THE ROLE OF REGULATORY PRESSURE AND COMPETENCE IN THE APPLICATION OF ACCRUAL-BASED ACCOUNTING THROUGH ORGANIZATIONAL CULTURE

Abstract

The study aimed to examine the effect of regulatory pressure and competence on the application of accrual-based accounting through organizational culture. This research was conducted at the Central Maluku and South Maluku Regency regional work unit, Maluku Province. The sampling technique utilized in this study was proportionate stratified random sampling. There were 102 respondents from 17 SKPD, and 6 respondents were from each SKPD. Research result exhibited that regulatory pressure, competence, and organizational culture significantly influence the application of accrual-based accounting. The organizational culture successfully mediates the influence of regulatory pressure and competency on the application of accrual-based accounting. This research model differs from previous research, namely on the development of research models by incorporating organizational culture as a media variable. Previous studies only explained the model partially the relationship of regulatory pressure, competency, organizational culture to the application of accrual-based accounting, while in this study the variables were explained in a new model unit.

Keywords

adequate competence, Maluku Province, Indonesia

JEL Classification

M48

INTRODUCTION

The changes of accounting basis in the public sector, namely the change in the accounting system from cash-based accounting to accrual-based accounting is crucial. The cash-based accounting system is currently considered inadequate, mainly due to its lack of accurate financial descriptions and useful management information sufficient to facilitate planning, as well as performance processes (Cohen et al., 2007). Accrual-based accounting can be beneficial to the government, as it provides more information to decision makers. Hence, it would lead to better decision making (Hyndman & Conolly, 2006) and increases efficiency, effectiveness, transparency, and accountability (Guthrie, 1998; Chan, 2003; Ron & Mellet, 2003; Barton, 2005; Nistor et al., 2009).

Accrual-based accounting is crucial to be adopted in a country’s financial system, considering the benefits of accrual-based accounting. The application of accrual-based accounting to the pub-
lic sector has been widely implemented in various countries, such as Canada (Barry, 2005), United Kingdom (Ellwood & Newberry, 2007), New Zealand (Scott et al., 2003; Lye et al., 2005), Belgium (Christiaens, 2003), Romania (Stefanescu & Turlea, 2011), Italy (Pessina & Steccolini, 2007), Fiji Islands (Tickell, 2010), Portugal (Jorge et al., 2007), Nepal (Adhikari & Mellemvik, 2011), Malaysia (Saleh & Pendlebury, 2006). A country’s success and failure depend on competence. New Zealand, Australia, Canada, the United Kingdom, and Sweden are successful in applying accrual-based accounting, as they possess adequate human resource competencies (Scott et al., 2003; Ouda, 2004; Lye et al., 2005; Oluseyi, 2010). In contrast, Fiji and Nepalese governments failed due to lack of competence (Tickell, 2010; Adhikari & Mellemvik, 2011).

Some countries that apply accrual-based accounting standards experienced difficulty in the early stages of applying accrual-based accounting standards (Christensen, 2003). Malaysia, for example, lacked professional and qualified accountants. The Malaysian government has not provided incentives for accounting staff in the form of annual grants and scholarships for professional accounting expertise courses (Saleh & Pendlebury, 2006). Estonia does not provide training qualifications for accountants in applying accrual-based accounting. In addition, ministries, auditors, governments, and parliamentarians require accrual-based financial accounting training (Tikk, 2010).

Tickell (2010) research stated that Fiji experienced dependence on international consultants in the application of accrual-based accounting, which caused cost overruns. The low level of public accountants basic skills hinders the application of accrual-based government accounting standards in Fiji. After the enactment of this new system, however, the accrual-based accounting system causes a huge impact on the system, implementers, and prevailing culture. New Zealand is one of the most successful countries in applying accrual-based accounting systems in the public sector. The degree of change in New Zealand public sector management had been overcome quickly in an innovative manner. The government reformed almost all government sectors, starting from implementers (financial management officials and state accountants), the system used, to the culture adopted in each state institution (Ouda, 2004).

