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# TATA KELOLA & AKUNTABILITAS KEUANGAN NEGARA

**Volume 5, Number 2, Jul - Dec 2019**



**BADAN PEMERIKSA KEUANGAN**  
**DIREKTORAT PENELITIAN DAN PENGEMBANGAN**



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# **JURNAL**

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# Foreword

The implementation of good governance in public agencies will encourage the achievement of an efficient and corruption-free government. Governance cannot be separated from the basic principles of good governance, namely transparency, participation, and accountability as the main elements. Good governance has been considered as an important element to guarantee national prosperity. The government always tries to apply the principles of good governance in policies they make, although in practice there are still many cheats and leaks found in budget management and accounting, which are the two main products of Good Governance. The failure of the government in implementing policies is considered a weak point of the policy process due to the inconsistency between the formulation and implementation of policies that have been determined and the implementation which affects the achievement of the objectives.

As the opening, this journal edition begins with the article entitled "Promoting development program effectiveness: the expected role of public sector audit in state finance management". The purpose of this study is to confirm whether the current public sector audit approach is adequate to promote development program effectiveness and what additional roles are expected to be fulfilled by public sector audit. This study is based on the Indonesian context and uses a qualitative methodology where 27 semi-structured interviews were conducted to Member of Parliament and officials of the Supreme Audit Institution (SAI) and government agencies in Indonesia.

Article "The Audit Board of Republic of Indonesia's opinion and bribery in local governments in Indonesia" inspired by many cases of corruption especially bribery despite audits being conducted each year by BPK. The study aims to examine the correlation between the opinion of the financial statement and the number of bribery corruption cases based on 258 bribery cases that have been handled by the Corruption Eradication Commission (KPK) in the period 2008-2017. This study shows that the BPK's opinion on the Local Government Financial Statements does not have a correlation with the number of bribery corruption cases in Indonesia. This is because bribery corruption is a personal mode of corruption and not documented. Therefore the disclosure of bribery cases cannot be done through audit procedures on financial statements by the BPK. Those indicate that the quality of fraud detection through auditing procedures and the internal control system must be improved.

Speaking of the fraudulent acts, an internal control system is an effort to mitigate fraud, but promoting a culture of ethics and integrity is also important. Fraud occurs when all the elements such as opportunity, pressure, and rationalization are all present. Therefore, ethical decisions are important to distinguish a person to commit fraud. Article "Superior authority and fraudulent acts in goods and services procurement: the role of code of ethics" tries to determine and evaluate the role of the code of ethics on the influence of superior authorities on fraudulent acts in goods and services procurement of government agencies in Indonesia.

"Budget forecast errors and budget deviation: the role of financial capability index" is the article that discusses the budget forecasts. The mistake in the budget forecast will cause the budget deviation. Budget deviation indicates that the government fails to plan, implement, supervise, and account for budgets, resulting in budget surplus or deficit. The study aims to examine the role of financial capability index in influencing the relationship of budget forecast errors and budget deviation. The next article "Application of inventory turnover analysis on Indonesian ministry/agency financial statement" promotes the use of inventory management methods and how simple accounting analysis methods can be used to measure performance related to government finances.

"Implementation of rock mining policy after Law Number 23 of 2014 (Study of rock mining permit in Subang District, West Java Province)" is the closing article for this edition. This study is analyzing the impact of the enactment of Law Number 23 of 2014 on the process of rock mining permits in the Subang Regency. The results showed that the abolition of district/city government authority related to rock mining activities in Subang Province did not bring significant changes to mining permits, for example, the trimming of the permit issuance duration was not reached. This means that the policies taken by the government have not been effective. Therefore, this study also provides suggestions for the effectiveness and optimization of rock mining permit issuance.

Unlimited thanks to the authors who chose Jurnal Tata Kelola dan Akuntabilitas Keuangan Negara as a medium in contributing their ideas and thoughts. We always welcome journal readers to participate through articles with a scope related to governance and accountability of state finances. We also thank reviewers and various parties who helped publish this journal in the past five years.

Finally, we hope the articles presented in the December 2019 edition can be useful to enhance the knowledge of readers and become a reference for the development of academics and practitioners also policy formulation.

Editor in Chief



Dr. Dwi Setiawan Susanto, S.E., M.Si., Ak., C.A., FCMA., CGMA.

## PROMOTING DEVELOPMENT PROGRAM EFFECTIVENESS: THE EXPECTED ROLE OF PUBLIC SECTOR AUDIT IN STATE FINANCE MANAGEMENT

Andi Wibowo

Jurnal Tata Kelola & Akuntabilitas Keuangan Negara, 5(2) 2019: 103-123

Public sector audit has an important role in development by improving transparency and accountability of state finance management. It is observed, however, that many development programs do not meet their objectives. It indicates that the current public sector audit has not been adequate to promote development program effectiveness. The objective of this study is to confirm whether the current public sector audit approach is not adequate to promote development program effectiveness and what additional roles are expected to be fulfilled by public sector audit. This study is based on the Indonesian context and uses a qualitative methodology where 27 semi-structured interviews were conducted to Member of Parliament and officials of the Supreme Audit Institution (SAI) and government entities in Indonesia. The study shows that the existing public sector audit has not been adequate to promote development program effectiveness because it pays more attention to financial and compliance aspects of the development program. Moreover, it also focuses on a completed development program. Stakeholders expect that public sector audit also needs to provide the solution, provide preventive measures, create a good environment and produce useful information for decision making.

### KEYWORDS:

Audit; development; effectiveness; public sector; Supreme Audit Institution

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## THE AUDIT BOARD OF REPUBLIC OF INDONESIA'S OPINION AND BRIBERY IN LOCAL GOVERNMENTS IN INDONESIA

Yuniasih Dwi Astuti, Vid Adrison

Jurnal Tata Kelola & Akuntabilitas Keuangan Negara, 5(2) 2019: 125-138

This study is motivated by the trend of corruption cases which increase from year to year, where bribery is the first number in corruption cases. As many as 128 cases of bribery with in kracht status occurred in the local government that received an unqualified opinion from the Audit Board of the Republic of Indonesia (BPK RI). Using the Zero Inflated Poisson (ZIP) Panel Regression, this study examines the correlation between financial statement opinion and the number of bribery corruption cases based on 258 bribery cases that have been handled by the Corruption Eradication Commission (KPK) in the period 2008-2017. The estimation result shows that there was no correlation between financial statement opinion and the number of bribery cases. However, the increase in the amount of capital expenditure also goods and services expenditure is related to the increase in the number of bribery cases. This study recommends BPK to consider improving the quality of fraud detection through audit procedures on financial statements, especially in regions that have a relatively high value of capital expenditure and service goods expenditure.

### KEYWORDS:

Corruption; bribery; audit; BPK's opinion; capital expenditure; goods and services expenditure

DOI: 10.28986/jtaken.v5i2.379



## SUPERIOR AUTHORITY AND FRAUDULENT ACTS IN GOODS AND SERVICES PROCUREMENT: THE ROLE OF CODE OF ETHICS

Theresia Febiengry Sitanala

Jurnal Tata Kelola & Akuntabilitas Keuangan Negara, 5(2) 2019: 139-155

### KEYWORDS:

Superior authority;  
code of ethics;  
fraudulent acts;  
goods and service  
procurement

An increase in the number of corruption cases in the goods and services procurement at government agencies in Indonesia causes the country to suffer significant losses. This condition proves the noncompliance of the goods and services procurement officials with the code of ethics for the implementation of goods and services procurement. Corruption cases in the goods and services procurement tend to involve goods and services procurement officials, both as Budget User Authorities, Commitment Making Officials, and Technical Implementation Activities Officials. In other words, officials (superiors) use their authority to commit fraud in the goods and services procurement. The purpose of this study is to determine and evaluate the role of the code of ethics on the influence of superior authorities on fraudulent acts in goods and services procurement of government agencies in Indonesia. This study used the laboratory experiments method with the accounting students of Pattimura University, Ambon as the participants and a two-way ANOVA with a 2x3 factorial experimental design as a data analysis technique. The results of this study show that superior authority plays an important role in influencing the occurrence of fraudulent acts in the goods and services procurement, and a code of ethics can reduce it. There is a difference in the tendency to commit fraud in the goods and services procurement when there is a superior authority and no superior authority. The tendency to commit fraud will be smaller for individuals who are asked to read the code of ethics and signatures it compared to only reading the code of ethics and without a code of ethics.

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## BUDGET FORECAST ERRORS AND BUDGET DEVIATION: FINANCIAL CAPABILITY INDEX AS MODERATING VARIABLE

Jancen Roland Patty

Jurnal Tata Kelola & Akuntabilitas Keuangan Negara, 5(2) 2019: 157-175

### KEYWORDS:

Budget forecast  
errors; financial  
capability index;  
budget deviation

The lack of accounting literature that links budget supervision or control with budget realization allows the author to conduct this study. In addition, the main issue of this study is the failure of the local government in planning, implementing and being responsible for the budget resulting in budget surpluses and deficits. Surplus and deficit prove the existence of the budget deviations. The cause of the budget deviation is a mistake in the budget forecast. Some cases of budget deficits in Indonesia prove this. Budget forecast errors have the potential to increase budget deviation due to the role of the financial capability index. The purpose of this study is to examine the role of financial capability index in influencing the relationship of budget forecast errors and budget deviation. The sample used local government in Indonesia between 2016 and 2018 through a purposive sampling technique. Analytical tools use STATA Version 15.1. The results of the study prove that budget forecast errors have a positive and significant effect on budget deviation, and the financial capability index has a positive effect on the relationship between budget forecast errors and budget deviation. Sensitivity testing and additional testing reinforced the initial testing of this study.

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# APPLICATION OF INVENTORY TURNOVER ANALYSIS ON INDONESIAN MINISTRY/AGENCY FINANCIAL STATEMENT

Laskar Rianto

Jurnal Tata Kelola & Akuntabilitas Keuangan Negara, 5(2) 2019: 177-189

Inventory turnover is a simple accounting analysis method seldom used by the user of Indonesian governmental organization's financial statement due to lack of accrual information in the past. The opportunity for the application of this analysis arrived in 2015 along with the implementation of accrual accounting basis by the Indonesian government. This study observes the Indonesian ministry/agency (MA) inventory management focusing on the inventory average flow time, during the 2017 and 2018 period. The study shows that among 86 MAs, 62 MAs have desired average flow time. The other 24 MAs have high average flow time with 12 of them also have unstable average flow time. While several MAs disclosed information related to their average flow time, most MAs did not. Thus, they failed to communicate their conditions to their stakeholders. The average flow time can be used as a starting point for the managers, auditors, and other stakeholders to further analyze government inventory management. Better inventory management can reduce costs and improve the government planning process. Therefore, the government may be capable of allocating their budget for other programs or activities to deliver higher value for the public.

DOI: 10.28986/jtaken.v5i2.377

## KEYWORDS:

Inventory; turnover; accrual; disclosure; government

# IMPLEMENTATION OF ROCK MINING POLICY AFTER LAW NUMBER 23 OF 2014 (STUDY OF ROCK MINING PERMIT IN SUBANG DISTRICT WEST JAVA PROVINCE)

Gede Suyasa, Muchlis Hamdi, Prio Teguh, Megandaru

Jurnal Tata Kelola & Akuntabilitas Keuangan Negara, 5(2) 2019: 191-212

The purpose of this study is to analyze and study the process of rock mining permit including the effectiveness and benefit from policy implementation related to the abolition of the authority of regency/city government in the rock mining activity after the enactment of Law Number 23 of 2014 in Subang Regency. The method used in this study is a qualitative method by interviewing parties related and literature review. The results of the study indicate that there are differences in the duration of the permit for rock mining due to differences in the process of issuing rock mining permits before and after the authority of the management of rock mining by the province. The social impact of the transfer of authority over the management of the rock mine does not affect the surrounding community. This is due to the coordination and written agreements between the entrepreneur and the community related to the social responsibility management of the entrepreneur to the community.

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## KEYWORDS:

Policy; permits; rock mining; Law Number 23 of 2014





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## PROMOTING DEVELOPMENT PROGRAM EFFECTIVENESS: THE EXPECTED ROLE OF PUBLIC SECTOR AUDIT IN STATE FINANCE MANAGEMENT

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### ABSTRACT

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Public sector audit has an important role in development by improving transparency and accountability of state finance management. It is observed, however, that many development programs do not meet their objectives. It indicates that the current public sector audit has not been adequate to promote development program effectiveness. The objective of this study is to confirm whether the current public sector audit approach is not adequate to promote development program effectiveness and what additional roles are expected to be fulfilled by public sector audit. This study is based on the Indonesian context and uses a qualitative methodology where 27 semi-structured interviews were conducted to Member of Parliament and officials of the Supreme Audit Institution (SAI) and government entities in Indonesia. The study shows that the existing public sector audit has not been adequate to promote development program effectiveness because it pays more attention to financial and compliance aspects of the development program. Moreover, it also focuses on a completed development program. Stakeholders expect that public sector audit also needs to provide the solution, provide preventive measures, create a good environment and produce useful information for decision making.

### KEYWORDS:

Audit; development; effectiveness; public sector; Supreme Audit Institution

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## INTRODUCTION

Public sector auditing has a prominent role in state finance management by promoting transparency and accountability of government for its stewardship of public money (Nagy, 2015). The audit, which is conducted by the Supreme Audit Institution (SAI), presents to strengthen public accountability by ensuring that public money is spent appropriately (OECD, 2011). SAI also helps citizens and parliaments to monitor government activities through its audit reports (Bringselius, 2015; Reichborn-Kjennerud, Carrington, Gonzales, & Klarskov, 2015).

The government manages public funds to improve citizens' welfare. The government spends public funds through various development programs in various aspects of people's life such as health, education, housing, and income. The spending is a key instrument for economic development. It generates a multiplier effect that eventually will promote the quality of life of people (Wilhelm & Fiestas, 2005). Wilhelm and Fiestas (2005) also state that good design and implementation of the development programs are important conditions to make sure that the government achieves development objectives. A good design portrays the needs of the program, program's objective, expected outcome and impact and procedures, methods employed and resources needed to achieve the result. A good implementation is needed to actualize the plan so that resources can be properly processed to produce planned output and create intended results. For the spending to create a considerable impact on the citizen, the spending should be carefully planned, executed, monitored and evaluated (World Bank, 2012).

The government sets up an internal control system, to achieve the development program objective, that is designed to ensure that all elements within government institutions

work toward achieving development objectives (Asaolu, Adedokun, & Monday, 2016; Gustavson, 2015; Nurhasanah, 2016). Externally, there is an SAI that is designated as the government's external auditor. Although the role of SAI may vary among countries, it has a common role which is to conduct audit on state finance management in order to promote its transparency and accountability (Domokos, Pulay, Pályi, Németh, & Mészáros, 2016; INTOSAI, 2013a; Kaya & Coşkun, 2017; Reichborn-Kjennerud et al., 2015). More specifically, SAI presents to make sure that the government carries out the development programs in accordance with law and regulation in efficient, economical, effective and equitable ways. By evaluating the government's activities and programs through its audits, SAI measures the extent to which the government has managed the state finance properly and reports it to the public. Besides, the audit provides a recommendation that can be used by the government to improve the quality of the development programs. When both internal control and SAI perform their roles properly, quality of development program will improve (Wibowo, Jusoh, Ahmad, & Malek, 2016).

Despite the contribution of various stakeholders in the development, some development programs did not deliver intended results to citizens. Some facilities are broken during construction such as in the Hambalang case (The Jakarta Post, 2016), some completed projects are idle, underutilized and utilized by ineligible recipients (Wibowo, Jusoh, Ahmad, & Malek, 2018). Studies by Farwati (2012) and World Bank (2012) exemplify some problems in the implementation of some development programs in Indonesia. Some pro-poor programs, such as cash transfer, health insurance, rice and scholarship for the poor, that are mainly intended to help the poor citizens, suffer from problems such as misallocation and improper distribution of the fund.



Problems found in some development programs show that the current control mechanism does not work satisfactorily to achieve their intended objectives (Gustavson, 2015). Internally, the government needs to improve the quality of its management so that development can improve the lives of citizens (Riddell, 2004). The government should improve the quality of design and implementation of development programs to make sure that they create the highest value to the citizen. The government also needs to enhance the quality of its internal control and monitoring mechanism to make sure that all components of development programs work as planned. Externally, SAI shall improve the quality of its audit reports because when its audits are conducted properly, the problems should not happen or when they do appear, they can be identified and solved earlier (Wibowo et al., 2016).

Accountability concept demands that government convince the people about the soundness of its development efforts, choices, actions and policies in managing nations' resources and about the impact of its development on their well-being (Dellaportas et al., 2005). Because SAI exists to promote the government's accountability, it should help the government achieve development program objectives so that the program improves the lives of citizens. Thus, SAI presents not only to prove whether the development program succeeds nor not, but to ensure that the program meets its objective (Nagy, 2015).

The government is not the only stakeholder responsible for achieving development program objectives (Wilhelm & Fiestas, 2005). It means that when the development program fails, the government should not be the only entity that needs to make improvements. In such an occurrence, it is inconceivable that the government shall improve the quality of its internal control. However, it is

also true that other stakeholders, including SAI, need to improve their roles as well so that all stakeholders work together to support the government in achieving development program objectives according to their roles and responsibilities (Brétéché & Swarbrick, 2017).

ISSAI 12 states that SAI needs to play a more important role in state finance management so that its presence adds value to citizens (INTOSAI, 2013a). To perform the role, SAI needs to improve the quality of its audit results so that it can be used by relevant stakeholders for decision-making purposes. In addition, as one of the state institutions, SAI should also be accountable to people for its role in state finance management. Its activities, therefore, should make a difference to the audited program and eventually for the general public. SAI needs to constantly evaluate its works to make sure that they keep abreast with constantly changes the environment and relevant with as well as meet stakeholders' expectation (INTOSAI, 2010; Nagy, 2012).

Wibowo et al. (2016) propose improvement in audit methodology by suggesting that SAI conducts developmental audits. The audit is designed mainly to make sure that development programs meet their objectives. It is proposed because the existing audit has not been adequate to promote development program effectiveness. The objective of this study is to confirm findings by Wibowo et al. (2016) who evaluate the adequacy of existing public sector audit to promote development program effectiveness. Besides, this study also identifies the expected role of public sector audit in addition to existing ones.

Arens, Elder, Beasley, and Hogan (2014) define auditing as "the accumulation and evaluation of evidence about information to determine and report on the degree of correspondence between the information and esta-

blished criteria. Auditing should be done by a competent, independent person”

That definition portrays necessary conditions for an audit to be conducted, i.e. information, criteria, and a competent and independent person. In an audit, there should be information to be verified and compared against a predetermined standard or criteria which should be agreed upon by both auditor and entity. For the auditor to provide an objective evaluation of the quality of information, an audit should be conducted by independent and competent persons. The definition does not differentiate public and private sector audit and thus is applicable for both audits.

INTOSAI (2013a) defines public-sector auditing as “a systematic process of objectively obtaining and evaluating evidence to determine whether the information or actual conditions conform to established criteria.” The audit definition by INTOSAI shows that there is no difference in the nature of audit between public and private sector audits, as it is an effort to measure the conformity of conditions with criteria using available evidence. Although the INTOSAI definition does not include objective and independence, it emphasizes that independence and objectivity are two important factors that affect public sector audit effectiveness (INTOSAI, 2001).

Agency theory states that an audit is designed to reduce the risk of the owner who entrusted assets to the agent to be managed (Madison, 2014). As a mean of accountability, the agent has to report to the owner how well he or she manages the owner’s resources. Because of some limitations on the owner’s side to examine every side of the agent’s operation, the principal hires an independent party to validate the information contained in the agents’ report (Waring & Morgan, 2007). Thus, auditing provides as-

surance and adds credibility to the information prepared by management for stakeholders. Without the audit, users of audit reports are doubtful about the quality of information presented by management because management may report misleading information for its interest. This is not an ideal situation because such inaccurate information may lead to poor decisions (Raaum & Morgan, 2009).

ISSAI mentioned three types of audits, namely financial audit, performance audit and compliance audit (INTOSAI, 2013b). Although the names in each country may vary, the classification embraces the type of audits that are conducted in all SAIs. It is possible for an SAI to conduct a comprehensive audit incorporating two or more types of audits, for example, financial with performance audit or financial with a compliance audit. Those audits are equally important as they have their unique objectives (INTOSAI, 1977).

All of the audits produce conclusions or opinions on government operations or fairness presentation of financial statements. However, the performance audit has distinct characteristics as it provides a recommendation to audited entities to improve their performance (INTOSAI, 2013b). It also produces new information since the existing reporting mechanism does not provide sufficient information about government stewardship such as degree of the economy; efficiency and effectiveness of government operation (Raaum & Morgan, 2009).

In the performance audit, audit recommendation is required as the audit is intended not only to uncover the weakness and evaluate the performance of government spending; but also to fix any deficiencies and improve entities’ performance. Sometimes it is also called value for money audit, operational audit, management audit, program eva-

luation and even consulting services (Schultz & Brown, 2003). The difference between performance audit by SAI and works of consulting company is that SAI provides its audit report to parliament and the public, and during the audit, it always considers compliance to regulation as a high priority. Thus, performance audit improves government performance through its recommendation and insight as it tells management how government program should be designed and run. This will guide the government to design and run upcoming programs and activities more efficiently and effectively (Ling & Dijk, 2009).

Each type of audit has a different contribution to state finance management. Jesus and Eirado (2012) state that the role of audit in the public sector depends on the type of audit conducted. They show that audit opinion produced by financial audit has little to do with entities' performance. A similar result is provided by Akbar and Djazuli (2015) stating that there is no relationship between public welfare and financial audit. They state that performance audit or value for money audit is more appropriate to evaluate performance because according to Agbo and Aruomoaghe (2014), performance audit has a relationship with financial and management performance of government.

There are some studies in public sector audit that highlight the roles of existing public sector audit in promoting the quality of public administration (David, 2017; Domokos et al., 2016; Lungeanu, 2015; Otor & Eiya, 2013; Pramono, 2016), reducing inefficient spending (Brétéché & Swarbrick, 2017; Charles & Oluoch, 2017; Funnell, Wade, & Jupe, 2016; Prabowo, Leung, & Guthrie, 2017; Ramírez & Pérez, 2016) and combating corruption (Masood & Afzal, 2016; Raudla, Taro, Agu, & Douglas, 2015; Reichborn-Kjennerud & Vabo, 2017). However, some studies reveal that the role of public sector audit is not as

expected. Ijeoma and Nwifo (2015), Mamidu, Balogun, and Abilogun (2015) also Masood and Afzal (2016) express their concern about the ineffectiveness of public sector audit in promoting good governance and performance of government. Several factors were identified as contributors to the problem. Some researchers state that the lack of resources, training, knowledge, and capacity building (Masood & Afzal, 2016; Matendera, 2013) become prominent problems. Other researchers state that lack of professionalism, lack of integrity, low staff motivation, low morale and poor communication also leadership (Gustavson, 2015; Masood & Lodhi, 2015) are the problems. Other factors are considered as problem that hamper SAI performance such as political interference (Matendera, 2013), non-independence of SAI (Funnell et al., 2016; Ijeoma & Nwifo, 2015; Mamidu et al., 2015), constitutional limitation to SAI, light punitive sanctions and lack of stakeholders' support (Ijeoma & Nwifo, 2015).

Some strategies are proposed to improve the role of public sector audit. In addition to improvement in organizational, human resource and external support (Charles & Oluoch, 2017; Pramono, 2016). Adnyana (2017), and Suartama et al. (2015) suggest that SAI improves the existing audit approach by giving more attention to welfare-related issues. They also recommend that auditors improve the quality of audit plan particularly in the selection of audit objects which should focus on significant programs. Daujotaitė and Mačerinskienė (2008) add that performance audits should use evaluation approaches such as logic models to enhance the quality of audit results.

In addition to the aforementioned audit, Wibowo et al. (2016) introduce a developmental audit concept that will improve the role of SAI in development and maintain its relevance to the people. The audit is intended

not only to evaluate development programs but also to promote their effectiveness. Sharing some characteristics with existing public sector audit, it has some distinctive features. First, it is conducted in various critical stages of development programs. This approach is necessary to assure that the audited development program runs according to plan in terms of budget, technical specification, and progress, and those audit recommendations from previous audits are followed up properly. Second, developmental audit pays attention to input, process, and result of the audited development program stage. This approach will provide stakeholders with thorough information about the progress and or result of the audited program. Because the result of a certain development stage becomes input for the next stage, this approach is also useful to identify the development problems in their earliest stage.

Third, developmental audit encourages and invites more public participation in the audit. Developmental audit aspires to push public participation further by involving them in the audit, not only as respondents or informants. Fourth, a developmental audit requires SAI to work closely with the government's internal control system so that audit, monitoring and evaluation activities can be carried out efficiently and effectively. This close cooperation is important to avoid work redundancy and to mitigate limited audit resources problems encountered by both SAI and the government's internal audit units. Fifth, a developmental audit necessitates that the follow-up mechanism is improved because regardless of how well any audit is conducted, it will create additional value to the audited program when it provides useful recommendations and that audited entities conduct follow up actions to the recommendations promptly and appropriately.

In the public sector, agency theory states that independent auditors are needed to improve

transparency and accountability of state finance management. Improving development program effectiveness is one of the auditors' endeavors to improve government accountability (Badamdorj, 2010). Therefore, SAI through its audit function presents to make sure that the government gets a fair and objective evaluation of the quality of state finance management. The audit also provides parliament and other stakeholders with reliable information for decisions making purpose (Brétéché & Swarbrick, 2017; Ittonen, 2010; Reichborn-Kjennerud et al., 2015; Reichborn-Kjennerud & Vabo, 2017; Ríos, Bastida, & Benito, 2016). Agency theory also requires SAI as a public institution to improve its accountability. It requires SAI to constantly evaluate the quality and relevance of its works with stakeholders' interest to make sure that its works add value to them (INTOSAI, 2013a). The formulation of a better public sector audit approach is an effort to make sure that SAI performs an audit that gives maximum added value for citizens.

Studies about public sector audit show that less attention has been given on evaluating whether the existing audit approach has been adequate to allow SAI to play a greater role in state finance management. As part of the state financial management system, SAI through its audits should contribute to promoting development program effectiveness. The role should be considered as part of SAI's efforts to promote public accountability. The role is also important to highlight the significance and relevance of SAI in promoting public welfare. Existing studies pay more attention to the role of SAI as the evaluator. Most of the research tries to evaluate whether the audit has met a specific goal either in fighting corruption or improving accountability. Those are important roles that SAI can play in state finance management. However, it is also important to know how the SAI role can be improved so that it can make a difference in the life of citizens

(INTOSAI, 2013a).

## RESEARCH METHOD

This research is based on the Indonesian context and uses a qualitative approach because it analyzes qualitative data (Ritchie, Lewis, Nicholls, & Ormston, 2013). The research studies participants' knowledge and experience which may differ across participants due to the subjective perspective of participants (Flick, 2009). This study uses purposive sampling or expert sampling (Bhattacharjee, 2012) targeting 27 high-level officials in SAI, Ministry of Public Works and Member of Parliament of Indonesia. The samples were chosen deliberately based on their positions and expertise. The number of sample is considered sufficient as theoretical saturation will be reached at this point where new respondents will not provide additional insights to the research (Bowen, 2005). Interview data to develop the new audit approach were analyzed using thematic analysis which is widely used in qualitative research (Bryman, 2008). The analysis was intended to understand the data by identifying and analyzing themes in the data (Vaismoradi, Turunen, & Bondas, 2013). The data were analyzed using stages suggested by Braun and Clarke (2006) also Harding (2013) because there were no certain prescribed procedures for the analysis (Bryman, 2008).

In this study, four questions were addressed to interviewees. The questions encompass aspects related to the role of public sector audit in state finance management. The current role of audit in promoting transparency and accountability of state finance management, adequacy and necessity of current audit to promote development program effectiveness and expected role of the audit to promote development program effectiveness were intended to ensure that responses an-

swer research objectives. The questions were distributed to interviewees beforehand to allow them to prepare for the interviews.

Soon after the certain interview was completed, its record was transcribed. The transcription also considered notes that were made during interviews to make sure that the transcript did not miss any important message or meaning. After the transcription, all transcribes were read a couple of times to allow the researcher to get acquaintance with the data and get a thorough understanding of the subject matter. The next stage was to generate initial code from the transcription. Using Atlas.ti software, the transcripts were coded using open coding. Although open coding is initially developed for grounded theory, it can be used in other qualitative analysis, including thematic analysis. The code portrays specific feature about the data which allow the researcher to conduct further analysis in a systematic way (Ngulube, 2015).

After the coding process has been completed, the researcher reviewed the identified codes. Some adjustments were made to accommodate similarity and categorization was then made to allow for the theme identification. Theme rises above codes and is built based on groups of codes. It is a product of a thorough understanding of the transcripts (Bryman, 2008; Vaismoradi et al., 2013). Because theme identification intended to capture the essence of the transcripts, initial categorization was not made (Meier, Boivin, & Meier, 2008). To increase the accuracy of the theme identification process, the researcher repeated the analysis from code categorization to theme identification without looking at the previous analysis. The results were compared, differences were analyzed and final themes were determined.



## RESULT AND DISCUSSION

All interviewees agreed that the current public sector audit has not been adequate to promote development program effectiveness. They stated that currently, public sector audit tends to pay more emphasis on evaluating the role of audit which focuses on assessing whether or not state finance management has been conducted properly. Less attention has been given on promoting the role of public sector audit to help the government achieves development program objectives. They mentioned that Law Number 15 Year 2004 on State Finance Audit implies that public sector audit should not only evaluate the quality of state finance management but also ensure that it is managed properly. A more comprehensive public sector audit approach, that pays more attention on ensuring effectiveness, is needed to complement the existing role of public sector audit in development so that public sector audits can meet the mandate properly.

The main task of public sector audit is to conduct an audit on management and accountability of state finance. R2, R13, R25, and R27 stated that the audit is intended to provide an evaluation on the government's transparency and accountability by measuring the degree of compliance between condition and relevant standards or criteria. R10, R17, and R19 added that information provided by auditors can tell government and public about the extent to which government officials follow regulation, government spending has been used as intended and the spending has created intended impact. When

government spending is utilized properly and as planned, the development program will meet its objective.

The audit is also important to evaluate the quality of the information provided and or used by the government for decision-making purposes because sometimes different institutions provide different data for certain conditions. Analysis of interview data reveals that there are two themes related to fulfilling stakeholders' expectation of a better public sector audit approach. The first theme is about the inadequacy of the existing approach and the second theme is about the expected role of public sector audit that will improve its role in state finance management.

### Inadequacies of Existing Roles of Public Sector Audit in Development

During the interviews, the question about the existing role of SAI audits in state finance management was addressed. The results of the interviews reveal that, currently, audits conducted by SAI tend to focus on measuring financial and compliance aspects rather than promoting the quality of development. Current audits also tend to focus on completed programs rather than conducting an audit on on-going programs to identify and solve problems during their implementation. The results are summarized in Table 1. In addition to those aspects, some interviewees highlight other characteristics of SAI audits that reduce their impact on promoting the quality of state finance management. R3 and R18, for example, stated that lack of coordi-

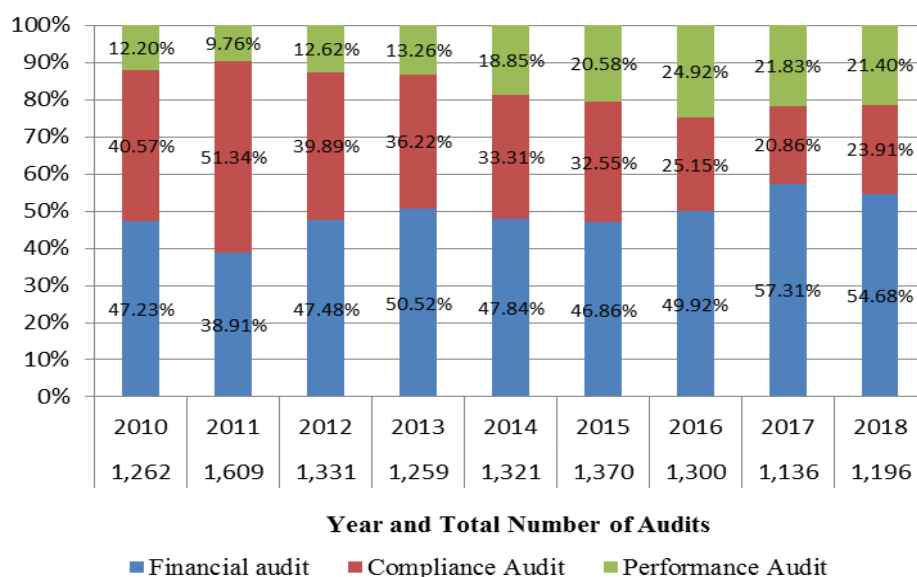
**Table 1.** Focus of Existing Public Sector Audit

Description	Interviewees
Focus on measuring and evaluating	1, 2, 5, 7, 8, 10, 13, 15, 16, 17, 22, 27
Focus on compliance aspect	1, 11, 12, 13, 19, 20, 23, 24, 25, 26, 27, 6
Focus on financial aspect	1, 2, 4, 8, 10, 12, 13, 15, 17, 19, 20, 26
Focus on completed programs	All

nation and synergy among audit units within SAI makes it difficult for readers of audit reports to get the big picture of development programs.

Interviewees stated that current audits tend to focus on the financial aspect of development programs. It means that monetary value becomes underlying factors affecting audit decisions, such as in measuring audit risk, selecting audit objects, determining the significance of findings and measuring the effect of audit findings. Although the aspect occurs in all audits, it is mostly related to financial audits that deal with assessing the fairness of the figures presented in government entities' financial statements. Although the financial audit is dominant in SAI audit portfolios, interviewees stated that the audit has little relevance with improvement in public welfare because it is intended to provide an audit opinion on the government's financial statements. Any opinion provided by SAI does not change anything because the transactions recorded in the statements have been completed. This finding is consistent with that of Akbar and Djazuli (2015) who state that there is barely any connection between a financial audit and public welfare.

Interviewees also stated that current audits focus on compliance aspects of government programs. Focusing on compliance aspects means that audits come to assess the degree of correspondence between any activities or records with certain standards, laws, and regulations. Although the compliance aspect receives large attention in any public sector audits, it is closely related to compliance audit which is intended to evaluate whether or not certain subject matter has been managed in accordance with relevant regulations. R1 and R15 stated that the compliance aspect is important in development because any non-compliance may detriment the government's effort to manage state resources properly. In the compliance audit, auditors may uncover some non-compliance activities or even corruption. From there, auditors may identify who to be held responsible for the problems and effect of the non-compliances as well as measuring the number of state losses from the failures. However, R6, R14, and R18 argued that the audit gives less benefit for people because what important for people is the quality of development programs and how the programs improve their lives, not information about problems in the programs. In case of failed programs, they further emphasized that number of corrupt officials sent to



**Figure 1.** Proportion of SAI Audits 2010-2018

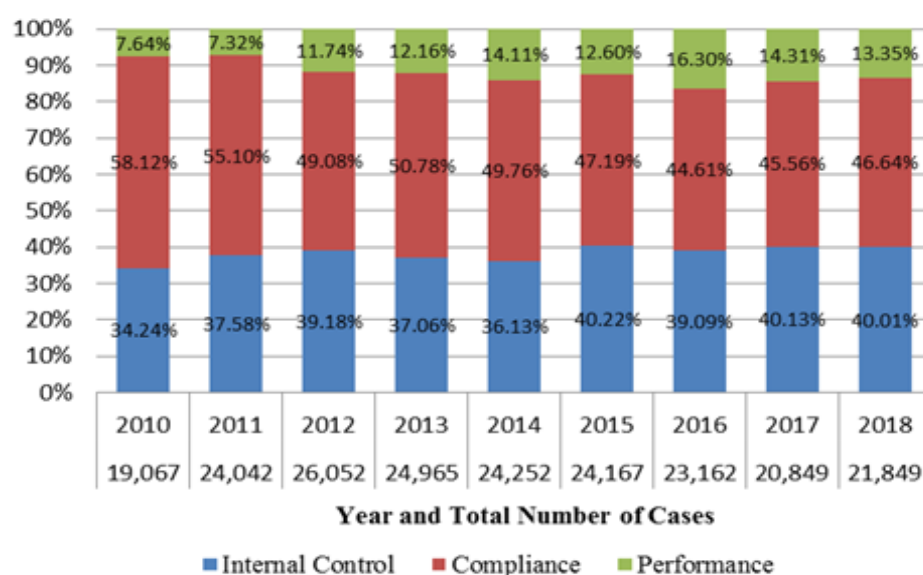
Source: BPK (2010-2019), (processed).

imprisonment does not change the fact that the program fails to achieve their objectives. Although R15 and R26 stated that compliance audits give deterrence effect for public officials to commit fraud, other interviewees argued that it will be better if efforts are directed to improve governance to prevent fraud happened.

