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### ACCRUAL-BASED GOVERNMENT FINANCIAL REPORTING INFORMATION SYSTEM: ACCEPTANCE MODEL FROM AN INDONESIAN MUNICIPAL GOVERNMENT

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#### Abstract

The implementation of a full accrual base in the Indonesian government has a significant impact on changes in the government accounting system. These changes in accounting recognition base have a substantial effect on the readiness of human resources and the accounting reporting information system technology. This research aims to test and analyze user acceptance on government accrual reporting information system technology. This study uses a survey of financial administrators who have been interacting with the new financial reporting system in 33 work units in an Indonesian municipal jurisdiction. The sampling technique uses random cluster sampling, and the hypothesis testing uses structural equation modeling. All variables using the technology acceptance model showed significant results, except for the effect of computer self-efficacy on perceived ease of use. These results showed that TAM could predict the acceptance of an accounting information system in government accrual accounting.

#### 1. Introduction

In the era of the 1980s, there were demands for improvement in the management of public sector organizations. This demand gave rise to a concept that became known as New Public Management (NPM). NPM is a public sector organization management concept that aims to improve

organizational performance in all aspects of public sector organization management. To improve the efficiency, effectiveness, and control of financial management, NPM raises accrual accounting as the basis for accounting reporting in government.

Responding to these developments, the International Federation of Accountant (IFAC) makes International Public Sector Accounting Standards (IPSAS) a reference for various countries in preparing financial statements. With the advent of IPSAS, shared states began implementing accrual accounting with various modifications. The accrual basis is expected to provide more benefits for its users, both the government, the public, and all other parties concerned with the financial statements of government entities. Accrual-based reporting is believed to be useful in evaluating government performance related to the quality of public services, cost of services, efficiency, the achievement of objectives, and accountability.

The implementation of the accrual basis in various countries shows different results. As in New Zealand, Australia, England, Spain, Sweden, Canada, France, Belgium, and Ireland have

demonstrated the utility of using the accrual basis (Nasi & Steccolini, 2008). Such uses include

compliance with contractual relationships, allocation, and use of resources, cash management, ability to meet obligations and commitments, changes in financial conditions, and financial performance about cost decisions.

In the Indonesia government, the requirements of social, economic, and political change put pressure on government entities to be more transparent and accountable. The state financial reforms in Indonesia contained in Law No. 17 of 2003 mandated that the accounting entity's accounting basis should change from the cash basis to an accrual basis.

The government of Indonesia had a strategy of turning this recognition basis gradually. In 2005, Government Regulation No. 24 of 2005 on Government Accounting Standards (GAS) for reporting entities in both the central and regional governments. This GAS based cash toward accrual applied for the preparation of the accountability report of State/Regional Expenditure Budget 2006. Then in 2010, Government Regulation No 71/2010 on Government Accounting Standard (new GAS) replacing Government Regulation Number 24 the Year 2005 (old GAS). The fundamental change to this new GAS lies in the recognition base that uses full accrual.

Although promising many uses, the implementation of the accrual basis in the context of government still has constraints and problems. The purpose of

accrual information is still little used by external parties, both for the sake of accountability and performance appraisal (Saleh & Pendlebury, 2006). Accrual information is generally not used to support internal activities and decision making (Nasi & Steccolini, 2008). Understanding of accounting personnel on the concept of accrual is still inadequate (da Costa Carvalho, Camões, Jorge,

& Fernandes, 2007). The development of information systems and information technology has an essential role in the development of accrual accounting (Saleh & Pendlebury, 2006).

The information system technology is the central infrastructure for the success of the implementation. Previous research in government accounting context showed that they discuss variable information technology in their work (Caruana & Farrugia, 2018; Dabbicco, 2015; Hassan, 2015; Mbelwa, 2015; Mulyani, Puspitasari,

& Yunita, 2018; Pollanen & Lapointe, 2012; Suparman, Siti-Nabiha, & Phua, 2015). The research states that the implementation of accrual accounting in government organizations will succeed if there is support from information system technology.

However, from some recent research in a government context, it is still rare to test how the user acceptance of the new accrual-based accounting system is. Some researches on the level of acceptance of a system in the context of government organizations lately are concerning in e-government (Al-Hujran, Al-Debei, Chatfield, & Migdadi, 2015; Carter, Weerakkody, Phillips, & Dwivedi, 2016; Lallmahomed, Lallmahomed, & Lallmahomed, 2017; Mansoori, Sarabdeen, & Tchantchane, 2018; Rana, Dwivedi, Williams, & Weerakkody, 2015; Rana & Dwivedi, 2015).

This research is intended to fill the research gap, as explained above. This study aims to test and analyze the level of user acceptance of accrual-based government reporting information systems. With the perspective of technology acceptance models (TAM) (Davis, 1986), this study provides additional contributions to the theory that TAM can explain well in the context of the implementation of accrual accounting in government entities. Also, it contributes to the practice that when a government organization applies accrual accounting, it is better to pay attention to the variables raised by TAM.

#### 2. Literature Review

#### 2.1. Accrual Accounting

In accrual-based accounting, the recording time corresponds to the occurrence of resource flow to provide the most comprehensive information as all resource flows recorded. In more depth, Study # 14 IFAC Public Sector Committee (2005) states that accrual-based reporting is useful in evaluating

government performance on service costs, efficiency, and goal achievement. With accrual-based reporting, users can identify the government's financial position and its changes, how the government finances its activities by its funding capabilities to gauge the actual government capacity. Accrual-based government accounting also enables governments to identify opportunities to use future resources and realize the proper management of these resources.

