Factors Affecting the Implementation of Accrual-Based Accounting Information Systems and The Impact on Accounting Information Quality-Evidence from Indonesia

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Abstract. This study aims to examine the effect of implementing regional financial regulations, employee competence and organizational commitment on the successful implementation of accrual-based accounting information systems and their impact on the quality of accounting information. This research is included in survey research with the type of investigation, this type of research is verification and explanatory research. This research is verificative (verificative research) and is explanatory (explanatory research) or causality (causal study) because this study aims to find out what and to what extent the factors that are estimated to affect a variable with the object of research is implementation of regional financial regulations (X1), employee competence (X2), organizational commitment (X3), successful implementation of accrual-based accounting information system (Y) and quality of accounting information (Z). The population in this study were all Provincial/District/City Governments in Indonesia. The analytical design used in this research is quantitative data analysis with descriptive method. The quantitative analysis that will be carried out aims to determine the relationship between variables through hypothesis testing using structural equation modeling (Structural Equation Model-SEM) with the Partial Least Square (PLS) approach. The results of the study show that: (1) The implementation of regional financial regulations affects the success of the implementation of an accrual-based accounting information system, (2) Employee competence affects the success of the implementation of an accrual-based accounting information system, (3) Organizational commitment affects the success of the implementation of an accrual-based accounting information system, (4) The success of the application of accrual-based accounting information system affects the quality of accounting information.

Keywords: implementation of regional financial regulations, employee competence, organizational commitment, successful implementation of accrual-based accounting information systems, quality of accounting information.

INTRODUCTION

Information is a very important concept in the information age, where information is needed by the community and is produced from an information system (IS). However, different conceptions of information often make assumptions compared to the information generated (Boell, 2017). Larburu, Bults, Sinderen & Hermens (2015) stated that to obtain quality information, quality data is also needed which is used to make meaningful decisions quickly and precisely based on completeness, reliability and accessibility. Fisher & Kingma (2001) state that poor data quality is still found in public sector organizations, but only a few people know about good data quality at the time of inspection, which leads to poor decision making, however good data quality is very important. Goncalves, Moreira, Fox & Watson (2007) stated that the quality of information has dimensions, among others; accessibility, accuracy, completeness, composability, suitability, consistency, effectivenenes, efficiency, extensibility, accuracy, preservability, relevance, reliability, reusability, significance, similarity, and timeliness. The characteristics used in producing quality information include relevance, reliability, completeness, timeliness, understandability and verifiability. The quality of financial reporting is related to the quality of the information contained in the financial statements (Robinson, Henry, Pirie & Broihahn, 2015).

In fact, poor quality information still occurs in several Governments, where the focus of the examination is a follow-up to significant findings in the government's financial statements (LKP) on financial statements and the impact of the implementation of Government Accounting Standards (SAP) on an actual basis, resulting in the results of Local Government Financial Statements (LKPD) FY 2019 is not relevant and there is no agreement between BPK Representatives of one of the provinces, SKPD and Inspectorate (Saefullah, 2016). Furthermore, several problems still occur when
trying to implement SAP where regulations and policies related to SAP implementation already exist but are not yet relevant, the analysis of HR needs for financial, asset and IT managers is not sufficient (Suyuti, 2015). The results of the BPK RI examination concluded that the DKI Provincial government’s efforts had not been effective in supporting the readiness of accrual-based SAP implementation (Efdinal, 2015).

In order to reduce corruption rates and obtain quality accounting information, BPK encourages steps so that regions implement e-government slowly in order to obtain WTP, where the application of this system will keep away patterns of corrupt actions (Akbar, 2016). Amhar (2016) said that there was one district/city that received WDP, including the report on the results of the examination of incomplete financial statements. Then reports on incomplete internal control systems to reports on compliance with laws and regulations that do not present data and are not in accordance with government accounting standards. Ahmad (2013) stated that a number of SKPDs also have not maximally utilized the regional financial management information system (SIPKD). "The new connection is only in the budgeting section," he said. Especially for the treasury and accounting departments, they still use the manual method. It is also the cause of poor regional financial reports. Poor financial reports that cause unqualified accounting information is a phenomenon or event that is still happening nationally, in this case occurring in ministries and high state institutions or also occurring in local governments in a province such as agencies and agencies based on results, audit opinion conducted by the Supreme Audit Agency of the Republic of Indonesia. The government’s financial reform was marked by the implementation of the accrual-based SAP as regulated in Law Number 17 of 2003 concerning State Finance. Furthermore, the Central Government through the Ministry of Home Affairs also issued Regulation of the Minister of Home Affairs of the Republic of Indonesia Number 64 of 2013 concerning the Application of Accrual-Based Government Accounting Standards in Regional Governments where each region is required to compile and make accrual-based financial reports (BPK RI, 2015).