The responses stating that current audits pay more attention to financial and compliance aspects are consistent with audit data in the period of 2010 to 2018 (BPK RI (2010), BPK RI (2011a), BPK RI (2011b), BPK RI (2012a), BPK RI (2012b), BPK RI (2013a), BPK RI (2013b), BPK RI (2014a), BPK RI (2014b), BPK RI (2015a), BPK RI (2015b), BPK RI (2016a), BPK RI (2016b), BPK RI (2017a), BPK RI (2017b), BPK RI (2018a), BPK RI (2018b), BPK RI (2019a)), as shown in Figure 1. Figure 1 portrays that proportion of financial and compliance audits are much higher than that of performance audit. Although the proportion of performance audit is insignificant, Figure 1 shows that the proportion of performance audit is increasing over the years. The proportion of

performance audits in 2018 is almost doubled compared with that of in 2010.

Figure 2 supports interviewees' statements saying that current audits pay more attention to compliance aspects. It shows that compliance-related cases are larger than performance-related cases. Three types of audits produce cases in all three general classifications: internal control, compliance, and performance. Thus, Figure 2 exhibits a combination of cases uncovered by all audits from 2010 to 2018. Evaluating internal control and compliance toward regulation is the indispensable function for public sector audit, thus evaluation of both aspects are always conducted by SAI in all types of audits. The compliance findings in Figure 2 are those categorized in-state loss and lack of revenue that the government should receive. A closer look toward internal control cases presented in Figure 2 revealed that, to some extent, they are also related to the compliance aspect. Inaccurate financial data, improper administrative procedures, incompliance to spending procedures and inadequate internal control systems and procedures are ex-



**Figure 2.** Proportion of Cases Presented in SAI Audit Reports 2010 - 2018

**Source:** BPK (2010), BPK (2011a), BPK (2011b), BPK (2012a), BPK (2012b), BPK (2013a), BPK (2013b), BPK (2014a), BPK (2014b), BPK (2015a), BPK (2015b), BPK (2016a), BPK (2016b), BPK (2017a), BPK (2017b), BPK (2018a), BPK (2018b), BPK (2019a), (processed).

amples of internal control findings. It indicates that most of the internal control cases uncovered in the period are related to compliance issues. With this condition, Figure 2 shows that the proportion of compliance-related cases is more than 80% of the total cases reported by SAI in any year.

All interviewees stated that the current audit pays more attention to completed development programs. Focus on completed programs has some advantages. R7 and R10 stated that focusing on completed programs, in any audits, enables auditors to provide a comprehensive evaluation of the programs, from their planning until completion. R1, R15, R18, R25, and R27 added that in the completed programs, auditors may identify whether the results of the programs have met intended specifications or standards. When the programs do not meet certain performance indicators, R5 stated that auditors may evaluate the programs from the planning stage to identify weaknesses that contribute to the failures. Focusing on completed programs also minimizes the risk for auditors to be challenged by audited officials because, as R18 described, the effects of any problems found during audits have been taken place. In addition, R2, R8, R10, and R15 revealed a more important reason by stating that conducting an audit on completed programs reduces possible conflict of interest because in such case auditors are not involved in any ways with the audited programs. This enables auditors to provide objective and independent evaluation for the programs.

However, focusing on completed programs gives little benefit to citizens because auditors cannot do anything to change the results of the programs. Regardless of the type of audits conducted, they can only measure what has already happened and produced. Auditors may provide recommendations to improve the programs when the programs

are succeeded. When the programs failed, auditors may provide recommendations to recover the damage, minimize the loss and improve the quality of upcoming programs. In the latter case, people, who already missed the benefit of the failed programs, get little benefit from SAI audits. To sum up, all interviewees state that, because of the above-mentioned characteristics, existing SAI audits have not been adequate to promote development program effectiveness. To improve SAI's role in improving the government's performance, SAI has tried to improve the proportion of its performance audits. Its decision to improve the proportion of performance audits, from 12.2% in 2010 to 21.4% in 2018 is a good start, but interviewees stated that it is not adequate. They stated that although performance audit is more suitable to promote development program effectiveness rather than financial and compliance audits, existing performance audits have not met the expectation because the audits tend to focus on compliance aspect and improving internal government.

Figure 2 also indicates that performance audit reports also contain compliance-related findings because the proportion of performance findings is less than the proportion of performance audits. R20, R23, R24, and R26 also emphasized that even in the performance audit, where the audit should focus on performance and not on compliance, the audit reports often include non-compliance findings which lead to state loss. Peer Review Report (BPK RI, 2019b) supports the view because it states that the nature of performance audits conducted in BPK is to some extent similar to a compliance audit. The condition underlines the notion that performance audit has not been focused to improve the government's performance. Some performance audits are directed to improve the internal government's performance rather than improving the government's service to people. R11 states "...performance audits that

we do give more attention to the entity being audited and have not looked at impact of the program to the community". SAI audit reports also reveal that some audit objects for performance audits are not closely related to public welfare. Existing performance audits tend to focus on measuring the quality of the development process and government institutions' accomplishment in meeting their targets or outputs.

Some performance audit objects such as archive management, census activities, research and development activities, appointment and discharge of state-owned enterprises' directors and commissioners, asset management and revenue management are important for government; however R14 stated that SAI should add more audit objects that are important for people and related to public welfare such as audit objects related to health, education, public services, and poverty alleviation.

### Expected Roles of Public Sector Audit

All interviewees agreed that the audit should be intended not only to measure the financial and compliance aspect of development programs but also to promote development pro-

grams' effectiveness. They also agreed that the existing audit has not been sufficient to serve the purpose. Public sector audit should also aim to ensure that the development program reaches its objective to improve citizens' quality of life. The audit is intended to ensure that the benefit of development goes to appropriate recipients in correct amount and time without compromising citizens' quality of life.

All interviewees also emphasized that it is part of SAI's responsibility to promote development program effectiveness. They mentioned that although development program effectiveness becomes the government's responsibility, existing laws mandate SAI to ensure that the government meets development objectives. This implies that the audit should be intended not only to measure how well government achieves the objective but also to support the government in achieving the objective. This role applies similarly to a large national development program or in smaller individual programs or projects. Because development programs are intended to improve people's well-being, promoting development programs' effectiveness will improve citizens' quality of life. This highlights a significant position that SAI can play in-state finance management through its audit

**Table 2.** Summary of Responses for Theme Promote Development Effectiveness

Description	Interviewees
<b>1. Provide solution and preventive measure</b>	
a. Focuses on attainment of program objective with audit recommendation	1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16, 22, 24, 25, 26
b. Minimizes risk of failures	1, 4, 6, 7, 21, 27
<b>2. Create sound environment for development</b>	
a. Improves internal control system	3, 5, 11, 12, 14, 16, 24, 26, 27
b. It is not only about fighting corruption and finding mistakes	6, 11, 13, 14, 23, 24
c. More attention should be given on preventing fraud	3, 7, 14, 26
<b>3. Produce useful information for decision making</b>	
a. Provides foresight	3, 4, 6, 9, 11, 12, 16, 17, 18, 19, 20, 23, 26
b. Provide important information	2, 3, 4, 12, 14, 15, 16, 18, 19, 20, 27



function. Table 2 summarizes interviewees' responses on promoting the effective role of public sector audit.

The role of public sector audit in state finance management is to promote transparency and accountability of state finance management. During the audit, auditors always evaluate the extent to which government activities have complied with certain criteria (Arens et al., 2014). With a development perspective, all activities funded by state money, including the audit itself, should benefit the people and contribute to the improvement of people's welfare. It means that the success indicator of public sector audit should be a number of successful programs being audited, not the number of audit findings contained in the audit report. As R13 stated "no matter how many audit findings are reported when many development programs fail to improve citizens' life, an audit has not met its objective." It also means that when there are failed or ineffective projects, or when people's quality of life is below standard and/or not improved, SAI should also be criticized for its lack of support for development. Promoting development program effectiveness can be achieved when a development audit provides solution and preventive measures to the development problem creates a sound environment for development and produces useful information for decision making.

### **Providing Solution and Preventive Measures**

More than three-quarters of interviewees stated that audit should be directed to provide solutions and provide preventive measures on development problems. More than two-thirds of interviewees stated that the audit should focus on ensuring that the objective of the program is achieved. Moreover, they also emphasized that it is important for SAI to ensure that the government succeeds in achieving the national objectives.

R10 highlighted the importance of this focus by stating that "actually, larger attention should be given on promoting development program effectiveness". R11 added that SAI should also help the government to improve public welfare because the role will complement existing SAI roles in promoting transparency and accountability of government. They stated that although the roles should be considered as part of SAI's roles mandated by laws, those have not received serious attention.

They stated that auditors should strive to provide useful audit recommendations to help the government achieve development objectives. Recommendations are important to overcome significant development problems and to mitigate the impact of the problems. Auditors may also provide a recommendation to realign the program to its intended objectives when it is about to deviate due to negligence or fraud, or suggest a change to the original plan when the change is necessary to cope with current public demand or condition. R10 stated that an audit should bring a new audit paradigm: "the paradigm should be not only to measure and judge (right or wrong) but also to promote development program effectiveness".

Public sector audit should contribute to the improvement of citizens' lives through its audit findings, conclusions, and recommendations. Audit results portray the government's efforts and achievement in managing development programs along with problems found in the program. The results also contain audit recommendations advising stakeholders on what the government should do to deal with the problems. The information will be used by government, parliament, public, and other stakeholders to make decisions for the program according to their respective roles in development.

With promoting development program effectiveness paradigm, R22 stated that public sector audit should be able to provide the solution to significant development problems. In addition, R24, and R26 added, it should also be directed to improve the quality of development program so that people will get a bigger benefit from government spending allocated for the program. When audited development programs achieve their intended objectives and citizens receive intended benefits from the programs, R8 and R25 stated that audit activities give additional value for development.

Interviewees stated that an audit needs to prevent a development program from failures. R15 stated that preventing failure is important because when a certain program fails, it “does not bring any benefit for them (citizens or intended beneficiaries) regardless of who is responsible for the failure”. Preventing from failure implies that the audit should also be conducted before certain development program is completed because according to R1, R4, and R6, it is where SAI audit recommendations can make a difference. It is different from existing audit which tends to conduct an audit on a completed development program in order to provide a comprehensive evaluation of the program.

Auditors need to engage more active communication with government officials to provide a solution for development problems. When there are problems identified during the audit, auditors need to discuss with government to find the main cause of and solution for the problems, not to find who is the most responsible person causing the problems. This communication is important to raise government officials’ awareness about how to deal with the problems and prevent future problems in the same program.

## **Creating Sound Environment for Development**

Annually, SAI of Indonesia uncovers more than ten thousands audit findings (BPK RI (2010), BPK RI (2011a), BPK RI (2011b), BPK RI (2012a), BPK RI (2012b), BPK RI (2013a), BPK RI (2013b), BPK RI (2014a), BPK RI (2014b), BPK RI (2015a), BPK RI (2015b), BPK RI (2016a), BPK RI (2016b), BPK RI (2017a), BPK RI (2017b), BPK RI (2018a), BPK RI (2018b), BPK (2019a)). This condition shows that currently, the government’s internal control system has not been adequate to create good state finance management. Inadequate internal control system gives the opportunity for the negligent decision-making process and even corruption. Almost half of the interviewees stated that an audit should present to create a sound environment for development so that government resources are properly directed to achieve development program objectives.

They stated that to create a sound environment for development, the quality of the government’s internal control system should be improved. R14 emphasized that good internal control will strengthen the government’s capacity to deliver high-quality programs. R14 added that improving existing internal control system benefits development because the government can be “more focused, more effective and more efficient” toward development objectives. A good quality internal control system demonstrates that, internally, the government has adequate capacity, direction and willingness to attain development objectives. In this case, external oversight will serve as additional support for development by providing the objective and independent evaluation of the program’s performance, progress and result.

Improving internal control is conducted through evaluating the adequacy of existing rules, standards, and procedures in the au-

dited entities and their implementation. SAI may recommend the government to change existing policy and procedures that are considered not giving add value to development. It is also an important role of public sector audit where it does not only use existing regulations as audit criteria but also recommends a change in existing regulation when, based on auditors' evaluation, the regulations do not promote the program's effectiveness.

One important aspect of the government internal control system is the government's internal audit unit. SAI needs to empower internal auditors and encourage them to play a more active role in monitoring development programs because as R3 declared "we need a lot of monitoring in order to work properly". This requires SAI and internal auditors to work together and synergize to watch the development programs more closely. However, because numbers of auditors are limited, relying on auditors to watch development process is not feasible. It is important to create and promote a condition and an environment where government officials are motivated to work properly to achieve development program objectives.

Auditors need to constantly remind the government that the compliance aspect is inherent in public sector audit. However, some interviewees reminded us that an audit should not focus on finding mistakes during the audit because it often frightens auditees in making any decision. In addition, it also discourages government officials to maintain a good relationship and communication with auditors. Therefore, in an audit, more efforts should be directed to find a solution for identified problems. With this perspective, the government is encouraged to discuss any significant problems with auditors because it is the way auditors may contribute in finding appropriate recommendations for the problems. They also stated that it is not important that SAI finds as many audit findings as pos-

sible because finding a mistake is not the main objective of an audit. When auditors encounter any audit findings, they need to assess the significance of the problems to objective attainment. In evaluating the findings, they stated that auditors should frame them with effectiveness perspective.

Any violation of procedures, as long as they are not constituted fraud or causing state loss, should be assessed against program delivery or program impact to the people. When any noncompliance to procedures does not affect objective attainment, careful analysis should be conducted whether it is just applicable for specific cases or can be generalized in other cases. If it is proven that there are some steps in the existing procedures that do not add value to the attainment of development objectives, auditors may suggest government to revise existing procedures. It means that an audit also ensures that procedures are designed to help the government achieve development objectives in the most efficient and economical ways. However, when such non-compliance problems create state loss and contain an indication of corruption, SAI may conduct separate compliance audits or investigative audit to further investigate the issues.

Interviewees added that in addition to improving governance, the audit should contribute to the creation of a clean government. Internal systems and procedures should be designed to minimize the opportunity for corruption and to promote anti-corruption behavior. Thus, with respect to combating corruption, more efforts should be directed to prevent corruption from happening, not to uncover it. R3 added that "SAI should cultivate a good culture within government to improve the quality of development program". The culture is important because if government officials work properly only when auditors come to evaluate their works and work otherwise when auditors do not present, auditors will not be able to create a significant

contribution to development because numbers of auditors are limited. If auditors and government can work together to hone good governance, then with or without an audit, all stakeholders will exert their best effort to support development programs.

The provision of audit reports to the public and involving the public in the audit are other strategies to create a good culture in government. Those mechanisms will increase public awareness and concern for development programs and government activities. They stated that citizens' engagement will promote effectiveness because when there are more parties involved in monitoring activities, government officials will be more prudent in managing the development program.

Good governance and clean government cultures are important for development programs to succeed because they serve as internal checks and balances to avoid any indecent behavior of government officials. They also serve as prevention mechanisms because they may deter fraud and improper operations that will hamper program delivery. Improving good governance culture can be done through conferment of recommendation intended to improve the internal control system. It can also be done through empowering internal audit function because internal audit function can play an important role in promoting good governance culture from within the government.

### **Producing Useful Information for Decision Making**

Almost half of the interviewees expected that an audit provides foresight for the government about the consequences of decisions made by the government. When auditors believe that certain policies will have unfavorable impacts on the development program, they need to inform the government about

the possible consequences. This role requires auditors to identify the current effect and the possible effect of current policy, strategy, and actions taken by the government to manage the development program. To do this function, auditors need to have a profound understanding of the design and plan of the audited development program. Auditors should also have sufficient knowledge about the program or other similar programs that can be used as a benchmark to improve the quality of audited development programs.

They stated that public sector audit should also use long term perspective and overall benefit in evaluating the program and providing a recommendation to the government. Certain development programs may have unfavorable short term effects for people around the development area, such as river normalization projects that cause some people living in riverbank to lose their houses or Light Rail Transit development that causes a worse traffic jam in certain areas. R12 emphasized that in such a program, SAI should strive to promote the program because they create a larger benefit for citizens in the long term.

More than one-third of interviewees stated that audit results should contain high quality and reliable information for decision-making purposes. They stated that when there is a problem with the development plan; auditors need to explain the consequence of the inadequate plan and provide a recommendation to improve the plan. The government shall use the recommendation to revise the existing plan to avoid further loss, while parliament uses the report to monitor the change and discusses with the government when the change requires an additional budget. This highlights the significant role of public sector audit in supporting development program.

In addition to providing information for government and parliament, audit reports

should also provide objective and reliable information for citizens about the quality of development programs. People need to know the progress and the result of the development because, according to R4, people have any right to understand how the government manages our money. The information can be used by citizens to give additional support or pressure for the government to provide better quality service for them.

Audit reports should contain significant, accurate and objective information. Because information is important to input for decision-making process, it is expected that with high quality information, government and other stakeholders can make good decisions about the program such as whether to continue, postpone or terminate the program, use existing plan or change the plan, curb or extend the program, add the budget or not, etc. An audit report can be used as a common reference for stakeholders who may have different interests and motives of certain development programs.

The results of this paper strengthen a study by Wibowo et al. (2016) that a better audit approach is needed to improve the role of audit in state finance management. SAI may improve its current audit approach or implement a developmental audit approach formulated by Wibowo et al. (2016). The audit provides a better approach to promote development program effectiveness than existing audits. It will complement existing public sector audit so that the audit will better promote transparency and accountability of the government.

## CONCLUSION

The existing audit approach is considered inadequate to promote development program effectiveness since it pays more attention to financial and compliance aspects of the deve-

lopment program. Although compliance to regulation is important to make sure that the development program is planned and executed according to laws and regulations, too much emphasis on the compliance directs auditors to focus on finding mistakes and weaknesses in their audits. Focusing on the financial aspect is important because it helps the auditor to focus on audit activities on programs having large budgets. However, auditors may give less attention to welfare-related programs that have not so large budget.

The current audit also tends to focus on completed development programs. Focusing on the completed program gives readers thorough information about the quality of the program, any deficiencies or problems in the program, the number of state losses incurred and who is responsible for the losses if any. However, the approach gives less opportunity for auditors to contribute to the failed program other than minimizing losses and suggesting an improvement for other programs.

There is a need to improve the existing audit approach to augment the role of SAI in state finance management. The audit should be directed to focus on promoting development program effectiveness. It should provide the solution for identified problems in development programs and even provide preventive measures to avoid or anticipate any significant problems that may jeopardize development program effectiveness. The audit should be able to detect and solve development problems as early as possible so that any mistakes will not be carried along to the very end of the project.

Public sector audit should be able to create a sound environment for development. The audit should be able to strengthen the government's internal control system so that with or without the SAI audit, the government will manage state finance properly to the best interest of citizens. The good internal mecha-

nism is important to promote development program effectiveness because it is infeasible to expect that auditors will conduct audit on most development programs. The audit should also produce useful information for stakeholders to help them make a good decision.

## REFERENCES

- Adnyana, I. G. S. (2017). Understanding audit methods to assist planning on program Evaluation: sharing GAO's experience on national health security program. *Jurnal Tata Kelola & Akuntabilitas Keuangan Negara*, 3 (1), 69–89. doi: 10.28986/jtaken.v3i1.78
- Agbo, S., & Aruomoaghe, J. A. (2014). Performance audit: a tool for fighting corruption in the Nigeria's public sector administration. *International Journal of Management and Sustainability*, 3(6), 374-383.
- Akbar, B., & Djazuli, A. (2015). Financial audit and people's welfare study in Badung, Tabanan Regions and City of Denpasar Year of 2013. *Jurnal Tata Kelola & Akuntabilitas Keuangan Negara*, 1(1), 1-19. doi: 10.28986/jtaken.v1i1.9
- Arens, A. A., Elder, R. J., Beasley, M. S., & Hogan, C. (2014). *Auditing and assurance services: an integrated approach* (15th ed.). Boston: Pearson.
- Asaolu, T. O., Adedokun, S. A., & Monday, J. U. (2016). Promoting good governance through internal audit function (IAF): the Nigerian experience. *International Business Research*, 9(5), 196-204.
- Badamdorj, B. (2010). Some thoughts on the role of government auditing. *Asian Journal of Government Audit*, 2010 (2), 26-29.
- Bhattacharjee, A. (2012). *Social science research-principles methods and practices*. Tampa, Florida: University of South Florida Scholar Commons.
- Bowen, G. A. (2005). Preparing a qualitative research-based dissertation: lessons learned. *The Qualitative Report*, 10 (2).
- BPK RI. (2010). Ikhtisar Hasil Pemeriksaan Semester (IHPS) I Tahun 2010 (Summary of Semester Audit Results I Year 2010). Retrieved from <https://www.bpk.go.id/ihps>
- BPK RI. (2011a). Ikhtisar Hasil Pemeriksaan Semester (IHPS) II Tahun 2010 (Summary of Semester Audit Results II Year 2010). Retrieved from <https://www.bpk.go.id/ihps>
- BPK RI. (2011b). Ikhtisar Hasil Pemeriksaan Semester (IHPS) I Tahun 2011 (Summary of Semester Audit Results I Year 2011). Retrieved from <https://www.bpk.go.id/ihps>
- BPK RI. (2012a). Ikhtisar Hasil Pemeriksaan Semester (IHPS) II Tahun 2011 (Summary of Semester Audit Results II Year 2011). Retrieved from <https://www.bpk.go.id/ihps>
- BPK RI. (2012b). Ikhtisar Hasil Pemeriksaan Semester (IHPS) I Tahun 2012 (Summary of Semester Audit Results I Year 2012). Retrieved from <https://www.bpk.go.id/ihps>
- BPK RI. (2013a). Ikhtisar Hasil Pemeriksaan Semester (IHPS) II Tahun 2012 (Summary of Semester Audit Results II Year 2012). Retrieved from <https://www.bpk.go.id/ihps>
- BPK RI. (2013b). Ikhtisar Hasil Pemeriksaan Semester (IHPS) I Tahun 2013 (Summary of Semester Audit Results I Year 2013). Retrieved from: <https://www.bpk.go.id/ihps>
- BPK RI. (2014a). Ikhtisar Hasil Pemeriksaan Semester (IHPS) II Tahun 2013 (Summary of Semester Audit Results II Year 2013). Retrieved from <https://www.bpk.go.id/ihps>
- BPK RI. (2014b). Ikhtisar Hasil Pemeriksaan Semester (IHPS) I Tahun 2014 (Summary of Semester Audit Results I Year 2014). Retrieved from <https://www.bpk.go.id/ihps>
- BPK RI. (2015a). Ikhtisar Hasil Pemeriksaan Semester (IHPS) II Tahun 2014 (Summary of Semester Audit Results II Year 2014). Retrieved from <https://www.bpk.go.id/ihps>
- BPK RI. (2015b). Ikhtisar Hasil Pemeriksaan Semester (IHPS) I Tahun 2015 (Summary of Semester Audit Results I Year 2015). Retrieved from <https://www.bpk.go.id/ihps>

- BPK RI. (2016a). Ikhtisar Hasil Pemeriksaan Semester (IHPS) II Tahun 2015 (Summary of Semester Audit Results II Year 2015). Retrieved from <https://www.bpk.go.id/ihps>
- BPK RI. (2016b). Ikhtisar Hasil Pemeriksaan Semester (IHPS) I Tahun 2016 (Summary of Semester Audit Results I Year 2016). Retrieved from <https://www.bpk.go.id/ihps>
- BPK RI. (2017a). Ikhtisar Hasil Pemeriksaan Semester (IHPS) II Tahun 2016 (Summary of Semester Audit Results II Year 2016). Retrieved from <https://www.bpk.go.id/ihps>
- BPK RI. (2017b). Ikhtisar Hasil Pemeriksaan Semester (IHPS) I Tahun 2017 (Summary of Semester Audit Results I Year 2017). Retrieved from <https://www.bpk.go.id/ihps>
- BPK RI. (2018a). Ikhtisar Hasil Pemeriksaan Semester (IHPS) II Tahun 2017 (Summary of Semester Audit Results II Year 2017). Retrieved from <https://www.bpk.go.id/ihps>
- BPK RI. (2018b). Ikhtisar Hasil Pemeriksaan Semester (IHPS) I Tahun 2018 (Summary of Semester Audit Results I Year 2018). Retrieved from <https://www.bpk.go.id/ihps>
- BPK RI. (2019a). Ikhtisar Hasil Pemeriksaan Semester (IHPS) II Tahun 2018 (Summary of Semester Audit Results II Year 2018). Retrieved from <https://www.bpk.go.id/ihps>
- BPK RI. (2019b). *Peer review report on the Audit Board of the Republic of Indonesia*. Jakarta: BPK RI.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101.
- Brétéché, B., & Swarbrick, A. (2017). Developing effective working relationships between supreme audit institutions and parliaments. *SIGMA Papers No. 54*.
- Bringselius, L. (2015). In the absence of a public accounts committee: the Swedish experience. In Z. Hoque (Ed.), *Making Governments Accountable*. London/New York: Routledge.
- Bryman, A. (2008). *Social research methods* (3rd ed.). London: Oxford University Press.
- Charles, B. K., & Oluoch, O. (2017). Determinants of the effectiveness of the auditor general in Kenya in public financial management oversight. *The Strategic Journal of Business & Change Management*, 4(2), 98 – 112.
- Daujotaitė, D., & Mačerinskienė, I. (2008). *Development of performance audit in public sector*. Paper presented at the 5th International Scientific Conference Business and Management, Vilnius, Lithuania.
- David, R. (2017). Contribution of records management to audit opinions and accountability in government. *South African Journal of Information Management*, 19(1), 771-784.
- Dellaportas, S., Gibson, K., Alagiah, R., Hutchinson, M., Leung, P., & Van Homrigh, D. (2005). *Ethics, governance & accountability, a professional perspective*. Brisbane: JohnWiley & Sons Australia Ltd.
- Domokos, L., Pulay, G., Pályi, K., Németh, E., & Mészáros, L. (2016). Supreme Audit Institutions' contribution to good governance: Study series No 1. Hungary: State Audit Office of Hungary.
- Farwati, R. (2012). Pro-poor growth: does it work in Indonesia? *Institute of Social Studies*.
- Flick, U. (2009). *An introduction to qualitative research* (4th ed.): SAGE Publications Ltd.
- Funnell, W., Wade, M., & Jupe, R. (2016). Stakeholder perceptions of performance audit credibility. *Accounting and Business Research*, 46(6), 601-619.
- Gustavson, M. (2015). Does good auditing generate quality of government? *QoG Working Paper Series*.
- Harding, J. (2013). *Qualitative data analysis: From start to finish*. Los Angeles: SAGE.
- Ijeoma, N. B., & Nwifo, C. I. (2015). Impediments of the audit function in the public sector: A critical analysis of the constraints of Auditor-General for the Federation of Nigeria. *International Journal of Economics, Commerce and Management*, 3(1).
- INTOSAI. (1977). *ISSAI 1 The Lima Declaration*. Vienna: INTOSAI.

- INTOSAI. (2001). *Independence of Supreme Audit Institutions (SAIs) project: final task force report*. Vienna: INTOSAI.
- INTOSAI. (2010). *ISSAI 20—Principles of transparency and accountability*. Vienna: INTOSAI.
- INTOSAI. (2013a). *ISSAI 12 - the value and Benefits of Supreme Audit Institutions – making a difference to the lives of citizens*. Vienna: INTOSAI.
- INTOSAI. (2013b). *ISSAI 100— Fundamental principles of public sector auditing*. Vienna: INTOSAI.
- Ittonen, K. (2010). *A theoretical examination of the role of auditing and the relevance of audit reports*. Proceedings of the University of Vaasa.
- Jesus, M. A. J., & Eirado, J. S. B. (2012). Relevance of accounting information to public sector accountability: a study of Brazilian federal public universities. *Tekhne-Review of Applied Management Studies*, 10(2), 87-98.
- Kaya, L. G., & Coşkun, A. (2017). Enhancing accountability for making cities resilient and role of Supreme Audit Institutions. *Mehmet Akif Ersoy Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 9(19), 445-456.
- Ling, T., & Dijk, L. V. v. (2009). *Performance audit handbook: routes to effective evaluation RAND*. Santa Monica: RAND Corporation.
- Lungeanu, E. (2015). Considerations regarding the external public audit of reimbursable funds. *Procedia Economics and Finance*, 20, 358-364.
- Madison, K. J. (2014). *Agency theory and stewardship theory integrated, expanded, and bounded by context: an empirical investigation of structure, behavior and performance within family firms*. (Ph.D), University of Tennessee.
- Mamidu, A. I., Balogun, A., & Abilogun, T. O. (2015). Supreme Audit Institutions and public financial accountability in Nigeria: matters arising. *Journal of educational research in Natural and social sciences*, 1(1).
- Masood, A., & Afzal, M. (2016). Determinants of audit quality in Pakistan. *Journal of Quality and Technology Management*, 12(2), 25 – 49.
- Masood, A., & Lodhi, R. N. (2015). Factors affecting the success of government audits: a case study of Pakistan. *Universal Journal of Management*, 3(2), 52-62.
- Matendera, K. H. (2013). *A survey of factors affecting public audit institutions performance- The Case of Kenya National Audit Office*. Retrieved from <http://erepository.uonbi.ac.ke/bitstream/handle/11295/59867/A%20Survey%20Of%20Factors%20Affecting%20Public%20Audit%20Institutions%20Performance%3A%20The%20Case%20Of%20Kenya%20National%20Audit%20Office?sequence=4&isAllowed=y>
- Meier, A., Boivin, M., & Meier, M. (2008). Theme-analysis: procedures and application for psychotherapy research. *Qualitative Research in Psychology*, 5(4), 289-310.
- Nagy, S. (2012). *The role of Supreme Audit Institutions in fight against the consequences of financial and economic crisis: a theoretical approach*. Paper presented at the Crisis Aftermath: Economic policy changes in the EU and its Member States, Szeged, University of Szeged.
- Nagy, S. (2015). Supreme audit institutions and new aspects for public value creation in complex adaptive systems. In E. Hetesi & Z. Vas (Eds.), *New Ideas in a Changing World of Business Management and Marketing*: University of Szeged.
- Ngulube, P. (2015). *Qualitative data analysis and interpretation: systematic search for meaning*. Noordwyk: Mosala-MASEDI Publishers & Booksellers.
- Nurhasanah. (2016). Effectiveness of internal control, internal audit, characteristics of the institution and corruption cases (an empirical study in the ministries / institution). *Jurnal Tata Kelola & Akuntabilitas Keuangan Negara*, 2(1), 27-48. doi: 10.28986/jtaken.v2i1.35
- OECD. (2011). *Good practices in supporting supreme audit institutions*. Paris: Organisation for Economic Cooperation and Development.



- Otalor, J. I., & Eiya, O. (2013). Combating corruption in Nigeria: the role of the public sector auditor. *Research Journal of Finance and Accounting*, 4(4).
- Prabowo, T. J. W., Leung, P., & Guthrie, J. (2017). Reforms in public sector accounting and budgeting in Indonesia (2003-2015): confusions in implementation. *J. of Public Budgeting, Accounting & Financial Management*, 29(1), 104-137.
- Pramono, A. J. (2016). Analysis of influencing factors of the audit board of republic Indonesia's roles and capabilities transformation. *Jurnal Tata Kelola & Akuntabilitas Keuangan Negara*, 2 (2), 175-193. doi: 10.28986/jtaken.v2i2.63
- Raaum, R. B., & Morgan, S. L. (2009). *Performance auditing: a measurement approach*. New York: The Institute of Internal Auditor Research Foundation.
- Ramírez, J. A. O., & Pérez, J. A. C. (2016). Impact of supreme audit institutions on the phenomenon of corruption: an international empirical analysis. *Journal of Public Governance and Policy: Latin American Review*, 2(3).
- Raudla, R., Taro, K., Agu, C., & Douglas, J. W. (2015). The impact of performance audit on public sector organizations: the case of Estonia. *Public Organization Review*, 16(2), 217-233.
- Reichborn-Kjennerud, K., Carrington, T., Gonzales, B., & Klarskov, K. (2015). *Supreme audit institutions' role in fighting corruption: a comparative study between SAIs with different institutional and public administrative structures and cultures*. Paper presented at the IRSPM workshop Birmingham, Great Britain.
- Reichborn-Kjennerud, K., & Vabo, S. I. (2017). Performance audit as a contributor to change and improvement in public administration. *Evaluation*, 23(1), 6-23.
- Riddell, R. (2004). *Sustainable urban planning: tipping the balance*. Malden: Blackwell Publishing Ltd.
- Rios, A. M., Bastida, F., & Benito, B. (2016). Budget transparency and legislative budgetary oversight: an international approach. *American Review of Public Administration*, 46(5), 546-568.
- Ritchie, J., Lewis, J., Nicholls, C. M., & Ormston, R. (2013). *Qualitative research practice: a guide for social science students and researchers*. Los Angeles: SAGE.
- Schultz, D. E. J., & Brown, R. E. (2003). Performance auditing in Ohio: a customer service orientation. *Journal of Government Financial Management*.
- Suartama, I. K., Nurdin, S., & Susilo, F. S. B. P. (2015). Enhancing BPK RI's audit design for people's welfare: a practical approach. *Jurnal Tata Kelola & Akuntabilitas Keuangan Negara*, 1(2), 173-190. doi: 10.28986/jtaken.v1i2.25
- The JakartaPost. (2016, March 19, 2016). Jokowi orders study into graft-tainted Hambalang project. *The Jakarta Post*.
- Vaismoradi, M., Turunen, H., & Bondas, T. (2013). Content analysis and thematic analysis: implications for conducting a qualitative descriptive study. *Nursing and Health Sciences*, 15, 398-405.
- Waring, C. G., & Morgan, S. L. (2007). *Public sector performance auditing in developing countries*. Washington DC: The World Bank.
- Wibowo, A., Jusoh, H., Ahmad, H., & Malek, J. A. (2018). *Developmental audit design on low cost housing (Rusunawa) program in Indonesia: Identification of Rusunawa program components*. Paper presented at the ICOSH-UKM 2018 the 7th International Conference on Social Sciences and Humanities, Universiti Kebangsaan Malaysia.
- Wibowo, A., Jusoh, H., Ahmad, H., & Malek, J. b. A. (2016). Developmental audit: toward a new role of public sector auditing in development. *Journal of Built Environment, Technology and Engineering*, 1(1), 25-35.
- Wilhelm, V., & Fiestas, I. (2005). Exploring the link between public spending and poverty education: lessons from the 90s. *The World Bank Institute Working Paper*. Retrieved from [http://siteresources.worldbank.org/WBI/Resources/ExploringtheLink\\_FINAL\\_with\\_cover.pdf](http://siteresources.worldbank.org/WBI/Resources/ExploringtheLink_FINAL_with_cover.pdf)
- World Bank. (2012). *Targeting poor and vulnerable households in Indonesia*. Washington, DC: The World Bank.