Changes in cash accounting to accrual accounting began in Australia and New Zealand in the 1980s (Lapsley & Pallot, 2000). Proponents of this accrual accounting use see two main advantages of this base. First, increasing transparency and accountability to external stakeholders by providing a comprehensive picture of stakeholders such as resources, revenues, costs, and information needed by the public (Wong, 1998). Second, accrual accounting can provide adequately the information required for internal management decisions such as budgeting, resource allocation, cost evaluation, and internal accountability (Likierman, 2000).

From the above advantages, the application of accrual accounting still needs to be questioned. First, the narrow view of neoclassical economists on organizational performance is seen only from the representation of monetary units (Guthrie, 1998). Furthermore, there are doubtful accounting accruals that can ensure the achievement of financial performance for the better if seen some cases of failure and scandal in the business sector (Guthrie, Olson, & Humphrey, 1999).

The use of accrual information is still little used by external parties, both for the sake of accountability and performance appraisal (Saleh & Pendlebury, 2006). Accrual information is generally not used to support internal activities and decision making (Nasi & Steccolini, 2008). Understanding of accounting personnel towards the concept of accruals is still inadequate (da Costa Carvalho et al., 2007).

The development of information systems and information technology has an essential role in the development of accrual accounting (Saleh & Pendlebury, 2006). The perceptions of the benefits of information accrual owned by information makers are higher than those of information users (Chang, Chen, & Chow, 2008). According to (Simanjuntak, 2005), there are several challenges in

the implementation of accounting-based government accruals in Indonesia. First, the accounting system and IT-Based System, looking at the complexities of accrual basis accounting implementation, it is sure that the accrual-based accounting application in government requires a

more complicated accounting and IT-based system. Second, it is also necessary to develop an adequate internal control system to provide

adequate assurance for the achievement of organizational goals through effective and efficient activities, reliability of financial reporting, safeguarding state assets, and compliance with laws and regulations. Third, commitment from the leadership, strong support from the direction is the key to the success of a change. Fourth, the availability of competent human resources, preparation, and preparation of these financial statements requires human resources who master government accounting. Fifth, resistance to change, as is appropriate for every turn, there may be internal parties who are familiar with the old system and are reluctant to follow changes.

# **2.2.** Utilization of Accrual Accounting Information in Government Entities

In the implementation of accrual accounting in government, it is necessary to consider the use of accrual information in decision making. Some studies show different results. According to (Cohen, Kaimenakis, & Venieris, 2013), cash accounting information has a vital function in decision making, while accrual accounting has a secondary role. Both cash and accrual accounting, big-city governments, use more accounting data

than small-town governments regarding negotiations.

Perceptions of report makers about accrual accounting as a basis for decision-making are higher than internal and external users (Sousa, Vasconcelos, Caneca, & Niyama, 2013). Accrual information generated is rarely used and understood by managers who are interested in the info (Connolly & Hyndman, 2006). There is doubt about the use of accounting information for decision making, accrual information because it is made only to meet the rules (Arnaboldi & Lapsley, 2009). Treasurer efforts to assist the government in fiscal policy are only related to parts of government expenditure with political control (Newberry, 2011).

## 2.3. Information Technology Constraints in Government Accrual Accounting

#### Implementation

Information technology becomes one of the obstacles to supporting the implementation of accrual accounting in government. According to (Cohen, Kaimenaki, & Zorgios, 2007), the results of the application of accrual accounting accreditation based on information technology in Greece produced the following recommendations. First, the software developer must have analytical guidelines and specifications for formal business processes since the beginning of the development of computerized systems. Second, the model and

description of the process that has system orientation can explain the public sector environment. Third, information technology skills from internal organizations have an essential role during system recognition and can facilitate activities such as education and training themselves.

Public financial management information systems have not had a positive impact on budgeting, auditing, reporting, resolving delinquency issues, and relating to infrastructure issues (Vickland & Nieuwenhuijs, 2005). According to (Vickland & Nieuwenhuijs, 2005), some of the main factors of information system success are as follows:

• donors and recipients carry out bilateral projects in the long term;

- software selection must adjust the organization's business processes;
- people who have the authority to make decisions across organizations must be executive sponsors;
- the implementation team must consist of cross-functional, not just IT staff;
- training programs for users must be carried out as quickly as possible and carried out on an ongoing basis;
- users should plan 3 to 6 months of interruption until the system runs usually;
- to minimize user resistance, the user communicates quickly and continuously;
- the developer and user must have an intense relationship;
- user staff should be involved in the project team; senior managers should receive training to use and interpret it;
- local government reform can be done well if there is support from the central government.

#### 2.4. Technology Acceptance Model

TAM (Davis, 1986) has been widely used for researches on the adoption of new technologies and user acceptance. TAM has the robustness to explain

and predict the variables around the implementation of new technology such as e-commerce (Alrousan & Jones, 2016; Fayad & Paper, 2015), egovernment (Lin, Fofanah, & Liang, 2011; Wangpipatwong, Chutimaskul, & Papasratorn, 2008), e-learning (Abdullah & Ward, 2016; Tarhini, Hone, Liu, & Tarhini, 2017), and mobile commerce (Ooi & Tan, 2016; Wu & Wang, 2005).