The inhibiting factors for the successful implementation of the accrual basis are: 1. The change in the accounting system from the cash basis to the accrual basis is a radical change, so that almost all regulations that are the legal umbrella for implementing guidelines must also be revised. All stages of activities that have been planned cannot all be realized according to schedule because they are influenced by internal and external conditions of stakeholders, as well as the behavior of the sponsor management and program implementers themselves. 2. The available financial management human resources are familiar with the establishment, so that the process of changing the capacity of financial management human resources takes a relatively long time. 3. Limited local financial management apparatus with technical competence in accounting in SKPD (Santoso, 2014).

Then to support the application of Accrual-Based SAP, as well as the preparation of SOPs for the application of Accrual-Based SAP to SKPD and PPKD. Other readiness, regulatory aspects, namely the adjustment of Regional Government regulations in the field of Regional Financial Management and Issuance of Regional Head Regulations (Governor, Regent or Mayor) related to Accounting Policies or Regional Government Accounting Systems. Not to be left behind, continued Syarifuddin in the HR aspect, namely by increasing the competence of accounting personnel who handle regional financial management, as well as increasing apparatus commitment (Syarifuddin, 2014). Reinforcing the above phenomenon which states that organizational commitment, employee competence and regulation are factors that can affect the success of the implementation of an accrual-based accounting information system and have an impact on quality information where the problems faced by the New Zealand government in implementing accrual accounting include the commitments given by government employees alone. This problem results from the lack of commitment given through the knowledge gained on accrual accounting because government employees are not aware of the importance of accrual accounting. This issue is also supported by IFAC (2013) which states that, if staff do not have sufficient competence, then they may withhold a new accounting system. The International Public Sector Accounting Standards Board (IPSASB, 2013) also highlights that Malaysia has an estimated 65,000 to 70,000 personnel who need to be trained as most with little or no accounting knowledge related to accrual accounting (Ahmada, 2015). Furthermore, obstacles in the implementation of accrual accounting in the public sector were also found, namely problems of human resources, financial resources, IT capabilities, duration and complexity of the accrual basis implementation process in the public sector (Maimunah, 2016).
Furthermore, the quality of government financial reports is strongly influenced by factors of compliance with accounting standards, human resource capabilities, as well as the support of the existing accounting system and the dynamics of external changes that cannot be controlled by the organization (Sukmaningrum, 2012). Reinforcing the previous phenomenon, the results of this study also prove that there is still a lack of commitment from superiors, lack of support provided such as training, Technical Guidance (Bimtek) and transfer of knowledge from independent parties who understand the accrual accounting system and the absence of supporting tools such as systems and procedures and accounting policies, which has referred to accrual-based accounting (Kristiawati, 2015: 188). In accordance with the mandate of Law Number 1 of 2004 concerning State Treasury and Government Regulation Number 71 of 2010 concerning Government Accounting Standards, starting in 2015. Furthermore, Ministries/Institutions must prepare Ministry/Agency Financial Reports (LKKL) using the accrual basis. The government must face many challenges in implementing accrual-based accounting, including accounting systems and information technology, competent Human Resources (HR), leadership commitment, resistance to change (Simanjuntak, 2010).

Next, the implementation of the accrual-based accounting system is often accompanied by a large number of weaknesses and problems (accounting problems, human resources, organization and finance) that hinder or delay the rate of adoption, so that the transition from a cash basis accounting system to an accrual basis will not occur quickly and easily. complete (Christiaens, 2001; Guthrie, 1998; Carlin and Guthrie, 2003; Brusca, 1997). There are obstacles, especially in Malaysia where there is a lack of professional and qualified accountants. The Malaysian government has not provided incentives for its accounting staff. These incentives include annual fees and scholarships for government accountants for courses leading to professional accounting expertise (Saleh & Pendlebury, 2006). Based on the phenomena and literature of the research results that have been carried out, this research is focused on the object of research regarding “The Influence of Implementation of Regional Financial Regulations, Employee Competence and Organizational Commitments on the Successful Implementation of Accrual-Based Accounting Information Systems and Their Impact on the Quality of Accounting Information (Survey on Provincial Government/Regencies/Cities in the Provinces of DKI Jakarta, Banten and West Java).