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# THE AUDIT BOARD OF REPUBLIC OF INDONESIA'S OPINION AND BRIBERY IN LOCAL GOVERNMENTS IN INDONESIA

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## ABSTRACT

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This study is motivated by the trend of corruption cases which increase from year to year, where bribery is the first number in corruption cases. As many as 128 cases of bribery with *in kracht* status occurred in the local government that received an unqualified opinion from the Audit Board of the Republic of Indonesia (BPK RI). Using the Zero Inflated Poisson (ZIP) Panel Regression, this study examines the correlation between financial statement opinion and the number of bribery corruption cases based on 258 bribery cases that have been handled by the Corruption Eradication Commission (KPK) in the period 2008-2017. The estimation result shows that there was no correlation between financial statement opinion and the number of bribery cases. However, the increase in the amount of capital expenditure also goods and services expenditure is related to the increase in the number of bribery cases. This study recommends BPK to consider improving the quality of fraud detection through audit procedures on financial statements, especially in regions that have a relatively high value of capital expenditure and service goods expenditure.

## KEYWORDS:

Corruption; bribery; audit; BPK's opinion; capital expenditure; goods and services expenditure

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## INTRODUCTION

Countries view corruption as the main obstacle to economic and political development. Corruption distorts economic incentives to invest, damages public institutions, distributes wealth and power to unauthorized parties, uses public assets illegally and creates distrust in society (Neu, Everett, Shiraz, & Martinez, 2013). The World Economic Forum 1 estimates that the cost of corruption is the US \$2.6 trillion, equivalent to 5% of global GDP. While the costs for bribery corruption is estimated at around 2% of global GDP (Gaspar & Hagan, 2016).

Corruption is one form of violation or economic crime, corruption also often interpreted as an abuse of power for personal gain (Bardhan, 1997; Rose-Ackerman, 1999). According to Becker (1968), this crime/corruption behavior is motivated by rational choice that the expected benefits of committing a violation/crime outweigh the benefits received by using time and other resources on other activities. Therefore, the violation is based on differences in benefits to be received and costs to be incurred by someone, not because of differences in basic motivation with others. Violations/crimes are committed through illegal actions based on rational decisions on an assessment of risk-seeking. The benefits of illegal actions will provide a return that is greater than the costs incurred, such as the possibility of arrest, the length of prison sentences and opportunities available including the results which are legally accepted namely income.

An effort to reduce corruption rates, especially in the public sector, is to conduct an audit to the governance of the government's finance. Blume and Voigt (2011) state that if government audit institutions function effectively, the monitoring of government expenditure through audits can reduce the level of corruption and increase the effective-

ness of government at more general level. In the audit process, the auditor is seen as an expert in detecting fraud in financial statements, making it effective in investigating corruption. One of the law enforcement efforts in the context of eradicating corruption is by auditing state financial management (Avis, Ferraz, & Finan, 2018).

The audit results of government financial statements are in the form of opinions. According to Law Number 15 Year 2004, opinions is the professional statement regarding the fairness of financial information presented in the financial statements. The opinion is based on four criteria namely conformity with government accounting standards, adequate disclosure, compliance with legislation, and an effective internal control system. Disclosure of weaknesses in the internal control system in the audit process causes the audit to be relevant in preventing corruption.

In fact, in the annual report published by the Corruption Eradication Commission (KPK) in 2018, corruption cases tended to increase from year to year. From the beginning of the establishment of the KPK until 2018, the KPK investigated 887 cases of corruption in which 578 cases had permanent legal power (*in kracht*). KPK divides the mode of corruption into seven categories, namely: (1) procurement of goods and service; (2) licensing; (3) bribery; (4) levies/extortion; (5) misuse of the budget; (6) money laundering crime; (7) impede the KPK process. The bribery mode ranks first in the number of corruption cases that occur and unfortunately, as many as 128 *in kracht* bribery cases occur in local governments that receive an unqualified opinion from the Audit Board of the Republic of Indonesia (BPK RI). In this case, if the audit is seen as one of the policies that can detect fraud in the financial statements, such conditions should not occur. Unfortunately, the reality is the opposite, so the question arises about how the relationship between

the BPK's opinion on financial statement and the amount of corruption, especially corruption with bribery mode.

This study attempts to answer the question about the correlation between BPK's opinion on financial statement with bribery cases in local governments because so far, studies on the relationship between audit opinion and the amount of bribery in Indonesia are still very limited. Up to this study was conducted, there has been no research that discuss the correlation of BPK's opinion on financial statement with the number of corruption cases of *in kracht* bribery.

The audit of government financial statements aims to provide reasonable assurance on whether the financial statements have been presented fairly, in all material respects, in accordance with generally accepted accounting principles (BPK RI, 2017). Wei, Qin, and Tang (2010) state that correction efforts or improvement carried out by the audit institutions and related parties after disclosure of audit findings is the most important factor in determining the extent to which government audits can act as a tool that encourages transparency and accountability of the government.

Klitgaard (1988) states that one component of the strategy to eradicate corruption is by audit. Shihata (1997) states that effective financial management systems, including serious and timely recording, auditing, and performance monitoring are steps to curb corruption. A recent study showed that companies with audited financial statements pay a much lower bribe amount than unaudited companies (Farooq & Shehata, 2018). Backman (1999) in Osifo (2012) states that bribery can be reduced through effective financial government standards, high levels of transparency and external audit; efficient and transparent legal framework; transparent and competitive independent financial

systems and well-sourced media.

On the other hand, Porter (1993) argues that the role of auditing in fighting corruption has been doubted and there is a "hope gap" regarding audit responsibilities in detecting corruption. In some audit works of literatures, such as Gray and Manson (2008), Hayes, Dassen, Schilder and Wallage (2005) also Soltani (2007), the problem of corruption is not discussed in detail and explicitly. This is possible because several authors consider fraud and corruption as two different violations (Labuschagne & Els, 2006). Fraud is interpreted as a form of injustice, including deliberate fraud, office asset taking, account forgery, abuse, etc (Lanham, 1987).

ISA 240 defines fraud as a "fraudulent act that is intentionally done to gain an unlawful or illegal profit", a definition that may include corruption. Nonetheless, corruption is excluded from ISA 240 as shown by Kassem and Higson (2016) who categorize fraud into two types: misuse of assets and fraudulent financial statements; without discussing corruption in-depth except in part A5, where bribery is briefly mentioned as an example of misuse of assets. The consequence of excluding corruption from the definition of fraud is that private-sector financial auditors are not expected to assess corruption risk when planning and conducting their audits. Some literature also states that audits cannot be used to detect corruption. Khan (2006) argues that auditors "almost cannot detect or investigate the actual corruption events, because the perpetrators, generally, do not leave documented evidence". The possibility that transactions are not recorded causes Khan (2006) to conclude: "Auditors cannot play a role in detecting corruption".

Accountability assessments through the auditing of government financial statements in Indonesia are carried out annually by the BPK. The result of the audit is opinions on

the fairness of financial information presented in the financial statements. Opinions on financial statements are divided into four types, namely Unqualified Opinion (WTP), Qualified Opinion (WDP), Disclaimer Opinion (TMP), and Adverse Opinion (TW). WTP opinion is the highest-ranking audit opinion where the auditor believes that the financial statements have fairly presented all material components/financial transactions. While for the three other opinions, each opinion reflects that there are still material weaknesses in the presentation of the financial statements of the governments.

Besides financial audit, BPK also conducts performance audits and special purpose audits (PDTT). The performance audit aims to assess the performance of the government including the economy, efficiency, and effectiveness aspect of the program or activity. The results of the performance audit focused on improving government policy. Whereas for special purpose audits include compliance audits and investigative audits. Unlike the financial audit, performance audit, and special purpose audit are not carried out annually, but those audits are in accordance with BPK's risk assessment and strategic plan.

In conducting audits, both financial audit and other types of audits, BPK's auditors are required to adhere to the State Financial Audit Standards (SPKN). SPKN itself contains Statement of Audit Standards 200 (PSP 200) concerning the standards for conducting audits, which mandates that auditors must design and carry out appropriate audit procedures to obtain sufficient and appropriate audit evidence. Auditors must consider the adequacy and accuracy of the evidence in identifying potential data sources of the agency audited, the results of the auditor's analysis, or other parties. The auditor must also deepen the audit if in obtaining evidence, the auditor suspects that the docu-

ment is not authentic or the contents of the document have been modified but not informed to the auditors (BPK RI, 2017). Based on this, it can be concluded that the audit process requires accurate and adequate evidence in the conclusions of the audit results. In addition to support the audit process, the provision of obtaining evidence or documents could be a limitation if the fraud committed by the auditee is in the form of undocumented fraud, such as bribery mode. This assumption is in line with the findings of Porter (1993) who suggest that the role of audit in combating corruption so far is still in doubt and there is a "gap in expectations" regarding the role of audits in detecting corruption.

Referring to the theory of the economics of crime developed by Becker (1968), this study covers a number of bribery corruption cases which are forms of violation/crime committed by individuals or groups for their personal interests. Economic violations/crimes occurred are corruption influenced by financial benefits/returns received through illegal actions greater than the financial benefits/returns received through legal actions (legitimate income).

In this study, opinion as a result of an audit of financial statements is seen as a "cost" of the illegal act, where audit procedures are a means of realizing transparency and good accountability in governance. Thus, in this study, opinion as a proxy of an audit is seen as a "cost" of an illegal act. Due to the increase in "costs" as a result of detection risk through audit procedures, it is assumed that auditing is one of the factors related to a person's incentive to commit corruption. In addition, audits can also increase the credibility and relevance of the value of financial information so that it is considered to be able to limit the level of manipulation of financial information (Ball, 2001).

According to Law Number 11 Year 1980, bribery is defined as “giving or promising something to a person with the intention of persuading that person to do something or not do something in his duty, which is contrary to his authority or obligations concerning the public interest”; also “accept something or promise, whereas he knows or deserves to be able to guess that giving something or an appointment is intended so that he does something or does not do something in his duty, which is contrary to his authority or obligations concerning the public interest”. In this study, bribery corruption covers both of the above explanations, that bribery corruption can take the form of giving, or receiving gifts related to his position, both related to the process of procurement of goods and services also non-procurement.

Up to now, there has not been much research on the influence of financial statement opinion on the number of bribery corruption cases. Some studies using a similar approach include Avis et al. (2018) stating that the area audited in the previous year had a corruption rate of 8% lower than unaudited areas. Bobonis, Fuertes, and Schwabe (2015) using longitudinal data on city government audit in Puerto Rico showed that corruption was much lower in cities with timely audit – before the elections. However, these cities did not show a decrease in the level of corruption in the next audit. The results of the study indicate that audits allow voters to choose responsive but corrupt politicians to take office. According to Cuervo-Cazurra (2008), auditors play an important role in detecting and disclosing fraudulent actions, including illegal actions such as paying bribes.

Khalil, Saffar and Trabelsi's (2015) study of the impact of disclosure standards in infrastructure audit and audit on bribery of public officials revealed that companies tend to give

prizes for securing government contracts in countries that have adequate financial reporting. Another finding in the same study is that companies tend to bribe bureaucrats if the state's financial accountability is audited by an external audit. In addition to audits, several studies suggest determinants that affect the amount of corruption, including the amount of government expenditure. Goel and Nelson (1998) also Scully (1991) find that the higher government expenditure, the more opportunities for rent-seeking activity. Djankov, La Porta, Lopez-de-Silanes and Shleifer (2002) also found that corruption occurs a lot in public procurement expenditure. The greater the value of procurement expenditure, the potential for corruption is also greater (Hopkin & Rodríguez-Pose, 2007).

Based on Becker's model of “crime and punishment”, the benefits of legal activities are explicitly defined as government wages, promotions, and pensions. Potential gains from corrupt behavior are assumed to be a function of the public sector expenditure variable (Becker, 1968) so that in this study legal benefits are proxied by the average government employee (ASN) income/salary. Kracke (1958) in Quah (2016) states that the low salary/income of government employees in China is one of the causes of corruption during the Song, Ming, and Qing dynasties. Research conducted by Tavits (2010) which examines incentive theory suggests the influence of salary levels and satisfaction with the workplace can affect the corrupt behavior of public officials. Some studies show significant and negative results between salary and corruption (Finan & Mazzocco, 2016; Lassen & Alt, 2003), while Seldadyo and Haan (2006) conclude the opposite effect where the increase of civil servants' salary cause more corruption. Even in other studies, it was not found a statistically significant relationship between salary variables and corruption (Gurgur & Shah, 2005).

## RESEARCH METHOD

This study uses panel data sourced from reports handling corruption bribery cases that have the permanent legal force (*in kracht*) of the KPK from 2008 to 2017. There were 258 cases of bribery in local governments that had been *in kracht* at the KPK. This study also uses data of BPK's opinion on financial statements of local governments from 2008 to 2017. Furthermore, this study also uses the financial statements of regency/city and provincial government in 2008-2017 from the Ministry of Finance including data of employee expenditure budget, goods, and services expenditure budget and capital expenditure budget.

The budget for goods and services and the capital expenditure is the main component in determining the amount of government expenditure that is used for expenditure in the form of assets and consumables, through an auction mechanism that is prone to fraud. The employee expenditure budget is used to find the average income value of civil servants through the ratio of the number of civil servants in each regency/city and province in 2008-2017 which is obtained from the National Civil Service Agency (BKN). The average income/salary is one of the explanatory variables towards corruption behavior in the local government. In addition, this study also uses data on expenditure audits in local governments as a control variable towards goods and services, also capital expenditures.

To obtain data compatibility, namely the suitability of corruption cases reported by the KPK with the financial reporting year at the time of the corruption, the codification is based on the relevant financial year. The selection of data on *in kracht* corruption cases by the KPK is due to the completeness and ease of data access compared to data from

other law enforcers. As noted, the number of bribery cases has not specifically described the conditions of bribery cases throughout Indonesia. The variable number of corruption is a discrete variable that has non-negative integers (0, one case, two cases, and so on).

Based on the research objectives, the main explanatory variable (variable of interest) used in this study is the opinion of financial statements, which is one of the factors that correlate with the amount of bribery corruption. Assuming that the better the opinion received by a region, the more reliable the internal control system and compliance with the law and administrative procedures (financial reporting). It means that the gap for the administration of corruption is reduced. Opinion as a result of an audit of financial statements is seen as a "cost" of an illegal act that is considered capable of limiting the level of manipulation of financial information (Ball, 2001). This can open opportunities for other modes of corruption with lower "costs"/lower detection by BPK, such as bribery mode. Opinion variables are categorical variables, namely category 1 for Adverse Opinion; 2 for Disclaimer Opinion; 3 for Qualified Opinion; and 4 for Unqualified Opinion.

The second explanatory variable is the total expenditure of the local government in the procurement of goods and services which is the sum of the realization of goods and services expenditure and the realization of capital expenditure. The data used is APBD data in the corrupted fiscal year. The use of this variable assumes that the greater the procurement of goods and services, especially capital expenditures, the greater the benefits that can be enjoyed by actors (Becker, 1968; Scully, 1991).

The next explanatory variable is the average salary of civil servants (ASN) obtained from



the division of realization of the direct expenditure of regency/city and provincial employees with the number of ASNs of the local government. The data used are from the realization of employee expenditure for the corrupted annual budget, and data on the number of employees from the National Civil Service Agency.

The following explanatory variable is the expenditure audit dummy, the determination of this dummy is based on the presence or absence of expenditure audit in a local government agency. An expenditure audit is one type of special-purpose audit which is not carried out every year. If the financial audit is carried out every year and for all local government agencies, then the expenditure audit is not carried out every year for each agency as the entity's compliance with legislation related to the implementation of its expenditure budget. Therefore, this expenditure audit dummy has a value of 1 (one) for the year if there is an expenditure audit, and 0 (zero) if there is no expenditure audit.

The control variable is the number of civil servants in each local government agency. Because this study discusses bribery that occurs in a government environment, civil servants are seen as subjects/perpetrators of corruption. So that the initial hypothesis in this study was, the addition or reduction of the number of civil servants would affect the amount of bribery corruption. The greater number of subjects must be monitored, there will be looser behavior's supervision. The

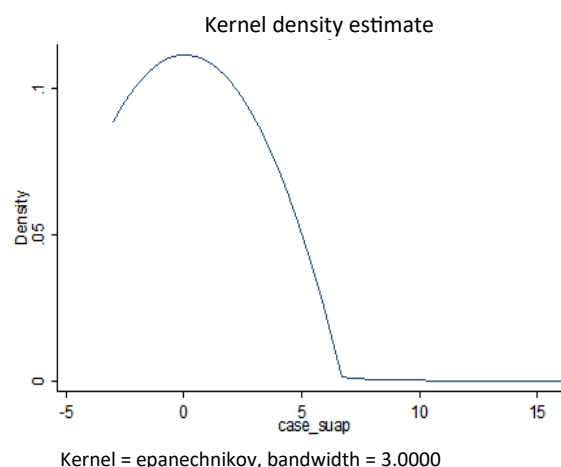
$$\begin{aligned} Corruption_{it} = & \beta_0 + \beta_1 opini_{it} + \beta_2 salary_{it} + \beta_3 \\ & total\ goods\ and\ services\ ex- \\ & penditure_{it} + \beta_4 expenditure \\ & audit_{it} + \gamma_i + \delta_t + \epsilon_{it} \end{aligned}$$

panel regression basic model equation in this study is:

Where  $Corruption_{it}$  is the number of bribery corruption cases based on the financial year that was corrupted for the local government

agency I in period t;  $opini_{it}$  is the BPK's opinion category in local government agencies I in period t with 1 representing TW opinion, 2 representing TMP opinion, 3 representing WDP opinion and 4 representing WTP opinion;  $salary_{it}$  is the average salary of civil servants based on the financial year that was corrupted in the local government agency I in period t;  $total\ goods\ and\ services\ expenditure_{it}$  is the total expenditure of goods and services and capital expenditure (Rp) in the log based on the corrupt budget year for local government agencies I in period t;  $expenditure\ audit_{it}$  is a dummy expenditure audit for local government agencies I in period t with 1 presenting an expenditure audit, and 0 if there is no expenditure audit;  $\gamma_i$  is fixed effects;  $\delta_t$  is the year effects and  $\epsilon_{it}$  is the error term for each number of *in kracht* bribery corruption cases based on the corrupt budget year for the local government agency I in period t.

In conducting a regression to answer the alleged effect of the main explanatory variables on the dependent variable, it is necessary to understand the type of dependent variable data. The dependent variable studied is the number of *in kracht* bribery corruption cases, which are data count that contains non-negative integers. Statistically, the distribution of data on the number of *in*



**Figure 1.** Dependent Variable Data Distribution  
**Source:** KPK (2019)

*kracht* bribery corruption cases can be seen in Figure 1.

Data on the number of bribery corruption cases are not normally distributed, the majority is zero. Based on this matter, this study cannot use linear regression analysis which assumes that the dependent variable data is normally distributed. The dependent variable in this study is also a count of data, so for the analysis, this study is using the Poisson regression model (Greene, 1994). The Poisson Regression Model needs several assumptions to be met. One of them is the variance values of the dependent variable must be equal to the mean value or called equidispersion (Simarmata & Ispriyanti, 2011). Testing the equidispersion assumption on the dependent variable is shown in Table 1, where the dependent variable is overdispersed. The dependent variable is overdispersion where the variance value is greater than the mean value. To overcome the problem of overdispersion and the excess of zero values in the dependent variable, zero-inflated Poisson regression can be used for data count (Lambert, 1992).

The Zero-inflated Poisson Regression is used to model the data that excess zero. Furthermore, the theory states that excess zero is produced by a separate process from calculated values and that excess of zero can be modeled independently. Thus, the Zip Model has two parts, the Poisson Counting Model and the Logit Model to predict an excess of

zero. In this study, the number of civil servants was used as a predictor which caused an excess of zero in the dependent variable.

## RESULT AND DISCUSSION

In the period 2008 to 2017, a total of 616 corruption cases were investigated by the KPK. Of these, as many as 434 cases have been decided and have permanent legal force (*in kracht*). Based on the type of case (mode) *in kracht* corruption cases are categorized into several types including procurement of goods/services, licensing, bribery, levies/extortion, budget misuse, money laundering crimes, and impeding the KPK process. The bribery mode was ranked the most corruption mode of the seven modes, in which 258 cases had been terminated with *in kracht* and spread across 478 local government agencies with a tendency to increase from year to year, seen in Table 2.

Based on the BPK's Summary of Semester Audit Results (IHPS), which are published annually, shows that the number of government agencies receiving an unqualified opinion on financial statements has increased from year to year as shown in Figure 2. This indicates an increase or improvement in the financial recording system, internal control system and compliance with laws by local governments, which can be "captured" in the financial audit process by the BPK. However, if we compare it with the data on the number of corruption cases from the KPK, an upward

**Table 1.** Descriptive and Independent Variable Statistics

Variables	Observation	Minimum	Maximum	Mean	Standard Deviation
Number of <i>in kracht</i> Bribery	4.780	0	13	0.0540	0.4910
Opinion	4.780	1	4	3.1778	0.7317
Expenditure Audit	4.780	0	1	0.2506	0.4335
Capital Expenditure	4.780	24.4203	31.1120	26.7098	0.7358
ASN Income	4.780	11.9474	20.8204	15.7037	0.3600
<b>ASN Total</b>	4.780	5.8290	11.1735	8.5400	0.5481

**Table 2.** Number of Corruption Cases Investigated by KPK in 2008-2017

TYPE OF CASES	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	TOTAL
Goods/Services Procurement	18	16	16	10	8	9	15	14	14	15	135
Licensing	3	1				3	5	1	1	2	16
<b>Bribery</b>	<b>13</b>	<b>12</b>	<b>19</b>	<b>25</b>	<b>34</b>	<b>50</b>	<b>20</b>	<b>38</b>	<b>79</b>	<b>93</b>	<b>383</b>
Levies/Extortion	3			0		1	6	1	1		12
Budget Misuse	10	8	5	4	3		4	2	1	1	38
Money Laundering					1	7	5	1	3	8	25
Impeding the KPK Process					2		3			2	7
<b>TOTAL</b>	<b>47</b>	<b>37</b>	<b>40</b>	<b>39</b>	<b>48</b>	<b>70</b>	<b>58</b>	<b>57</b>	<b>99</b>	<b>121</b>	<b>616</b>

Source: KPK (2019)

trend is also seen in the bribery corruption mode. The upward trend in the bribery corruption mode indicates that the possibility of corrupt behavior tends to shift to a personal corruption mode that cannot be detected through audit procedures on financial.

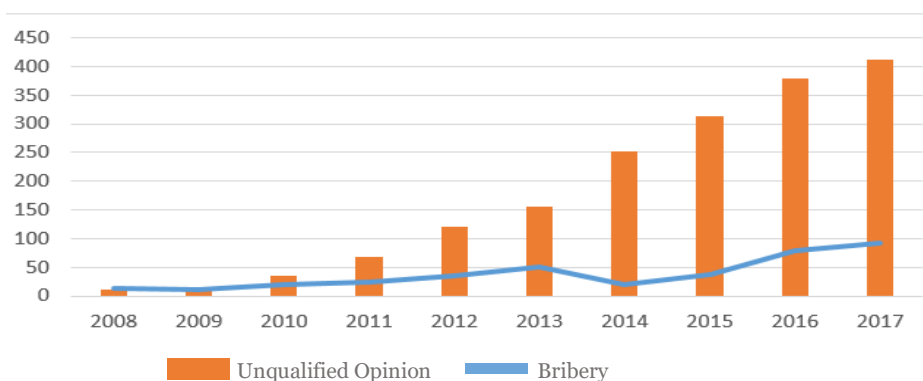
### The Correlation Test

Empirical tests are carried out by estimating several model specifications in Table 3. The correlation between BPK's opinion and bribery using OLS panel regression is shown in column (1) using OLS panel regression, meanwhile using Zero-inflated Poisson Panel Regression is shown in columns (2) through (5).

Based on the estimation of the equations in columns (1) through (5), namely in the OLS equation and the Zero-inflated Poisson Equation, it is seen that in both regression models, opinions do not have a significant relationship with the number of bribery cases. Only capital and goods and services expenditure have a

significant and consistent effect on the amount of bribery corruption. So that in this study, the equation chosen is an equation that uses a regression method that matches the characteristics of the dependent variable data and has the most control variables to minimize the risk of omitted variable bias, i.e. the equation in column (5).

This indicates that the BPK's audit is still not able to reveal bribery that occurs because the audit conducted is limited to the presentation of financial statements, internal control systems and compliance with administrative laws. Requirements for the adequacy of evidence in audit procedures for financial audit are considered to limit detection on fraud that is personal and not documented by the auditors. Since bribery is a mode of corruption that acts privately and is not documented, the disclosure of fraud with bribery mode cannot be done through financial audit. Disclosure can be done if the process of financial audit found indications of cor-



**Figure 2.** Trends in The Number of Bribery Cases and The Number of Unqualified Opinion

Source: KPK (2019), BPK (2019) (processed)

**Table 3.** Correlation between BPK's Opinion and Bribery

Dependent Variable: Bribery Cases	OLS	Zero Inflated Poisson Coefficient			
	Coefficient				
	(1)	(2)	(3)	(4)	(5)
Main Model					
<i>Opinion<sub>it</sub></i>	-0.00663 (0.0104)	0.278** (0.112)	0.200* (0.116)	0.125 (0.120)	0.0609 (0.131)
<i>Salary<sub>it</sub></i>	-0.00669 (0.0174)		0.497*** (0.172)	0.254 (0.190)	0.150 (0.250)
<i>Capital Expenditure<sub>it</sub></i>	0.0894*** (0.0195)			0.173** (0.0738)	0.166** (0.0823)
<i>Expenditure Audit<sub>it</sub></i>	-0.00875 (0.0178)				-0.0355 (0.186)
Constant	-2.207*** (0.524)	-0.0471 (0.394)	-7.670*** (2.672)	-8.316*** (2.494)	-9.220*** (3.248)
Inflate					
<i>Number of Govt. Officer<sub>it</sub></i>		-1.193*** (0.166)	-1.180*** (0.165)	-1.148*** (0.165)	-1.123*** (0.167)
Constant		14.19*** (1.488)	14.05*** (1.480)	13.76*** (1.477)	13.41*** (1.499)
N	4780	4780	4780	4780	4780
r2	0.0166				
wald					
chi2		6.420	15.25	20.55	63.17

Note: 99% (\*\*\*), 95% (\*\*), 90% (\*) confidence level. Robust error standard in parentheses

ruption. The auditor can propose a special purpose audit in the form of an investigative audit under the audit implementation standard in the State Financial Audit Standards (SPKN). It to be considered in this finding that the direction of the correlation of opinion and the amount of bribery corruption is positive. That indicates the possibility of an increase in incentive to commit bribery along with the increase of received opinion. However, it can occur if the possibility of detection through audit decreases. This finding is in line with the results of Quah's (2016) study which states that corruption can be linked to the low probability of detection and punishment for perpetrators.

The test results show the consistency where only the increase of capital also goods and services expenditure variables are correlating with the increase of bribery corruption, which is equal to 16.6% at the 5% significance level. This result is as expected previously where the greater the budget/government expenditure in the procurement

of goods and services, the potential for corruption will increase. Whereas the BPK's opinion on local government financial statements and audits of local government expenditures remain unrelated significantly to the number of bribery corruption cases. This result is in line with the opinion of Khan (2006) which states that auditors "almost cannot detect or investigate the actual corruption events, because the perpetrators, generally, do not leave documented evidence".

In addition to opinions and expenditure audits, the amount of salary received by civil servants also does not significantly affect bribery corruption cases. This finding is in line with the findings of Gurgur and Shah (2005) who did not find a statistically significant relationship between salary variables and corruption. This indicates that the size of the legal income received does not affect the incentive for someone to commit bribery corruption. Only the increase in expenditure budget, both capital and goods and services

that correlate with incentives to commit corruption. This is consistent with the opinion of Djankov et al., (2002) who found that corruption occurs in public procurement expenditure if the value of procurement expenditure is larger, the potential for corruption is also greater (Hopkin & Rodríguez-Pose, 2007). In the Zero-inflated Poisson Regression Model, there is one additional model with an additional variable that predicts the cause of excess zero (value 0) in the dependent variable (bribery case). In Table 4, the inflate variable, namely the number of civil servants show the results of the addition of the number of civil servants. It will reduce the possibility of the occurrence of a value of 0 (no corruption) or in other words, the increase in the number of civil servants will increase the number of corruption cases.

## Robustness Check

Robustness check is used to get a conviction in the model that this research is consistent in describing the actual conditions. In this study, a robustness check is done by providing an alternative relationship between opinions obtained in the previous year and the number of bribery corruption cases, as presented in Table 4.

The estimation results for robustness check show that the estimation is consistent with the main model, which is equation (1) where BPK's opinion does not correlate with the number of bribery corruption cases and only increases in goods and capital expenditure budgets that are positively and significantly correlated. Whereas the BPK's opinion received by the local government agency in the

**Table 4.** Robustness Check

Dependent Variable: Bribery Cases	Zero Inflated Poisson Coefficient	
	(1)	(2)
<b>Main Model</b>		
<i>Opinion<sub>it</sub></i>	0.0609 (0.162)	-0.00285 (0.193)
<i>Expenditure Audit<sub>it</sub></i>	-0.0355 (0.301)	-0.0228 (0.293)
<i>Salary<sub>it</sub></i>	0.150 (0.295)	0.113 (0.313)
<i>Capital Expenditure<sub>it</sub></i>	0.166* (0.0983)	0.175* (0.0971)
<i>Opinion<sub>it(t-1)</sub></i>		0.104 (0.201)
<i>Constant</i>	-9.220** (4.590)	-8.965* (4.685)
<b>Inflate</b>		
<i>Number of Govt. Officers<sub>it</sub></i>	-1.123*** (0.174)	-1.118*** (0.174)
<i>Constant</i>	13.41*** (1.576)	13.37*** (1.568)
N	4780	4780
r <sup>2</sup>		
wald		
chi <sup>2</sup>	42.16	42.01

Note: 99% (\*\*\*), 95% (\*\*), 90% (\*) confidence level. Robust error standard in parentheses  
Information :

- 1) The basic equation of the Zero inflated Poisson with the explanatory variable of BPK's opinion in the same fiscal year as the corrupt fiscal year.
- 2) The basic equation of the Zero inflated Poisson with the explanatory variables of the previous year's BPK's opinion.

previous year has no relationship or correlation with the incentive of someone to commit bribery corruption, as seen in equation (2).

## CONCLUSION

This study shows that the BPK's opinion on the Local Government Financial Statements does not correlate with the number of bribery corruption cases in Indonesia. This is because bribery corruption is a personal mode of corruption and not documented. Therefore the disclosure of bribery cases cannot be done through audit procedures on financial audit by the BPK.

The research findings also show that only the increase of capital and goods and services expenditures were significantly correlated with the number of corruption cases, namely 16.6% and at the 5% level. This shows that incentives for bribery corruption are only based on the amount of financial benefits/returns received through illegal actions. The greater the capital and goods and services expenditure used through an auction mechanism, therefore the greater the opportunity for fraud/bribery and the greater the financial return value expected by the perpetrator.

Based on these findings, the author recommends that the BPK consider improving the quality of fraud detection through auditing procedures on financial statements, especially in regions that have a relatively high value of capital also goods and services expenditures. This study is limited to an analysis that only uses data on corruption cases of bribery from the KPK. So that it has not fully captured the condition of the actual amount of bribery corruption in Indonesia. For this reason, further research is needed by including a larger sample of research which is the data on bribery corruption handled by law enforcement officers other than KPK throughout Indonesia. In addition, there are still

many factors that correlate with bribery corruption cases that have not been revealed in this study either. One of them is the effect of penalties for perpetrators of corruption. This is according to Liu and Lin's (2012) research in China which states that improvement efforts after the audit are to ensure that legal sanctions imposed by government auditors. Also, institutional problems found in audits are completed on time and can effectively reduce corruption.