At the beginning of its development, TAM (Davis, 1986) theorized about user behavior in accepting computer technology. This model states that when a person uses computer technology, he will have two central beliefs. First, the user must have a perception of the usefulness of the technology. Second, he must be sure that the technology is easy

to use. When a user already has these two perceptions, the user will have the intention to use it. Also, TAM predicts that the perception of the usefulness of computer technology is a mediator of the relationship between perceived ease of use and the intention to use the technology (Davis, Bagozzi, & Warshaw, 1989).

In its development, Venkatesh & Davis (2000) proposed social influences and systemic characteristics. The impact of social factors includes subjective norms, images, job relevance, output quality, ability to show results will influence perceptions of ease of use while system characteristics such as experience and volunteerism will mediate the relationship between social factors and perceived ease of use.

Venkatesh & Bala (2008) then complemented the TAM model by including several determinants of perceived ease of use. Some of these determinants

include computer self-efficacy, computer playfulness, and computer anxiety, and perceive enjoyment (Maseleno et al., 2019).

#### 2.5. Hypothesis Development

This study aims to analyze and predict the user acceptance of accrual-based GFRIS applications in local governments by adopting a combination of the first TAM model developed by Davis et al., (1989), further developed into TAM 2 by Venkatesh & Davis (2000) and the latter evolved into TAM 3 by Venkatesh & Bala (2008). Related antecedent factors in the TAM model were chosen to test the implementation of accrual-based GFRIS. One will have an initial perception of the ease of use of the system based on general beliefs about computers and computer use. Three things that cause individual differences regarding general beliefs related to computers and computer use are self-efficacy, computer anxiety, and computer playfulness (Venkatesh, 2000). Most studies consider computer self-efficacy for user adoption and acceptance of information system research because computer self-efficacy has an individual belief in his personal views to use a system. Some studies have shown that computer self-efficacy has a positive influence on the ease of use of a system (Khraim, Al Shoubaki, & Khraim, 2011; Lu & Viehland, 2008; Luarn & Lin, 2005; Zhang & Mao, 2008).

Personal perceptions of external support, especially from the workplace organization, will encourage someone to feel more comfortable in carrying out each activity. Organizational and technical resources will support someone in carrying out their activities. Some studies reveal that the perception of external control positively affects the ease of using information (Al-Najjar, 2012; Huang

& Hsieh, 2012; Venkatesh & Bala, 2008; Venkatesh, 2000).

Someone must adapt to technological changes. Changes in information systems in an organization sometimes increase the sense of anxiety for individuals to adjust to the new system. Several studies show that anxiety has a significant effect on the effectiveness of using the system (El-Qirem, 2013; Venkatesh & Davis, 2000).

Someone will feel like doing something when the person does a job that he or she likes. This situation becomes an intrinsic motivation and is spontaneous in using a new system. Several studies show that playfulness affects the perception of the ease of use of the new system (Venkatesh & Bala, 2008; Wang, Lin, & Liao, 2012).

Based on this explanation, the formulation of the hypothesis is as follows:

H1a: computer self-efficacy (CSE) has a positive impact on perceived ease of use (PEU).

H1b: perceptions of external control (PEC) has a positive impact on perceived ease of use (PEU). H1c: computer anxiety (CA) has a positive impact on perceived ease of use (PEU).

H1d: perceive enjoyment (PE) has a positive impact on perceived ease of use (PEU).

A new system is built to make it easier for someone to do their work. So the relevance of work must be the basis for building the system. Besides, the quality of the output of the system must indeed support one's work. Regarding the perception of the ease of use of a new system, Venkatesh & Davis (2000) proposed adding two variables, namely the relevance of the work and the quality of the results. Based on these explanations, it can be formulated hypothesis is as follows:

H2a: job relevance (JR) has a positive impact on perceived usefulness (PU).

H2b: output quality (OQ) has a positive impact on perceived usefulness (PU).

The usefulness of a system is significant for the success of system development. The perception of the ease of a new system will have a significant impact on the usefulness of the new system. Some studies show that the perception of ease of use of the system will have a considerable effect on the usefulness of a system (Cakmak, Benk, & Budak, 2011). Based on these explanations, it can be formulated hypothesis is as follows:

H3: perceived ease of use (PEU) has a positive impact on perceived usefulness (PU).

Someone will use a system that is driven by their perception of the facilities and benefits received from the use of the system. Someone wants to use the system if the system seems easy to use. If users know that the system has advantages, and are not difficult to use, then the intention to use the system to help complete their tasks will be high. Several studies have shown that there is a significant

relationship between perceived ease of use and attitudes and intentions to use the (Chan, 2004; Hong, Thong, Wong, & Tam, 2002; Kamel & Hassan, 2003). To prevent inefficient investments in information technology, a new system must be designed efficiently to learn how to use it. The interest in using depends on perceived ease of use (Venkatesh, Morris, Davis, & Davis, 2003). Based on this explanation, the formulation of the hypothesis is as follows:

H4a: perceived ease of use (PEU) has a positive impact on the attitude toward using (ATU).

H4b: perceived usefulness (PU) has a positive impact on the attitude toward using (ATU).

Behavioral intentions on the system determine a person's performance related to information systems, and attitude becomes a determining variable (Davis, 1989). Changes in cash towards accruals into accrual bases in the system have an impact on attitudes toward changes in information system design. If the user must use a high view, then behaving interested in using the new system will be higher too. Conversely, if the attitude of users in the system is low, interest in using the system behaves will also below. The results of Bhattacherjee & Sanford (2006) study show that the attitude of users has a significant influence on the intention to use technology. Based on this explanation, it can be formulated to test the hypothesis as follows:

H5: attitude toward using (ATU) has a positive impact on behavior intention (BI).