The application of accrual-based accounting in Indonesia has various challenges such as accounting and information technology systems, competent human resources (HR), leadership commitment, resistance to change (Simanjuntak, 2010). The dilemma that occurs is related to the application of full accrual-based accounting adoption. It involved the pressure due to public sector accounting reforms to encourage the implementation of accountable financial management and the pressure from international institutions such as the IMF, UNDP, and international standards (Mahmudi, 2011). This pressure coerces countries to apply accrual-based accounting.

The advantages of using accrual-based accounting in local governments can be seen in BPK’s opinion on the quality of local government financial reports (LKPD). Seen from 2011 to 2016, there was an increase in the opinion of provincial LKPDs that received unqualified opinion (WTP).

In addition, the opinion of the financial statements of the Province of Maluku from 2010 to 2014 by using cash toward accruals obtained a fair assessment with exceptions/WDP. However, in 2015 and 2016, at the time of full application of accruals, Maluku Province obtained a fair assessment without exception/WTP (BPKP Maluku Province).

The rules for applying accrual-based accounting in Indonesia require all provinces to implement it. This became a pressure for Maluku Province. Regulatory pressure occurs when government institutions both directly and indirectly force to adopt accrual accounting systems. This happens along with the issuance of binding regulations in using accrual accounting systems, especially in local governments.
In addition to regulatory pressure in applying accrual-based accounting, Maluku Province is still experiencing other obstacles. One of the biggest obstacles is related to the competency of human resources owned. Maluku as an archipelago province has a classic problem of uneven development. Development here also includes the development of human resources, whereas in applying accrual-based accounting human resources are needed who have adequate competence. The problem of lack of competency in human resources in Maluku Province is the lack of understanding of employees regarding accounting, especially related to the accrual basis. Many financial staff are not from an accounting education background. This causes the ability of employees to apply accrual-based accounting to be hampered.

The application of accrual-based accounting should not only be seen as a matter of accounting techniques, but also requires changes in organizational culture and must be part of overall bureaucratic reform. Information generated on an accrual basis will be valuable and successful if the information produced is used for the basis of making public policies better. This change does not automatically occur, but needs to be actively promoted continuously.

Organizational culture acts as a source of important power that is widely believed and adhered to in facing the challenges of change. Organizational culture determines a person’s attitude to accept or reject changes and influence a person’s behavior in doing their work. Organizational culture is expected to strengthen and not weaken the success of the application of accrual-based accounting. Jorge et al. (2007) in their research in Portugal explained that the process of implementing a new accounting system was described as cultural shock. It can be said that because the accrual accounting system requires a change in mentality where management based on objectives, increased achievement of value of money, innovation, and accountability are the center of attention. But unfortunately, the implementation of the accrual basis in Portugal was still weak. This happens because the strength of traditions, rules, beliefs, and practices that have been embedded in organizational culture has become one of the inhibiting factors in the introduction of new management models. In line with that, the influence of organizational culture on the implementation of accrual-based accounting is also examined by Sugiarto and Alfian (2014), Ouda (2004).

A good organizational culture is needed by the central and regional governments in applying accrual accounting. The working environment in the government of Maluku Province is expected to have a good organizational culture, because if not, then the goals to be achieved related to the successful implementation of accruals will not be achieved.
1. THEORETICAL REVIEW

1.1. Government accounting standards

Mahmudi (2011) said that “government accounting standards are accounting principles applied in compiling and presenting government financial reports”. The following are the benefits of government accounting standards: (1) accounting standards are used by financial accountants in government as guidelines in the preparation and presentation of government financial statements; (2) accounting standards are used by auditors as audit criteria to determine whether the financial statements presented are in accordance with the accounting standards that govern them; (3) accounting standards are used by users of financial statements to understand financial statements and avoid errors in interpreting information in financial statements; (4) accounting standards are needed to improve the quality of financial statements, namely to improve consistency, comparability, understanding, relevance, and reliability of financial statements; and (5) accounting standards become a reference in the preparation of accounting systems, as the output of accounting systems must be in accordance with accounting standards.

SAP is a requirement possessing legal strength in an effort to improve the quality of financial statements (PP No. 71 of 2010). With the enactment of SAP, it is expected to create transparency, participation, and accountability in managing state finances in order to realize good governance. Government accounting standards are one of the important aspects needed to improve the quality of state financial governance and government financial report. Self-government accounting standards need to be developed to improve the practice of financial accounting in government organizations (Mahmudi, 2011).