## REFERENCES

- Avis, E., Ferraz, C., & Finan, F. (2018). Do government audits reduce corruption? Estimating the impacts of exposing corrupt politicians. *Journal of Political Economy*, 126(5), 1912–1964. doi: 10.1086/699209
- Ball, R. (2001). Infrastructure requirement for an economically efficient system of public financial reporting and disclosure. *Brooking-Wharton Papers on Financial Services*, 169, 127–169. doi: 10.1353/pfs.2001.0002
- Bardhan, P. (1997). Corruption and development: A review of issues. *Journal of Economic Literature*, XXXV, 1320–1346. doi: 10.4324/9781315126647-30
- Becker, G. S. (1968). Crime and punishment: An economic approach. *Journal of Political Economy University of Chicago*, 75(2), 139–146.
- Blume, L., & Voigt, S. (2011). Does organizational design of supreme audit institutions matter? A cross-country assessment. *European Journal of Political Economy*, 27(2), 215–229. doi: 10.1016/j.ejpoleco.2010.07.001
- Bobonis, G. J., Fuertes, L. R. C., & Schwabe, R. (2015). *Monitoring corruptible politicians*. (December). Retrieved from [http://homes.chass.utoronto.ca/~bobonis/BCS\\_PRAudit\\_15-12.pdf](http://homes.chass.utoronto.ca/~bobonis/BCS_PRAudit_15-12.pdf)
- BPK RI. (2017). BPK Regulation Number 1 Year 2017 concerning State Financial

- Audit Standards (Peraturan Badan Pemeriksa Keuangan Republik Indonesia Nomor 1 Tahun 2017 tentang Standar Pemeriksaan Keuangan Negara). Retrieved from <https://www.bpk.go.id/page/standar-pemeriksaan-keuangan-negara>
- BPK RI. (2018). Ikhtisar Hasil Pemeriksaan Semester (IHPS) I Tahun 2018 (Summary of Semester Audit Results I Year 2018). Retrieved from <https://www.bpk.go.id/ihps>
- Cuervo-Cazurra, A. (2008). The effectiveness of laws against bribery abroad. *Journal of International Business Studies*, 39(4), 634–651. doi: 10.1057/palgrave.jibs.8400372
- Djankov, S., La Porta, R., Lopez-de-Silanes, F., & Shleifer, A. (2002). The regulation of entry. *Quarterly Journal of Economics*, 117(1), 1–37. doi: 10.1162/003355302753399436
- Farooq, O., & Shehata, N. F. (2018). Does external auditing combat corruption? Evidence from private firms. *Managerial Auditing Journal*, 33(3), 267–287. doi: 10.1108/MAJ-08-2017-1634
- Finan, F., & Mazzocco, M. (2016). Electoral incentives and the allocation of public funds. *IZA*, 9623, 1–55. doi: 10.1248/cpb.34.2774
- Gaspar, V., & Hagan, S. (2016). *Corruption: Costs and mitigating strategies international monetary fund fiscal affairs and legal departments authorized for distribution*. Retrieved from <http://www.imf.org/external/pubs/ft/sdn/2016/sdn1605.pdf>
- Goel, R., & Nelson, M. (1998). Corruption and government size. *Public Choice*, 97(1–2), 107–120.
- Gray, I., & Manson, S. (2008). *The audit process (Fourth Edition)*. Tomphson Learning.
- Greene, W. H. (1994). Accounting for excess zeros and sample selection in poisson and negative binomial regression models. *Biology & Philosophy*, 9(3), 265–265. doi: 10.1007/BF00857937
- Gurgur, T., & Shah, A. (2005). Localization and corruption: Panacea or pandora's box? *World Bank Policy Research Paper*, 3486.
- Hayes, R., Dassen, R., Schilder, A., & Wal-lage, P. (2005). *Principles of auditing* (2nd edition). Amsterdam.
- Hopkin, J., & Rodríguez-Pose, A. (2007). "Grabbing hand" or "helping hand"? Corruption and the economic role of the state. *Governance*, 20(2), 187–208. doi: 10.1111/j.1468-0491.2007.00353.x
- Kassem, R., & Higson, A. W. (2016). External auditors and corporate corruption: Implications for external audit regulators. *Current Issues in Auditing*, 10(1), P1–P10. doi: 10.2308/ciia-51391
- Khalil, W., Saffar, W., & Trabelsi, S. (2015). Disclosure standards, auditing infrastructure, and bribery mitigation. *Journal of Business Ethics*, 132(2), 379–399. doi: 10.1007/s10551-014-2321-6
- Khan, M. (2006). Role of audit in fighting corruption. *ethics, integrity, and accountability in the public sector: Rebuilding public trust in government through the implementation of the UN Convention against corruption*, (September), 1–32.
- Klitgaard, R. (1988). *Controlling corruption*. Retrieved from <https://www.jstor.org/stable/10.1525/j.ctt1pnj3b>.
- KPK. (2018). KPK's annual report of 2018 (Laporan tahunan KPK 2018). Retrieved on May 22 2019 from <https://www.kpk.go.id/images/Integrito/LaporanTahunanKPK/Laporan-Tahunan-KPK-2018-.pdf>
- KPK. (2019). Graph of case handling December 2018 (Grafik penanganan perkara Desember 2018). (Unpublished document). KPK, Jakarta.
- Labuschagne, H., & Els, G. (2006). Corruption and fraud: Any lesson for the auditor? *Meditari Accountancy Research*, 14(1), 29–47. doi: 10.1108/09686820610658888



10.1108/10222529200600003

- Lambert, D. (1992). Zero-inflated poisson regression, with an application to defects in manufacturing. *Technometrics*, 34(1), 1–14. doi: 10.1080/00401706.1992.10485228
- Lanham, D. (1987). *Criminal Fraud*. Sidney: Law Book Co.
- Lassen, D. D., & Alt, J. E. (2003). The political economy of institutions and corruption in American states. *Journal of Theoretical Politics*, 15(3), 341–365. doi: 10.1177/0951692803015003006
- Law of The Republic of Indonesia Number 11 of 1980 concerning Bribery Crimes (Undang-Undang Republik Indonesia Nomor 11 Tahun 1980 tentang Tindak Pidana Suap). Retrieved from <http://ditjenpp.kemenkumham.go.id/arsip/ln/1980/uu11-1980.pdf>
- Law of The Republic of Indonesia Number 15 Year 2004 concerning The State Financial Management and Accountability Audit (Undang-Undang Republik Indonesia Nomor 15 Tahun 2004 tentang Pemeriksaan Pengelolaan dan Tanggung Jawab Keuangan Negara). Retrieved from <https://www.kemenkeu.go.id/sites/default/files/pdf-peraturan/uu%20nomot%2015%20tahun%202004.pdf>
- Liu, J., & Lin, B. (2012). Government auditing and corruption control: Evidence from China's provincial panel data. *China Journal of Accounting Research*, 5(2), 163–186. doi: 10.1016/j.cjar.2012.01.002
- Neu, D., Everett, J., Shiraz, A., & Martinez, D. (2013). Accounting, organizations and society accounting and networks of corruption. *Accounting, Organizations and Society*, 38(6–7), 505–524. doi: 10.1016/j.aos.2012.01.003
- Osifo, C. (2012). Combating bribery as an issue of different dimensions. Working Papers 5 Public Management 4 (October 2012). Retrieved from [https://www.univaasa.fi/materiaali/pdf/isbn\\_978-952-476-421-6.pdf](https://www.univaasa.fi/materiaali/pdf/isbn_978-952-476-421-6.pdf)
- Porter, B. (1993). An empirical study of the audit expectation performance gap. *Accounting and Business Research*, 24(93), 49–68.
- Quah, J. S. T. (2016). Singapore's success in combating corruption: Four lessons for China. *American Journal of Chinese Studies*, 23(2), 187–209.
- Rose-Ackerman, S. (1999). Political corruption and democracy. *Connecticut Journal of Int'L Law*, 14(2), 363–378. doi: 10.3366/ajicl.2011.0005
- Scully, G. W. (1991). Rent-seeking in U.S. Government budgets, 1900–88. *Journal of Public Choice*, 70, 99–100.
- Seldadyo, H., & Haan, J. De. (2006). The determinants of corruption: A literature survey and new evidence. *The Economist*, 55, 1–60. Retrieved from [http://congress.utu.fi/epcs2006/docs/D1\\_seldadyo.pdf](http://congress.utu.fi/epcs2006/docs/D1_seldadyo.pdf)
- Shihata, I. F. I. (1997). Corruption-A general review with an emphasis on the role of the world bank. *Penn State International Law Review*, 15(3). Retrieved from <http://elibrary.law.psu.edu/psilr/vol15/iss3/2>
- Simarmata, R. T., & Ispriyanti, D. (2011). Penanganan overdispersi pada model regresi poisson menggunakan model regresi binomial negatif. *Media Statistika*, 4(2), 95–104. doi: 10.14710/medstat.4.2.95-104
- Soltani, B. (2007). *Auditing, An international approach*. Prentice Hall.
- Tavits, M. (2010). Why do people engage in corruption? The case of Estonia. *Social Forces*, 88(3), 1257–1279. doi: 10.1353/sof.0.0288
- Wei, D. H., Qin, Z. Y., & Tang, S. Q. (2010). A research on the relation between the efficacy of government audit and the security of financial fund. *Auditing Research*, 3, 9–14.

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## SUPERIOR AUTHORITY AND FRAUDULENT ACTS IN GOODS AND SERVICES PROCUREMENT: THE ROLE OF CODE OF ETHICS

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### ABSTRACT

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An increase in the number of corruption cases in the goods and services procurement at government agencies in Indonesia causes the country to suffer significant losses. This condition proves the non-compliance of the goods and services procurement officials with the code of ethics for the implementation of goods and services procurement. Corruption cases in the goods and services procurement tend to involve goods and services procurement officials, both as Budget User Authorities, Commitment Making Officials, and Technical Implementation Activities Officials. In other words, officials (superiors) use their authority to commit fraud in the goods and services procurement. The purpose of this study is to determine and evaluate the role of the code of ethics on the influence of superior authorities on fraudulent acts in goods and services procurement of government agencies in Indonesia. This study used the laboratory experiments method with the accounting students of Pattimura University, Ambon as the participants and a two-way ANOVA with a 2x3 factorial experimental design as a data analysis technique. The results of this study show that superior authority plays an important role in influencing the occurrence of fraudulent acts in the goods and services procurement, and a code of ethics can reduce it. There is a difference in the tendency to commit fraud in the goods and services procurement when there is a superior authority and no superior authority. The tendency to commit fraud will be smaller for individuals who are asked to read the code of ethics and signatures it compared to only reading the code of ethics and without a code of ethics.

### KEYWORDS:

Superior authority; code of ethics; fraudulent acts; goods and service procurement

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## INTRODUCTION

Fraud is still a major issue of research in various disciplines, particularly concerning the management of public sector organizations. Tuanakotta (2013) explains that cheating is any illegal action characterized by deception, concealment or breach of trust. This action does not depend on the application of threats of violence or physical force. Fraud committed by individuals and organizations to obtain money, wealth or services, to avoid payment or loss of services, or to secure personal business interests. One form of fraud that often occurs in public sector organizations is corruption. Table 1 shows the prosecution of corruption cases in public sector organizations from 2016 to 2018.

The highest number of corruption cases occurred in 2017 involving more suspects and resulting in greater losses than in 2016 and 2018. The lowest number of corruption cases and suspects occurred in 2018. However, the country still suffered four times greater losses than in 2016, thus the decreasing number of cases and suspects does not mean that the number of state losses also reduced. This shows the high intention of the perpetrators in obtaining personal benefits as much as possible.

The type of corruption that has received public attention is the corruption case in the goods and services procurement. The largest percentage of the number of corruption cases in the goods and services procurement oc-

curred in 2018, while the largest number of state losses occurred in 2017. This condition shows that perpetrators tend to do corruption through the goods and services procurement. The case involved several regional officials at both the executive and legislative levels. That happens because the perpetrator using his authority to fulfill their personal interests through connections to win project tenders or directly orders their subordinates to commit fraud to meet their interests.

Bawa and Yasa (2016) give an example of authority abuse, namely the case of the Mayor of Tanjung Balai who ordered his subordinates to commit fraud to meet their needs. The Mayor instructs the Head of the Local Government Work Unit (SKPD) to deposit six percent of the total budget disbursed to himself, both from the routine budget and the activity expenditure budget. The deposit is made shortly by the head of the SKPD directly or by the SKPD representative concerned after the budget is disbursed. None of the heads of SKPD dared to oppose fearing that his position would be threatened. This example of superior authority abuse shows that fraud is carried out in a structured way from the head of the local government to SKPD subordinates.

Bawa and Yasa (2016) explain that superiors who suggest cheating might encourage subordinates to take unethical actions with consideration of the responsibility lies with their superiors. In addition, Milgram (1974) explained that individuals who were ordered to

**Tabel 1.** Corruption Cases Enforcement in 2016-2018

Years	Corruption Cases			Corruption Cases in Goods and Services Procurement		
	Number of Cases	Number of Suspects	Value of State Losses	Number of GSP Cases	% Number of GSP Cases	Value of State Losses from of GSP Cases
2016	482	1.101	Rp.1,450 Trillion	195	41%	Rp. 680 Billion
2017	576	1.298	Rp.6,500 Trillion	241	42%	Rp.1,500 Trillion
2018	454	1.087	Rp.5,645 Trillion	214	47%	Rp. 973 Billion

*Source: Indonesia Corruption Watch (2016; 2017; 2018)*

do unethical actions by their superiors would obey these orders because he saw himself as a tool for carrying out unethical actions by his superiors, so he felt no need to be responsible for these actions. In contrast, Mayhew and Murphy (2014) state that in the condition of subordinates not given authority by their superiors to commit fraud, subordinates will be more careful to commit fraud because they realize that they must be responsible for the fraud committed.

The involvement of superiors in committing fraud is supported by the ineffectiveness of the code of ethics in the organization. Financial Services Authority (OJK) (2014) explains that one of the scopes of the code of ethics is the rules about allowed and not allowed behavior for all members of the organization. In the context of managing goods and services in public sector organizations, there are also rules regarding the code of ethics for the goods and services procurement. For example, the Buleleng Regent's Regulation 2018 on a code of ethics for the goods and services procurement in the procurement services division. The regulation explains that the code of ethics is intended as a professional guide for individual structural officers, goods and service managers and procurement officials for functional officials of goods and services responsible for carrying out tasks and goods and services procurement activities. Those include planning, analysis, assessment, evaluation, decision-making, consulting services, and other related services (Regulations of the Head of Buleleng Regency in 2018). Narsa and Supriyadi (2017) examine the role of corporate codes of ethics in reducing managerial behavior that increases with agency theory. The result shows that a codes of ethics can reduce individuals to escalate commitments in the event of adverse selection.

Based on these matters, the formulation of the problem of this study is whether the code

of ethics plays an important role in reducing the influence of superior authorities on fraudulent actions in the goods and services procurement. The purpose of this study is to determine and analyze the role of the code of ethics in influencing superior authority in fraud in the goods and services procurement.

### **Superior Authority and Fraudulent Acts in Goods and Services Procurement**

Moral disengagement theory explains that individuals use rationalization to justify unethical actions (Bandura 1991; 1999). This theory is one important part of the fraud triangle theory by Cressey (1953). Superiors order subordinates to commit fraud. Subordinates commit fraud based on orders from superiors and then rationalize their actions by reason that responsibility rests with their superiors. Supporting theory shows that subordinates' compliance with superiors to commit fraud is influenced by individual internal and external factors. Internal factors such as obeying orders from superiors in hopes of promotion, and external factors such as manipulation of numbers to meet reporting targets on orders from superiors due to family economic conditions.

Mayhew and Murphy (2014) explain that when subordinates are not given authority from superiors to commit fraud, then subordinates will not commit fraud. This condition occurs because subordinates realize that the responsibility of cheating behavior is fully borne by the subordinates because the fraud is done because of their own desires. Milgram (1974) explains that individuals who receive orders from superiors to commit acts of fraud will obey these orders because the individual sees himself as a means for superiors to act according to orders given, so he feels no need to be responsible for these actions.

The results of the study of Bawa and Yasa (2016), Mayhew and Murphy (2014), Sofyani and Pramita (2015), Sofyani and Rahma (2015) show that there are differences in fraud in the condition that there is superior authority to commit fraud and without superior authority to commit fraud. Individuals who receive authority from superiors will commit fraud compared to individuals who do not receive superior authority. The hypothesis proposed by the author is:

H1: Superior authority influences the tendency to commit fraud in goods and services procurement

### **Code of Ethics and Fraudulent Acts in Goods and Services Procurement**

Cressey (1953) introduced fraud triangle theory through three important concepts, namely pressure, opportunity, and rationalization. These three concepts are the basis of individuals practicing cheating. Tehupuring and Lingga (2017) explain that pressure involves situations where individuals need more benefits such as getting bribes and can also arise from job problems and unrealistic performance targets. Opportunities arise when individuals have access to assets and information that triggers individuals to commit fraud. Rationalization involves individuals to align their behavior with general ideas received through politeness and trust. Dishonest individuals tend to rationalize fraudulent practices more easily.

Maslow (1943) explains that pressure is an innate condition felt by every individual and exists at every level of work. Individuals at each level of work despite having a code of ethics but still not immune to pressure to commit fraud, whether internal pressure through the need for job promotion or external pressure originating from the executive level who wants financial statement figures to meet the specified target level (Payne et al., 2019). Code of ethics basically designed

to promote good the professional practice, integrity as well as strong commitment to high standards in dealings with clients (Owolabi 2002).

Cressey and Moore (1983) point out that the existence of a code of ethics and the affidavit of compliance often signed by the employee indicate that if the code is violated it will be subject to sanctions. Furthermore, Cressey and Moore (1983) show that in fact, the corporation is like a private government that has enacted "laws" (codes of ethics) that emphasize the need for conformity to those laws in order to protect the corporate establishment. Wotruba et al. (2001) explain that the code of ethics has three main roles for organizations, namely the code of ethics can demonstrate organizational concern for ethics, the code of ethics can transmit organizational ethical values to its members, and the code of ethics can have an impact on ethical behavior on members of an organization. Furthermore, Wotruba et al. (2001) show that codes of ethics can influence manager's judgment and decision making only if managers are familiar with the contents and objectives of the code. The existence of a code of ethics in an organization does not guarantee that all members of the organization will know it, understand it, and use it to guide their attitudes and actions. Thus, so that the code of ethics is truly familiar in an organization, then all members of the organization must not only know the existence of the code of ethics, but also must know its contents, so that it can influence their ethical awareness and behaviour.

Individuals who are involved in their work and are responsible for managing the goods and services procurement have the opportunity to commit fraud in the goods and services procurement. Payne et al. (2019) explain that opportunity is a fundamental factor in triangle fraud theory because it is most vulnerable to fraud. Individual opportunities

to commit fraud caused by weak internal control systems and ineffective implementation of ethical codes. Individuals who only read the code of ethics have the opportunity to commit fraud in the goods and services procurement because they are considered not bound in writing (signing a code of ethics agreement) compared to individuals who certify themselves by signing the agreement. The effective application of a code of ethics is when fraud practices are reduced. West (2018) explains that even without a code of ethics, individuals who have responsibilities in their work will not commit fraud despite the pressure.

When the code of ethics is combined with self-certification, namely through the signature of members of the organization, it is predicted to increase the value of responsibility for their work. Orin (2008) shows that 31% of organizations implement their code of ethics by asking for self-certification in the form of signatures to the CEOs, managers, and cross-employees. Davidson and Stevens (2013) show that individuals who give a check mark to be willing to comply with a code of ethics after reading a code of ethics can reduce the opportunistic behavior of managers. Individuals who do self-certification tend to focus more on social norms that are expected to be consistent in shaping their self-identity. The hypothesis proposed by the author is:

H2: The code of ethics influences the decreasing tendency to commit fraud in goods and services procurement

If H2 is proven significantly, the author continue to test H2a, H2b and H2c as follows.

H2a: Individuals show more tendency not to commit fraud in the goods and services procurement when there is a code of ethics that must be read than when there is no code of ethics.

H2b: Individuals show more tendency not to commit fraud in the goods and ser-

vices procurement when asked to conduct self-certification of a code of ethics than when only asked to only read the code of ethics.

H2c: Individuals show more tendency not to commit fraud in the goods and services procurement when asked to conduct self-certification of a code of ethics than when there is no code of ethics.

### **Superior Authority, Code of Ethics, and Fraudulent Acts in the Goods and Services Procurement**

Fraud triangle theory (Cressey, 1953) and moral disengagement theory (Bandura, 1991; 1999) explain that one individual factor is cheating through the rationalization of his actions. Subordinates who receive orders from superiors to commit fraud tend to obey orders from superiors because the responsibility lies with their superiors, so that subordinates can rationalize their actions. This condition shows that subordinates obey superiors' orders, even though their actions are contrary to ethics. The cause of subordinate compliance with superiors' orders is influenced by internal and external factors. Internal factors because subordinates want to benefit from their actions such as a promotion or retain their current position, while external factors such as manipulation of numbers to meet reporting targets on orders from superiors due to family economic conditions.

Payne et al. (2019) explain that individuals who are involved in their work and are responsible for managing goods and services procurement have the opportunity to commit fraud in the goods and services procurement. This condition occurs because it is influenced by the implementation of an ineffective code of ethics. Individuals at every level of work, even though they have a code of ethics, do not mean that they are immune

to the pressure to commit fraud, both internal and external (Payne et al., 2019). In the case of superior authority with the effective application of a code of ethics (the individual in whom has read the code of ethics and signed an organizational code of ethics agreement) will reduce the tendency of individuals to commit fraud compared to individuals who only read the code of ethics without having to sign the agreement. When individuals read and sign after reading a code of conduct shows that the individual has agreed to comply with regulations in the organization, so that individuals feel responsible for doing work in accordance with the code of ethics. The effectiveness of the application of the code of ethics is to increase the integrity and professionalism of the organization, thereby reducing unethical actions such as fraud. Based on the description, the hypothesis proposed is

H3: There is a difference in the tendency to commit fraud in the goods and services procurement when there is a superior authority and there is no superior authority at the three levels of the code of ethics.

If H3 is proven significantly, then the author will continue the H3a, H3b and H3c tests as follows.

H3a: The difference in the tendency to commit fraud in the goods and services procurement when there is a superior authority and no superior authority will be smaller for individuals who are asked to read the code of ethics compared to individuals who are not exposed to the code of ethics.

H3b: The difference in the tendency to commit fraud in the goods and services procurement when there is a superior authority and no supervisory authority will be smaller for individuals who are asked to conduct self-certification of the code of ethics compared to individuals who are only asked to read the

code of ethics only.

H3c: The difference in tendency to commit fraud in the goods and services procurement when there is a superior authority and no supervisory authority will be smaller for individuals who are asked to conduct self-certification of the code of ethics compared to individuals who are not exposed to the code of ethics.

## RESEARCH METHOD

The experimental method is a research design to investigate a phenomenon by manipulating a condition or condition through certain procedures and then observing the results of the engineering and interpreting it (Nahartyo, 2013). The author manipulates the independent variable and observes the effect of manipulating the variable through the dependent variable. This study adapted and modified the five previous studies (Bawa & Yasa, 2016; Mayhew & Murphy, 2014; Narsa & Supriyadi, 2017; Sofyani & Pramita, 2015; also Sofyani & Rahma, 2015) to establish an experimental module and then discuss the validity of the research module with several lecturers who supported subjects relevant to this study to improve the quality of the research module. This discussion is important to know the validity, experimental procedures, and case material in order to obtain the perfection of the experimental design (Nahartyo & Utami, 2015).

### Research Subject

This study conducted through a laboratory experiment with accounting students at Patimura University in Ambon play the role of the head of the SKPD who managed and was responsible for the procurement of goods and services. The selection of participants in this experiment is carried out by the author through manipulation checks. The author used a laboratory experiment using universi-

ty students as the participants rather than officials managing goods and services procurement to eliminate biases. Those such as, psychological pressure due to the organizational environment and positions in government structures that have a tendency not to respond to the actual conditions because it is related to ethics, morals, and the responsibility of the manager of the goods and services procurement that is quite sensitive (Sitanala, 2019).

The subjects of this research experiment were accounting students at Pattimura University, Ambon. The use of accounting students as research subjects is a third person as explained by Liyanarachi and Newdick (2009) for ethical research. The aim is to reduce the subject's response bias when the subject is faced with a variety of sensitive ethical issues. The accounting students at Pattimura University are chosen as experimental subjects because (1) accounting students have been equipped with a comprehensive understanding of various ethical issues and public sector accounting, so that accounting students have taken and passed business and professional ethics and public sector accounting courses; and (2) the topic under study is related to ethical, moral, and sensitive responsibility issues if done directly to the head of the SKPD, so accounting students are better suited as subjects to obtain an actual response without psychological pressure (Sitanala, 2019).

### **Experimental Procedure**

The independent variables of this study are superior authority and a code of ethics. Meanwhile, the dependent variable is fraudulent acts in the goods and services procurement. Bawa and Yasa (2016) explain that the authority of superiors who suggest doing fraud can encourage subordinates to take unethical actions because subordinates realize the responsibility lies with their supe-

riors. Measurement of superior authority in this study uses two treatments, namely, the condition of superior authority and no superior authority. A brief description of the two conditions is as follows.

1. The condition of superior authority. The condition of superior authority occurs when the head of the SKPD is given power by the regent as a budget user and user of goods and instruct the head of the SKPD to take unethical actions by depositing a number of costs for the project handled by the head of the SKPD for the personal benefit of the regional head.
2. The condition of no superior authority. The condition occurs when the head of the SKPD is authorized by the regional head as the budget user and user of the goods, including coordinating and being responsible for the goods and services procurement in the scope of service. However, regional heads do not instruct SKPD heads to take unethical actions.

Measurement of fraudulent acts in the goods and services procurement uses the case of a bridge construction project and the response of the subject's decision as the head of the SKPD to approve or disapprove the offer of his old friend's company to win the bridge construction project. Fraudulent acts in the goods and services procurement is the SKPD's head act in accepting his close friend's offer to win the bridge construction project and get a fee share according to the agreement. The measurement is using the 1-10 Skert Likert. Subjects who choose the Likert scale 1-5 indicate the subject's decision not to accept the offer of his old friend's company, on the other hand the subject who chose Skala 1-6 indicates the subject's decision to accept his old friend's company offer.

Measurement of the code of ethics in this study uses three conditions, is as follows.

1. The conditions that there's a code of ethic and self-certification. The condition oc-



curs when SKPD has a code of ethics which is an inseparable part of the internal regulations of the organization and must be applied in all layers of SKPD members, so it is obliged to read, understand, and comply with the SKPD code of ethics. The form of implementing the SKPD code of ethics is to read the contents of the code of ethics and provide a signature (self-certification) on the letter of compliance with the contents of the code of ethics.

2. The condition that there is a code of ethics and no self-certification. The condition occurs when the SKPD has a code of ethics that forms an inseparable part of the organization's internal regulations, and must be applied in all layers of SKPD members, so it is obliged to read, understand, and comply with the SKPD code of ethics. The form of implementing the SKPD code of ethics is reading the contents of the code of ethics (without a signature).
3. The condition of no code of ethics. The condition occurs when SKPD does not have a code of ethics which is an inseparable part of the internal regulations of the organization.

The experimental module consists of six types according to the treatment conditions and is classified as Groups 1-6. Group 1: the condition that there is a superior authority, a code of ethic and self-certification; Group 2: the condition that there is a superior authority, a code of ethics and no self-certification; Group 3: the condition that there is a superior authority, no code of ethics; Group 4: the condition that there is no superior authority,

a code of ethics and self-certification; Group 5: the condition that there is no superior authority, no code of ethics and no self-certification, and Group 6: the condition that there is no superiority and no code of ethics. The experimental design is presented in Table 3.

### Data Analysis Technique

The hypothesis will be tested by using two-way analysis of variances (ANOVA). The use of ANOVA requires the author to tests several assumptions, namely normality and homogeneity. The normality test was carried out through the Kolmogorov Smirnov one-sample test with the provisions that is if sig. > 0.05, then the residuals are normally distributed. Meanwhile, the homogeneity test uses the Levene's test with the provisions that is, if sig. > 0.05, then the residual is homogeneous. Two-way ANOVA 2x3 factorial experimental design to examine the role of the code of ethics on the influence of superior authority and fraudulent acts in the goods and services procurement.

## RESULT AND DISCUSSION

This study uses two questions to check the manipulation of the whole scenario given to the subject. The overall subject response will be used by the author to determine the success of the subject participating in the experiment. That is, the subject understands his role as head of the SKPD. Thus, subjects who only pass the manipulation check will be used to test the research hypothesis.

**Table 3.** Experimental Design

Superior Authority	Code of Ethics		
	Yes & Self Certification	Yes & No Self Certification	No
Yes	Group 1	Group 2	Group 3
No	Group 4	Group 5	Group 6

The author grouped the subjects into six groups and provide different treatments for each group. The total number of subjects who took the experiment is 82 subjects consisting of 14 subjects for each group 1-4 and 13 subjects for each group 5-6. Furthermore, the results of manipulation checks show that the total number of subjects who passed the manipulation check and used in testing hypothesis was 73 subjects. Table 4 shows the demographics of the subjects used in this study.

Based on Table 4, female subjects were more dominant (66%) than men (34%), and subjects aged between 21-23 years were more dominant (55%) compared to subjects aged between 19-20 years (45%). The author then conducted a randomization test with the aim to find out the distribution of each subject was

evenly distributed for each group.

Based on the results of the randomization test in Table 5, it can be seen that the gender of the subject has a test value of  $F = 0.023$ , and  $Sig = 0.880$ ; and the age of the subject has a test value of  $F = 0.860$ , and  $Sig = 0.357$ . The randomization test results showed that there were no significant differences between the male and female sex treatment groups, as well as the subject's age treatment group which ranged between 19-20 years and ages 21-23. The author concludes that the subjects used in this study have been distributed evenly. The author then conducts an assumption test as a condition that must be met before conducted the ANOVA test. The assumption test is a test for normality and homogeneity. The results of

**Table 4.** Subject Demographics

Variable	Treatment Group	Category	N	Percentage	Total
Gender	Group 1	Male	6	50%	Male = (34%) Female = (66%)
		Female	6	50%	
	Group 2	Male	2	17%	
		Female	10	83%	
	Group 3	Male	3	25%	
		Female	9	75%	
	Group 4	Male	7	54%	
		Female	6	46%	
	Group 5	Male	3	25%	
		Female	9	75%	
	Group 6	Male	4	33%	
		Female	8	67%	
Age	Group 1	19-20	8	67%	19-20 = (45%) 21-23 = (55%)
		21-23	4	33%	
	Group 2	19-20	5	42%	
		21-23	7	58%	
	Group 3	19-20	5	42%	
		21-23	7	58%	
	Group 4	19-20	6	46%	
		21-23	7	54%	
	Group 5	19-20	5	42%	
		21-23	7	58%	
	Group 6	19-20	4	33%	
		21-23	8	67%	

**Table 5.** Randomization Test Results

Notes	F-Test	Sig.
Gender	0.023	0.880
Age	0.860	0.357

normality test through one-sample Kolmogorov Smirnov with Sig = 0.329 > 0.05. The results of this test indicate that this research model has a normally distributed residual. Thus, the normality assumption test has been fulfilled. The homogeneity test results through the Levene's test with a Sig = 0.459 > 0.05. The result indicates that the research model has homogeneous residual variants. Thus, testing the homogeneity assumption has been fulfilled.

Hypothesis 1 (H1) testing, that is, superiors' authority has an important role in influencing the tendency of goods and services procurement fraud. The author used the 2x3 factorial two-way ANOVA test to test the first hypothesis. Table 6 shows the results of the 2x3 factorial two-way ANOVA test.

Table 6 shows that superior authority (OTA) has a value of  $F = 13.107$ , and  $Sig = 0.001 < 0.010$ . This result indicates that the superiors' authority has an important role in influencing the tendency of fraud in goods and

**Table 6.** Two-Way ANOVA Factorial 2X3

Source	Df	Mean Square	F	Sig.
Corrected Model	5	28.240	13.127	0.000***
Intercept	1	2514.653	1168.868	0.000***
OTA	1	28.199	13.107	0.001***
KOD	2	46.033	21.397	0.000***
OTA X KOD	2	10.698	4.973	0.010***
Error	67	2.151		
Total	73			
Corrected Total	72			

$R^2 = 0.495$   
Adjusted  $R^2 = 0.457$   
Notes: \*\*\* significance at 1%  
OTA : Superior Authority  
KOD : Code of Ethics

services procurement. Thus, hypothesis 1 (H1) is supported. Individuals who receive orders from superiors to commit acts of fraud will obey the orders because the individual sees himself as a means of superiors to act in accordance with orders from superiors, so he feels no need to be responsible for these actions (Milgram, 1974). The findings of the study of Bawa and Yasa (2016), Mayhew and Murphy (2014), Sofyani and Pramita (2015), Sofyani and Rahma (2015) showed that there were differences in accounting fraud in the condition that there was a superior authority to commit fraud and without a supervisory authority to commit fraud. Superiors use their authority to order subordinates to commit acts of fraud and then subordinates rationalize their actions based on the thought that the responsibility lies with their superiors. This action is in accordance with one important part of the fraud triangle theory. Compliance with superiors' orders is influenced by internal factors such as the need for promotion because of obeying superiors' orders, and external factors such as manipulation of numbers to meet reporting targets on the orders of superiors due to family economic conditions.

Hypothesis 2 (H2) testing, that is, the code of ethics influences the tendency of fraud in goods and services procurement. The author used the 2x3 factorial two-way ANOVA test and descriptive statistics to test the second hypothesis. Table 7 shows the results of the descriptive statistics of the research variables.

Table 7 shows that the response of subjects with the smallest decisions is the group with a code of ethics and self-certification (Group 1 and 4) which have an average value of 4.32 and the largest is the group without a code of ethics (Group 3 and 6) which have an average value of 6.92. The mean values have a significant difference at the level of 1% ( $F = 21.397$ , and  $Sig = 0.000 < 0.010$ ). The results

showed that the code of ethics affected the reduction in the tendency of goods and services procurement fraud. Thus, hypothesis 2 (H2) is supported.

The objective of the implementation of the code of ethics is to increase the integrity and professionalism of the organization. Individuals who are involved in their work and responsible for managing the goods and services procurement have the opportunity to commit fraud in the goods and services procurement. Individuals who uphold organizational ethics will uphold the applicable code of ethics, so individuals will try to behave ethically by not cheating on the goods and services procurement. Furthermore, because hypothesis 2 was accepted, the author then tested hypotheses 2a, 2b, and 2c by looking at the results of the post hoc test through the Tukey test.

Table 8 shows that the difference in the mean value of the group with a code of ethics and no self-certification (Group 2 and 5) with the group without a code of ethics (Group 3 and 6) is 0.54167 (1% level, Sig = 0.695 > 0.05) is not significant. The results show that individuals do not show a tendency not to commit fraud in the goods and services procurement when there is a code of ethics that must be read compared to when there is no code of ethics. Thus, hypothesis 2a (H2a) is not supported. Individuals who only read the code of ethics or there is no code of ethics in the organization cannot influence the fraudulent acts in the goods and services procurement because the individual feels not bound in writing through self-certification (signature of the code of ethics read) compared to individuals who conduct self-certification.

Meanwhile the difference in the mean value between the group with a code of ethics and

**Table 7.** Descriptive Statistics of Research Variables

Superior Authority	Code of Ethics			Total
	Yes & Self-Certification	Yes & No Self-Certification	No	
Yes	Group 1 (N=12) (Mean=4.42) (Std.Dev=1.37)	Group 2 (N=12) (Mean=5.17) (Std.Dev=1.64)	Group 3 (N=12) (Mean=6.17) (Std.Dev=1.74)	(N=36) (Mean=5.25) (Std.Dev=1.74)
No	Group 4 (N=13) (Mean=4.23) (Std.Dev=1.23)	Group 5 (N=12) (Mean=7.58) (Std.Dev=1.24)	Group 6 (N=12) (Mean=7.67) (Std.Dev=1.37)	(N=37) (Mean=6.43) (Std.Dev=2.06)
Total	(N=25) (Mean=4.32) (Std.Dev=1.28)	(N=24) (Mean=6.38) (Std.Dev=1.88)	(N=24) (Mean=6.92) (Std.Dev=1.76)	(N=73) (Mean=5.85) (Std.Dev=1.99)

**Table 8.** Tukey Test

Group	Mean Difference	Standard Error	Sig.	Result
2 & 5 vs 3 & 6	0.54167	0.49597	0.695	H2a not supported
1 & 4 vs 2 & 5	2.05500	0.49099	0.000***	H2b supported
1 & 4 vs 3 & 6	2.59667	0.49099	0.000***	H2c Supported

self certification (Group 1 and 4) and with a code of ethics and no self-certification (Group 2 and 5) is 2.05500. The difference is significant at 1% level (Sig = 0.000 < 0.010). Thus, hypothesis 2b (H2b) is supported, individuals showed more tendency not to commit fraud in the goods and services procurement when asked to conduct self-certification of a code of ethics than when only asked to read a code of ethics. An effective code of ethics implementation is when individuals read the code of ethics and sign after reading the code of ethics as an attitude of complying with regulations both verbally and in writing, so that individuals will feel responsible for doing work in the organization compared to individuals only reading the code of ethics. The implementation of an effective code of ethics is when the practice of cheating decreases. Individuals who carry out a self-certification will assume that they are fully responsible for their work. This condition will affect the increase in commitment to achieve organizational goals while sticking to organizational regulations.

As for Hypothesis 2c (H2c) testing, the difference in the mean value of the group with a code of ethics and self-certification (Group 1 and 4) and with the group of no code of ethics (Group 3 and 6) is 2.59667. The difference is significant at 1% level (Sig = 0.000 < 0.010). Thus H2c is supported, the individuals showed more tendency not to commit fraud in the goods and services procurement when asked to conduct self-certification of a code of ethics than when there was no code of ethics. Thus, hypothesis 2c (H2c) is supported. A form of individual compliance with an organization is when an individual reads the code of ethics and signs after reading the code of ethics as an attitude of complying with regulations verbally and in writing. The consequence is that individuals will feel responsible for the organization, so that individuals will uphold the ethical values of the organization contained in the code of ethics

compared to there is no code of ethics in the organization.

The implementation of an effective code of ethics is when the practice of cheating decreases. West (2018) explains that even without a code of ethics, individuals who have responsibilities in their work will not commit fraud despite pressure. The code of ethics is intended as a professional guideline for individual structural officials, goods and service procurement managers and functional officers in the goods and services procurement who are responsible for carrying out the duties and activities of the goods and services procurement which include planning, analysis, assessment, evaluation, decision making, service advisory consulting and other related services. The positive implication of applying the code of ethics is to uphold the integrity, honor and dignity of the goods and services procurement profession, thereby reducing unethical actions such as fraud.