Literature Review
Implementation of Regional Financial Regulations
In their research, Devandar & Narendra (2015) state that implementation is the stage when the theoretical design becomes a working system. Thus it can be considered as the most critical stage in achieving the success of the new system and giving users confidence that the new system will work effectively. In general, according to Akbar (2015) states that the elements of state finances in a broad sense include the state revenue and expenditure budget, policies on the state revenue and expenditure budget, as a result of these policies in the economic field, activities to seek and use funds to achieve state goals, rights and obligations, money and goods that can be used as state property, finances managed by the central government, regional governments and other business entities.

Measurement of the Implementation of Regional Financial Regulations
According to Britain (2011) explains that all regulations must be consistent with the principles of better regulation by minimizing risk on a proportional, consistent, directed, transparent and accountable basis. Britain (2006) explains that all regulators must have a link with the five principles of better regulation meaning that regulatory activities should be transparent, accountable, proportionately consistent and targeted where action is required.

Employee Competence
Employee competence is the knowledge, skills, attitudes, motivation or personal characteristics of a person that affect the successful performance of workers who carry out work based on a written or unwritten work agreement. Included in the definition of an employee is an individual who does work in a state position or a state or regional-owned enterprise (Wuim-Pam, 2014). Furthermore, Lynch & Duval (2011) stated that competence has dimensions including technical skills, interpersonal skills, critical thinking skills. Initial work to establish correlations between domains and practice results is limited but promising.
Organizational Commitment

In their research, Albdour & Altarawneh (2014) state that the concept of organizational commitment has received many empirical studies, both of which mean that organizational commitment is an important part of the psychological condition of employees because employees who experience high organizational commitment display many positive things about work behavior, such as high job performance, and activities that benefit the organization. Turner (2014) explains that there are three components of the commitment model, including: affective commitment, continuance commitment, and normative commitment.

Successful Implementation of Accrual-Based Accounting Information System

Accrual-based accounting information system is a collection of data and processing procedures that create the information needed by users where the accounting information system as a set of components collects accounting data, stores it for future use and processes it for end users. According to Hansen & Mowen (2009) explains that an accounting information system is an integrated system in a computer that uses processes such as collecting, recording, summarizing, analyzing and managing data to provide information to users.

Quality of Accounting Information

Bagranoff, Simkin & Norman (2005) state that accounting is an information system where a communicative process that collects, stores, processes, and distributes information to those who need it. Furthermore, Clarke (2011) states that accounting is the process of collecting, reporting, analyzing and interpreting financial data to meet the information needs of various interests or users concerned with the operation of a business booth internally (within the business) and externally (outside the business).

The Influence of the Implementation of Regional Financial Regulations on the Success of Implementing an Accrual-Based Accounting Information System

Jones (2006) states that regulation affects quality where each country specifically has a complex set of regulations that affect the quality and choice of plan access to economic risk adjustment. Parker, Jalilian & Kirkpatrick (2006) state that the quality of regulatory governance will affect regulatory outcomes, which in turn can be expected to have an impact on economic growth. The quality of regulatory governance will influence regulatory outcomes, which in turn can be expected to impact economic growth. Next, Amann (2006) states that the role of government regulation can affect economic growth and have an impact on the quality of regulation of economic performance itself.

H1 : The implementation of regional financial regulations has an effect on the success of implementing an accrual-based accounting information system.

The Effect of Employee Competence on the Successful Implementation of Accrual-Based Accounting Information Systems

Gaines, Hoover, Foxx, Matuszek & Morrison (2016:3) state that accurate and transparent information can be said to be of high quality if it is processed with one of its supporters, namely HR competencies that can be developed through the implementation of information systems, resulting in increased accountability of the information generated. Reinforcing previous research from the research results of Mao, Liu, Zhang & Deng (2015: 1062) stated that data from 168 organizations in China provides empirical evidence that three types of IT resources (i.e. IT infrastructure, IT human and IT relations) positively affect management ability. Knowledge is positively related to competitive advantage.

H2 : Employee competence has an effect on the success of the implementation of an accrual-based accounting information system.

The Effect of Organizational Commitment on the Successful Implementation of Accrual-Based Accounting Information Systems

Vaughan (2001) states that the commitment of the executive is arguably the most important factor in the planning and implementation of information systems. Khosrowpour (1994) explains that
one of the factors that influence the success of information technology is organizational commitment. Newman & Sabherwal's research (1996) states that high commitment is needed in building information systems in organizations, but on the other hand, low commitment will slow down the process of building information systems.