1.2. Accrual-based accounting

Hara (2006) argued that “the accrual basis is a superior accounting method for economic resources in several organizations”. Accrual basis encourages accounting measurements based on substance and events, in absence of cash payment. It improves relevance, neutrality, timeliness, completeness, comparability. Mustofa (2006) described “accrual-based accounting as an accounting basis in which economic transactions and other events are recognized and recorded in accounting records it is reported in the financial reporting period at the time of the transaction, instead of when the cash or its equivalent is paid”. Accrual-based accounting is widely used by non-public sector institutions and other institutions aimed at profit. The International Monetary Fund (IMF) as a creditor institution composes Government Finance Statistics (GFS) in which it advises debtor countries to apply accrual-based accounting in preparing financial statements.

The reason for applying accrual basis is that it records transaction according to the time when the flow of resources occurred. Hence, accrual basis provides precise estimates of the influence of government policies on the economy on a macro basis. In addition, the accrual basis provides the most comprehensive information, because all resource flows are recorded, including internal, in-kind transaction and other economic flows. Accrual-based accounting can be beneficial to the government, because it can provide more information to decision makers, hence, leads to better decision making (Hyndman & Conolly, 2006) and increases efficiency, effectiveness, transparency, and accountability (Guthrie, 1998; Chan, 2003; Ron & Mellet, 2003; Barton, 2005; Nistor et al., 2009; Monteiro & Gomes, 2013). Component of regional government accrual-based financial are reports as:

1) budget realization report;
2) excess budget balance changes report;
3) balance sheet;
4) operational report;
5) cash flow statement;
6) changes in equity changes;
7) notes to the financial statements.

1.3. Regulatory pressure

Regulatory pressure is a special form of coercive isomorphism (DiMaggio & Powell, 1983). Dimaggio and Powell stated that coercive iso-
morphism originated from political influence and the need for legitimacy. The power of coercive is external pressure given by the government, regulations, or other institutions to adopt a structure or system (Ashworth, 2009). The existence of regulations is intended to regulate better existing practices. On the other hand, the coercive power of a regulation can lead to the tendency of organizations to gain or improve legitimacy (Scott, 1987), hence, it only emphasizes positive aspects to maintain a good image towards parties outside the organization. Organizational change based on coercive power will encourage organizations to consider political influence rather than technical aspect (Ashworth, 2009).

1.4. Competence

According to Bastian (2006), “the preparation of quality financial reports requires HR competency who master government accounting”. HR is a key factor in creating quality financial reports, because those who make financial statements are those who master SAP. Without reliable human resources support, SAP qualified financial reports are difficult to achieve. Susanto (2000) explains that “competence exhibits the characteristics that underlie individuals to achieve superior performance”. Competencies include knowledge, skills, and abilities related to work and the abilities required for jobs.

Simamora (2004) argues that “competence is obtained from training, development, and education”. These three are one entity despite having different goals and benefits. Training is a short-term educational process using a systematic and organized procedure to ensure operational employees learn workmanship techniques knowledge and specific purposes expertise. This implies that the development of human resources does not focus on present work or future assignments, but rather on the long-term needs of the organization. Based on the description of competencies above, it can be concluded that a competent employee is someone who has adequate education and experience and is supported by participation in training aimed at developing knowledge and skills appropriate to the work and needs of the organization.

1.5. Organizational culture

Stoner et al. (1995) define organizational culture as an understanding of norms, values, attitudes, and beliefs shared by all members of the organization, or organizational culture is a framework that guides daily behavior, guidelines in making decisions, and directing the actions of members of the organization to achieve organizational goals. Culture must be in line with organizational actions such as planning, organizing, leadership and controlling. If culture is not in line with these tasks, the organization will face difficult times (Stoner et al., 1995; Kotter & Hesket, 1992).