H3 testing, that is, differences in tendency to commit fraud in goods and services procurement when there is a superior authority and no superior authority will be different at the three levels of the code of ethics. The author used the 2x3 factorial two-way ANOVA test to test the second hypothesis. Based on Table 9, it can be seen that the interaction between superior authority and the code of ethics has a value of  $F = 4,973$ , and Sig. is  $0.010 = 0.010$ . Thus, hypothesis 3 (H3) is supported. Furthermore, because hypothesis 3 is supported as a requirement for the main effect test to be significant, the author then tests hypotheses 3a, 3b and 3c.

Hypothesis testing 3a (H3a) that is, differences in tendency to commit fraud in the goods and services procurement when there is a superior authority and no superior authority will be smaller for individuals who are asked to read the code of ethics compared to individuals who are not exposed to

the code of ethics. The author used the 2x2 factorial two-way ANOVA test to see the interaction between superiors' authority and the code of ethics for Groups 2 and 5 with

**Table 9.** ANOVA Factorial 2x2 Interaction of Group 2 and 5 vs Group 3 and 6

Source	Df	Mean Square	F	Sig.
Corrected Model	3	17.354	7.278	0.000***
Intercept	1	2120.021	889.095	0.000***
OTA	1	46.021	19.300	0.000***
KOD	1	3.521	1.477	0.231
OTA X KOD	1	2.521	1.057	0.309
Error	44	2.384		
Total	48			
Corrected Total	47			

$R^2 = 0.332$

Adjusted  $R^2 = 0.286$

\*\*\* significance at 1%

Groups 3 and 6. Table 9 shows the results of the two-way factorial ANOVA 2x2 Group 2 and 5 interactions with Groups 3 and 6.

The difference of the mean value between Group 2 and Group 5 is 2.41 and the difference of the mean value between Group 3 and Group 6 is 1.50. The author used a two-way factorial 2x2 ANOVA in Table 12 and showed that the interaction between superior authority and the code of ethics was not significant ( $F = 1.057$ ; and  $Sig = 0.309 > 0.05$ ). This condition shows that the mean value of 2.41 and 1.50 does not differ significantly. The results showed that H3a is not supported. There is no difference in the tendency to commit fraud in the procurement of goods and services when there is a superior authority and without superior authority whether there is a code of ethics and no self-certification or without being exposed to a code of ethics.

Hypothesis testing 3b (H3b) that is, differences in tendencies to commit the goods

and services procurement when there is a supervisory authority and no supervisory authority will be smaller for individuals who are asked to conduct self-certification of the code of ethics compared to individuals who are only asked to read the code of ethics only. The author used the 2x2 factorial two-way ANOVA test to see the interaction of superior authority and the code of ethics for Groups 1 and 4 with Groups 2 and 5. Table 10 shows the results of the two-way factorial ANOVA 2x2 Groups 1 and 4 interaction with Groups 2 and 5.

**Table 10.** ANOVA Factorial 2x2 Interaction of Group 1 and 4 vs Groups 2 and 5

Source	Df	Mean Square	F	Sig.
Corrected Model	3	28.989	15.203	0.000***
Intercept	1	1400.483	734.453	0.000***
OTA	1	15.222	7.983	0.007***
KOD	1	51.483	26.999	0.000***
OTA X KOD	1	20.718	10.865	0.002***
Error	45	1.907		
Total	49			
Corrected Total	48			

$R^2 = 0.503$

Adjusted  $R^2 = 0.470$

\*\*\* significance at 1%

The difference of the mean value between group 1 and group 4 is 0.19 and the difference of the mean value between group 2 and group 5 is 2.41. The author used a two-way factorial 2x2 ANOVA in Table 10 and showed that the interaction between superior authority and the code of ethics was significant ( $F = 10.865$ ; and  $Sig = 0.002 < 0.010$ ). This condition shows that the mean values of 0.19 and 2.41 are significantly different. The results of the study show that differences in the tendency to commit fraud in the goods and services procurement with or without superior authority will be smaller for individuals who are asked to conduct self-certification of the code of



ethics compared to individuals who are only asked to read the code of ethics (H3b is supported). Individuals use authority to behave unethically due to pressures, opportunities, and rationalization, pressures can arise from family economic conditions that cause individuals to behave unethically in meeting the interests of their families. Individuals also see opportunities as loopholes to commit fraud when the internal control system and organizational code of ethics are ineffective. Individuals who only read the code of ethics without having to sign it has the potential to commit fraud because they feel fundamentally not bound by the organization. That is, there are individual gaps to rationalize fraud because individuals do not carry out self-certification through signatures on ethical codes that are read.

Hypothesis testing 3c (H3c) that is, differences in tendencies to commit the goods and services procurement when there is a superior authority and no superior authority will be smaller for individuals who are asked to conduct self-certification of the code of ethics compared to individuals who are not exposed to the code of ethics. The author used the 2x2 factorial two-way ANOVA test to see the interaction between superiors' authority and the code of ethics for Groups 1 and 4 with Groups 3 and 6. Table 11 shows the results of the two-way factorial ANOVA 2x2 of Group 1 and 4 interaction with Groups 3 and 6.

The difference of the mean value between Group 1 and Group 4 is 0.19 and the difference of the mean value between Group 3 and Group 6 is 1.50. The condition of this hypothesis is that the code of ethics and self-certification will affect the reduction of fraud in the goods and services procurement with a stronger impact when there is a superior authority. The author used a two-way factorial 2x2 ANOVA in Table 11 and it showed that the interaction between superior authority

**Table 11.** ANOVA Factorial 2x2 Interaction of Group 1 and 4 vs Group 3 and 6

Source	Df	Mean Square	F	Sig.
Corrected Model	3	32.093	14.803	0.000***
Intercept	1	1545.883	713.063	0.000***
OTA	1	5.282	2.436	0.126
KOD	1	82.263	37.945	0.000***
OTA X KOD	1	8.694	4.010	0.050**
Error	45	2.168		
Total	49			
Corrected Total	48			

R<sup>2</sup> = 0.497

Adjusted R<sup>2</sup> = 0.463

Notes: \*\*\* significance at 1%, and \*\* significance at 5%.

and the code of ethics was significant (F = 4,010; and Sig = 0.050 = 0.05). This condition indicates that the mean values of 0.19 and 1.50 are significantly different. The results of the study show that differences in the tendency to commit fraud in the goods and services procurement when there is a superior authority and there is no superior authority will be smaller for individuals who were asked to do self-certification of the code of ethics compared to individuals who are not exposed to the code of ethics. Thus H3c is supported.

Information of individuals to the organization can be known when individuals read the code of ethics and sign it compared to without code of ethics in the organization. The aim is to bind individuals to work in accordance with the norms of the applicable code of ethics so that individuals feel responsible for the organization. This action is carried out with the aim to reduce individual unethical behavior that can lead to action cheating. Narsa and Supriyadi (2017) show that a code of ethics can reduce individuals to escalate commitments in the event of adverse selection. As such, the code of ethics is one of the formal control mechanisms that increase

honesty, which is a tool that is generally used to encourage ethical behavior.

## CONCLUSION

The findings of this study prove that the superior authority played an important role in influencing the occurrence of fraudulent acts in the goods and services procurement and code of ethics is able to reduce fraud in the goods and services procurement. There is a difference in the tendency to commit fraud in the goods and services procurement when there is a superior authority and no superior authority. The difference will be smaller for individuals who are asked to read the code of ethics and signatures of the code of ethics compared to only reading the code of ethics and without a code of ethics.

The contribution of this study to the development of the theory is individuals commit fraud in the goods and services procurement due to opportunities, pressures, and rationalization. An ineffective code of ethics (only reads the code of ethics) or no code of ethics in the organization provides opportunities for individuals to commit fraud in the goods and services procurement in the presence of superior authority. The code of ethics that is implemented effectively in organizations through self-certification will enable individuals to reduce unethical behavior through acts of misuse of the goods and services procurement. Individuals who are under pressure have the potential to commit fraud because the pressure also benefits individually, such as maintaining their position or wanting a promotion. Finally, individuals rationalize their actions as a form of self-defense because of pressure or orders from superiors. Thus, this study can confirm the fraud triangle theory and moral disengagement theory.

The contribution of this study to policy is that an effective code of ethics is not only aimed at individuals in the organization by reading the code of ethics, but each individual must carry out self-certification (read and sign the code of conduct), so that individuals have a responsible attitude towards their job description. An effective code of ethics design needs to consider a number of important things, namely (1) compilation of operational guidelines for the basic values of the code of ethics and disseminating these guidelines so that they can be understood and obeyed by everyone in the organization, (2) improving law enforcement and improve the process of handling violations of the basic values of the code of ethics, such as code of ethics training, effectiveness of the code of ethics commission, effectiveness of code of ethics advisors, ethics hotlines, and ethical audits. The basic principle of applying the code of ethics is to improve the integrity, honor and dignity of the profession of the goods and services procurement, thereby reducing the actions of unethical individuals.

The limitation of this study are the experimental subjects were accounting students at Pattimura University Ambon who were taking undergraduate courses who had passed business ethics courses and the public sector accounting and accounting profession. The involvement of this subject is because the author takes into account the adequacy of the subjects in each group and is adjusted to the context of the research issue. This study used supervisory authority, code of ethics, and the tendency to commit fraud as variables in the goods and services procurement, without taking into account other factors. However, other factors not taken into account by the author in this study have been controlled through the method used. Some of these limitations provide opportunities for further research such as using different subject and the involvement of other factors in influencing the fraudulent use of goods and services



such as situational factors, locus of control, or others.

## REFERENCES

- Bandura, A. (1991). Social cognitive theory of moral thought and action. In W. M. Kurtines & J. L. Gewirtz (Eds.), *Handbook of Moral Behavior and Development Volume 1: Theory* (pp.45-101). Hillsdale, NJ: Erlbaum.
- Bandura, A. (1999). Moral disengagement in the perpetration of inhumanities. *Personality and Social Psychology Reviews*, 3(3), 193-209. doi: 10.1207/s15327957pspr0303\_3
- Bawa, A. A., & Yasa, G. W. (2016). Efek moderasi locus of control pada hubungan otoritas atasan dan kecurangan akuntansi. *E-Jurnal Ekonomi dan Bisnis Universitas Udayana*, 5(5), 1057-1086.
- Cressey, D. R. (1953). *Other people's money: A study in the social psychology of embezzlement*. New Jersey: Montclair Patterson Smith.
- Indonesia Corruption Watch. (2016). *Tren penanganan kasus korupsi tahun 2016*. Retrieved from [https://antikorupsi.org/sites/default/files/tren\\_penindakan\\_kasus\\_korupsi\\_2016\\_1.pdf](https://antikorupsi.org/sites/default/files/tren_penindakan_kasus_korupsi_2016_1.pdf)
- Indonesia Corruption Watch. (2017). *Tren penanganan kasus korupsi tahun 2017*. Retrieved from [https://antikorupsi.org/sites/default/files/laporan\\_tren\\_penindakan\\_kasus\\_korupsi\\_2017.pdf](https://antikorupsi.org/sites/default/files/laporan_tren_penindakan_kasus_korupsi_2017.pdf)
- Indonesia Corruption Watch. (2018). *Tren penanganan kasus korupsi tahun 2018*. Retrieved from [https://antikorupsi.org/sites/default/files/laporan\\_tren\\_penindakan\\_kasus\\_korupsi\\_2018.pdf](https://antikorupsi.org/sites/default/files/laporan_tren_penindakan_kasus_korupsi_2018.pdf)
- Liyanarachi, G., & Newdick, C. (2009). The impact of moral reasoning and retaliation on whistle-blowing: New Zealand evidence. *Journal of Business Ethics*, 89(1), 37-57. doi: 10.1007/s10551-008-9983-x
- Mayhew, B. W., & Murphy, P. R. (2014). The impact of authority on reporting behavior, rationalization and affect. *Contemporary Accounting Research*, 31(2), 420-443. doi: 10.1111/1911-3846.12037
- Milgram, S. (1974). *Obedience to authority an experimental view*. USA: Harper & Row Publisher Inc.
- Nahartyo, E. (2013). *Desain dan implementasi riset eksperimen edisi 2*. Yogyakarta: UPP STIM YKPN.
- Nahartyo, E., & Utami, I. (2015). *Panduan praktis riset eksperimen*. Jakarta: Indeks.
- Narsa, N. P. D. H. R., & Supriyadi. (2017). Peran kode etik perusahaan dalam memitigasi perilaku eskalasi manajer berbingkai teori keagenan. *Prosiding Simposium Nasional Akuntansi XX. Jember, Indonesia*.
- Otoritas Jasa Keuangan. (2014). *Roadmap tata kelola perusahaan Indonesia: menuju tata kelola emiten dan perusahaan publik yang lebih baik*. Jakarta: OJK.
- Payne, D. M., Corey, C., Raiborn, C., & Zingoni, M. (2019). An applied code of ethics model for decision-making in the accounting profession. *Management Research Review*, 3(2), 113-129. doi: 10.1108/MRR-10-2018-0380
- Regulations of the Head of Buleleng Regency Number 8 of 2018 code of ethics for the goods and services procurement in the procurement services division.
- Sitanala, T. F. (2019). Can the internal control system reduce fraudulent use of village funds in adverse selection condition?. *Jurnal tata Kelola & Akuntabilitas Keuangan Negara*, 5(1), 37-56. doi: 10.28986/jtaken.v5i1.294
- Sofyani, H., & Pramita, Y. D. (2015). Otoritas atasan, retaliasi dan locus of control sebagai faktor-faktor yang memengaruhi perilaku manipulasi Laporan Realisasi Anggaran. *Jurnal Reviu Akuntansi dan Keuangan*, 5(2), 427-436.
- Sofyani, H., & Rahma, N. (2015). Pengaruh pendidikan karakter keagamaan dan otoritas atasan untuk berbuat curang terhadap perilaku tidak etis akuntan. *Jurnal Akuntansi dan Keuangan Indonesia*, 12(2), 106-122. doi: 10.21002/

jaki.2015.07

- Tehupuring, R., & Lingga, R. A. (2017). Sistem pengendalian intern sebagai prediktor kecurangan akuntansi pada pemerintah daerah. Dapatkah loyalitas individu memitigasinya. *Jurnal Tata Kelola & Akuntabilitas Keuangan Negara*, 3(2), 113-129. doi: 10.28986/jtaken.v3i2.111
- Tuanakotta, T. M. (2013). *Audit Berbasis ISA (International Standard on Auditing)*. Jakarta: Salemba Empat.
- West, A. (2018). Multinational tax avoidance: Virtue ethics and the role of accountants. *Journal of Business Ethics*, 153(4), 1143-1156. doi: 10.1007/s10551-016-3428-8





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# BUDGET FORECAST ERRORS AND BUDGET DEVIATION: FINANCIAL CAPABILITY INDEX AS MODERATING VARIABLE

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### ABSTRACT

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The lack of accounting literature that links budget supervision or control with budget realization allows the author to conduct this study. In addition, the main issue of this study is the failure of the local government in planning, implementing and being responsible for the budget resulting in budget surpluses and deficits. Surplus and deficit prove the existence of the budget deviations. The cause of the budget deviation is a mistake in the budget forecast. Some cases of budget deficits in Indonesia prove this. Budget forecast errors have the potential to increase budget deviation due to the role of the financial capability index. The purpose of this study is to examine the role of financial capability index in influencing the relationship of budget forecast errors and budget deviation. The sample used local government in Indonesia between 2016 and 2018 through a purposive sampling technique. Analytical tools use STATA Version 15.1. The results of the study prove that budget forecast errors have a positive and significant effect on budget deviation, and the financial capability index has a positive effect on the relationship between budget forecast errors and budget deviation. Sensitivity testing and additional testing reinforced the initial testing of this study.

### KEYWORDS:

Budget forecast errors; financial capability index; budget deviation

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## INTRODUCTION

Budget oversight is one of the stages in the budget cycle in public sector agencies that has an important role in evaluating the effectiveness of public policies. This is because (1) budget oversight is a process to ensure that planned activities can be carried out properly; (2) compliance with the implementation of the budget by statutory provisions; and (3) provide feedback information about actions that need to be taken if there is a deviation from the target (Siregar, 2017). Furthermore, Siregar (2017) explained that budget oversight cannot be carried out as a special period of supervision stage, but budget oversight is carried out at all stages in the budget cycle, from planning activities to budget accountability. Weakness in budget oversight results in surplus and deficit. That is, surplus and deficit prove that the implementation of budgeting does not increase the effectiveness of public policies and reduce public welfare.

Johansson and Siverbo (2014) state that surplus proves regulators have incompetence and indiscipline in planning, implementing, and budgeting accountability. Wirasedana, Sisdyani, and Setiawan (2018) state that surplus proves budget execution is not politically valid because it is contrary to budget planning. Furthermore, Wirasedana, et al. (2018) state that the implementation of the budget should be able to improve public welfare, thus avoid surplus. The condition of surplus in public sector agencies has resulted in the attention of mass media, non-governmental organizations and the public. This condition indicates that regulators cannot use public resources that should be used to improve public welfare (Wildavsky, 1975).

Unlike surplus, deficits are difficult to occur in public sector agencies. This is because the process of the budget revision to increase resource allocation requires a long and rigid

process (Wirasedana et al., 2018). However, the data proves that deficit has fluctuated for local government over the past three years. Budget realization data from the Directorate General of Fiscal Balance (DJPK) which processed by the authors showed the deficits that occurred in local governments in Indonesia over the past three years were 9 local governments (2018), 226 local governments (2017), and 318 local governments (2016).

Johansson and Siverbo (2014) state that deficits are illegal in some countries and can be punished. Some cases of budget deficits in local governments in Indonesia that are of public concern are the case of the Bekasi City budget and the Badung Regency budget. These conditions occur in both local governments due to high spending without regard to guaranteed revenue to be obtained, thus indicate a weak budget forecast.

Surplus and deficit prove the existence of budget deviation. Budget deviation indicates that the governments fail to plan, implement, monitor, and account for budgets, resulting in budget surplus or deficit. Budget deviation proves that there are conflicts between local governments as the agent that have excess information compared to the community as the principals. This condition occurs because the community can only access information through the publication of financial reports of the local government. Besides, in the political theory of the budget cycle, the budget used as a political tool by regulators. Jonung, Larch, Favero, and Martin (2006) state that deficits occur because of budget forecast errors. In other words, budget forecast errors lead to budget deviations. Erroneous estimation of the budget is budget forecasts that are too high for revenue and/or budget forecasts that are too low for expenditure.

Boukari and Veiga (2018) state that budget forecast analysis has an important role in economic policy. That is the analysis of budget forecasts used by regulators in implementing economic policies. Auerbach (1999) states that the forecast of revenue is an important input in designing fiscal policy, and the estimation of revenue that is too high (optimistic) causes a loss of public welfare. Repeatedly overestimated revenue forecast and/or underestimate expenditures forecast at the local level can lead to large debt accumulation, whose burden will reduce the available funds for the provision of public goods and reduce public welfare.

Previous study tries to explain budgeting decision-making processes in public sector agencies (Wildavsky, 1975; Jonsson, 1982; Boland & Pondy, 1986; Covaleski & Dirshmit, 1988), and budget control in relation to changes in accounting standards and their implementation at the sector level (Anessi-Pessina, Babera, Rota, Sicilia, & Steccolini, 2012). However, it is still rare for literature to try to link budget control with the budget realization (Anessi-Pessina et al., 2012; Johansson & Siverbo, 2014). Researches that attempts to link budget oversight or control with the budget realization are those done by Johansson and Siverbo (2014), Wirasedana et al. (2018), also Boukari and Veiga (2018). The lack of previous literature linking budget oversight and its realization proves that this study is important to do as an important part of evaluating the system of monitoring the effectiveness of public policies in improving public welfare.

The contribution of this study is that the authors modified several previous studies linking budget oversight with budget realization, such as the study of Johansson and Siverbo (2014) but also testing the accuracy of tight budget controls in public sector agencies in dealing with budget turbu-

lence such as the study of Wirasedana et al. (2018). Both of these studies use tight budget control as the independent variable, budget deviation as the dependent variable, and budget turbulence as the control variable. Another previous study is study by Boukari and Vega (2018) which examine the political and institutional determinants of budget forecast errors. The independent variables used are election cycle, fiscal autonomy, the ideology of the incumbent government, and the margin of victory of the incumbent party with several political and economic factors as control variables. The three researchers have not tested the effect of budget forecast errors on budget deviations, so the purpose of this study is to examine the effect of estimating budget errors on budget deviations. Furthermore, the author involves the financial capability index in the role of increasing the effect of budget forecast errors on budget deviations.

### **The Budget Forecast Errors and the Budget Deviation**

Budget deviations indicate the failure of governments in planning, implementing, monitoring and accountability for the budget, causing a budget surplus or deficit. In the political theory of the budget cycle, budget is a political tool or means used by regulators (Dubois, 2016). This condition occurs because the budget is one measurement of the achievement of government performance. The government gives important attention to the budgeting process to increase public expectations of the government's ability to improve public welfare. However, from the planning process until budget accountability budget deviations take place. This condition caused by asymmetry information between regulators as the agent and the public as the principal (Jensen & Meckling, 1976). That is, regulators have more access and information than principals and the implementation of budget oversight

is not carried out effectively.

The budget deviation is a manifestation of information asymmetry from the aspect of agency theory. This condition occurs because the local government as the agent has more information related to budget management, such as the various changes that occur in the budget and conditions of instability of resources to develop budgets. Meanwhile, the community as the principal only has information on financial reports published by the local government. The negative consequence is that those who have more information can benefit from this information asymmetry (Herianti, 2019).

Deficits occur because of errors in budget forecasts (Jonung et al., 2006). In other words, budget forecast errors lead to budget deviations. Ariffianto and Adhariani (2018) explain that budget behavior is motivated by self-interest, myopic behavior, and dependence on the central government which will affect the budget surplus. The result is the government estimates that the revenue budget is too high (optimistic), and the budget forecast is too low so that the budget variance appears either surplus or the budget deficit. Auerbach (1999) states that the forecast of revenue is an important input in designing fiscal policy, and forecast of more (optimistic) revenue can reduce people's welfare. Repeated forecasts of revenue that are too high and/or a forecast of expenditure that is too low at the local level affect the accumulation of the debt and the debt burden will reduce the funds available to provide services to the public, thereby reducing public welfare. Based on the description, the author proposes the following hypothesis.

H1: The budget forecast error has a positive effect on the budget deviation

### **The Budget Forecast Errors, Financial Capability Index, and Budget Deviation**

Important factors that cause errors in the budget forecasts are uncertainty in the micro and macroeconomic environment, changes in government policy, and the ability of budget forecast by the governments. The first factor is an inherent factor that is difficult to control by the government, while the second and third factors can be controlled by the government. The point is that errors in the budget forecasts made by the governments are due to inherent factors or other factors. Error estimation in the budget resulting in the existence of variance whether it is surplus or deficit. Jonung et al. (2006) state that the emergence of budget forecast errors is due to the deficit. Deficits and surpluses referred to as budget deviations.

Budget forecast errors have the potential to increase budget deviation due to the role of the financial capability index. The financial capability index is a condition where the government has financial capability in financing public services to improve people's welfare. The financial capability index shows that the governments can actualize various public service programs. The higher financial capability index provides an opportunity for governments to increase budget forecast errors against budget deviation. The government estimation revenues that are too high (optimistic) and/or budget forecast that is too low for expenditure, resulting in higher budget deviations.

Samora (2010) states that regional financial capability shows how far regions can explore their financial resources to finance their needs without having to rely on central government assistance. Based on the description, the author proposes:

H2: The financial capability index has a posi-

tive effect on the relationship between budget forecast error and budget deviation

Based on the development of the hypothesis, the research model can be visualized in Figure 1.

## RESEARCH METHOD

This study used the budget reports, the realization of revenue, and the expenditure budget of the local government throughout Indonesia for the period of 2015-2018. However, the analysis period is 2016-2018, considering the year 2015 used as the base year in calculating research variables. Data are obtained through the website of the Directorate General of Fiscal Balance through the website [www.djpk.kemendeu.go.id](http://www.djpk.kemendeu.go.id). The research sample is the local government throughout Indonesia for the period 2016-2018. The sampling technique uses purposive sampling according to several criteria in Table 1.

This study used descriptive statistics to provide a brief description of the variables of this study. The main variables are budget forecast error, financial capability index, and budget deviation. Author also uses local government's financial independence and economic ratios as control variables. The operational definitions of each variable are presented in Table 2.

## RESULT AND DISCUSSION

Descriptive statistics of each variable are presented in Table 3. The average local government's failure to plan, implement, monitor, and be responsible for the budget that results in a budget surplus or deficit is 2.56. It shows that the budget deviation that comes from the comparison between the budget and the realization is quite significant. Meanwhile, the average budget forecast error of 0.227 indicates that the local government estimates the budget too high for revenue and/or too low for expendi-

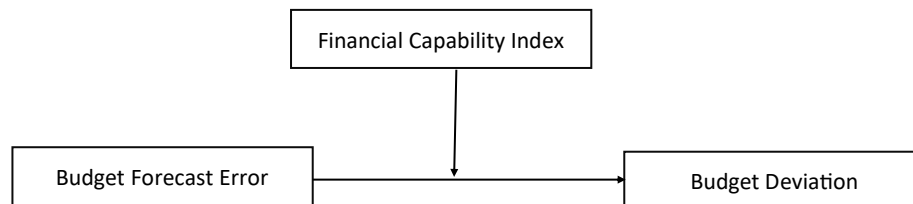


Figure 1. Research Model

Table 1. Sample Selection Process

No.	Criteria	Yes	No
1.	Local governments registered on the Ministry of Finance's DJPK website for 2016-2018	508	-
2.	Budget report and budget realization published in succession during the 2016-2018 period	443	65
Number of Samples		443	
Period		3 Years	
Total Sample Observations		1.329	

Source: Directorate General of Fiscal Balance processed by author



ture by 22.7%. Furthermore, the role of the financial capability index shows an average value of 0.128. This value proves that the regional financial capability of the local government is 12.8%. The interaction between the estimated budget forecast error and the financial capability index shows 0.039. Those indicate that the financial capability index can cause an estimate of a budget forecast errors of 3.9%. Furthermore, for the variable regional financial

independence and economic ratio shows the average percentage of 12.4% and 52.4%. This value proves that local governments in Indonesia are able to meet their needs and carry out operational activities economically. The standard deviation of the study variables shows the variability in this research data.

The correlation between variables shows the strength of the relationship between the research variables (presented in Table 4).

**Table 2.** Operational Variable Definition

Definition	Measurement	Scale
Budget Forecast Errors (PFE) Budget forecast that are too high for revenue and/or budget forecast that are too low for expenditure.	$PFE = \frac{\left(\frac{Actual\ Revenue}{Expenditure}\right) - \left(\frac{Budget\ Revenue}{Expenditure}\right)}{\frac{Actual\ Revenue}{Expenditure}}$ (Adapted from Boukari & Veiga, 2018)	Ratio
Financial Capability Index (FCI) A condition where the government has the financial capacity to finance public services to improve public welfare.	$\frac{Growth\ Index + Elasticity\ Index + Share\ Index}{3}$ Where: $Growth\ Index = \frac{(Actual\ Local\ Revenue + Actual\ Sharing\ Revenue\ Fund)t + (Actual\ Local\ Revenue + Actual\ Sharing\ Revenue\ Fund)t - 1}{(Actual\ Local\ Revenue + Actual\ Sharing\ Revenue\ Fund)t - 1}$ $Share\ Index = \frac{(Actual\ Local\ Revenue + Actual\ Sharing\ Revenue\ Fund)}{Actual\ Expenditure}$ $Elasticity\ Index = \frac{Actual\ Direct\ Expenditure}{Actual\ Revenue}$ (Adapted from Samora, 2010; Bapenas, 2003)	Ratio
Budget Deviation (DVA) Regulatory failure in planning, implementing, supervising, and accountable for the budget, resulting in a budget surplus or deficit.	$\frac{Actual\ Expenditure}{Budget\ Expenditure}$ (Adapted from Johansson & Siverbo, 2014)	Ratio
Financial Independence (FIN) The ability of local governments to meet their needs.	$\frac{Budget\ Expenditure}{Actual\ Expenditure}$ (Adapted from Risyanto, 2015)	Ratio
Economics Ratio (ECR) The ability of local governments to manage public funds to achieve economic levels.	$\frac{Actual\ Local\ Revenue}{Actual\ Expenditure}$ (Adapted from Kurrohman, 2013)	Ratio

**Source:** Bapenas (2003); Boukari & Veiga (2018); Johansson & Siverbo (2014); Kurrohman (2013); Risyanto (2015); Samora (2010)

**Table 3.** Descriptive Statistic

Variables	N	Mean	Deviation Standard
DVA	1.329	2.561511	1.265084
PFE	1.329	0.2276058	0.2615374
FCI	1.329	0.1281892	0.7601012
FCIPFE	1.329	0.0397204	0.7601012
FIN	1.329	0.1243626	0.1578747
ECR	1.329	0.5242944	0.1578747

Notes:

DVA : Budget Deviation

PFE : Budget Forecast Errors

FCI : Financial Capability Index

FCIPFE : Interaction between the Financial Capability Index and Budget Forecast Errors

FIN : Financial Independence

ECR : Economics Ratio

The strongest correlation value is the economic ratio and the budget forecast errors with the direction of the correlation are negative (-0.5640). This value indicates that when the economic ratio is high, the budget forecast errors will decrease. Conversely, when the economic ratio is low, the budget forecast errors will increase. This condition proves that the economic actions of the local governments have an important role in the budget forecast errors.

The author uses the rules of Baron & Kenney (1986) to test the main effects and moderating effects. Table 5 shows the main effect test results and Table 6 shows the

results of the test for moderation effects. The main effect test results prove that budget forecast errors have a positive and significant effect on the budget deviation. The findings of this study prove that  $H_1$  is supported. Budget forecast errors that occur in the local governments can increase the occurrence of budget deviation. The real form of budget deviation is budget variance, namely surplus and deficit. Jonung et al. (2006) explain that budget forecast errors can increase deficits in implementation and budget accountability. That is, the forecast of revenue that is too high continuously and/or the forecast of expenditure that is too low can cause a large accumulation of debt, so the debt burden will

**Table 4.** Correlation

Variables	PFE	FCI	FCIPFE	FIN	ECR
PFE	1.0000				
FCI	0.0531	1.000			
FCIPFE	-0.2652	-0.3236	1.0000		
FIN	0.1221	0.0286	0.0335	1.0000	
ECR	-0.5640	0.3432	0.0275	-0.1244	1.0000

Notes:

PFE : Budget Forecast Errors

FCI : Financial Capability Index

FCIPFE : Interaction between Financial Capability Index and Budget Forecast Errors

FIN : Financial Independence

ECR : Economics Ratio

reduce the availability of public goods and ultimately harm the public welfare.

The results of the moderation effect test prove that the financial capability index has a positive and significant effect on the relationship between budget forecast errors and budget deviations. Thus **H<sub>2</sub> is supported**. The local governments have the ability to actualize various public service programs to improve public welfare.

The findings of this study are consistent with the results of the main test that the regional financial capability index can increase the occurrence of budget deviation. Furthermore, the regional financial capability index can increase the occurrence of budget forecast errors that will have an impact on budget deviations. The higher the regional capability index of a local government, the greater the potential for budget forecast errors that will affect budget deviation.

The research sample is divided into quadrant methods. The aim is to classify the financial capability of local governments to find out

budget forecast errors and budget deviations at the quadrant level. The division of the quadrant method category adopts a study by Samora (2010) and Bappenas (2003). Samora (2010) and Bappenas (2003) describe each quadrant as follows.

1. Quadrant I is the most ideal condition. Local revenue and revenue sharing have an important role in total expenditure and regions have the ability to develop local potential. This condition is indicated by the magnitude of the share value accompanied by high growth values. This quadrant is categorized as an independent and potential area.
2. Quadrant II is a condition that is not yet ideal. However, regions have the ability to develop local potential so that local revenue has the potential to play a large role in total expenditure, the contribution of revenue sharing funds to total expenditure is still low but the growth of local revenue and high revenue-sharing funds. This quadrant is categorized as a non-independent and potential region.
3. Quadrant III is a condition that is also not ideal. The role of local revenue and profit

**Table 5.** Main Effect Test

Independent Variables	Expectation Sign	Least Square Method Dependent Variable: DVA	
		Coefficient	t-statistic
PFE	+	0.232102	3.32***
FIN	-	-0.1358148	-1.41
ECR	-	-3.670957	-60.44***
Constant	±	4.450235	94.19***
F-Statistic		1901.75***	
R <sup>2</sup>		0.8115	
Adjusted R <sup>2</sup>		0.8111	
Root MSE		0.54984	
Spesification Error F-Statistic		3178.36***	
Durbin-Watson Statistic		1.65515	
N		1.329	

Note: Free of specification error, multicollinearity, and autocorrelation. Significant at: \*\*\*1 percent level.

sharing funds in total expenditure has a small chance because of the growth of local revenue and profit sharing funds against high total expenditure. However, growth in local revenue and low profit sharing funds. This quadrant is categorized as an independent region and has less potential.

4. Quadrant IV is the worst condition. Local revenue and revenue sharing have not taken a large role in total expenditure and the regions do not yet have the ability to develop local potential. Regional revenue and profit sharing funds towards total expenditure are low and local revenue growth and profit sharing funds are low. This quadrant is categorized as an region that is not independent and has less po-

tential.

The correlation of the research variables in the I-IV quadrant are shown in the Appendix 4. The strongest correlation value is the economic ratio and budget forecast error with negative correlation direction in quadrants I - IV. The negative direction of the relationship shows that when the economic ratio is high, the budget forecast error will decrease. Conversely, when the economic ratio is low, the budget forecast error will increase.

The result of the sensitivity test of the main effect and moderating effect on the quadrant presented in the appendix. The findings of the main effect study prove that budget

**Table 6.** Moderating Effect Test

Independent Variables	Expectation Sign	Least Square Method Dependent Variable: DVA	
		Coefficient	t-statistic
PFE	+	0.2507819	3.34***
FCI	+	0.0682712	2.94***
FCIPFE	+	0.0953744	3.84***
FIN	-	-0.1762449	-1.83*
ECR	-	-3.72928	-55.01***
Constant	±	4.46905	87.65***
F-Statistic		1158.84	
R <sup>2</sup>		0.8141	
Adjusted R <sup>2</sup>		0.8134	
Root MSE		0.54647	
Spesification Error F-Statistic		2378.05***	
Durbin-Watson Statistic		1.64974	
N		1.329	

Notes:

Free of specification error, multicollinearity, and autocorrelation. Significant at: \*10, \*\*5 and \*\*\*1 percent levels.

DVA : Budget Deviation

PFE : Budget Forecast Errors

FCI : Financial Capability Index

FCIPFE : Interaction between Financial Capability Index and Budget Forecast Errors

FIN : Financial Independence

ECR : Economics Ratio

forecast errors have a positive and significant effect on budget deviations only in quadrants I and II. Meanwhile, quadrants III and IV indicate that budget forecast errors do not have a significant effect on budget deviation. This finding is consistent with the results of the previous main test which proves that a high regional financial capability index has the potential to cause budget forecast errors that have an impact on increasing budget deviation. Quadrant I is a category for local governments that has independence and has the potential to improve performance. This condition is supported by the role of local revenue and revenue sharing in supporting local expenditure. Furthermore, quadrant II, where the local government is not independent but has the potential to improve its performance, can cause budget forecast errors that will affect budget deviation. This condition occurs because local revenue has an important role in total regional expenditure. Meanwhile, Quadrants III and IV are still classified as less potential regions, so that budget forecast errors are not significant in influencing budget deviation.