Someone who uses the system will be influenced by the user's intentions to use this system. When a user's perception of the system is easy to use and has a utility for decision making, then someone will have an interest in using the system. After having the interest to use, then he will try to operate the system and learn to help his work. Therefore, using the system will help work more effectively and increase productivity. The results of the Schepers & Wetzels (2007) study conducted using a meta-analysis also show that behavioral intentions to use the system affect the actual use of the system. Based on this explanation, it can be formulated to test the hypothesis as follows:

H6: behavior intention (BI) has a positive impact on actual usage (AU).

#### 3. Research Method

#### 3.1. Sample, Data Collection, and Instruments

The type of data in this study is primary data. The population in this study was the financial administrator who has been interacting with the new financial reporting system and spread in 33 work units in Surabaya City jurisdiction. Cluster

random sampling method used in this research. The questionnaires distributed obtained directly to the respondent. This study used instruments developed by (Davis et al., 1989; Venkatesh & Bala, 2008; Venkatesh & Davis, 2000) Davis (1989).

#### **3.2.** Demographic Characteristics

The questionnaire distributed to 91 financial administrators spread across 33 work units. Eighty-eight questionnaires returned and filled in completely. This survey shows a high respondent response rate of 96.7%. Table 1 is a summary of the demographic characteristics of the study respondents, which contained the frequency of gender, age, experience in the government environment, and experience in the financial sector.

Table 1. Demographics of Respondents							
		Frequ					
		e	Perc				
Classification		ncy	ent				
	Μ	29	33%				
Gender			_				
	F	59	67%				
	21.20						
	21-30	16	1.00/				
	years 31-40	16	18%				
	years	27	31%				
Age	years	21	3170				
1150	41-50						
	years	33	38%				
	>50						
	years	12	14%				
	1-5						
	years	12	14%				
	6-10	• •					
<b>TT</b> 7 1 · · ·	years	20	23%				
Work experience in	11-15	15	170/				
Government	years 16-20	15	17%				
		22	25%				
	years >20		<i>LJ</i> 70				
	years	19	22%				
	Jears	-/	/0				
	1-5						
	years	46	52%				
	6-10						
	years	27	31%				
Work experience in	11-15	_					
Accounting	years	8	9%				
	16-20	A	50/				
	years	4	5%				
	>20	0	0%				
	years	U	070				

Partial Least Squares (PLS) tested the model in this

study, namely structural modeling techniques designed for predictive models with a high degree of complexity (Chin, Marcolin, & Newsted, 2003). Table 2 showed the results of the measurement model which

contains the mean, standard deviation, Cronbach alpha, loading factor, composite reliability, and average variance extracted (AVE).

Reliability in this study was evaluated using Cronbach alpha. As shown in Table 2, the Cronbach alpha values of each study construct are> 0.6. Validity test in this study uses convergent validity which is tested by three criteria as stated by Fornell & Larcker (1981): (1) all items must have a factor loading> 0.7; (2) the value of composite reliability should be> 0.8; and (3) average variance extracted (AVE) for each construct> 0.5.

As shown in table 2, the factor loading value of each item is higher than the minimum required limit of > 0.7. At the composite reliability value of each construct in the study is also higher than 0.8. Lastly, the AVE value of each construct is greater than 0.5. Based on these three criteria, all can meet convergent validity.

Table 2. Analysis of Measurement Reliability and Confirmatory Factor Analysis

		vsis of areme	Confirmatory					
Desc	n Relia riptiv d Cro	ıt	stics	factor analysis each variable				
Var iabl e	Me an	S.D	Cro nba ch' α	Fac tor load ing	Co mp osit e Reli abil ity	AV E		
Job Rel eva nce JR1	6.52 3 6.23	0.52 5 0.58	0.84	(0.8 46) (0.8		0.76		
JR2 JR3	9 6.33 0	7 0.56 2		48) (0.9 21)	5	I		
Out put Qu a lity OQ	6.20	0.62	0.77	(0.8				

1 OQ	5 5.76	8 1.00	6	35) (0.8		0.69
2 OQ 3	1 6.11 4	6 0.70 2		25) (0.8 32)	0	0
	Analy Measu n Relial criptive nd Cro Alp	areme it bility: e Stati onbach		factor	firma : analy h vari	ysis of
Var iabl e	Me an	S.D	Cro nba ch' α	Fac tor load ing	Co mp osit e Reli abil ity	AV E
Co mp uter Self - Effi						
cac			0.66			
y CS E 2 CS E	4.45 5 4.81	1.64 6 1.66	7	(0.7 58) (0.8	0.81	0.60
3 CS E 4	8 4.46 6	5 1.62 6		48) (0.8 13)	9	4
Per cept ions of Ext	0	0				

