual accounting information on the intention use of accrual accounting information is accepted. This is indicated by the value of  $\beta = 0.245$  and  $p < 0.01$ . The third hypothesis stating that there is an effect of subjective norm use of accrual accounting information on the intention use of accrual accounting information is accepted as indicated by the value of  $\beta = 0.177$  and  $p < 0.05$ .

The next hypothesis about the relationship between perceived behavioral control use of accrual accounting information and intention use of accrual accounting information with the value of  $\beta = 0.570$  and  $p < 0.01$  is accepted. It means that there is an effect of perceived behavioral control use of accrual accounting information on the intention use of accrual accounting information. The hypothesis stating that there is an effect of perceived behavioral control use of accrual accounting information on behavioral use of accrual accounting information for decision-making is accepted. This is indicated by the value of  $\beta = 0.570$  and  $p < 0.01$ . The hypothesis of the relationship between intention use of accrual accounting information and behavioral use of accrual accounting information is accepted with the value of  $\beta = 0.372$  and  $p < 0.01$ . It means that there is an effect of the intention use of accrual accounting information on behavioral use of accrual accounting information for decision-making.

## CONCLUSION

The result of this study contributes to the controversial academic problems regarding the usefulness of accrual accounting implementation for public sector. This study supports the implementation of accrual accounting in government institution. High trust to the usefulness of accrual basis accounting is an indication that the implementation of accrual basis accounting for local governments in Indonesia can support New Public Management (NPM) concept in the management of public sector organizations. Public sector management using NPM prioritizes the principles of efficiency, effectiveness, transparency and accountability (Pallot, 1992; Lapsley, 1999; Likierman, 2000; Mellett *et al.*, 2009).

The concern about losing objectives of government service over the implementation of accrual accounting is not proven in the study involving Indonesia's local government. Instead, this study provides confidence that the implementation of accrual accounting for local governments are beneficial in terms of transparency and accountability; matching method principle; remuneration accuracy; enhanced information from assets; credit accountability and enhanced information of governmental finance.

## LIMITATIONS

This study is limited in several ways. First, the participation of leaders of local government entities was very low. Second, this study was carried out at local government which has implemented the accrual basis accounting prior to 2015. Third, this study only disclosed the facts about the usefulness of implementing accrual accounting based on behavioral use of accounting information for decision-making.

## RECOMMENDATIONS

Further studies are needed to observe the behavioral use of accrual accounting information at local government after 2015. More broadly, research is also needed to examine the usefulness of accrual basis accounting implementation by observing the improvement of service quality and performance of government organizations.

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