In contrast to the results of the main effect

test, the results of the moderating effect test prove that the role of the regional financial capability index in increasing the effect of budget forecast errors on budget deviations is evident in all quadrants, except Quadrant II. This result proves that the involvement of regional financial capability index in independent and potential regions (Quadrant I), independent and less potential (Quadrant III), and not self-sufficient and less potential (Quadrant IV) has the potential to support budget forecast errors.

Table 7 shows that the average budget forecast error and budget deviation for Quadrant I is higher than Quadrants II, III, and IV. This condition proves that errors in estimating the budget and budget deviations of local governments in Indonesia during the 2016-2018 period tend to occur in the local governments which are categorized as independent and potential (Quadrant I).

A different test was conducted on the whole quadrants (I - IV) to test the difference between each quadrant against errors in budget forecast and budget deviation. Table 8 shows the results of the multivariate test to

**Table 7.** Percent Forecast Error and Budget Deviation for Each Quadrant

Percent Forecast Error (PFE)	
Quadrant II (N = 248) (Mean = 0.19) (Std. = 0.18)	Quadrant I (N = 247) (Mean = 0.30) (Std. = 0.15)
Quadrant IV (N = 607) (Mean = 0.21) (Std. = 0.33)	Quadrant III (N = 227) (Mean = 0.20) (Std. = 0.19)
Budget Deviation (DVA)	
Quadrant II (N = 248) (Mean = 2.20) (Std. = 1.14)	Quadrant I (N = 247) (Mean = 2.76) (Std. = 1.03)
Quadrant IV (N = 607) (Mean = 2.70) (Std. = 1.36)	Quadrant III (N = 227) (Mean = 2.35) (Std. = 1.23)

**Table 8.** Multivariate Test

Source	Statistics	F—Statistic
Quadrant	Wilks' Lambda	0.9537 10.58*** e
	Pillai's Trace	0.0468 10.58*** a
	Lawley-Hotelling Trace	0.0480 10.59*** a
	Roy's Largest Root	0.0307 10.58*** u

find out each quadrant affects the group budget forecast errors and budget deviation. The findings prove that local governments are categorized as independent and potential (Quadrant I), not independent and potential-ly (Quadrant II), independent and less potential (Quadrant III), and not self-sufficient and less potential (Quadrant IV) against errors in budget forecast and budget deviations. This is indicated by the value of Lawley-Hotelling Trace which is significant at level 1% (Lawley-Hotelling Trace is used for two groups of dependent variables).

Table 9 is used to test the effect of univariate ANOVA for each quadrant on budget forecast errors and budget deviation. The findings prove that there are differences between local governments that are categorized as independent and potential (Quadrant I), not independent and potentially (Quadrant II), independent and less potential (Quadrant III), and not self-sufficient and less potential (Quadrant IV) against budget

estimation errors and budget deviations. This is indicated by the F statistic value at level 1%.

Table 10 is used to test for differences in budget forecast errors and budget deviation for four categories of quadrants. The findings show that budget forecast errors differ between local governments that are categorized as non-independent and potential regions (Quadrant II) with local governments which are categorized as independent and potential regions (Quadrant I), budget forecast errors differ between local governments which are categorized as independent and less potential regions (Quadrant III) with local governments which are categorized as independent and potential regions (Quadrant I), and budget forecast errors differ between the local which is categorized as a non-independent and less potential regions (Quadrant IV) with the local government which is categorized as an independent and potential regions (Quadrant I).

**Table 9.** Test of Between-Subject Effects

Percent Forecast Error (PFE)				
Source	SS	Df	MS	F
Between Groups	1.96790955	3	0.655969851	9.78***
Within Groups	88.8696694	1325	0.067071449	
Total	90.8375789	1328	0.068401791	
Budget Deviation (DVA)				
Source	SS	Df	MS	F
Between Groups	63.2216448	3	21.0738816	13.54***
Within Groups	2062.16016	1325	1.55634729	
Total	2125.38181	1328	1.60043811	

**Table 10.** Multiple Comparisons

Percent Forecast Error (PFE)			
Quadrant	Contrast	Std. Error	t-Statistic
2 vs 1	-0.1146972	0.0232808	-4.93***
3 vs 1	-0.0986373	0.023812	-4.14***
4 vs 1	-0.085601	0.0195459	-4.38***
3 vs 2	0.01606	0.023789	0.68
4 vs 2	0.0290962	0.0195178	1.49
4 vs 3	0.0130362	0.0201486	0.65
Budget Deviation (DVA)			
Quadrant	Contrast	Std. Error	t-Statistic
2 vs 1	-0.5587306	0.1121454	-4.98***
3 vs 1	-0.4036231	0.1147046	-3.52***
4 vs 1	-0.0593071	0.0941541	-0.63
3 vs 2	0.1551075	0.1145938	1.35
4 vs 2	0.4994235	0.0940191	5.31***
4 vs 3	0.344316	0.0970575	3.55***

The findings of this study prove that the local governments that are categorized as independent and potential (Quadrant I) have greater average budget forecast errors than the local government which is categorized as a non-autonomous and potential (Quadrant II), independent and less potential (Quadrant III), and not self-sufficient and less potential (Quadrant IV). Local governments that are classified as independent and potentially have high share and growth values. Both of these values contribute significantly to total regional expenditure in increasing public prosperity.

Table 10 also shows that (1) budget deviations differ between local governments which are categorized as non-independent and potential regions (Quadrant II) and local governments categorized as independent and potential regions (Quadrant I). Budget deviation of the local government in Quadrant III also differ with local governments that are categorized as independent and potential regions (Quadrant I). The local

governments in Quadrant I have a larger average budget deviation than the local government in Quadrant II and Quadrant III. Budget deviation between local governments that are categorized as non-independent and less potential regions (Quadrant IV), local governments that are categorized as non-independent and potential regions (Quadrant II), and local governments which are categorized as independent and less potential regions (Quadrant III) are different.

Furthermore, the local government which is categorized as a non-independent and less potential region (Quadrant IV) has a larger average budget deviation than the local government in Quadrant II and Quadrant III. Local governments that are classified as not independent and have less potential have low share and growth values. Local governments that are categorized as non-independent and less potential have the possibility to increase budget deviations compared to other local government categories. This



condition is caused by the lack of inaccurate budget forecast both at the level of revenue and expenditure, so that it has the potential to increase the budget surplus or deficit.

## CONCLUSION

The findings of this study prove that budget forecast error has positive and significant effect on budget deviation, and financial capability index has a positive and significant effect on the relationship between budget forecast errors and budget deviation. The sensitivity test results prove that there is consistency with the findings of the main test results. Moreover, additional test results also prove the existence of consistency with the main test findings. This is indicated by the results of the local government category test with the quadrant method.

This study has implication for the development of theory, especially agency theory and budget cycle political theory. This study shows that agency theory has an important role in creating information asymmetry between governments and the public. Information asymmetry triggers an error in budget forecast affecting the budget deviation. This happens because governments have access and more information related to the availability of resources in planning and implementing budgets. Meanwhile, the public can only access information through publication of financial statements. Delegation of authority given by the public to the legislature to reduce information asymmetry cannot guarantee that the government has carried out public service activities properly. This is because information on regional resources is better known by the governments than the legislature. The legislature is the party that plays a role in ratifying the budget, while planning to implementation process is the responsibility of the government.

The study implication for the research methodology is the use of several methods of analysis and evaluating the effect of budget forecast errors on budget deviations with the financial capability index as a moderating variable. The author uses STATA analysis tool version 15.1 to test the research hypothesis. This analysis tool is still rarely used in the public sector accounting research literature. One of the advantages of this analysis tool is that author can test error specifications, thereby reducing the decision-making bias.

The implications of this study for policy are (1) the priority of the policy program of the local governments to improve the quality of public services. This condition is important for the governments because it can reduce spending inefficiencies that often occur in public sector agencies. Expenditure inefficiencies represent a budget deficit. The limited resources that enable non-optimal revenue require the governments to design effective, efficient and economical budgets; (2) the application of SWOT analysis to prevent and overcome the uncertainty of the micro and macroeconomic environment, as well as fiscal policies carried out by the governments, thereby reducing errors budget forecast that have an impact on budget deviations; (3) evaluating the performance of the governments related to the financial capability index, thereby reducing the existence of inefficiency activities in improving the quality of public services.

The limitations, of this study are (1) measurement of budget forecast and budget deviations that are still limited in public sector accounting research, so this study uses only a proxy estimate of budget forecast used by Boukari and Veiga (2018) also budget deviation proxies used by Johansson and Siverbo (2014); (2) generalizing the results of this study only to local governments in Indonesia during the period 2016-2018; (3) limited



data on the publication of 2018 local revenue and expenditure budgets totaling 443 local governments from 508 local governments. Thus, further research can develop a proxy for measuring budget forecast errors and budget deviations, providing added value for research contributions, use central government samples through a sample of ministries and agencies, and modify this study using several research variables, such as budget turbulence or tight budget control to answer research issues.

## REFERENCES

- Anessi-Pessina, E., Barbera, C., Rota, S., Sicilia, M., & Steccolini, I. (2012). Public sector budgeting in European accounting and public management journals: A review In: presented at 7th International Conferences on Accounting, Auditing & Management in Public Sector Reform. Rome.
- Ariffianto, M., & Adhariani, D. (2018). Budget surplus determinants in Indonesian Regional Government Budgets from a budgetary slack behaviour point of view. *International Journal of Economics and Management*, 12(1), 17-29.
- Auerbach, A. J. (1999). On the performance and use of government revenue forecast. *National Tax Journal*, 52(4), 767-782.
- Bappenas. (2003). Peta kemampuan keuangan daerah provinsi dalam era otonomi daerah: Tinjauan kinerja PAD, dan upaya yang dilakukan daerah. Direktorat Pengembangan Otonomi Daerah.
- Baron, R. M., & Kenney, D. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173-1182. doi: 10.1037/0022-3514.51.6.1173
- Boland, R. J., & Pondy, L. R. (1986). The micro dynamics of a budget-cutting process: Modes, models and structure. *Accounting Organizations Social*, 11(5-5), 403-422. doi: 10.1016/0361-3682(86)90010-3.
- Boukari, M., & Veiga, F. J. (2018). Disentangling political and institutional determinants of budget forecast errors: A comparative approach. *Journal of Comparative Economics*, 46(4), 1030-1045. doi: 10.1016/j.jce.2018.03.002
- Covaleski, M. A., & Dirshmit, M. W. (1988). The use of budgetary symbols in the political arena: An historically informed field study. *Accounting Organizations and Society*, 13(1), 1-24. doi: 10.1016/0361-3682(88)90023-2
- Directorate General of Fiscal Balance. (n.d.). *Laporan realisasi anggaran*. Retrieved from [http://www.djpk.kemenkeu.go.id/?page\\_id=316](http://www.djpk.kemenkeu.go.id/?page_id=316)
- Dubois, E. (2016). Political business cycles 40 years after Nordhaus. *Public Choice*, 166(1-2), 235-259. doi: 10.1007/s11127-016-0313-z
- Herianti, E. (2019). Budget turbulence and budget deviation: Do local government have the ability to reduce them?. *Jurnal Tata Kelola & Akuntabilitas Keuangan Negara*, 5(1), 1-20. doi: 10.28986/jtaken.v5i1.285
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency cost, and ownership structure. *Journal of Financial Economics*, 3(1976), 305-360.
- Johansson, T., & Siverbo, S. (2014). The appropriateness of tight budget control in public sector organizations facing budget turbulence. *Management Accounting Research*, 25(4), 271-283. doi: 10.1016/j.mar.2014.04.001
- Jonsson, S. (1982). Budget behavior in local government: A case study over 3 years. *Accounting Organization Society*, 7(3), 287-304. doi: 10.1016/0361-3682(82)

90005-8

- Jonung, L., Larch, M., Favero, C. A., & Martin, P. (2006). Improving fiscal policy in the EU: The case for independent forecast. *Economics Policy*, 21(47), 491-534.
- Kurrohman, T. (2013). Evaluasi penganggaran berbasis kinerja melalui kinerja keuangan yang berbasis value for money di kabupaten/kota di Jawa Timur. *Jurnal Dinamika Akuntansi*, 5 (1), 1-11.
- Risyanto, H. (2015). Analisis kemampuan keuangan daerah dan kemandirian keuangan daerah serta pengaruhnya terhadap pertumbuhan ekonomi Kabupaten Garut tahun anggaran 2004-2013. *Coopetition*, VI(1), 21-33.
- Samora, R. (2010). Peta kemampuan keuangan daerah pada pemerintah kota dan kabupaten Se-Jawa dan Bali tahun 2004-2008: Metode kuadran. *Jurnal Akuntansi Kontemporer*, 2(1), 65-84.
- Siregar, B. (2017). *Akuntansi sektor publik: akuntansi keuangan pemerintah daerah berbasis akrual*. Edisi Kedua. Yogyakarta: UPP STIM YKPN.
- Wildavsky, A. (1975). *Budgeting: A comparative theory of budget processes*. Little. Brown & Co., Boston.
- Wirasedana, I. W. P., Sisdyani, E. A., & Setiawan, I. P. E. (2018). Kendali budget ketat pada Pemda di Provinsi Bali dalam menghadapi turbulensi budget. *E-Jurnal Akuntansi Universitas Udayana*, 25(1), 300-327. doi: 10.24843/EJA.2018.v25.i01.p12

## APPENDICES

### Appendix 1. Sensitivity Test of Moderating Effect (Dummy FCI)

Independent Variables	Expectation Sign	Least Square Method Dependent Variable: DVA	
		Coefficient	t-statistic
PFE	+	0.1760228	2.53**
DFCI	+	0.1514501	2.70***
DFCIPFE	+	0.6749743	3.15***
FIN	-	-0.2637018	-2.72***
ECR	-	-3.835986	-48.21***
Constant	±	4.50968	91.11***
F-Statistic		1186.88***	
R <sup>2</sup>		0.8177	
Adjusted R <sup>2</sup>		0.8170	
Root MSE		0.54116	
Spesification Error F-Statistic		1605.46***	
Durbin-Watson Statistic		1.68105	
N		1.329	

**Notes** : Free of specification error, multicollinearity, and autocorrelation. Significant at: \*10, \*\*5 and \*\*\*1 percent levels. We used the category of regional financial capability adopted from Bapenas (2003). Bapenas (2003) classified the category of financial capability index into three low categories with a range of values 0.10 - 0.33, medium category with a range of values 0.35 - 0.42, and a high category with a range of 0.44 - 0.93. Next, we divided the three categories into two parts to form variable dummy. Value 1 for high category, and value 0 for medium and low category.

DVA : Budget Deviation

PFE : Budget Forecast Errors

DFCI : Dummy of Financial Capability Index

DFCIPFE : Interaction between Dummy of Financial Capability Index and Budget Forecast Errors

FIN : Financial Independence

ECR : Economics Ratio

**Appendix 2.** Sensitivity Test of Main Effect (Quadrant)

Independent Variables	Expectation Sign	Least Square Method Dependent Variable: DVA							
		Quadrant I		Quadrant II		Quadrant III		Quadrant IV	
		Coefficient	t-Statistic	Coefficient	t-Statistic	Coefficient	t-Statistic	Coefficient	t-Statistic
PFE	+	2.726011	11.98***	2.080134	9.97***	-0.2137397	-0.99	0.148577	1.57
FIN	-	-0.0929212	-1.24	-0.5153447	-1.28	0.2655455	1.28	-1.101627	-1.76
ECR	-	-2.353617	-17.73***	-2.4114465	-20.07***	-3.897996	-27.71***	-3.864255	-36.89***
Constant	±	3.020465	24.33***	3.327031	27.83***	4.569596	35.34***	4.671529	56.90***
F-Statistic		833.24***		1547.42***		463.65***		590.33***	
R <sup>2</sup>		0.9114		0.9501		0.8618		0.7460	
Adjusted R <sup>2</sup>		0.9103		0.9495		0.8600		0.7447	
Root MSE		0.31093		0.25819		0.46397		0.68804	
Specification Error F-Statistic		251.49***		588.71***		661.45***		1403.31	
Durbin-Watson Statistic		1.85056		1.73722		1.90831		1.65600	
N		247		248		227		607	

Note: Free of specification error, multicollinearity, and autocorrelation. Significant at: \*10, \*\*5 and \*\*\*1 percent levels. Quadrant I show that the local government has independence and potential. Quadrant II shows that the local government is not independent and has the potential. Quadrant III shows that the local government has independence and has less potential. Quadrant IV shows that the local government is not independent and has no potential.

Sources: secondary data processed, 2019

**Appendix 3.** Sensitivity Test of Moderating Effect (Quadrant)

Independent Variables	Expectation	Least Square Method Dependent Variable: DVA							
		Quadrant I		Quadrant II		Quadrant III		Quadrant IV	
		Coefficient	t-Statistic	Coefficient	t-Statistic	Coefficient	t-Statistic	Coefficient	t-Statistic
PFE	+	2.443323	10.12***	2.033428	9.66***	0.8955239	2.54**	0.1347442	1.33
FCI	+	0.0133502	0.40	0.0757015	1.43	-0.1653181	-2.32**	0.1152251	2.68***
FCIPFE	+	0.445401	2.40**	0.0596319	0.24	0.5799137	4.07***	0.0919573	2.62***
FIN	-	-0.1149847	-1.54	-0.4252108	-1.05	0.2233929	1.11	-1.413226	-2.24**
ECR	-	-2.519522	-17.87***	-2.518925	-19.29***	-3.222734	-13.63***	-3.943838	-35.73***
Constant	±	3.155529	24.57***	3.369375	28.08***	3.973219	19.57***	4.734952	54.33***
F-Statistic		521.36***		943.77***		300.31***		360.48***	
R <sup>2</sup>		0.9154		0.9512		0.8717		0.7499	
Adjusted R <sup>2</sup>		0.9136		0.9502		0.8688		0.7479	
Root MSE		0.30514		0.25624		0.4491		0.68382	
Specification Error F-Statistic		198.52***		629.21***		154.00***		1008.85***	
Durbin-Watson Statistic		1.90709		1.81821		1.97950		1.65538	
N		247		248		227		607	

Note: Free of specification error, multicollinearity, and autocorrelation. Significant at: \*10, \*\*5 and \*\*\*1 percent levels. Quadrant I show that the local government has independence and potential. Quadrant II shows that the district / city government is not independent and has the potential. Quadrant III shows that the district/ city government has independence and has less potential. Quadrant IV shows that the district / city government is not independent and has no potential.

Sources: secondary data processed, 2019

#### Appendix 4. Correlation in Each Quadrant

##### Quadrant I

Variables	PFE	FCI	FCIPFE	FIN	ECR
PFE	1.0000				
FCI	-0.2718	1.0000			
FCIPFE	0.1934	0.5640	1.0000		
FIN	0.2231	-0.0591	0.1547	1.0000	
ECR	-0.8217	0.4196	0.0311	-0.1488	1.0000

##### Quadrant II

Variables	PFE	FCI	FCIPFE	FIN	ECR
PFE	1.0000				
FCI	-0.5337	1.0000			
FCIPFE	0.0241	0.6125	1.0000		
FIN	0.2645	-0.2582	-0.1438	1.0000	
ECR	-0.9013	0.6225	0.0560	-0.3110	1.0000

##### Quadrant III

Variables	PFE	FCI	FCIPFE	FIN	ECR
PFE	1.0000				
FCI	-0.0241	1.0000			
FCIPFE	-0.4499	-0.0563	1.0000		
FIN	0.1695	-0.0846	0.0378	1.0000	
ECR	-0.6725	0.5226	-0.0305	-0.2234	1.0000

##### Quadrant IV

Variables	PFE	FCI	FCIPFE	FIN	ECR
PFE	1.0000				
FCI	0.0531	1.0000			
FCIPFE	-0.2625	-0.3236	1.0000		
FIN	0.1221	0.0286	0.0335	1.0000	
ECR	-0.5640	0.3432	0.0275	-0.1244	1.0000

##### Notes:

PFE : Budget Forecast Errors

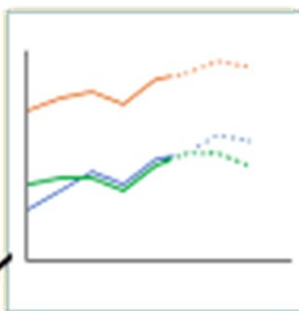
FCI : Financial Capability Index

FCIPFE : Interaction between Financial Capability Index and Budget Forecast Errors

FIN : Financial Independence

ECR : Economics Ratio

## Forecast Accuracy





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# APPLICATION OF INVENTORY TURNOVER ANALYSIS ON INDONESIAN MINISTRY/AGENCY FINANCIAL STATEMENT

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### ABSTRACT

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Inventory turnover is a simple accounting analysis method seldom used by the user of Indonesian governmental organization's financial statement due to lack of accrual information in the past. The opportunity for the application of this analysis arrived in 2015 along with the implementation of accrual accounting basis by the Indonesian government. This study observes the Indonesian ministry/agency (MA) inventory management focusing on the inventory average flow time, during the 2017 and 2018 period. The study shows that among 86 MAs, 62 MAs have desired average flow time. The other 24 MAs have high average flow time with 12 of them also have unstable average flow time. While several MAs disclosed information related to their average flow time, most MAs did not. Thus, they failed to communicate their conditions to their stakeholders. The average flow time can be used as a starting point for the managers, auditors, and other stakeholders to further analyze government inventory management. Better inventory management can reduce costs and improve the government planning process. Therefore, the government may be capable of allocating their budget for other programs or activities to deliver higher value for the public.

### KEYWORDS:

Inventory; turnover; accrual; disclosure; government

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## INTRODUCTION

Indonesian Government Accounting Standards (GAS) states that financial statements should present information to satisfy the needs of information of all user groups, which include but not limited to the public, representatives of the people, regulatory agencies, agency inspectors, and the government itself. One component of the financial statement is balance-sheet which describes the financial position of a reporting entity regarding its assets, liabilities, and equity at a specific date. The balance sheet covers government's assets, liabilities, and equity.

Aside from improving the transparency, government's balance sheet is expected to presents data that can be used by both management and stakeholders in managing public sector resources (Mellor, 1996). Balance sheet and other accrual-based financial statement components can create the linkage between assets and service delivery objectives. However, balance sheet information can be useful only if it is of good quality and if it, in fact, gets used. Warren (2013) states that there are some barriers in developing public sector balance sheets and then in using the balance sheet information for decision making and accountability purposes. One of the barriers is that government's balance sheet cannot be interpreted in the same manner as that of private sector. Warren (2013) also asserts that there are arguments that contest the value of government's balance sheets which can be characterized into three groups which are: distrust of balance sheet information, disinterest in balance sheet information, and the low value placed on balance sheet information.

Unlike the profit-oriented entity, the government balance sheet size and strength cannot be used to measure government success. In the public sector environment, a bigger balance sheet only means a bigger orga-

nization. In the absence of a consensus of what the government size should be, there will be no target balance size aggregates. Warren (2013) further argues that the public sector balance sheet runs a risk of being considered a curiosity of novelty value only if balance sheet aggregates are not targeted as measures of performance. This argument leads to several questions including whether there are ways for government organizations to set any target for their balance sheet size and is there any way to increase the value of balance sheet information. This study is conducted in order to try to answer those questions. However, rather than try to take an overall picture of the balance sheet, this study will be focused on one component of the balance sheet, which is the inventory, by using inventory turnover analysis.

Inventory turnover analysis is one of the simplest analysis methods in accounting. It is generally used by financial statement users to get a glimpse of organizations' ability in managing their inventory. This method compares the organization's cost of goods sold with their inventory balance resulting in ratio value that can be compared with their past ratio or with other organizations' ratios. While management should be able to provide adequate amount of inventory support to maintain their service level (Morey, 1985), they should also keep a close track of the rate of inventory turnover to see if there are gradual reductions in the rate of turnover, which indicate that a corrective action may be required to eliminate excess inventory stocks (Bragg, 2005).

This analysis can also be used to measure the flow of business process of an organization due to having similar components with three key process performance that need to be assessed to measure business process flow: flow time, flow rate, and inventory (Anupindi, Chopra, Desmukh, Van Mieghem, & Zemel, 2011). The flow time is

the total time spent by a flow unit within a process, while the flow rate is the number of units that flow through a specific point in the process per unit time. In business process flow context, inventory is not defined merely as a material waiting to be processed or a product waiting to be sold but also has a broader meaning as a general flow unit. Therefore, it can encompass many things including customer, product, cash, orders, documents, supplies, and inventories. Those key performances are related through Little's law formula, which can be modified to become similar to inventory turnover analysis formula.

Albeit inventory turnover commonly used to analyze the financial statement, the study of its use in analyzing Indonesian government financial statement is very rare. This condition happens simply because, until 2014, the Indonesian government used cash toward accrual basis for their financial reporting; therefore, the government cannot present information about the utilization of their inventory. In 2015, the Indonesian government changed its accounting basis to full accrual basis, which enable them to produce more information about their financial activity in their report. This situation opens a window of opportunity for the user of the financial statement to employ more analytical tools to get a better understanding of the government's performance.

Since the government's main business activity is not selling goods nor services to their customers, their financial statements lack one component needed to compute the turnover, which is the cost of goods sold. In this situation, the Little's law comes as a solution. Little's law widely used to solve problems related to queue theory due to its flexibility (Little, 2011). Little's law formula relates average flow time, flow rate or throughput, and inventory. Thus, by identifying inventory and inventory throughput in the govern-

ment's financial statement, the average flow time can be defined.

Governmental institutions' average flow rate and inventory can be widely varied from each other, owing to the diversity of their policies, activities, and operation scale. Indeed, the process to determine how much inventory to carry and balancing the need to keep inventory close enough to the customer to respond to demand and reduce transportation costs while trying to minimize investment in facilities and save warehousing costs is a complex one (American Productivity and Quality Center, 2005). Nevertheless, the institutions should have the same aim for their average flow time. A relatively low average flow time should be desired by all organizations because it allows an organization to be more responsive, reduce costs, easily develop new services, and indicate that the organization has operational excellence (Anupindi et al., 2011). Therefore, by comparing the flow time between institutions in the same period or comparing a certain institution flow time with their own from a different period may result in a glimpse of insight about the state and the change of their business flow. Additionally, since inventory is classified as current assets, it is not meant to be kept by the organization for longer than one year in normal condition. Accordingly, under normal circumstances, the average flow time should not exceed one year.

This study is aimed at learning the governmental institutions' average flow time, especially those of central government ministries/agencies (MA). This study also aims to learn whether MAs' disclose information related to their inventory turnover, especially for MAs with high average flow time.

## RESEARCH METHOD

This study measured the business process flow of 86 MAs in Indonesia for the 2017-

2018 period. It used MAs' financial statement data obtained from The Audit Board of the Republic of Indonesia (BPK RI) financial audit report for the respective period. For the quantitative analysis purpose, this study used three accounts, which are Inventory from the Balance Sheet and Inventory Expense and Goods-to-be-given-to-the public Expense from Operational Report for quantitative analysis. This study also used information from the Notes to Financial Statement for qualitative analysis.

$$L = \lambda \times W$$

$L$  = Average number of items in a queuing system

$\lambda$  = Average arrival rate of an item in the system

$W$  = Average waiting time of an item in the system

To measure inventory turnover (Kanet, 2004), the formula is modified to:

$$I = R \times T \text{ or } T = I/R$$

$I$  = Average Inventory

$R$  = Throughput

$T$  = Average Flow Time

Table 1 presents the operational definitions of the variables that will be used in the formula.

**Table 1.** Operational Variable Definition

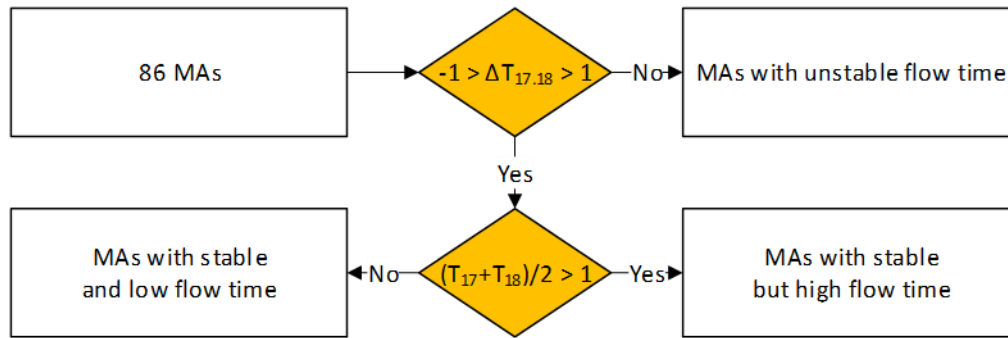
Definition	Measurement	Scale
<b>Average Inventory (I)</b> The average balance of inventory stated in the Balance Sheet.	(Last year inventory + Current year inventory) / 2	Ratio
<b>Throughput (R)</b> The amount of inventory that is used by the MAs in their operation stated in the Operational Reports.	Current year inventory expense + Current year goods to be given to the public expense + Current year inventory-related maintenance expense + Current year spare part maintenance expense	Ratio
<b>Average Flow Time (T)</b> The average waiting time of the inventory to be used (year)	Average inventory / Throughput	Ratio

**Source:** Anupindi, et al. (2011)

This study compares the MA's average flow time to each other in every period. Since inventory is classified as current assets and is expected to be realized immediately or held for use or sale within one year from the reporting date, the average flow time of the inventory under normal circumstances should be below or equal to one. This study will use  $T=1$  as a parameter to distinguish between the low average flow time MAs and the high average flow time MA. The parameter is established without considering MAs' inventory replenishment rate due to the lack of data about it.

This study also compares the average flow time of each MA to its score in a different period in order to measure the variation in each MAs' operation during the 2017-2018 period. By using the comparison, the MAs classified into three groups as shown in Figure 1.

In addition, this study conducts a qualitative analysis by using MA's notes to the financial statement. The qualitative analysis was conducted for several MAs in group 2 and group 3 that have a relatively high average flow time. Additionally, to better understand the result of the analysis, this study reviews several works of literature that are relevant to the result.

**Figure 1.** MAs Classification based on business process flow

## RESULT AND DISCUSSION

### MAs Average Flow Time

This study uses descriptive statistics to briefly explain the average flow time of each MA and its variation during the 2017-2018 period as shown in Table 2.

Table 2 shows that the average flow time for all MAs is always above 1 year. However, the data is skewed to the right as the median and the third quartile of the data all below the average value. This condition happens because while most MAs have similar average flow time, which is relatively low, few MAs are having very high average flow time. As a low average flow time also means a high business flow, Table 3 reflects that at least half of the MA has high business flow.

At least 75% of the MAs do not have a considerable change in their inventory manage-

ment, it is shown by a very small change in their average flow time between which is 0.25. However, there is an extreme gap between the median value with the minimum and maximum value, which indicates that there have been several MAs exposed to significant change in their inventory-related operation.

There are 62 MAs that have a relatively stable and low average flow time as shown in Appendix 1. Those MAs are able to maintain their business flow to match their inventory levels. It can also mean that those MAs can maintain their inventory level at an appropriate level so that it can be used in less than one-year time. The minimum average value for the year 2017 and 2018 of those MAs is 0.0044, while the maximum value is 0.9340.

There are 12 MAs that have a relatively stable but high average flow time as shown in Appendix 2. Those MAs maintain a high

**Table 2.** Descriptive Statistics

Variables	Mean	Std. Dev	Minimum	Q1	Median	Q2	Maximum
$T_{17}$	2.187	9.209	0.005	0.233	0.458	0.984	83.856
$T_{18}$	2.4262	7.867	0.004	0.266	0.497	1.285	68.104
$\Delta T_{17,18}$	0.21	10.87	-82.74	-0.04	0.03	0.25	52.32

Notes:

$T_{17}$  = Average flow time in the year 2017

$T_{18}$  = Average flow time in the year 2018

$\Delta T_{17,18}$  = Deviation of average flow time between the year 2017 and the year 2018

amount of inventory in their possession with no observable effort to change its inventory management. MA with the highest flow time in this category is MA 083 with average flow time in 2017 and 2018 are 15.219 and 15.425 respectively. This figure can be interpreted as even if the agency does not procure additional inventory, they can use their current inventory for fifteen years of operation. The second and third positions in this category are MA 022 and MA 006 having average flow time in 2018 as high as 7.6389 and 3.4842 respectively.

There are 12 MAs that have an unstable business process flow as shown in Appendix 3. The flow time deviation between 2017 and 2018 range from -82.7365 to 52.3126. While negative deviation values indicate an improvement in inventory management, positive values increase inventory-related risk. MA 055 has the highest deviation flow time, which is 52.3216. The deviation significantly increases the already high flow time of 15.7826 to 68.1041 and become MA with the highest average flow time among all MAs. MA 090 and MA 119 has the second and third highest deviation with 19.2105 and 12.7166 respectively.

### **The Average Flow Time as a Symptom**

High average flow time serves as a symptom of problems that may lie within organizations. Anupindi, et al. (2011) advocate that flow time is an important integrative measure of overall process performance. Thus, a sudden significant change in average flow time may indicate a change in performance. This condition best reflected in the information that is disclosed by MA 055 and the MA 090 in their financial statements.

The inventory amount of MA 055's disclosure rose sharply because they act as a Millennium Challenge Corporation Grant Administrator. Therefore, they record the goods

that are delivered by the donor in their balance sheet before the goods are distributed to the intended benefactors, increasing their average flow time. The sudden increase in their inventory are not followed by the same level of increase in their inventory-related expense, thus shoot their average flow time up.

MA 090 inventory received inventory transfer from various co-administration task force units (unit kerja tugas pembantuan). The forms of the inventory that they received are 561 market buildings, 36 machines and equipment, and 4 other assets. The transfer resulting in the increasing inventory in 2018 significantly by 105.28 times from their previous year's inventory amount. MA 055 and MA 090 sudden increase in their average flow time and their disclosures in their financial report inform their financial report users that in 2018 they received an extraordinary burden in their operation which should be addressed by the management. Management should allocate more resources to support the business process related to their inventory management to adapt to this new challenge.

MA 006 and MA 093 have a somewhat similar problem with those that are faced by the MA 055 and the MA 090 in terms of their lack of control over their inventory intake. Most of the MA 006 and MA 093's inventory are confiscated goods that are gained by a legally binding court decision. Hence, their management does not have meaningful control over the majority of their inventory input. Consequently, the inventories were accumulated to the point that it formed the greater part of their total inventory. In the MA 006's case, the confiscated goods form 98.88% of their total inventory. MA 006 average flow time is increasing albeit relatively insignificant (0,3792), while MA 093 has a higher increase in their average flow time (1.8095). However, management should be

able to properly adjust their business process that is related to their inventory throughput. Failure in adjusting their inventory throughput will result in excess inventory.

The problem in matching business process related to inventory input and those that related to business output not only occurred within an organization that has a lack of control over their inventory input such as the four aforementioned organization, but also within the organization that has a sufficient control over the input such as MA 042. MA 042 disclosed that their high inventory value caused by fixed assets that are going to be given to universities, which is presented as inventory in their balance sheet. They also disclose the nature and the recipient of the goods. However, their high average flow time indicates that they cannot distribute the goods to their recipients on time. Their notes to financial statement state that out of 1,333.64 billion of goods that should be transferred to universities, the ministry only transfers 38,92 billion (2.92%) out of it, while at the same time add 704.45 billion into it to further increase their amount of inventory.