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<b>trol</b> PE			8			
С	5.73	1.07		(0.7		
1	9	7		49)		
PE						
С	5.79	0.88		(0.7	0.83	
2	5	6		56)	8	5
PE						
С	6.13	0.64		(0.7		
3	6	7		82)		
Co						
mp uter						
Anx						
ietv						
iety			0.88			
iety	1.96	1.12	0.88	(0.9		
-	1.96	1.12	0.88 7	(0.9		
CA 2	1.96 6	1.12 9		(0.9 09)		
CA 2 CA					0.93	0.81
CA 2 CA 3	6 1.87 5	9 0.98 0		09) (0.9 24)	0.93 0	0.81 7
CA 2 CA 3 CA	6 1.87 5 2.01	9 0.98 0 1.23		09) (0.9 24) (0.8		
CA 2 CA 3	6 1.87 5	9 0.98 0		09) (0.9 24)		
CA 2 CA 3 CA 4	6 1.87 5 2.01	9 0.98 0 1.23		09) (0.9 24) (0.8		
CA 2 CA 3 CA 4 Per	6 1.87 5 2.01	9 0.98 0 1.23		09) (0.9 24) (0.8		
CA 2 CA 3 CA 4 Per ceiv	6 1.87 5 2.01	9 0.98 0 1.23	7	09) (0.9 24) (0.8		
CA 2 CA 3 CA 4 Per	6 1.87 5 2.01	9 0.98 0 1.23		09) (0.9 24) (0.8		

Desc	Analysis of Measureme nt Reliability: criptive Statistics nd Cronbach's Alphas			Confirmatory factor analysis o each variable		
Var iabl e	Me an	S.D	Cro nba ch' α	Fac tor load ing	Co mp osit e Reli abil ity	AV E
oy m ent						
PE1	6.11 4	0.82 3		(0.9 05)	0.91	0.78
PE2	6.04 5	5		(0.9 54)	5	4
PE3	5.98 9	0.83 7		(0.7 89)		
Per ceiv ed Use fuln ess						
PU	6.26			(0.9		
1 PU	1 6.28	3 0.64	0.95	17) (0.9		
2	4	2	4	45)		
PU 2	6.15	0.65 9		(0.8	0.96	0.81
3	9 6.18	9 0.72		75) (0.9	4	6
PU 4	2 6.23	0		37) (0.9		
PU 5	9	3		63)		

6

Per ceiv ed Eas						
e of	Use					
PE	5.44	1.18		(0.7		
U1	3	3		01)		
PE	5.34	1.24	0.85	· ·		
U2	1	9	5	17)		
PE	5.69	1.04		(0.8		
					0.89	0.58
U3	3	3		52)		
					4	7
PE	5.53	1.12		(0.7		
U4	4	4		30)		
PE	5.72	0.84		(0.7		
U5	7	0		75)		
PE	5.75	0.95		(0.8		
U6	0	0		89)		

Atti

			Des	Analysis of Measureme nt Reliability: escriptive Stati		Confirmatory factor analysis each variable istics			
			Var iab l	Me an	S.D	Cro nba ch' α	Fac tor load	Co mp osit e Reli abil ity	AV E
			tud e To war d Usi ng AT	6.06	0.64	0.87 8			
			AT U1 AT	6.06 8 5.90	0.64 0 0.85		(0.8 48) (0.9	0.92	
			U2 AT U3	9 5.80 7	3 0.88 2		42) (0.8 99)	5	5
<b>Use</b> 5.93 2 5.39	0.75 5 1.10	0.77 7	(0.6 51) (0.6						
8	9		43)	0.85 9	0.60 9				
5.60	0.97		(0.9)	-	-				

Beh avio ral Inte ntio

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5.72 0.91

06)

(0.8

84)

BI1

BI2

BI3

BI4

ual Usa						
ge						
AU	5.88	0.99		(0.6		
1	6	9		61)		
			0.76			
AU	5.79	0.97		(0.7		
			3		0.85	0.58
2	5	3		62)		
					0	8
AU	5.64	1.20		(0.8		
3	8	4		39)		
AU	5.89	0.98		(0.7		
4	8	3		93)		

#### 3.4. Hypothesis Testing and Structural Model

The next stage in research data analysis is to test the significance and strength of each construct impact hypothesized. Structural testing is used to

determine the estimation of the path coefficient, which indicates the power of the relationship of each variable in the hypothesis. The value of R2 is used to show the model variance that can be explained by exogenous variables. Hypothesis test results (figure 1) structural model is as follows:

• Hypothesis 1a that CSE has no positive effect on PEU.

• Hypothesis 1b, it is proven that PEC has a positive effect ( $\beta = 0.19$ ) on PEU.

• Hypothesis 1c, it is proven that CA has a negative effect ( $\beta = -0.16$ ) on PEU.

• Hypothesis 1d proved that PE has a positive effect ( $\beta = 0.45$ ) to PEU.

• Hypothesis 2a, it is proven that JR has a positive effect ( $\beta = 0.26$ ) on PU.

• Hypothesis 2b, it is proven that OQ has a positive effect ( $\beta = 0.35$ ) on PU.

- Hypothesis 3, proved that PEU has a positive effect ( $\beta = 0.50$ ) on PU.
- Hypothesis 4a proved that PU has a positive effect ( $\beta = 0.39$ ) on ATU.

• Hypothesis 4b proved that PEU has a positive effect ( $\beta = 0.45$ ) on ATU.

• Hypothesis 5, it is proven that ATU has a positive effect ( $\beta = 0.78$ ) on BI, with R2 = 61%.