$H_3$: Organizational commitment has an effect on the success of implementing an accrual-based accounting information system.

The Effect of Successful Implementation of Accrual-Based Accounting Information System on the Quality of Accounting Information

According to DeLone & McLean (2003) explains that the quality of the accounting information system is a characteristic of the inherent information about the system itself. The results of the research by Seddon and Kiew (1996) found that there was a positive relationship between system quality and information system quality. Another empirical test regarding the influence of the quality of information systems on the quality of accounting information. Then Wongsim & Gao (2011) stated that the quality of management information plays an important role in the process of Accounting Information Systems, specifically the level of information quality is very important for all accounting processes and has a significant impact on business decision making.

$H_4$: The success of implementing an accrual-based accounting information system affects the quality of accounting information.

**Conceptual Framework**

Source: processed data

**Figure 1**

**Researcher's Framework**

**METHOD**

This research is included in survey research with the type of investigation, this type of research is verification and explanatory research. In terms of the time horizon, this research is included in the cross-sectional study group. If viewed from the aspect of the ability of researchers to control research variables, this research is included in the type of ex post facto designs, where the level of researcher involvement is minimal. This research is verificative (verificative research) and is explanatory (explanatory research) or causality (causal study) because this study aims to find out what and to what extent the factors that are estimated to affect a variable with the object of research in the implementation of regional financial regulations (X1), employee competence (X2), organizational commitment (X3), successful implementation of accrual-based accounting information system (Y) and quality of accounting information (Z). The operational variables of this research are the Regional Financial Regulation Implementation Variable (X1), Employee Competence Variable (X2), Organizational Commitment Variable (X3), Accrual-Based Accounting Information System Success Variable (Y), and Accounting Information Quality Variable (Z). The population in this study were all Provincial/District/City Governments in Indonesia. The analytical design used in this research is
quantitative data analysis with descriptive method. The quantitative analysis that will be carried out aims to determine the relationship between variables through hypothesis testing using structural equation modeling (Structural Equation Model-SEM) with the Partial Least Square (PLS) approach.

RESULTS

Analysis Results

Based on the results of the validity test, it is known that all of the statements submitted meet the validity requirements because they have a correlation coefficient value greater than 0.30. Likewise, the results of the reliability test, the five variables have a reliability coefficient greater than 0.70 so it can be concluded that the questionnaire used to measure each research variable already has the reliability to measure each variable so that it can be continued for further analysis. Furthermore, the Measurement Model Test (Outer Model) was carried out on the variables x1, x2, x3, Y, and Z. The structural model testing that had been obtained from the results of data processing using Structural Equation Modeling (SEM) with the Partial Least Square (PLS) approach was then carried out. Composite Reliability is the reliability of the latent variables formed (constructs) from the manifest variables so as to produce an appropriate structural model.

Table 1

<table>
<thead>
<tr>
<th>Composite Reliability Value Latent Variable</th>
<th>Score Composite Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implementation of Regional Financial Regulations (X1)</td>
<td>0.982419</td>
</tr>
<tr>
<td>Employee Competence (X2)</td>
<td>0.962177</td>
</tr>
<tr>
<td>Organizational Commitment (X3)</td>
<td>0.983102</td>
</tr>
<tr>
<td>Successful Implementation of Accrual-Based Accounting Information System (Y)</td>
<td>0.988223</td>
</tr>
<tr>
<td>Quality of Accounting Information (Z)</td>
<td>0.986576</td>
</tr>
</tbody>
</table>

Source: processed data

Based on the description above, it can be seen that the Composite Reliability value of each reflective latent variable exceeds 0.7 so that the model is declared to have good reliability. Based on the table above, it can be seen that the R-square value for the dependent construct of Regional Financial Regulation Implementation (X1), Employee Competence (X2) and Organizational Commitment (X3) affect the success of the Accrual-Based Accounting Information System Implementation (Y) of 0.978747, this shows that the Implementation of Regional Financial Regulations (X1), Employee Competence (X2) and Organizational Commitment (X3) have an effect of 97.87%, while the remaining 2.13% is influenced by other variables. Meanwhile, the R-square value for the dependent construct of the success of the Accrual-Based Accounting Information System Implementation (Y) has an effect on the Quality of Accounting Information (Z) of 0.970153. This shows that the success of the implementation of the accrual-based accounting information system (Y) affects the quality of accounting information (Z) by 97.02%, while the remaining 2.98% is influenced by other variables. The following is a table of results from Testing the Measurement Model (Outer Model).