High average flow time can also be interpreted as a symptom of excess in inventory. Indeed, an organization having a high average flow time may not necessarily having an excess inventory, since for determining the excess inventory we should not only consider the excess of organization's working inventory represented by their throughput, but also the excess their safety inventory, anticipation inventory, work-in-process inventory, and decoupling inventory (Toelle & Tersine, 1989).

Several organizations are known for have been maintaining a significant amount of safety inventory and anticipation inventory in their normal operation, such as those that are related to security, health, and social net,

also food safety. Nevertheless, most if not all MAs do not disclose their policies regarding those inventories, thus prohibiting us from having an obvious boundary for excess inventory. Despite this limitation, the very high flow time that exists in some organizations is a sign that they are holding much more inventory than what they need such as the BIG. Since BIG average inventory constantly higher than their throughput, most of their inventory is a slow-moving type that will not be consumed within 12 months.

Aside from serving as a symptom for a change in performance and excess inventory, a high flow time can also serve as a symptom for the existence of material weaknesses in internal control (Feng, Li, McVay, & Skai-fe, 2015). Feng et al. found that an organization that has inventory-related material weaknesses in internal control are more likely to experience the shortage or excess of inventory and to have a higher rate of inventory obsolescence. Nevertheless, the research that is conducted in this study does not have adequate information from the existing financial statement to support this statement.

### **Possible Corrective Action**

To acquire the desired average flow time, several corrective actions may be undertaken by the management of the MAs. The first possible course of action is to try to find and promote process innovation as it will have a long-lasting effect on inventory turnover (Lee, Zhou, & Hsu, 2015). The process innovation can reduce the average flow time if it can fulfill at least two requirements. First, innovation should be able to improve flexibility, responsiveness, coordination, and team-oriented work at an operational level. Second, it should change the way that entity share information and knowledge within or even across the organization. The process innovation in the MAs should be stressed on

linking the operational units that managing inventory influx with the unit the managing inventory disbursement. If the majority of MAs inventory is goods to be sold or distributed to the public or other parties, the management should also maintain a connection with the intended beneficiaries of the inventory. This action is also in line with those that are proposed by Altug and Muharremoglu in 2011 and APQC in 2005. Altug and Muharremoglu (2011) advertise the importance of collaboration between demand and supply information. APQC (2005) highlight the importance of deliberate partnerships with internal and external suppliers to significantly increase replenishment speed and efficiency. APQC (2005) also advocates for the integration between suppliers' processes and internal processes to achieve common goals.

The second possible corrective action is by addressing the excess inventory. The best scenario is by preventing excess inventory from building up. It can be done by giving attention to some frequent causes which are: forecasting errors, inventory record inaccuracies, inadequate planning and execution systems, long and variable lead time, obsolescence, and distribution channel adjustment (Toelle & Tersine, 1989). However, when the excess inventory is already built up, liquidation may be needed to deplete the amount of inventory. The net benefit of liquidating the excess inventory will come in forms of salvage revenue plus holding cost savings. As Toelle and Tersine (1989) explained, the terms liquidating not only encompass selling but also redistributing the inventory to a location where there is demand. If this corrective action supported by an established process innovation, redistribution can also involve other MAs. Nevertheless, when the organization decides to use the liquidation method, it should also consider liquidation cost since it is possible for an item to have zero, or even negative, sal-

vage value.

Recent studies have found several models that can be used to increase MA's inventory turnover for organizations that are required to maintain a high number of buffer stock. While a low inventory level is a general indicator of efficient organizational operation, several organizations cannot recklessly reduce their inventory because they are required to maintain a certain amount of inventory as part of their operational readiness. The best example of this condition is MAs that related to disaster preparedness such as MA 103, MA 107, and MA 24. Those MAs should weight the cost related to inventory with the quality of their service delivery, especially in an emergency. In this kind of situation, disaster management capabilities (DMC) may be well suited to be adopted by those organizations (Kunz, Reiner, & Gold, 2014). The reasoning behind the adoption suitability is, while pre-positioning physical inventory in the warehouse before disaster leads to high demand satisfaction from its beneficiaries, it also involves a high cost. The DMC model may help an organization to reduce their idle inventory without sacrificing their readiness nor their level of service. The second model is by applying a preventive maintenance policy that can be applied by organizations that are required to hold inventory in a large size for maintenance purposes (Poppe, Basten, Boute, & Lambrecht, 2017).

### **Limitation**

The value of inventory presented in the financial statement may not reflect the whole inventory in MAs possession. An example of this condition can be found in the information disclosed by the MA 006 in their financial statement. The confiscated goods that are presented in the financial statement of MA 006 are only those that have gone through the valuation process, the other confiscated goods not valued yet are not pre-

sented in the balance sheet. Owing to this fact, their real average flow time in 2018 should be higher than 3.4842.

The high average flow time that exists in several MAs may happen intentionally, where the existed condition happens as a result of the implementation of policies or regulations. The policies may include but not limited to buffer stock, emergency stock, procurement, utilization, and transfer policy. However, since this study only considers the information obtained from the financial statement, the policies or regulations that are not disclosed within the financial statement are omitted.

Inventory management in public and private sector have a different perspective. In the private sector, inventory holding cost kept organization away from their goal, which is profit, thus it should be kept as low as possible. In the public sector, inventory holding cost does not have a distinct relationship with the government's goal, which is to provide service to the public (Bondy, 1991). In a few cases, a high holding cost, a consequence of a high amount of inventory being maintained, can also serve as an indication of performance. A clear example of this situation is in the military where inventory in the warehouse is the service, or the public goods, as it provides an essential source of deterrence. In this context, inventory holding cost makes no sense. Therefore, in this situation, inventory turnover analysis becomes irrelevant.

## CONCLUSION

The majority of the MAs have a relatively low average flow time; however, 24 MAs have a high average flow time. While a low average flow time cannot serve as an indicator of problem-free inventory management, more attention should be given to MAs with high average flow time. The high average flow time is a symptom of the problem in organization inventory management.

The qualitative information that is disclosed by several MAs in their notes to the financial statement can be used to pinpoint the real inventory-related problem. After identifying the real problem, and after considering the organization's business process, a relevant corrective action may be assigned to address the problem. However, MAs that provide adequate relevant information that can help to explain their average flow time is the minority of the set.

The stakeholders, including policymakers, should inquire proper and adequate disclosures that are rich in meaningful information since it can help them to understand the organization's condition better. Accordingly, the management should provide it since it helps them to communicate their condition and policies to their stakeholders. However, the government's accountants have to ensure that they do not barrage the stakeholders with meaningless information in their disclosures. The GAS has already mentioned that relevancy and reliability are two of the qualitative characteristics that become prerequisite for the financial statement to fulfill its purposes. For this reason, there are challenges for accounting standards setters to require information where it provides most value and eliminate disclosures that are mere compliance costs; and for the accountants to disclose information that has feedback value, to correct or confirms previous knowledge or expectations, and predictive value, to allow a more honed assessment to be made about the future (Warren, 2013).

By considering its limitation, the inventory turnover analysis may not be sufficient in analyzing MAs inventory management. Rather, the analysis can be used as a short and simple initial step that can be used by management or stakeholders as a starting point for a further in-depth and detailed examination that involves other sources of infor-



mation and considerations.

This study shows that ratio analysis, including inventory turnover analysis, can be developed and conducted over Indonesian government institutions' financial statements to measure one or more aspects of the government's financial-related performance. A comparison of financial ratios among central governmental institutions can be used to set a benchmark for governmental institution balance sheet size. Hence, the institutions can use the benchmark as a guideline for making better financial management decisions, using more precise information than previously, so that they can utilize and distribute social resources in a better way.

## REFERENCES

- Altug, M. S., & Muharremoglu, A. (2011). Inventory management with advanced supply information. *International Journal of Production Economics*, 129, 302-313.
- American Productivity and Quality Center. (2005). *Inventory optimization: Balancing the asset versus service tradeoff*. Houston: APQC.
- Anupindi, R., Chopra, S., Desmukh, S. D., Van Mieghem, J. A., & Zemel, E. (2011). *Managing business process flow: Principles of operational management, Third edition*. New Jersey: Pearson Education, Inc.
- Bondy, H. (1991). Inventory carrying cost in government. *Canadian Public Administration*, 34(3), 527-530.
- Bragg, S. M. (2005). *Inventory accounting - a comprehensive guide*. New Jersey: John Wiley & Sons, Inc.
- Feng, M., Li, C., McVay, S. E., & Skaife, H. (2015). Does ineffective internal control over financial reporting affect a firm's operations? Evidence from firms' inventory management. *The Accounting Review*, 90(2), 529-557.
- Government Accounting Standard Committee. (2019). *Government accounting standards*. Jakarta.
- Kanet, J. J. (2004). Mean flowtime and inventory in production systems: A finite time analogue to Little's Law. *International Journal of Production Economics*, 91, 37-46.
- Kunz, N., Reiner, G., & Gold, S. (2014). Investing in disaster management capabilities versus pre-positioning inventory: A new approach to disaster preparedness. *International Journal of Production Economics*, 157, 261-272.
- Lee, H.-H., Zhou, J., & Hsu, P.-H. (2015). The role of innovation in inventory turnover performance. *Decision Support System*, 76, 35-44.
- Little, J. D. (2011). Little's Law as viewed on its 50th anniversary. *Operations Research*, 536-549.
- Mellor, T. (1996). Why government should produce Balance Sheet. *Australian Journal of Public Administration*, 55 (1), 78-81.
- Morey, R. C. (1985). Estimating service level impact from changes in cycle count, buffer stock, or corrective action. *Journal of Operation Management*, 5(4), 411-418.
- Poppe, J., Basten, R. J., Boute, R. N., & Lambrecht, M. R. (2017). Numerical study of inventory management under various maintenance. *Reliability Engineering and System Safety*, 168, 262-273.
- Toelle, R. A., & Tersine, R. J. (1989). Excess inventory: Financial asset or operational liability? *Production and Inventory Management Journal*, 30(4), 32-25.
- Warren, K. (2013). The development and use of public sector balance sheets. In R. Allen, R. Hemming, & B. H. Potter (Eds.), *The International Handbook of Public Financial Management* (pp. 558-572). New York: Palgrave Macmillan.

## APPENDICES

### Appendix 1. Ministry/agency with a relatively stable and low average flow time

Ministry/Agency Budget Section Code	Average Flow Time			
	2017	2018	Mean	Deviation
001	0.1785	0.2487	0.2136	0.0702
002	0.4014	0.5126	0.4570	0.1112
004	0.3152	0.3367	0.3259	0.0215
005	0.1886	0.2356	0.2121	0.0470
010	0.8384	0.4816	0.6600	-0.3568
011	0.6017	0.7064	0.6541	0.1047
013	1.0746	0.7172	0.8959	-0.3573
015	0.4615	0.4212	0.4413	-0.0403
018	0.0405	0.1293	0.0849	0.0888
023	0.0922	0.1040	0.0981	0.0118
024	0.3041	1.1648	0.7345	0.8607
025	0.0731	0.0671	0.0701	-0.0060
026	0.0388	0.4873	0.2631	0.4485
032	0.4283	0.3194	0.3739	-0.1088
033	0.5016	0.6148	0.5582	0.1132
034	0.0047	0.0041	0.0044	-0.0006
035	0.1322	0.1482	0.1402	0.0160
036	0.2175	0.2326	0.2251	0.0151
040	0.4585	0.3698	0.4141	-0.0887
041	0.3467	0.4670	0.4069	0.1203
044	0.0457	0.9229	0.4843	0.8772
047	0.4530	0.2565	0.3547	-0.1965
048	0.2291	0.2631	0.2461	0.0340
050	0.4399	1.0371	0.7385	0.5972
051	0.6252	0.4098	0.5175	-0.2155
052	0.0062	0.0140	0.0101	0.0078
054	0.5691	0.4599	0.5145	-0.1093
056	0.1411	0.1150	0.1280	-0.0260
057	0.1350	0.1510	0.1430	0.0160
059	0.3565	0.3459	0.3512	-0.0106
060	0.8880	0.9800	0.9340	0.0920
064	0.2857	0.3077	0.2967	0.0220
065	0.4703	0.3095	0.3899	-0.1608
066	0.7872	0.8139	0.8005	0.0267
067	0.4624	0.5987	0.5305	0.1363
074	0.1592	0.2752	0.2172	0.1160
075	0.5956	0.7233	0.6594	0.1278
077	0.5367	0.3303	0.4335	-0.2064
078	0.3417	0.3816	0.3617	0.0400
081	0.2904	0.3785	0.3345	0.0881

Ministry/Agency Budget Section Code	Average Flow Time			
	2017	2018	Mean	Deviation
084	0.0803	0.0942	0.0873	0.0139
085	0.5909	0.7100	0.6504	0.1191
086	0.5389	0.5574	0.5481	0.0186
087	0.3329	0.3133	0.3231	-0.0196
088	0.5762	0.6044	0.5903	0.0282
089	0.4277	0.4368	0.4323	0.0091
092	0.2433	0.0901	0.1667	-0.1532
095	0.1984	0.1440	0.1712	-0.0545
100	0.4416	0.2504	0.3460	-0.1912
103	0.8088	1.0484	0.9286	0.2395
106	0.9354	0.5589	0.7472	-0.3765
108	0.1058	0.1172	0.1115	0.0113
110	0.3701	0.3492	0.3597	-0.0209
112	0.1400	1.0509	0.5955	0.9109
113	0.2574	0.5073	0.3823	0.2499
114	0.3624	0.3243	0.3433	-0.0380
115	0.1055	0.0519	0.0787	-0.0536
116	0.3420	0.3606	0.3513	0.0186
117	0.4934	0.2545	0.3739	-0.2389
118	0.6556	0.6198	0.6377	-0.0358
120	0.0936	0.1683	0.1310	0.0747
121	0.0172	0.0180	0.0176	0.0008

**Appendix 2.** Ministry/agency with a relatively stable but high average flow time

Ministry/Agency Budget Section Code	Average Flow Time			
	2017	2018	Mean	Deviation
006	3.105	3.4842	3.2946	0.3792
019	1.9966	1.3545	1.6756	-0.642
022	7.9249	7.6389	7.7819	-0.286
029	1.2298	1.8644	1.5471	0.6347
042	1.9697	2.2617	2.1157	0.2919
063	1.1176	1.6285	1.3731	0.5109
068	1.3144	1.3596	1.337	0.0452
076	1.3659	0.7829	1.0744	-0.583
079	0.8907	1.3246	1.1076	0.4339
080	1.4544	1.7022	1.5783	0.2478
083	15.219	15.425	15.322	0.2065
107	2.6611	2.1666	2.4139	-0.495

**Appendix 3.** Ministry/agency with a relatively unstable and high average flow time

Ministry/Agency Budget Section Code	Average Time Flow			
	2017	2018	Mean	Deviation
007	4.3999	6.7885	5.5942	2.3886
012	2.9892	4.7397	3.8645	1.7505
020	0.4409	2.0165	1.2287	1.5756
027	3.5680	6.5683	5.0681	3.0002
055	15.7826	68.1041	41.9434	52.3216
082	2.8479	3.9105	3.3792	1.0626
090	0.3409	19.5514	9.9462	19.2105
093	3.2816	5.0912	4.1864	1.8095
104	2.7673	4.4003	3.5838	1.6330
109	83.8556	1.1191	42.4874	-82.7365
111	0.9997	3.4631	2.2314	2.4634
119	3.7201	16.4367	10.0784	12.7166

*Selected and Revised Papers from The International Conference of State Finance and Accountability (InCSFA 2019)  
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## IMPLEMENTATION OF ROCK MINING POLICY AFTER LAW NUMBER 23 OF 2014 (STUDY OF ROCK MINING PERMIT IN SUBANG DISTRICT WEST JAVA PROVINCE)

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### ABSTRACT

The purpose of this study is to analyze and study the process of rock mining permit including the effectiveness and benefit from policy implementation related to the abolition of the authority of regency/city government in the rock mining activity after the enactment of Law Number 23 of 2014 in Subang Regency. The method used in this study is a qualitative method by interviewing parties related and literature review. The results of the study indicate that there are differences in the duration of the permit for rock mining due to differences in the process of issuing rock mining permits before and after the authority of the management of rock mining by the province. The social impact of the transfer of authority over the management of rock mining does not affect the surrounding community. This is due to the coordination and written agreements between the entrepreneur and the community related to the social responsibility management of the entrepreneur to the community.

### KEYWORDS:

Policy; permits; rock mining; Law Number 23 of 2014

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## INTRODUCTION

The enactment of Law Number 23 of 2014 concerning Local Government has shifted the paradigm of the management of mineral and coal resources to decentralization at the provincial level. This created problems because Law Number 4 of 2009 on Mineral and Coal Mining was drafted by Law Number 32 of 2004 on Local Government, (which has been replaced) with the paradigm of decentralization at the level of regency/city. This has created an asynchronously between the two regulations. However, in the course of implementation, the provincial government is vested with the authority to issue mining business permits if the government wishes to optimize the decentralization of authority of the provincial government as regulated in Law Number 23 of 2014 (Isnaeni, 2018). That disharmony posed legal uncertainty to the mining company which will affect the mining business climate of the community (Firmansyah & Evendia, 2015).

The shift of the authority of the regency/city of local government to the provincial government in mining activities has caused mining permit procedures to complicate. This has posed an impact on the longer permit process meanwhile the needs of rock commodity at the local level cannot be postponed due to the type of rock is a mining commodity enjoyed directly by the local community or mine producer regions. The rock is used in the construction, which includes houses, roads or buildings (Akhmaddhian & Supriatin, 2017).

In the President Regulation Number 58 of 2017 concerning Amendment to Presidential Regulation Number 3 of 2016 concerning Acceleration of National Strategic Projects Implementation, there are some projects conducted in West Java Province namely (a) toll road infrastructure construction project;

(b) inter-city railway facility infrastructure construction project consists of: South Java Double Track and Jakarta-Bandung High-Speed Train; (c) New Airport construction project namely Kertajati Airport; (d) new seaport dan capacity development; (e) Refinery Development Master Plan (RDMP); (f) Waste-Based Energy Infrastructure Project; (g) Drinking water supply project; (h) Dam and irrigation networks consist of: Kuningan, Ciawi, Sukamahi, Leuwikeris, Cipanas, Bener, Sadawarna, and Matenggeng Dam, also construction of local irrigation network of Leuwigoong in Garut Regency. From 27 (twenty-seven) regencies/cities in West Java Province, according to data from the Energy and Mineral Resources Agency (ESDM) of West Java Province in 2018, there were only 17 regencies/cities that have mine resources with a total mining business permit (IUP) issued about 390 IUPs. Out of 390 IUPs, there were about 342 IUPs of rock or around 87% of rock mining existed in West Java Province, one of the regencies that have rock mining is Subang Regency (ESDM Agency of West Java Province, 2018).

Subang Regency has a fairly strategic location in West Java Province for the development of a national infrastructure project. Subang Regency is crossed by the Pantura route which is one of the busiest routes in Java island. Sub-districts in this route included Ciasem and Pamanukan. In addition to the Pantura route, Subang Regency is also crossed by the Sadang Cikamurang alternative roads, crossing in the middle of the Subang Regency area and connects Sadang in Purwakarta Regency with Tomo in Sumedang Regency. Subang Regency which is directly adjacent to the southern part of Bandung Regency has direct access which at the same time connects the Pantura route with Bandung City (BPS Subang Regency, 2018).

The strategic location of the Subang Regency

for the development of national strategic projects will increase rock mining activities in the area. As published in the online news at Buana Indonesia.co.id, it was stated that there were allegedly 8 illegal C minerals that contributed to environmental damage in Subang Regency. Some of the mines were closed in 2014, however, later the mines, which was considered illegal, continued their operations. Some of the environmental destructions were done by mining or C minerals in Subang Regency included laterite mining in Rancabango village, Cikaum, Kalijati, Ranggawulung forest area, Cicadas Binong, West Pagaden, and sand mining in Cipeundeuy also rock mining in Cimanglid Kasomalang village (Ripai, 2018).

Based on the background, the formulation of the problem as follows:

- a. How is the process of rock mining permit in West Java Province after the enactment of Law Number 23 of 2014?
- b. How is the impact of the abolition of the authority of regency/city government for rock mining activity after the entry into force of Law Number 23 of 2014 in the Subang Regency of West Java Province?

The purpose of this study is to analyze and study the process of rock mining permit including the effectiveness and benefit from policy implementation related to the abolition of the authority of regency/city government in the rock mining activity after the enactment of Law Number 23 of 2014 in Subang Regency of West Java Province. This study is important with its unique advantages than others since this study focuses on discussing the implementation of rock mining policy with direct effects on the interest and welfare of the mining area communities. Furthermore, the research data are relatively new which focuses on rock mining permits after the enactment of Law Number 23 of 2014.

The author will use some theories related to decentralization, local autonomy and public policy implementation of MS. Grindle to analyze government policies related to the abolition of the regency/city government's authority in the field of mine and the result-effect.

### **Decentralization and Local Autonomy**

Decentralization is a system consisting of the delegation of powers, authority, and functions from central to the local government, which has been recognized globally as a facility to increase the delivery of goods and public services. World Bank research shows that from 75 developing countries and transition countries with populations of more than 5 million, 63 countries have started the reformation aims to transfer political strength to the local government units. The main objective of the reform is to increase equity, improve efficiency and ensure more participation and responsiveness of government to the citizens (Frumence, Nyamhanga, Mwangi, & Hurtig, 2013).

Cheema views that the changes in government centralization to decentralization as a solution in the improvement of the quality and quantity of government services to the community. Decentralized government is also considered as the service that can bring effectiveness and efficiency due to expectations that decentralization will reduce the load and congestion in the communication and administration line, therefore the delay of government programs will reduce (Cheema, 2007).

The implementation of the government system in Indonesia is marked by changes in the government system from centralistic to decentralized. The changes in line with the changes in the law on local government which based on article 18 paragraph (2) of the 1945 Constitution and last amended by



Law Number 23 of 2014 on Local Government by vesting broadest autonomy to the locals to accelerate the realization of community welfare (Adhayanto & Adiputra, 2017).

The authority from central delegated to the locals has made the locals overly free to exploit natural resources without considering the impact on the environment. The number of mining business permit letters issued by the local government has become uncontrolled since the local government was given the authority by the central government. Many mining business permits issued sometimes overlapped with the mining area owned by other managers (Risal, 2017).

Furthermore, Prasojo (2006) suggested that basically decentralization is classified into four types namely deconcentration, devolution, delegation and support assignment. This support assignment is also applied in Indonesia where the macro policy is in the hands of the central government, and the source of financing is also from the central government. Meanwhile, micro policy and implementation are implemented by the local government. Accordingly, the consideration of the decentralization model must take into the effectiveness, function, and usefulness (Akbal, 2016).

Local autonomy in the NKRI Framework is basically a consequence of the existence of the decentralization system in the government. Decentralization in the government system in Indonesia based on the existence of the process of the formation of a region called local autonomy which is a place or scope where the authority is delegated from the central will be regulated, managed and implemented (Akbal, 2016).

According to Fesler and Leemans (Kaloh, 2007), local autonomy must be defined as autonomy for the community at the local le-

vel and not "local" autonomy in the sense of a particular area at the local level. Therefore, local autonomy is not the objective but the instrument to achieve the goal.

The existence of advances in science and technology, the community demands the changes in general quality services that are faster and more precise. In terms of the development of technology, Iglesias stated that one of the factors that needed to be considered to implement local autonomy is technology, besides human resources and organizational structures related to the roles and organizational relations related to the program (Kaho, 2007).

Government affairs that fully become the governmental authority are those in foreign policy, defense, security, national monetary and fiscal, justice and religions. Government affairs that can be managed jointly between levels and arrangements of government or concurrent are government affairs other than government affairs which are fully the affairs of the Government. Therefore, in each field of government affairs that are concurrent, there is always part of the affairs that become the governmental authority, the provincial government, and the regency/city government (Muluk, 2006).

### **Implementation of Public Policy**

In the implementation process of local autonomy policy, the central government seems to want to release its responsibility for local, but in a different situation, the central government also does not want to miss the source of income from the autonomous region. Even though the local government also does not want to lose their regional own source revenues because they must be accumulated in the State Budget. This makes the central government share authority with local government to ensure interest synergies between them, especially in the process of

natural resources management at the local level (Risal, 2017).

Mining policy is a form of public policy that refers to public issues in mining management. Mining policy is not only related to the substance of mineral and coal mining law but also including local government law. In the context of public policy implementation, Ripley and Franklin stated that the implementation of the policy refers to the series of activities or actions that accompany the statements on objectives and outcomes of the program to be achieved by government officials. The intended series of activities or actions take place when a rule has been established to implement the program (Ripley & Franklin, 1986).

The success of policy implementation according to Grindle (1980) is influenced by two major variables, which are the content of policy and context of implementation. Therefore, the government in policymaking is supposed to review whether the policy can harm the community or not. This has the purpose to prevent conflict detriment to the community (Mandala et al., 2016).

In terms of the content of the policy, Grindle (1980, p. 8) described:

Theodore Lowi has suggested that policy types will pose major impacts on types of political activities stimulated by policymaking processes. This observation can be applied with the same validity as the implementation process and encouraging the consideration of the "capacity" of various programs. The difference may also be created between programs that provide collective benefits, encourage categorization requests, and provide shared benefits, which can mobilize more types of particularistic demands at the implementation stage.

In term of this difference, Grindle (1980, p.

9) suggested:

The difference in the behavior level has changed the program to beneficiaries and it is another means of content from the policy that affects the implementation. The introduction of technology to the development of agriculture is an example generally cited from programs that require adequate behavioral adaptation and participation from the beneficiary. On the contrary, providing housing for low-income groups may require a slight pattern of behavioral changes. Besides, programs designed to achieve the long term objectives may be more difficult to apply to those who are more concerned with immediate benefits. In this context, the content of policy becomes important to analyze the direction of the policy implementation.

In this perspective, Grindle said the content of various policies also dictates the site of implementation. Further Grindle (1980, p. 10) said:

The decision made during policy formulation may also show who will be charged to implement various programs, and those decisions can affect how the policy is achieved. There may be, for instance, the difference in terms of institutional bureaucratic capacity to manage the various success of programs. Some receive greater support from political elites and have access to resources, and some will be able more to overcome the various demands made on them.

In addition, the form of policy objective might have an impact that is decisive to the implementation. Therefore, the context of policy becomes a concern. In this case, Grindle (1980, p. 12) suggested:

The content of policy and program is an important factor in determining the outcome of the implementation initia-

tive. However, like many examples, and as can be seen in the content figure, policy or program is often an important factor because the real potential or impact may be on the given social, political, and economic arrangements. Therefore, it is necessary to consider the context or environment where administrative actions are achieved. We have prepared the implementation to be a process of decision making that will involve various actors. In the administration process for each given program, many actors are called to make choices about specific public resource allocation and many other things may be tried to affect the decision. A brief list of people who might be involved in implementing a program will include national-level planners, national, regional, and local politicians, economic elite groups, mainly at the local level, recipient groups, and bureaucratic implementers at the middle and lower level. These actors are more or less involved in the implementation, depending on the content of the program and the form provided. Each may have a special interest in this program, and each may try to achieve it by making demands on the allocation procedure. Often, the objectives of the actor will be in the direct conflict with one another and the outcome of this conflict its consequences, who get what will be determined by the strategy, resources, and authority positions of each actor involved. What is implemented may be an outcome from the calculation of political interest and groups competing for scarce resources, the response from implementer officials, and political elites, all of them are interacting in the given institutional context. Analysis of the special program implementation can be interpreted to assess the "power capacity" of actors, their interest and strategy to achieve it, and the character-

istics of the regime in which they interact. This, in turn, can facilitate the assessment of the potential to achieve the policy and program objectives.

How the objective is achieved, according to Grindle (1980, p. 13):

In achieving the objective, the officials face two problems that highlight the environment and administration program interaction. First, the officials must address the problem of how to achieve policy compliance. They must, for instance, obtain support from political elites, and compliance of the executive agencies, bureaucratic burdens by implementing the programs from lower-level political elites, and beneficiaries. They must change opposition from those who might be harmed by the program to their acceptance, and they must guard those who are excluded but wishing to benefit, from destroying them. Such an appearance can imply compliance of the bargain, accommodation, and again, major conflict.

However, if the overall policy objective is to be realized, resources are transacted to obtain compliance that must not harm the impact of program specificity. For this purpose, understanding the dimension of other policy problems is needed, according to Grindle (1980, p. 13):

The other side of the policy problem and achieving the program objectives in a particular environment is responsiveness. Ideally, public institutions such as bureaucracy must be responsive to the most adequate needs for them to serve them. In addition, without sufficient responsiveness during implementation, public officials who lose information to evaluate the programs achievement and support can imply that the policy objectives are not achieved because of interventions from the same individuals or

groups both in the framework of obtaining specific types goods and services in the greater number or to prevent the fulfillment of particular programs that cannot be accepted profitable by them. The problem for policy administrators is to ensure a sufficient number of responses to provide flexibility, support, and feedback, while at the same time maintaining sufficient control over the resources distribution to achieve the intended objective. This is the balance to achieve, and which requires considerable political intelligence in taking into account the possible responses of actors involved and their capacity to subvert the program objective. To be effective, then, implementers must be skilled in the art of politics and must understand well the environment in which they strive to realize the public policies and programs.

Therefore, commitment is required from the stakeholders. Grindle (1980, p. 14) said:

The theme raised in several case studies is the extent to which political regimes and administrative organizations are committed and have the strength to implement their policies. In this problem, decentralization occurs or on the other side, controlled from the central politics or state bureaucracy. Our study suggested that the political system that does not concentrate on broad central powers does not necessarily decentralize the authority of implementation or responsibility if they want to see their objectives achieved. They may fail because they have little control over the sanctions needed to obtain compliance with program objectives. Decentralization can be a feasible strategy in which the central government maintains the capacity to ensure that implementation activities remain within the limits of the structure and objectives of the program.

In the context, the considerations according to Grindle (1980, p. 14) are:

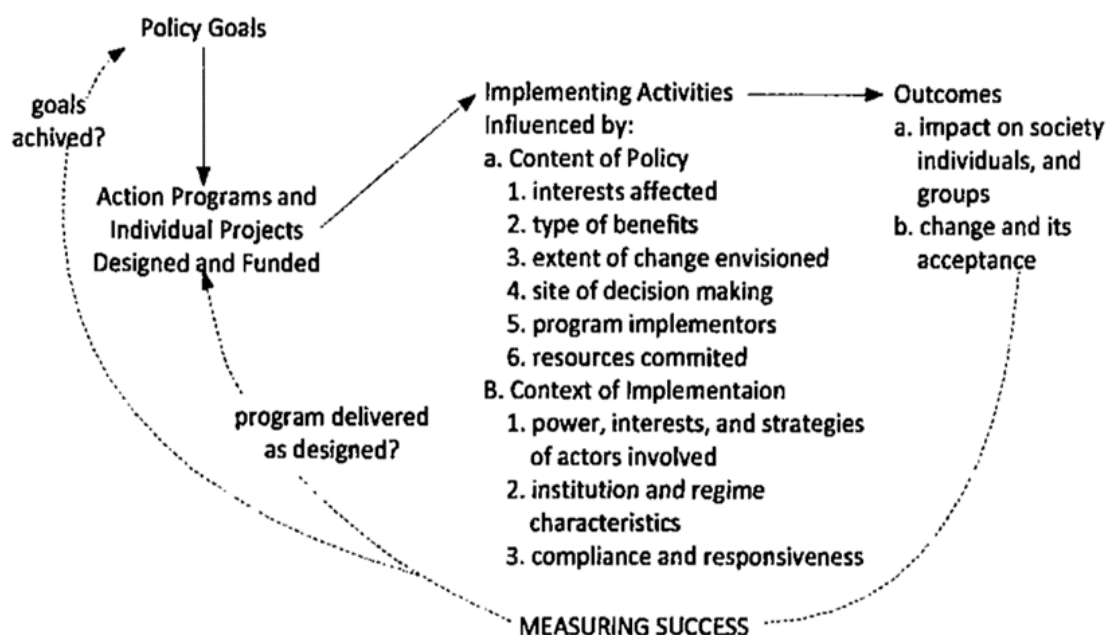
This suggestion shows that the consideration of administrative action context also involves variables such as the structure of political institutions and types of regimes where policy or programs are achieved. Ideology, culture, political alliances, and rewards, also other international events and environmental effects may also have a significant impact on the administration process. Moreover, the programs are not implemented separately from other public policies, the success of a program can easily be influenced by the priority of political officials or results from other programs. These factors imply that identical programs in the content can still be implemented, and it is different if the achieved context is different substantially.

How factors suggested by Grindle correlate one with another is shown in Figure 1.

### **Rock Mining Management**

Article 2 of Government Regulation Number 23 of 2010 classified mineral and coal mining into five groups namely, radioactive minerals, metal minerals; nonmetallic minerals, rock and coal. The examples of rock mining are mountain rocks, filling sand, tidal sand, sandstone, filling soil, etc.

Rock mining emerged after the issuance of Law Number 4 of 2009, as mentioned by Sitinjak as staff of the Directorate General of Mineral and Coal of the Ministry of Energy and Mineral Resources that the terminology of class C minerals previously regulated in Law Number 11 of 1967 has been amended by Law Number 4 of 2009, into rock mining. Therefore, the use of term class C minerals is no longer appropriate and replaced with rock and the granting of rock IUP is based on Government Regulation Number 23 of



**Figure 1.** Correlation of the factors

**Source:** Grindle (1980:11)

2010 done through the regional application. The requirements to be fulfilled by the applicant for an IUP are administrative, technical, environmental, and financial (Sitinjak, 2019).

Prior to the issuance of Law Number 23 of 2014, West Java Provincial Government issues Local Regulation Number 17 of 2001 as revised into Local Regulation Number 2 of 2012. Next, Subang Regency issues Local Regulation Number 6 of 2006 on mining management including Local Regulation Number 7 of 2001 and last revised to Local Regulation Number 1 of 2014 on non-metal mineral and rock mining business. Following the issuance of Law 23 of 2014, West Java Province issued Local Regulation Number 2 of 2017 on Mining and Mineral Management including Local Regulation Number 3 of 2017 on One-stop Integrated Permit Service (PTSP).

Permits activities are the initial steps for investors or communities who will carry out mining activities in Indonesia. Permits are issued according to the location and exis-

tence of mine including the authority of each region (Mantoro, 2012). Sitinjak also said that the rock mining business activity itself is different from other mining, both from how to obtain, time permits, area of business permit, or revenue received by the state from the mining activities results. Related to state revenue, rock mining activities are not subject to royalty or production fees, but the results of the production of rock mining go directly to the revenue of regency/city government where mining activities are carried out. Therefore, rock mining tax production is not included in the classification of state revenue which must be divided between central and local government or often referred to as the balance fund. Non-metal mineral and rock tax is a type of regency/city tax according to Law Republic of Indonesia Number 28 of 2009 on Local Tax and Local Retribution (Rumengan, Karamoy & Pusung, 2015).

Widayati, Usman and Sriyanti (2014) said that mining activities without a permit will affect the local and environment tax retribution where mining activities are carried out. Meanwhile, the environmental damage is

caused by illegal mining businesses cannot be supervised directly by the government as the mining permit provider and those illegal business actors do not pay reclamation bonds for post-mining activities. Environmental management must lead to the guarantee of environmental sustainability according to Law Number 32 of 2009 on Environmental Management. Environment defined as a unity of space of all objects, power, conditions, and living creatures, including humans and behaviors, which affects the nature itself, survival of life, and humans welfare including other living creatures. Not a few company mines that have pocketed a permit also often not paying the reclamation guarantee fund regulated by the local government. Unfortunately, the local government does not take decisive action to punish such mining companies (Hilmawan, Yударuddi & Wahyuni, 2016).