Figure 1. Hypothesis Testing Results

#### 4. Discussion

The results of hypothesis testing show that all variables in the model are statistically significant, except the relationship between CSE and PEU. Computer self-efficacy (CSE) refers to the belief in an individual's control of his personal ability to use the system. In the context of this accrual-based GFRIS, there is a possibility that system users feel unsure of themselves, especially regarding understanding the substance of accrual accounting itself. The existence of coercion to understand accrual accounting is the cause of financial administrators uncertain of the ease of use of the new system. These problems limit the convenience of using accrual-based GFRIS. There is a possibility in the context of the local government accounting environment, especially in Indonesia, it

is necessary to add the variables of compulsion to mediate the relationship between CSE and PEU.

In the context of mandatory governance, what is impressive is the perception of enjoyment in using the system can predict the ease in using GFRIS accruals. The prediction means that in the implementation of a mandatory information system, users also need enjoyment and excitement during the transition or migration of the old system to a new system, and not to create a new system of resistance to change. While the findings that external control perceptions influence perceptions of ease of use are not so surprising. It can occur because the application of accrual accounting is a necessity of legislation. Alternatively, in other words, the new system will increase anxiety, as well as the decrease in self-confidence in implementing the new system so that the perception of ease of use of the system will be low (Venkatesh & Bala, 2008; Wangpipatwong et al., 2008).

On the other hand, there are two predictors of perceptive usage variables: job relevance and output quality also have a statistically significant effect. This shows that in the context of government, changes in an information system are also expected to increase relevance to work and increase the output of the system so that the high utilization of accrual-based GFRIS can provide a substantial boost of personal system users to use with high intensity (Hu, Clark, & Ma, 2003; Venkatesh & Bala, 2008).

The results of hypothesis testing from the main predictors of the TAM, PEU, and PU models statistically significantly influence attitudes using (ATU) accrual GFRIS (F. Lin et al., 2011; P.-C. Lin, Lu, & Liu, 2013; Padilla-MeléNdez, Del Aguila-Obra, & Garrido-Moreno, 2013). In the context of implementing a new information system, GFRIS accruals will quickly get a response by users regarding the expected use and ease of use of the system.

A high accrual of GFRIS user attitudes would have an interest in using GFRIS accruals with high intensity (Al-Hujran et al., 2015; F. Lin et al., 2011; Padilla-MeléNdez et al., 2013). This study proved that attitudes using (ATU) as the determinant of behavior intention (BI).

This research can show that the users of accrual accounting information systems will operate and utilize the system when there is a high intention to use the system. This result is consistent with the findings of research conducted by Dumpit & Fernandez (2017).

#### 5. Conclusions

In the context of the implementation of accrual accounting in an Indonesian municipal entity, this study can prove that TAM can be used as a model

to analyze the level of user acceptance of information systems. The findings of this study are mostly consistent with the findings of the same research study. Only the effect of CSE on PEU has no significant influence.

This research is expected to give direction to every city and district government in implementing accrual-based GFRIS. So researchers have some suggestions that might be useful for further investigation. First, Subsequent research can use a broader sample so that not only at the level of city and district governments but also on ministries, agencies, and agencies outside the local government, to assess the level of acceptance in information system implementation from all levels. Second, in the context of local government, further research may add a variable of compulsion to mediate the relationship between CSE and PEU. Third, the success of the system is not only determined by the technical factors of the system alone, but the psychological factors that humans use it also play a role in the success of the system.

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#### **References:**

- Abdullah, F., & Ward, R. (2016). Developing a General Extended Technology Acceptance Model for E-Learning (GETAMEL) by analyzing commonly used external factors. Computers in Human Behavior, 56, 238–256.
- Al-Hujran, O., Al-Debei, M. M., Chatfield, A., & Migdadi, M. (2015). The imperative of influencing citizen attitude toward e-government adoption and use. Computers in Human Behavior, 53, 189–203.
- Al-Najjar, G. M. (2012). Mobile Information Systems: An Empirical Analysis of the Determinants of Mobile Commerce Acceptance in Jordan. Universiti Utara Malaysia.
- Alrousan, M. K., & Jones, E. (2016). A conceptual model of factors affecting ecommerce adoption by SME owner/managers in Jordan. International Journal of Business Information Systems, 21(3), 269–308.
- Arnaboldi, M., & Lapsley, I. (2009). On the Implementation of Accrual Accounting: A Study of Conflict and Ambiguity. European Accounting Review, 18(4), 809–836.
- Bhattacherjee, A., & Sanford, C. (2006). Influence processes for information technology acceptance: An elaboration likelihood model. MIS Quarterly, 805–825.
- Cakmak, A. F., Benk, S., & Budak, T. (2011). The acceptance of tax office automation system

(VEDOP) by employees: factorial validation of Turkish adapted Technology Acceptance Model (TAM). International Journal of Economics and Finance, 3(6), 107.

- Carter, L., Weerakkody, V., Phillips, B., & Dwivedi, Y. K. (2016). Citizen adoption of e-government services: Exploring citizen perceptions of online services in the United States and the United Kingdom. Information Systems Management, 33(2), 124–140.
- Caruana, J., & Farrugia, B. (2018). The use and non-use of the government financial report by Maltese members of parliament. Accounting, Auditing & Accountability Journal, (just-accepted), 0.
- Chan, S. (2004). Understanding internet banking adoption and use behavior: A Hong Kong perspective. Journal of Global Information Management (JGIM), 12(3), 21–43.
- Chang, C. J., Chen, G., & Chow, C. W. (2008). Exploring the desirability and feasibility of reforming China's governmental accounting system. Journal of Public Budgeting, Accounting & Financial Management, 20(4).
- Chin, W. W., Marcolin, B. L., & Newsted, P. R. (2003). A partial least squares latent variable modeling approach for measuring interaction effects: Results

from a Monte Carlo simulation study and an electronic-mail emotion/adoption study. Information Systems Research, 14(2), 189–217.