Denison (1990) defines “organizational culture as values, beliefs, and basic principles which are the foundation of management systems, practices, and behaviors that enhance and strengthen these principles”. The Denison model emphasizes the importance of linking management practices with basic assumptions and beliefs in assessing the effectiveness of organizational culture. The values and beliefs in the organization foster a set of management practices where the activities carried out are a source of organizational values. This action arises from strengthening dominant values and beliefs within an organization. Denison (1990) divides the dimensions of organizational culture based on four main culture traits, namely: 1. Involvement. This cultural trait is related to the employee capability, ownership, and responsibility. Effective organizations empower and develop resource capabilities at all levels. 2. Consistency. This cultural trait emphasizes the positive impact of strong culture on organizational effectiveness. Systems of beliefs, values, and symbols internalized and widely understood by members of the organization have a positive impact on their ability to reach consensus and coordinated actions. 3. Adaptability. This cultural characteristic is the elaboration of a system of norms and beliefs supporting the capacity of an organization in order to receive, interpret, and translate signs originating from the environment. It would encourage internal behavioral changes in order to survive, grow, and develop. 4. Mission. This cultural trait determines benefits and meanings by defining social roles and external
goals for institutions and defining the role of individuals with regard to the role of institutions. Mission awareness provides clear direction and goals for defining a series of actions appropriate for the organization and its members. The four main characteristics of the cultural dimensions mentioned above are grouped into two, namely: 1) internal integration and 2) external adaptation. Internal integration includes involvement (empowerment, team orientation, and capability development), and consistency (core value, agreement, and coordination and integration), whereas external adaptation includes adaptability (creating change, customer focus, and organization learning), and mission (vision, strategic direction, and goal and objective).

1.6. Formulation of the hypotheses

The application of accrual-based accounting occurs in government organizations due to regulatory pressure through PP No. 0.71 of 2010. This regulation binds and forces public sector organizations to adhere to it. The research by Adhikari and Mellemvik (2011) in Nepal proved that due to pressure from international institutions, the application of accrual-based accounting was unsuccessful. The Government of Nepal is forced to apply accrual-based accounting despite having minimal human resource capabilities.

H1: Regulatory pressure has a positive effect on the application of accrual-based accounting.

The application of accrual-based accounting requires adequate competence as a number of countries have failed to implement accrual-based accounting due to lack of competence. Several studies proved that competency greatly influences the application of accrual-based accounting. Ouda (2004) conducted research on the success of Australia, New Zealand and England on the matter. Research result indicated that the competencies of existing accountants are the main factors of success. Oluseyi (2010) compared the implementation of accrual-based accounting in the UK and New Zealand, stating that the role of competency in human resources is a vital factor in the successful implementation of accrual-based accounting. This description forms the basis of the following hypothesis:

H2: Competence affects the application of accrual-based accounting.

Organizational culture is the most important part of an entity. Organizational culture is a framework that becomes a guideline for organizational actors. The purpose of an organization can be achieved if it has a good organizational culture. The application of accrual-based accounting requires an organizational culture, especially public sector organizations. The application of accrual-based accounting requires ability, leadership attitude, and leaders, as well as subordinates commitment in the organization. These factors are part of the value of organizational culture. The failure and slow implementation of accrual-based accounting have been caused by a lack of organizational culture. Many leaders and subordinates in an organization are resistant to change. They are accustomed to the old and slow system culture and resists changes. Jorge et al. (2007) explained that the process of implementing a new accounting system was described as a cultural shock in public sector organizations. The accrual-based accounting system is foreign to the leadership and staff. Therefore, it experiences difficulty in changing a culture that has long been embedded. Sugiarto and Alfian (2014) proved that there is a significant relationship between organizational culture and the application of accrual systems. Based on this description, the hypothesis is formulated as follows:

H3: Organizational culture influences the application of accrual-based accounting.

Institutional theory is used to determine the extent to which the application of accrual-based accounting is driven by the isomorphic (coercive, mimetic, and normative) phenomena. The institutional theory states that coercive pressure arises when organizations are forced to apply certain practices, because they are regulated by legislation. Organizations take several forms or adopt other organizations due to pressure from the government, other organizations, or the community. In this study, the regulatory pressure variable is a manifestation of coercive pressure (Saffarudin, 2010). In addition to institutional theory, a contingency theory approach with con-
gruence type is used to explain that contingency suitability was analyzed by placing contingency factors as both mediator and moderator variables. Organizational culture as a contingent factor was used as a mediator variable. The coercive pressure faced by public sector organizations in the application of accrual-based accounting is related to organizational culture. Through organizational culture, the researchers would determine the indirect influence of regulatory pressure on the application of accrual-based accounting. Based on this explanation, the following hypothesis was formulated:

**H4:** Organizational culture mediates the influence of regulatory pressure on the application of accrual-based accounting.