Table 2

<table>
<thead>
<tr>
<th>R-square Value</th>
<th>R-Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implementation of Regional Financial Regulations (X1), Employee Competence (X2) and Organizational Commitment (X3) to the Successful Implementation of Accrual-Based Accounting Information System (Y)</td>
<td>0.978747</td>
</tr>
<tr>
<td>Successful Implementation of Accounting Information Systems Accrual-Based (Y) with Information Quality Accounting (Z)</td>
<td>0.970153</td>
</tr>
</tbody>
</table>

Source: processed data
Based on the table above, it is known that the Significance Test above which was processed using the Smartpls version 2.0.M3 software obtained a Statistics value greater than 1.96. Thus it can be concluded that the variables above influence each other. The first hypothesis, based on the Significance Test of the Effect of Regional Financial Regulation Implementation (X1) on the Success of the Accrual-Based Accounting Information System Implementation (Y) above, which was processed using Smartpls Version 2.0.M3 software, obtained a statistical value of 6.449067, this value is greater than 1.96. Therefore, it can be concluded that the Implementation of Regional Financial Regulations (X1) has an effect on the success of the implementation of the Accrual-Based Accounting Information System (Y). Reinforcing the results of this study where in his research Jones (2006:285) states that regulations affect quality where each country specifically has a complex set of regulations that affect quality. The second hypothesis, based on the results of calculations where the Significance Test of the Effect of Employee Competence (X2) on the Success of the Application of Accrual-Based Accounting Information System (Y) above which was processed using the Smartpls version 2.0.M3 software, obtained a t statistic value of 3.523318, this value is more greater than 1.96. Therefore, it can be stated that the Employee Competence (X2) has an effect on the success of the Accrual-Based Accounting Information System Implementation (Y). Strengthening the conclusions from the results of Gaines, Hoover, Foxx, Matuszek & Morrison (2016:3) research states that accurate and transparent information can be said to be of high quality when processed with one of its supporters, namely HR competencies that can be developed through the implementation of information systems, so that increased accountability of the information generated.

The third hypothesis, based on the Significance Test of the Effect of Organizational Commitment (X3) on the Successful Implementation of Accrual-Based Accounting Information Systems (Y) above, which was processed using Smartpls Version 2.0.M3 software, the t statistics value was 5.272513, this value was greater than 1.96. Therefore, it can be concluded that the Organizational Commitment (X3) has an effect on the success of the Accrual-Based Accounting Information System Implementation (Y). Reinforcing this conclusion research conducted by Vaughan (2001:5) states the results that the commitment of the executive is arguably the most important factor in planning and implementing information systems. Further research by Singh, Watson & Watson (2001: 72) states that a large commitment of resources is one of the factors that influence the success of an executive information system (EIS) where executives need relevant information to successfully implement it.

The fourth hypothesis, based on the Significance Test for the Successful Implementation of Accrual-Based Accounting Information Systems (Y) affects the Quality of Accounting Information (Z) above which is processed using the Smartpls version 2.0.M3 software, the t statistics value is 240.860318, this value is greater than 1.96. Therefore, it can be concluded that the success of the implementation of the accrual-based accounting information system (Y) has an effect on the quality of accounting information (Z). Reinforcing the results of this study, DeLone & McLean (2003) explained that the quality of the accounting information system is a characteristic of the inherent information about the system itself.

CONCLUSION

Based on the results of the study indicate that the implementation of regional financial regulations, employee competence, organizational commitment affect the success of the implementation of an accrual-based accounting information system. In addition, the success of
implementing an accrual-based accounting information system affects the quality of accounting information. The results of this study can be used as a reference that the better the implementation of regional financial regulations, the better the competence of employees, and the better organizational commitment will affect success in implementing accounting information systems. Accounting Information System where this research has proven that there is an influence on the implementation of regional financial regulations, employee competence and organizational commitment on the successful implementation of an accrual-based accounting information system and its impact on the quality of accounting information (Survey on Provincial/District/City Governments in Indonesia). The limitations of this study are based on the results of research and interviews that have been carried out, it is proven that there are other factors or variables that can affect the success of the Accrual-Based Accounting Information System implementation, including the variables of Leadership Style, Organizational Structure, Internal Control, Obedience, Punishment and Rewards and a good working climate. It is hoped that this will serve as material for further research.

REFERENCES
Mega Metalia et al., Factors Affecting the Implementation of Accrual-Based Accounting Information Systems and The Impact on Accounting Information Quality - Evidence from Indonesia