- Cohen, S., Kaimenaki, E., & Zorgios, Y. (2007). Assessing IT as a key success factor for accrual accounting implementation in Greek municipalities. Financial Accountability & Management, 23(1), 91–111.
- Cohen, S., Kaimenakis, N., & Venieris, G. (2013). Reaping the benefits of two worlds: An explanatory study of the cash and the accrual accounting information roles in local

governments. Journal of Applied Accounting Research, 14(2), 165–179.

Connolly, C., & Hyndman, N. (2006). The actual implementation of accruals accounting: Caveats from a case within the UK public

sector. Accounting, Auditing & Accountability Journal, 19(2), 272–290.

da Costa Carvalho, J. B., Camões, P. J., Jorge, S. M., & Fernandes, M. J. (2007). Conformity and diversity of accounting and financial reporting practices in Portuguese local

government. Canadian Journal of Administrative Sciences/Revue Canadienne Des Sciences de l'Administration, 24(1), 2–14.

Dabbicco, G. (2015). The Impact of Accrual-Based Public Accounting Harmonization on EU

Macroeconomic Surveillance and Governments' Policy Decision-Making.

International Journal of Public Administration, 38(4), 253–267.

- Davis, F. D. (1986). A technology acceptance model for empirically testing new end-user information systems: Theory and results. Massachusetts Institute of Technology.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. MIS Quarterly, 319–340.
- Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User acceptance of computer technology: a comparison of two theoretical models. Management Science, 35(8), 982–1003.
- Dumpit, D. Z., & Fernandez, C. J. (2017). Analysis of the use of social media in Higher Education Institutions (HEIs) using the

Technology Acceptance Model. International Journal of Educational Technology in Higher Education, 14(1), 5.

El-Qirem, I. A. (2013). Critical factors influencing E-Banking service adoption in Jordanian commercial banks: a proposed model. International Business Research, 6(3), 229.

Fayad, R., & Paper, D. (2015). The technology acceptance model e-commerce extension: a conceptual framework. Procedia Economics and Finance, 26, 1000–1006.

Fornell, C., & Larcker, D. F. (1981). Structural

equation models with unobservable variables and measurement error: Algebra and statistics. Journal of Marketing Research, 382–388.

- Guthrie, J. (1998). Application of accrual accounting in the Australian public sector rhetoric or reality. Financial Accountability & Management, 14(1), 1–19.
- Guthrie, J., Olson, O., & Humphrey, C. (1999). Debating developments in new public financial management: the limits of global theorizing and some new ways forward. Financial Accountability & Management, 15(3-4), 209–228.
- Hassan, M. M. (2015). Transformation to More-Accrual-Based Accounting Practices in

Indonesian Government. Journal of International Business Research, 14(1), 139.

Hong, W., Thong, J. Y. L., Wong, W.-M., & Tam, K.-Y. (2002). Determinants of user acceptance of digital libraries: an empirical examination of individual differences and

system characteristics. Journal of Management Information Systems, 18(3), 97–124.

Hu, P. J.-H., Clark, T. H. K., & Ma, W. W. (2003). Examining technology acceptance by school teachers: a longitudinal study. Information & Management, 41(2), 227–241.

Huang, L.-Y., & Hsieh, Y.-J. (2012). Consumer

electronics acceptance based on innovation attributes and switching costs: The case of e-book readers. Electronic Commerce Research and Applications, 11(3), 218–228.

Kamel, S., & Hassan, A. (2003). Assessing the introduction of electronic banking in Egypt using the technology acceptance model. In

Annals of Cases on Information Technology: Volume 5 (pp. 1–25). IGI Global.

Khraim, H. S., Al Shoubaki, Y. E., & Khraim, A. S. (2011). Factors affecting Jordanian consumers' adoption of mobile banking services. International Journal of Business and Social Science, 2(20).

- Lallmahomed, M. Z. I., Lallmahomed, N., & Lallmahomed, G. M. (2017). Factors influencing the adoption of e-Government services in Mauritius. Telematics and Informatics, 34(4), 57–72.
- Lapsley, I., & Pallot, J. (2000). Accounting, management and organizational change: A comparative study of local government. Management Accounting Research, 11(2), 213–229.
- Likierman, A. (2000). Changes to managerial decision-taking in UK central government. Management Accounting Research, 11(2), 253–261.
- Lin, F., Fofanah, S. S., & Liang, D. (2011). Assessing citizen adoption of e-Government initiatives in Gambia: A validation of the technology acceptance model in information systems success. Government Information Quarterly, 28(2), 271–279.
- Lin, P.-C., Lu, H.-K., & Liu, S.-C. (2013). Towards an education behavioral intention model for e-learning systems: an extension of UTAUT. Journal of Theoretical & Applied Information Technology, 47(3).
- Lu, X., & Viehland, D. (2008). Factors influencing the adoption of mobile learning. ACIS 2008 Proceedings, 56.
- Luarn, P., & Lin, H.-H. (2005). Toward an understanding of the behavioral intention to use mobile banking. Computers in Human Behavior, 21(6), 873–891.
- Maseleno, A., Huda, M., Jasmi, K. A., Basiron, B., Mustari, I., Don, A. G., & bin Ahmad, R. (2019). Hau-Kashyap approach for student's level of expertise. *Egyptian Informatics Journal*, 20(1), 27-32.