Competency and organizational culture are important elements of the application of accrual-based accounting. Through organizational culture, it is expected to be able to enhance and strengthen the influence of competencies on the application of accrual-based accounting. The contingency theory approach with congruence type (Gerdin & Greve, 2008) explains that contingency suitability will be analyzed by placing contingency factors as both mediator and moderator variables. Saleh and Pendlebury’s (2006) research in Malaysia highlighted the lack of competence of accountant staff in the public sector. Furthermore, Oluseyi (2010) compared the implementation of accrual-based accounting in the UK with New Zealand. The role of human resources, especially bureaucrats, is very important in realizing good governance and increasing professionalism of government accountants to support the application of accrual-based accounting. Stefanescu and Turlea’s (2011) research in Romania suggested that most government employees have not been able to apply accrual-based accounting properly due to inadequate competence.

Research on the influence of organizational culture on the application of accrual-based accounting was conducted by Jorge et al. (2007). It explained that the process of implementing a new accounting system was described as cultural shock. Pessina and Steccolini (2007) stated that the application of accrual basis accounting was less successful in Italy due to the weak implementation of this new accounting system. The strong cultural tradition of government entities inhibits the introduction of accrual base. The lack of active participation of government personnel in the reform process deterred the implementation of accrual-based accounting. Ouda (2004) stated that in addition to the strategies carried out by the government, the involvement and acceptance of implementors is an important factor in changing accounting bases. This issue is related to organizational culture. However, the findings are not in line with Laksono’s research (2016), which exhibited that organizational culture has no effect on the use of accrual-based accounting. Based on the description, the hypothesis that can be formulated is as follows:

**H5:** Organizational culture mediates the influence of competencies on the application of accrual-based accounting.

2. RESEARCH METHODS

The sampling technique in this study was proportionate stratified random sampling. Respondents in the study were 102 people from 17 SKPD, and 6 people were from each SKPD. The respondents consisted of:

1) head of SKPD;  
2) head of finance;  
3) treasurer;  
4) assistant treasurer of the income book keeping;  
5) assistant treasurer of expenses bookkeeping;  
6) the registrar of goods flow.

3. RESULTS

The path diagram of the relationship of each variable can be described as follows (see Figure 2). Analysis of the result on the effect of regulatory pressure and competency variables through cultural variables as mediating variables was carried out using Sobel test. The Sobel test was used to determine whether the relationship through a mediating variable is significantly capable of being a mediator in the relationship.
Figure 2. Result of path diagram

Table 1. Results of direct effect analysis

<table>
<thead>
<tr>
<th>Exogenous variable</th>
<th>Endogenous variable</th>
<th>Coefficient path</th>
<th>p-value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressure</td>
<td>Cultural</td>
<td>0.320</td>
<td>&lt; 0.001</td>
<td>Significant</td>
</tr>
<tr>
<td>Competence</td>
<td>Cultural</td>
<td>0.387</td>
<td>&lt; 0.001</td>
<td>Significant</td>
</tr>
<tr>
<td>Pressure</td>
<td>Application</td>
<td>0.262</td>
<td>&lt; 0.001</td>
<td>Significant</td>
</tr>
<tr>
<td>Competence</td>
<td>Application</td>
<td>0.380</td>
<td>&lt; 0.001</td>
<td>Significant</td>
</tr>
<tr>
<td>Culture</td>
<td>Application</td>
<td>0.266</td>
<td>&lt; 0.001</td>
<td>Significant</td>
</tr>
</tbody>
</table>

Table 2. Results of the mediation variable effect

<table>
<thead>
<tr>
<th>Effect of mediation variables</th>
<th>Path coefficient</th>
<th>Mediation nature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exogenous</td>
<td>Mediation</td>
<td>Endogenous</td>
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<tr>
<td>Pressure</td>
<td>Culture</td>
<td>Application</td>
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<tr>
<td></td>
<td>0.320</td>
<td>0.266</td>
<td>0.262</td>
</tr>
<tr>
<td>Competence</td>
<td>Culture</td>
<td>Application</td>
<td></td>
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<tr>
<td></td>
<td>0.387</td>
<td>0.266</td>
<td>0.380</td>
</tr>
</tbody>
</table>