Mansoori, K. A. Al, Sarabdeen, J., & Tchantchane,

A. L. (2018). Investigating Emirati citizens' adoption of e-government services in Abu Dhabi using modified UTAUT model. Information Technology & People, 31(2), 455–481.

- Mbelwa, L. (2015). Factors Influencing the Use of Accounting Information in Tanzanian Local Government Authorities (LGAs): An Institutional Theory Approach. In The Public Sector Accounting, Accountability and Auditing in Emerging Economies (Vol. 15, pp. 143–177). Emerald Group Publishing Limited.
- Mulyani, S., Puspitasari, E., & Yunita, D. (2018). Analysis of the Critical Factors in Supporting the Implementation of the Accrual-based Accounting in the Local

Government. Review of Integrative Business and Economics Research, 7(1), 183–199.

Nasi, G., & Steccolini, I. (2008). Implementation of

accounting reforms: An empirical investigation into Italian local governments. Public Management Review, 10(2), 175–196.

Newberry, S. (2011). Whole of government accounting in New Zealand: A review of WGA financial reports from 1993 to 2010. Abacus, 47(4), 501–524.

Ooi, K.-B., & Tan, G. W.-H. (2016). Mobile

technology acceptance model: An investigation using mobile users to explore smartphone credit card. Expert Systems with Applications, 59, 33–46.

Padilla-MeléNdez, A., Del Aguila-Obra, A. R., & Garrido-Moreno, A. (2013). Perceived

playfulness, gender differences and technology acceptance model in a blended learning scenario. Computers & Education, 63, 306–317.

Pollanen, R., & Lapointe, K. L. (2012). Accounting Reform in the Government of Canada:

Exploratory Evidence on Accrual Accounting Adoption and Impact. Financial Accountability & Management, 28(4), 359–377.

- Rana, N. P., & Dwivedi, Y. K. (2015). Citizen's adoption of an e-government system: Validating extended social cognitive theory (SCT). Government Information Quarterly, 32(2), 172–181.
- Rana, N. P., Dwivedi, Y. K., Williams, M. D., & Weerakkody, V. (2015). Investigating success of an e-government initiative: Validation of an integrated IS success model. Information Systems Frontiers, 17(1), 127– 142.
- Saleh, Z., & Pendlebury, M. W. (2006). Accruals Accounting in Government Developments in Malaysia. Asia Pacific Business Review, 12(4), 421–435.
- Schepers, J., & Wetzels, M. (2007). A meta-analysis of the technology acceptance model: Investigating subjective norm and

moderation effects. Information & Management, 44(1), 90–103.

- Simanjuntak, B. H. (2005). Menyongsong Era Baru Akuntansi Pemerintahan di Indonesia. Jurnal Akuntansi Pemerintah, 1(1).
- Sousa, R. G. de, Vasconcelos, A. F. de, Caneca, R. L., & Niyama, J. K. (2013). Accrual Basis Accounting in the Brazilian Public Sector: Empirical Research on the Usefulness of

Accounting Information. Revista Contabilidade & Finanças, 24(63), 219–230.

Suparman, M., Siti-Nabiha, A. K., & Phua, L. K.

(2015). Public sector accounting reforms: Assessing Indonesia's readiness towards implementing accrual accounting. Problems and Perspectives in Management, 13(2), 296–303.

- Tarhini, A., Hone, K., Liu, X., & Tarhini, T. (2017). Examining the moderating effect of individual-level cultural values on users' acceptance of E-learning in developing countries: a structural equation modeling of an extended technology acceptance model. Interactive Learning Environments, 25(3), 306–328.
- Venkatesh, V. (2000). Determinants of perceived ease of use: Integrating control, intrinsic motivation, and emotion into the technology acceptance model. Information Systems Research, 11(4), 342–365.
- Venkatesh, V., & Bala, H. (2008). Technology acceptance model 3 and a research agenda on interventions. Decision Sciences, 39(2), 273–315.
- Venkatesh, V., & Davis, F. D. (2000). A theoretical extension of the technology acceptance model: Four longitudinal field studies. Management Science, 46(2), 186–204.
- Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. MIS Quarterly, 425–478.
- Vickland, S., & Nieuwenhuijs, I. (2005). Critical success factors for modernizing public financial management information systems in Bosnia and Herzegovina. Public Administration and Development, 25(2), 95–103.
- Wang, Y., Lin, H., & Liao, Y. (2012). Investigating the individual difference antecedents of perceived enjoyment in students' use of blogging. British Journal of Educational Technology, 43(1), 139–152.
- Wangpipatwong, S., Chutimaskul, W., & Papasratorn, B. (2008). Understanding Citizen's Continuance Intention to Use e-Government Website: a Composite View of

Technology Acceptance Model and Computer Self-Efficacy. Electronic Journal of E-Government, 6(1).

- Wong, S. (1998). Full speed ahead-how to move forward full accrual accounting for capital assets. CMA Magazine, 18–22.
- Wu, J.-H., & Wang, S.-C. (2005). What drives mobile commerce?: An empirical evaluation of the revised technology acceptance model. Information & Management, 42(5), 719–729.

Zhang, J., & Mao, E. (2008). Understanding the

acceptanceofmobileSMSadvertisingamongyoungChineseconsumers.Psychology & Marketing, 25(8), 787–805.