Table 3. Sobel test results

<table>
<thead>
<tr>
<th>Path</th>
<th>A</th>
<th>B</th>
<th>SE_a</th>
<th>SE_a</th>
<th>p-value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressure – culture – application</td>
<td>0.320</td>
<td>0.266</td>
<td>0.101</td>
<td>0.064</td>
<td>0.012</td>
<td>Significant</td>
</tr>
<tr>
<td>Competence – culture – application</td>
<td>0.387</td>
<td>0.266</td>
<td>0.103</td>
<td>0.064</td>
<td>0.005</td>
<td>Significant</td>
</tr>
</tbody>
</table>
DISCUSSION AND CONCLUSION

Based on hypothesis 1 assessment result, it is proved that regulatory pressure has a significant effect on the application of accrual-based accounting. This indicates that due to regulatory pressure in PP No. 71 of 2010, it forces respondents to apply accrual-based accounting. The pressure of regulation PP No. 71 of 2010 becomes a force, so it must be done. This is in accordance with institutional theory presented by DiMaggio and Powell (1983), which explains coercive pressure, where pressure is imposed when organizations are forced to apply certain practices, because they are regulated by legislation adopted by other organizations because of pressure from the state and other organizations or the wider community.

The results of this study are in line with the research of Adhikari and Mellemvik (2011) in Nepal regarding the effect of regulatory pressure on the application of accrual-based accounting. Then, this research is also in line with Yudi’s (2016) research on the application of accrual-based accounting due to PP regulation No. 71 of 2010. Furthermore, Wahyuni’s (2016) study using the theory of institutional perspective found evidence that the City Government of Malang in the implementation of accrual-based accounting has not maximally understood accrual-based accounting and its benefits, basically they are currently only fulfilling the rules of organizations that have power over them (coercive isomorphism).
Hypothesis 2 assessment proved that competence has a significant effect on the application of accrual-based accounting. This indicates that the competencies of respondents play an important role in the successful implementation of accrual-based accounting. Someone who has low competence will be very difficult in applying accrual-based accounting. The results of this study are in line with the research of Ouda (2004) who conducted research in New Zealand, UK and Australia. Ouda found that the successful implementation of accrual-based accounting was due to adequate competence of the accounting staff of the three countries. This is reinforced by research of Scott et al. (2003), Lye et al. (2005), Oluseyi (2010).

Hypothesis 3 assessment proved that organizational culture has a significant effect on the application of accrual-based accounting. This indicates that successful application of accrual-based accounting must be supported by a good organizational culture. An organization must create a good culture so that the goals of the organization can be achieved. This research is reinforced by the research of Pessina and Steccolini (2007) in Italy. The application of accrual-based accounting was less successful due to the weak implementation of the new accounting system due to the strong tradition in the culture of government entities, which hampered the introduction of accrual basis, and the lack of active participation of government personnel in the reform process towards accruals.

Hypothesis 4 assessment proved that organizational culture can mediate the significant effect of regulatory pressure on the application of accrual-based accounting. This indicates that a good organizational culture increases the relationship between the influences of regulatory pressure on the application of accrual-based accounting. The rules of an organization can be obeyed if the culture in the organization is created properly.

Hypothesis 5 assessment proved that organizational culture can mediate the significant effect of competence on the application of accrual-based accounting. This means that adequate competencies are strongly influenced by good organizational culture, which ultimately influences the success of applying accrual-based accounting.

Based on the results of research and hypotheses assessment, the following conclusion was proposed:

1) the regulatory pressure, competence, and organizational culture have a significant direct positive effect on the application of accrual-based accounting;

2) organizational culture successfully mediates the influence of regulatory pressure and competency on the application of accrual-based accounting.

**SUGGESTION**

Based on the conclusion of the research results, the following suggestion was proposed:

1. Future research should add other variables that might influence the successful application of the accrual-based accounting system.

2. This research is carried out on government organizations that are not limited to just one district as Indonesia possesses hundreds of regencies or cities.
REFERENCES