Local autonomy policy on in the environment has an impact on the creation of the concept of solving environmental problems which emphasizes the dimension of local wisdom of each local community rather than the solving of environmental problems based on high technology. With the existence of local autonomy, it is a capital for Indonesia to implement the decentralization of environmental governance as an alternative effort to solve environmental problems (Mina, 2016).

Legislations that give authority to the local in carrying out the management of natural resources, should be done the synchronization of the content material between the law of local government with natural law and environmental resource management, with the hope that the two laws will not cause problems in the implementation, mainly relating to attraction interest between central and local. So that it can prevent and avoid prolonged conflict of interest between central and local (Suhartono, 2013).

## **The Perspective of the Researcher**

The broadest local autonomy given by the central government to the regency/city government gives the impression of the existence of small kings at the local so that natural resource management seems to belong to the regency/city government that can be managed directly.

The existence of direct management by regency/city government raises many problems at the local level and central government faces difficulty to control the problems, such as a large number of mining areas that are overlapped as the result of regency/city government is too easy in issuing the permits also the environmental impact due to its less optimal natural resources management.

Rock mining activities are different from other mine types, such as metal mine and coal because the results of rock mining are felt directly by the community and regency/city government, where the results of rock mining activities can be used to carry out development at the local level. The sales tax of rock mining goes into the government regulation/city in which rock mining activities are carried out. So that there is no need the profit sharing between central, provincial and regency/city government also former mines can be utilized directly as agricultural or plantation land. With a shift of authority from regency to the province will complicate and prolong the process of issuance of rock mining permits, meanwhile the needs of rock mining by the community cannot be postponed for development activities.

## **RESEARCH METHOD**

### **Research Design**

The research design is descriptive analysis with a qualitative approach. Locke, Spriduso, and Silverman (in Creswell, 1994) suggested

that qualitative research is interpretative research. As such, the biases, values, and judgment of the research have been stated explicitly in the research report. Such openness is considered to be useful and positive. The overall research data results obtained directly in research field through observation and interview with key informants and secondary data captured by a qualitative approach and carefully processed by avoiding errors in the recording on overall of development also data rolling that is always changing in each situation as well as empirical conditions related to the authority of rock mining activities after the enactment of Law Number 23 of 2014 on Local Government.

### **Data Collection Method**

Based on the research method and approach used, the data collection process carried out in a natural setting refers to participatory observation, in-depth interviews, and documentation. This refers to the Marshall and Rossman's statement that the fundamental methods relied on by qualitative researchers for gathering information are, participation in the setting, direct observation, in-depth interviewing, and document review (Sugiyono, 2005).

Research informants can be divided into three categories, namely mine entrepreneurs, communities and policy implementers consisting of Investment and One-Stop Integrated Permits Agency (DPMPTSP) of West Java Province, Energy and Mineral Resources Agency of West Java Province, Environmental Agency (LH) of Subang Regency, Local Revenue Agency of Subang Regency and heads of villages around the mine.

### **Data Analysis**

Examination of data in qualitative research is necessary to collect data, trusted and show data legality as the most strategic step in re-

search because the main objectives of the legality examination are to get data that meets the established standards. Therefore, the research uses data source representation patterns and data classification. Data legality, classification, and analysis are done by the triangulation approach.

The research location was Subang Regency as the area where rock mining activities exist and as the area that receives the benefits also the effects of mining policy changes under Law Number 23 of 2014. The research was conducted in July 2019.

## **RESULT AND DISCUSSION**

Primary data in the form of interviews and secondary data in the form of the literature review are processed in triangulation and analyzed using the implementation policy model according to Grindle (1980) with two major variables which are content of policy and context of implementation which later is broken down into 9 sub-variables, namely:

### **1. Interest Affected**

To analyze the elements, the researcher raised questions to the informants, what interests are affected by the existence of the policy of governmental authority abolition in providing the mining permit according to Law Number 23 of 2014 in Subang Regency area? Informant 1 and 2 (officials of ESDM Agency and DPMPTSP of West Java Province) provided answers:

The affected interest is the regency government's interest because by the enactment of Law Number 23 of 2014 the regency government authority in issuing mining permits is lost. From the applicant, initially he/she feels shocked because there are many changes in habits. Previously in applying for an application in regency, he/she find it easier and faster because there are stages that can be bypassed such as in the stage of activity

exploration can be skipped by only making exploration reports. With the shift of authority to the province, the stages are enforced so strictly that they feel the issuance of permits in the province is longer and more difficult.

Informant 6 (mine entrepreneurs) has confirmed the questions as follows:

If the regency that issues permits is faster, as long as the money is available, it must be worked out, for example there is 100 million rupiah, 200 million rupiah, it must be issued, but if the process is longer and more time spent in the province and the money is also more, then there is no use of it.

In this matter, Grindle (1980, p. 9) suggested that "the difference in the behavior level changes the program to beneficiaries is another way of policy content affects the implementation".

Subsequently, Frumence, et al. (2013) said that decentralization is a system consisting of the delegation of powers, authority, and functions from central to the local government, which has been recognized globally as a facility to improve the delivery of goods and public services. The main objective of the reform is to increase equity, improve efficiency and ensure more participation also the responsiveness of government to the citizens.

Based on the interview results, secondary data and theory, the researcher suggested that the most interest party is the mine worker community (mine entrepreneur), Subang Regency's Local Revenue Agency including ESDM Agency of West Java Province as the technical agency in the issuance process of a rock mining permit.

## 2. Type of Benefits

The researcher raised questions to the in-

formants, what kind of benefits are expected by the West Java Provincial government from the authority abolition of the regency government in issuing the rock mining permit according to Law Number 23 of 2014? Informant 1 and 2 (officials of ESDM Agency and DPMPSTP of West Java Province) provided the answers:

One of the expectations is well-managed mine, making none of the government levels that have absolute authority. Therefore, between levels of government have mutual control and conflict of interest does not occur. This should be a joint responsibility and between levels of government must be more harmonious.

Informant 6 (mine entrepreneurs) provided the answer:

Albeit mining activities carried out without permission. There is no conflict between the excessive community. Usually in the dry season is a lot of dust, and people are impatient also request water sparkling rashly. The conditions will make up to 3 to 4 times day water sparkling to the road. In general, the community supports the mining activities because prior to sand mining, most farmers run brick printing companies. Until now, there are around 25 brick printing companies, and even motorcycle taxi drivers are imposing themselves to buy cars or transporting sand.

Informant 5 (village heads) provided the answer:

So far, there have been no serious complaints because all have been handled by the company, for example, related to road damage has been repaired and even re-casted by the company. Related to dust caused by material carrier vehicles, the company did water sprinkling three times a day and gave money to the residents whose houses located in the roadside which is passed by sand transporter



vehicles.

Informant 7 (mine workers) said:

There is no complaint because there are many company's services to the community, such as if there are public works, if there is a need, they also come here to give. For instance, if sand is needed, they will give it. Also, usually some citizens asked for money on the road, also there is money given by the company illegally, to the houses in all left and right of the roadside.

In this matter, Grindle (1980, p. 9) said that:

The difference in behavior level changes the program to beneficiaries is another way of policy content affects the implementation. Besides, programs designed to achieve long-term objectives may be more difficult to apply to those who are more concerned with immediate benefits. In this context, the content of policy becomes important to analyze the direction the policy implementation.

Furthermore, Prasoj (2006) suggested that basically decentralization is classified into four types namely deconcentration, devolution, delegation and support assignment. The support assignment is also applied in Indonesia where macro policy is in the hands of the central government, the source of financing is also from central, meanwhile, the micro policy and its implementation are implemented by the local government. Therefore, the determination of the decentralization model must take into account the effectivity, function, and usefulness (Akbal, 2016).

From the informants' answers and related to opinions suggested by Grindle and Prasoj, the researcher argues that the types and benefits expected from the provincial government are not too affected on rock mining activities at Subang Regency. This is because

the community only hopes how mine entrepreneurs pay attention to the surrounding environment and can help community welfare around the mine. If these expectations have been fulfilled by rock mining entrepreneurs, then there will be no conflict caused by rock mining activities between mine entrepreneurs and the communities around the mine.

### 3. Extent of Change Envisioned

The researcher raised a question, what are the desired changes through government authority abolition in issuing rock mining permits in accordance with Law Number 23 of 2014? Informant 1 and 2 (officials of ESDM Agency and DPMPSTP of West Java Province) provided the answer: "The changes in the mining area map from the manual to the digital system and the increasing of local revenue both in terms of land use as well as retribution of mining activities production results".

Informant 6 (mine entrepreneurs) provided the answer:

At the time of field scheduling, the consultant said that previously we must prepare money then they come to the field. For the Mining Business Permit Area (WIUP), I must prepare 20 million Rupiah that accidentally I give it by myself at the field and then I print the WIUP by myself with the cost incurred 750,000.00 Rupiah.

Informant 4 (Official of Local Revenue Agency of Subang Regency) provided the answer:

Regarding the mine management, it is the authority of the provincial-level but the tax of Non-Metal Mineral and Rock (MBLB) is still being accepted by regency. However, related to the issue of collecting the mining tax, we only can collect from the mines that hold permits. The problem that occurred recently is many mining activities do not have per-

mits. We have sent a letter to the ESDM Agency at the province-level related to the existing mining activities problem in Subang Regency.

In this matter, Grindle (1980, p. 8) suggested:

The type of policy made will have a major impact on the types of political activities stimulated by the policymaking process. This observation can be applied with the same validity with the implementation process, encouraging consideration of the "capacity" of various programs. The difference may also be made between programs that provide collective benefits, which encourage categorization requests, and they provide shared benefits, which can mobilize more types of particularistic demands at the stage of implementation.

From the answers of the informants and Grindle's view, the researcher suggested that expected changes with the shift of authority have not been reached optimally, because the implementor still expects the existence of compensation in providing services to the community as the applicant of mine permit.

#### 4. Site of Decision Making

The researcher raised a question, who is authorized to make strategic decisions in determining the policy for granting rock mining permits after the Law Number 23 of 2014 in West Java Province? Informant 1 and 2 (officials of ESDM Agency and DPMPTSP of West Java Province) provided the answer: "the authority to make strategic decisions is the Governor or the Regional Secretary through a proposal from the Head of Agency at the provincial level meanwhile the Regent at the level of Regency".

Next, the researcher asked additional questions who is the leading sector in issuing the mining permits? Informant 2 (DPMPTSP) provided the answer:

Until now, the leading sector institution in granting mining permits in Subang Regency and West Java Province was the ESDM Agency of West Java Province and it is supposed to be DPMPTSP as the leading sector so that we still rely on the technical agency from ESDM.

In article 19 of West Java Province, Local Regulation No. 2 of 2017 on mineral and coal mining management states the issuance of IUP is carried out by local apparatus in charge of permits affairs. Next, in the West Java Governor Regulation Number 62 of 2016 on main tasks, functions, unit task details and work procedures of DPMPTSP article 17 (1) states that the forestry, environment, energy and mineral resources section has the main tasks of carrying out forestry sector permits, environment, energy and natural resources, including permit registration process, technical consideration process, and permits issuance process. On this matter, the researcher suggested that there is still an overlap of authority at the provincial level. It is needed for the existence of willingness or policy from the Governor/Regional Secretariat to combine the technical agency related to permits in one agency with DPMPTSP so that DPMPTSP can become the leading sector in providing the mining permit.

#### 5. Program Implementer

The researcher raised a question, how was the law implemented and who carried out the law? The answer provided by informant 1 and 2 (officials of ESDM Agency and DPMPTSP of West Java Province) are:

The implementer of the law or regulation is DPMPTSP of West Java Province as the place for registering and issuing the permit. The registration is online, ESDM Agency of West Java Province conducts technical discussions and the results of technical studies are submitted to the DPMPTSP.

Informant 2 (DPMPTSP) continued the answers:

Regarding the permits, technical agencies are still not optimal because the tasks of technical agencies are more numerous in supervision mining management. Thus in terms of permits cannot be implemented optimally and the most frequent constraints are related to human resources, where the technical team is not attached to us so that when we are scheduling to do a site check we often find it difficult to match the schedule because the technical team is still ad hoc. When we propose to check the field related to permits, they have other tasks from their leaders. Usually, they always argue with that reason so that they request to postpone the schedule until we find the appropriate schedule.

In this perspective, Grindle (1980, p. 10) said:

The decision made during policy formulation may also indicate who will be charged to implement various programs, and the decision can affect how the policy is achieved. There may be, for instance, a difference in the terms of the institutional capacity of the bureaucracy to manage various successful programs. Some receive greater support from political elites and have access to resources, and some will be more able to overcome the numerous demands made on them.

Based on the information and opinion suggested by Grindle, the researcher suggested that the implementer of the rock mining permit issuance program should be DPMPTSP assisted by the technical team from the ESDM Agency of West Java Province. However, the program implementer is still not optimal in carrying out its activities according to their duties so that it inhibits in providing the permits in the Subang Regency area.

## 6. Resources Committed

The researcher raised questions, what resources are required to support the effectiveness of the issuing of rock mining permits after Law Number 23 of 2014 in the Subang Regency area and how are these resources available in the provincial government as the policy implementer? Informant 2 (DPMPTSP) provided the answer:

Resources needed are human resources, related to the number of personnel and personnel technical skill. The budget relates to increasing benefits on human resources that carry out the task in the field of mining and permits. Integrated technology from PTSP Agency and related technical agencies, so that all can be done online. From these resources, it is explained that the performance of resources is not optimal, because there are still many employees who do not have technical qualifications and employees from Regency Government who still have the old mindset and empowered in their old locations, so that there are still causing the opportunity to deception outside standard operating procedures. Meanwhile, budget resources are not operational constraints because of what we need, the local government always responds. Regarding integrated technology, there are still found constraints according to the answers given. In the process of permit issuance, due to the change of status of the PTSP Coordination Board into PTSP Investment Agency, DPMPTSP must have become the leading sector in providing the permit but the leading sector is still in the ESDM Agency.

Informant 1 (officials of ESDM Agency of West Java Province) added "the human resources must be fulfilled either in terms of number as well as quality. Up to now in

ESDM Agency, there was a lack of personnel in the field of mining”.

In this matter, Grindle (1980) said:

Decision made during policy formulation may also show who will be charged by implementing various programs, and the decision can affect how the policy is achieved. There may be, for instance, the difference in the terms of the institutional capacity of the bureaucracy to manage various successful programs. Some receive greater support from political elites and have access to resources, and some will be more able to overcome the various demands made on them.

Based on the answers of the informants and opinions by Grindle, the researcher concluded that the government has not provided optimal human resources. Consequently, this lack of human resources is one of the constraints in providing the services to the public related to mining permits.

#### 7. Power, Interests, and Strategies of Actors Involved

The researcher raised a question, who are involved in issuing the mining permit after the enactment of Law Number 23 of 2014 on Local Government? Informant 1 and 2 provided the answer:

Those involved in issuing the mining permit after the enactment of Law Number 23 of 2014 on Local Government among others from Province are PTSP Investment Agency as issuer permit, ESDM Agency as a technical party and Environmental Agency and Local Revenue Agency of Subang Regency.

It is continued with the question, what interests are affected by regional government authority abolition policy in issuing the mining permit following Law Number 23 of 2014 in the Subang Regency area? Informant 1 and 2 (officials of ESDM and DPMPSTP

Agency of West Java Province) provided the following answer:

The affected interest is regency government because with the enactment of Law 23 there is an abolition of authority in Subang Regency related to mining permits. The applicant initially feels shocked because there are many changes in habits. Previously, applying regency to find it easier and faster because there are stages that can be bypassed such as in the stage of activity exploration can be skipped by only making exploration reports. But, with the shift of authority to the province, the stages are enforced so strictly that they feel that the issuance of permits in the province is longer and more difficult.

Later continued with the question, are there any problems that arise from the affected interests, and how to overcome the problems? Informant 1 (officials of ESDM Agency of West Java Province) provided the answer:

There is still a connotation of this permits that it is money-making area so almost all regencies in Indonesia are not willing to switch to the province. There are many livelihoods lost but regionally, systematic and comprehensive arrangements should be better. The purpose of the "money-making part" is that there is an interest in government regency perpetrators for personal economic interest. It could be the head of regency or perpetrators in the regency.

Then, it is continued with the question, how does the West Java Provincial Government overcome the problems? Informant 1 and 2 (officials of ESDM Agency and DPMPSTP of West Java Province) provided the following answer:

By creating an online system in the issuance of mining permits where the contact between the applicant and the permits

manager becomes less. The only problem is the permits processes such as mining and the environment, The term of subjective documents which is the validity of the document needs to be tested. Therefore, it is inevitable to the existence of contact due to the discussion of the document. This is the constraint of the online system so that not all can be done online.

Informant 3 (Official of Environmental Agency of Subang Regency) provided the following answer:

One of the influences is the changes of organization form that used to be in the form of the Environmental Board (BLH), now become an agency and joined with the sanitary sector and is now issuing environmental permit through DPMPTSP Subang Regency which is previously published directly by BLH Subang Regency. Meanwhile, if it is related to performance in the mining permit framework is still the same and we are even more glad that the authority has been moved to the province because providing recommendations have a long time to check the situation in the field.

Informant 4 (Official of Local Revenue Agency of Subang Regency) provided the answer:

If it is possible, we can collect taxes not related to permits such as land and building tax. In essence, they have objects that we can withhold its land and building tax. Similar to the mining activities, if they do activities, we can collect the tax. Meanwhile, informant 7 (mine workers) provided the answer: usually the deception happens when handling the environmental permit and technical discussion in the branch agency. That is what I experienced. But if in PTSP Investment Agency, I think there is no deception, because they only accept ready-made goods from the technical agency.

Informant 6 (mine entrepreneurs) provided the answer:

If for example, the process is not long-winded, the faster it will be and the tax will be received faster. If this is happened, how to pay the tax? It will not be accepted. In the end, we coordinate with the local personnel and the mine area environment.

Grindle (1980, p. 12) said:

We have prepared the implementation to be a process of decision making that will involve various actors. In the administration process, each given program, many actors are called to make specific public resource allocation choices and many other things may be tried to affect the decision. A brief list of people who might be involved in implementing a program will include national-level planners, national, regional, and local politicians, economic elite groups, mainly at the local level, recipient groups, and bureaucratic implementers at the middle and lower level. These actors are more or less involved in the implementation, depending on the content of the program and the form provided. Each may have a special interest in this program, and each may try to achieve it by making demands on the allocation procedure.

Based on the information of the informants and opinions suggested by Grindle, the researcher suggested his opinion that there is still a conflict of interest between DPMPTSP as an issuer permit with the ESDM Agency as a technical function that provides technical recommendations on mining permits. For this interest, DPMPTSP hopes that the issuance of permit one roof is carried out by combining the technical office in one building with DPMPTSP so that there is a synergy in providing the mining permit service in the region.

## 8. Institution and Regime

The researcher raised a question, how is the support from related agencies in the implementation of the policy for issuing rock mining permits after Law Number 23 of 2014 in the Subang Regency area? Informant 2 (DPMPTSP) provided the following answer:

Until recently the institution which was the leading sector granting mining permits in Subang Regency and West Java Province was ESDM Agency of West Java Province and it was supposed to be DPMPTSP as the leading sector. Thus, we still depend on the technical agency from ESDM and related to permits issues, technical agencies are still not optimal because the tasks of technical agencies are more numerous in the field of supervision of mining management, so that in the case of permits it cannot be carried out optimally.

Informant 6 (mine entrepreneurs) provided the following answer:

Usually, the deception is when handling the environmental permit and technical discussion in the branch agency. That is on my perception. But if in the PTSP Investment agency, I think there is no deception because they only accept finished goods from the technical agency.

In this matter, Grindle (1980, p. 12) said:

What is implemented may be an outcome from the calculation of political interest and groups competing for scarce resources, the response from the implementer officials, and political elites. All interaction is in the given institutional context. Analysis of the special program implementation can be interpreted to assess the "power capacity" of actors. Their interest and strategy to achieve it, and the characteristics of the regime in which they interact. This would, in turn, facilitate the assessment of the potential to achieve the policy and objectives of

the program.

Based on the answers of the informants, the researcher suggested that the characteristics of institutions and regimes relating to the issuance of rock mining permits with the displacement of this authority have not changed so that there are still characteristics wishing to be served and expecting compensation from the community in providing the permit services.

## 9. Consistency and Responsiveness

The researcher raised a question, is there a good refusal from the community or the Subang Regency Government related to the authority abolition of the Subang Regency Government related to the issuance of rock mining permit after the Law Number 23 of 2014 in Subang Regency area? Informant 1 and 2 (officials of ESDM Agency and DPMPTSP of West Java Province) provided the answer:

In the beginning, many refusals occurred either by regency/city government also company and community that applied for permit application. The initial problem from regency/city is because they feel that their authority is eliminated meanwhile from the applicant because the permits process were getting longer and more time including the policies being carried out increasingly strict.

Informant 5 (village heads whose area covered rock mining activities) said:

We expect the permits process to be speeded up and the process should not be too complicated because once again from the community there are no problems related to mining activities and here there are needs of community also needs of villages government related to development issues.

Informant 6 (mine entrepreneurs) provided the following statement:

If the regency that issues permits is faster, as long as the money is available, it must be worked out, for example there is 100 million rupiah, 200 million rupiah, it must be issued, but if the process is longer and more time spent in the province and the money is also more, then it is just a lie.

Grindle (1980, p. 13) said that:

The other side of the policy problem and achieving the objectives of the program in a particular environment is responsiveness. Ideally, public institutions such as bureaucratic must be responsive to the needs of the most adequate for them to serve them. Besides, without sufficient responsiveness during implementation, public officials who lose information to evaluate the achievements of the program to be effective, then, implementers must be skilled in the political arts and must understand well the environment in which they strive to realize public policy and the programs. Related to compliance, Grindle stated in achieving the objective. The officials faced two problems that highlighted the environment interaction of the program and program administration. First, the official must address the problem of how to achieve policy compliance. They must, for instance, obtain support from political elites, and compliance of implementing agencies, bureaucratic loading with program implementation from lower-level political elites, and beneficiaries.

Data of permits obtained from DPMPSTSP West Java of 2019, there were found information that during 2015 until 2018 the number of mining application from Subang Regency area were 65 applications and from those number, only 12 permits were completed. The length of the issuance of WIUP ranges from 4 months to 18 months.

Meanwhile, in the appendix of Minister of Energy and Mineral Resources Regulation Number 43 of 2015 states the issuance period of WIUP is 14 days, IUP Exploration is 14 days and mining business permit of production operations (IUP OP) is 14 days. West Java Governor Regulation Number 1 of 2018 on implementation regulation of one-stop integrated services in its appendix states that the period of issuance of WIUP is 60 days, Exploration IUP is 30 days and IUP OP is 60 days.

Based on the informants' information and opinions suggested by Grindle, the researcher concluded that the consistency and responsiveness of the provincial government on the process of issuing permits after the Law Number 23 of 2014 was not optimal so that the issuance of rock mining permits in Subang Regency the area can never be completed according to the prescribed time.

## CONCLUSION

Prior to the enactment of Law Number 23 of 2014, Subang Regency Government in issuing the mining permits is based on Local Regulation Number 7 of 2001 and most recently changed to Local Regulation Number 1 of 2014 on Non-metal Mineral and Rock Mining Business. The leading sector in the issuance of a rock mining permit conducted by the Subang Regency is the ESDM Agency. The issuance process of rock mining permits conducted by the ESDM Agency of Subang Regency is relatively simple so that the time of permits issuance is not long or around the 3 months.

After the enactment of Law Number 23 of 2014, article 14 points a states that the implementation of government affairs in the field of forestry, marine, including energy and mineral resources is divided between central and provincial governments. This im-

plies that the Subang Regency authority has been lost its mining management. Next, West Java Province issued Local Regulation Number 6 of 2016 on the formation and arrangement of regional apparatus of West Java Province and later issued West Java Governor Regulation Number 62 of 2016 on main tasks, functions, unit task details and work procedures of DPMPTSP that makes DPMPTSP as a leading sector in the issuance of permits or not permits strengthened by Local Regulation Number 2 of 2017 on mining and mineral management. With the displacement of authority, it causes longer and more time spent in the processing of rock mining permits in Subang Regency area, the causing factors are as follows:

1. Long bureaucracy, involving the Environmental Agency of Regency to environmental permit requirements, the Provincial ESDM Agency as a technical function and DPMPTSP as the party that issues the permit;
2. Increased and broader area coverage, because the province must serve all regencies/cities;
3. The types and benefits that are expected from the provincial government are not too influential on rock mining activities in Subang Regency because the community only hopes how mine entrepreneurs take into consideration the surrounding environment and can support the community welfare around the mine;
4. The corrupt culture of the implementer apparatus has not changed so that there are still needed transactions that require a large amount of cost in providing permit services mainly in the technical agency;
5. Lack of support of technical agencies to the DPMPTSP as a leading sector of permits and non-permits, so that there is often a non-synchronized schedule in technical discussion in providing the services to the community;
6. Human resources are not sufficient in terms of quantity or technical capacity, either in the technical agency and DPMPTSP of West Java Province;
7. There is still a conflict of interest between DPMPTSP as permit issuer with the ESDM Agency as a technical function that provides technical recommendations on mining permits;
8. The institution characteristics and regime related to the issuance of rock mining permits with the displacement of this authority have not changed so that there are still characteristics of wishing to be served and expecting compensation from the community in providing the permit services.
9. Consistency and responsiveness of the provincial government on the process of mining permits issuance after the Law Number 23 of 2014 is not optimal so that issuance of rock mining permits in Subang Regency area can never be completed within the specified timeframe.

The social impact of authority abolition of regency/city government related to rock mining activity after the enactment of Law Number 23 of 2014 in Subang Regency West Java Province, is not significant because the community around the area is greatly helped by the existence of mining activities. Also, the community has never seen whether those who carry out mining activities have a permit or not. In terms of environment, the impact is not significant because the mining entrepreneur prior to the activity conducts coordination with the local community and makes written agreements that are known by community leaders, village apparatus and sub-district officials. So that, in doing mining activities the mine entrepreneurs always pay attention to the surrounding environment and former mines can be utilized by the landowner as agricultural or plantation land. However, due to the length of the permit formality process, the community who wish to work properly by taking care of the permit is disadvantaged. Consequently, many people decide to carry out mining activities without



permits. This will cause the revenue from rock mining not optimal.

Based on the conclusion, the researcher provides suggestions for the effectiveness and optimization of rock mining permit issuance in Subang Regency as follows:

1. Utilization of Information and Communication Technologies (ICT) in the coordination between DPMPTSP as the leading sector and ESDM Agency as a relevant technical agency in the issuance of a rock mining permit;
2. Placement of technical office personnel relevant to mining permits in one office with DPMPTSP;
3. Placement of technical branch agency in each regency/city of rock mining producer;
4. Capacity building of personnel in technical mining through training;
5. Addition of technical personnel through personnel recruitment based on the required competence.

Based on the results, the researcher offers recommendations to conduct further research on the impact related to local revenue as the consequence of the shift of rock mining permit authority from Subang Regency to West Java Province after the Law Number 23 of 2014 on Local Government.

## REFERENCES

- Adhayanto, O., & Adiputra, Y. S. (2017). Dampak Undang-Undang Nomor 23 tahun 2014 terhadap peraturan daerah di Kabupaten Bintan tahun 2015. *Jurnal Selat*, 2(2), 296-314.
- Akbal, M. (2016). Harmonisasi kewenangan antara Pemerintah Pusat dan Pemerintah Daerah dalam Penyelenggaraan Otonomi Daerah. *Jurnal Supermasi*, XI(2), 99-107.
- Akhmaddhian, S., & Supriatin, L. (2017). Kewenangan perizinan usaha pertambangan pasca berlakunya undang undang pemerintahan daerah (studi di Kabupaten Kuningan Provinsi Jawa Barat). *Unifikasi*, 4(2), 64-76.
- BPS Subang Regency. (2018). *Subang in numbers (Subang dalam Angka)*. Subang: BPS Subang Regency.
- Cheema, G., & Rondinelli, D. (2007). *Decentralizing governance: Emerging concepts and practices*. Wasington DC: Brooking Institute Press.
- Creswell, J. W. (1994). *Reaserch design, pendekatan metode kualitatif, kuantitatif dan campuran*. Jakarta: Pustaka Pelajar.
- ESDM Agency of West Java Province. (2018). *Mining permits data of West Java Province (Data Perizinan tambang Provinsi Jawa Barat)*. Bandung: ESDM Agency of West Java Province.
- Firmansyah, A. A., & Evendia, M. (2015). Harmonisasi Pengaturan Kewenangan Daerah Bidang Pertambangan Mineral Bukan Logam dan Batuan. *Kanun*, 17(1), 19-36.
- Frumence, G., Nyamhanga, T., Mwangu, M., & Hurtig, A. K. (2013) Challenges to the implementation of health sector decentralization in Tanzania: experiences from Kongwa district council. *Global Health Action*, 6(1), 1-12. doi: 10.3402/gha.v6io.20983
- Government Regulation Number 23 of 2010 concerning implementation of Minerba mining activities (Peraturan Pemerintah Nomor 23 Tahun 2010 tentang pelaksanaan kegiatan pertambangan Minerba). Retrieved from <http://eiti.ekon.go.id/v2/wp-content/uploads/2017/07/PP-23-Tahun-2010.pdf>
- Grindle, M. S. (1980). *Politics and policy implementation in the third world*. New Jersey: Priceton University Press.
- Hilmawan, R., Yudaruddi, R., & Wahyuni, Y. S. (2016). Coal mining operations and its impact on sectoral and regional area: Evidence of East Kalimantan, Indonesia. *Journal of Indonesian Applied Economics*, 6(1), 22-43. doi: 10.21776/ub.jiae.2016.006.01.2

- Isnaeni, D. (2018). Implikasi Yuridis Kewenangan Pemerintahan Daerah dalam Pemberian Ijin Pertambangan Menurut Undang undang Nomor 23 tahun 2014. *Yurispruden*, 1(1), 35-46. doi: 10.33474/yur.vii1.734
- Kaho, J, R. (2007). *Prospek otonomi daerah di Negara Indonesia*. Jakarta: PT. Raja Grafindo Persada.
- Kaloh, J. (2007). *Mencari bentuk otonomi daerah: Solusi kebutuhan lokal dan tantangan global*. Jakarta: PT. Rineka Cipta.
- Law of The Republic of Indonesia Number 4 of 2009 concerning Minerba (Undang-undang Nomor 4 Tahun 2009 tentang Minerba). Retrieved from <https://eiti.ekon.go.id/v2/wp-content/uploads/2017/07/UU-4-TAHUN-2009.pdf>
- Law of The Republic of Indonesia Number 23 of 2014 concerning local government (Undang-undang Nomor 23 Tahun 2014 Tentang Pemerintahan Daerah). Retrieved from <https://peraturan.bpk.go.id/Home/Details/38685/uu-no-23-tahun-2014>
- Local Government Regulation Number 7 of 2001 concerning mining exploitation (Peraturan Daerah Nomor 7 Tahun 2001 tentang perusahaan pertambangan). Retrieved from [http://jdih.setjen.kemendagri.go.id/files/KAB\\_SUBANG\\_7\\_2001.pdf](http://jdih.setjen.kemendagri.go.id/files/KAB_SUBANG_7_2001.pdf)
- Local Government Regulation Number 1 of 2014 concerning rock and non-metal mineral mining business (Peraturan Daerah Nomor 1 Tahun 2014 tentang usaha pertambangan mineral bukan logam dan batuan). Retrieved from <https://peraturan.bpk.go.id/Home/Details/62084/perda-kab-subang-no-1-tahun-2014>
- Local Government Regulation Number 6 of 2016 concerning the formation and arrangement of regional apparatus of West Java Province (Peraturan Daerah Nomor 6 Tahun 2016 tentang pembentukan dan susunan perangkat daerah Provinsi Jawa Barat). Retrieved from <http://bappeda.jabarprov.go.id/wp-content/uploads/2017/03/Perda-No-6-Tahun-2016-Tentang-Pembentukan-dan-Susunan-Perangkat-Daerah-Provinsi-Jawa-Barat.pdf>
- Local Government Regulation Number 2 of 2017 concerning management of mineral and coal mining (Peraturan Daerah Nomor 2 Tahun 2017 tentang pengelolaan pertambangan mineral dan batubara). Retrieved from [http://jdih.jabarprov.go.id/assets/uploads/files/produk/30\\_Perda%20%20Tahun%202017.pdf](http://jdih.jabarprov.go.id/assets/uploads/files/produk/30_Perda%20%20Tahun%202017.pdf)
- Mandala, E., Setyadiharja, R., Jefri, J., Renaldi, R., & Mulyani, N. (2016). Implementasi kebijakan penerbitan surat Persetujuan Berlayar (SPB). *Jurnal Ilmu Pemerintahan*, 1(2), 249-269.
- Mantoro, T. B. (2012, Desember Edisi XIV). Menyikapi Kegiatan Pertambangan di Indonesia. *Warta Minerba*, 1-42.
- Mina, R. (2016). Desentralisasi Perlindungan dan Pengelolaan Lingkungan Hidup sebagai alternatif penyelesaian permasalahan lingkungan hidup. *Jurnal Arena Hukum*, 9(2), 149-165. doi: 10.21776/ub.arenahukum.2016.00902.1
- Muluk, M. R. K. (2006). *Desentralisasi pemerintahan daerah*. Jakarta: Bayumedia.
- Prasojo, E. (2006). *Desentralisasi & pemerintah daerah: Antara model demokrasi lokal & efisiensi struktural*. Depok: Departemen Ilmu Administrasi Press, Universitas Indonesia.
- Presidential Regulation Number 58 of 2017 concerning Amendment to Presidential Regulation Number 3 of 2016 concerning Acceleration of National Strategic Projects Implementation (Peraturan Presiden Nomor 58 tahun 2017 tentang Perubahan Atas Peraturan Presiden Nomor 3 Tahun 2016 tentang Percepatan Pelaksanaan Proyek Strategis Nasional). Retrieved from <https://sipuu.setkab.go.id/PUUdoc/175250/Peraturan%20Presiden%20Nomor%2058%20Tahun%202017.pdf>
- Ripai, A. (2018, Maret 19). Inilah Lokasi 8 galian C Liar yang Ditengarai Berkontribusi Pada Pengerusakan Lingkungan di Subang. *www.buanaindonesia.co.id*. Re-

trieved from <https://buanaindonesia.co.id/jabar/inilah-lokasi-8-galian-c-liar-yang-ditengarai-berkontribusi-pada-pengrusakan-lingkungan-di-subang/>

Ripley, R. B., & Franklin, G. A. (1986). *Policy implementation and bureaucracy*. Chicago: Dorsey Press.

Risal, S. (2017). Pengelolaan Sumber Daya Alam di Era Desentralisasi. *Jurnal Ilmiah Manajemen Publik dan Kebijakan Sosial*, 1(2). 122-132. doi: 10.25139/jmnegara.v1i2.792

Rumengan, J., Karamoy, H., & Pusung, R. (2015). Efektivitas pajak pengambilan dan pengolahan bahan galian mineral bukan logam dan batuan di Kabupaten Minahasa Selatan. *Jurnal EMBA*, 3(4), 509-517.

Sitinjak, P. (2019, Mei 30). *Tata cara pemberian izin usaha pertambangan batuan*. Retrieved from <http://www.esdm.go.id>

Sugiyono. (2005). *Metode penelitian kuantitatif kualitatif dan R&D*. Bandung: Alfabeta.

Suhartono, S. (2013). Desentralisasi pengelolaan sumber daya alam untuk mewujudkan kesejahteraan masyarakat. *Jurnal Ilmu Hukum*, 9(18), 110-121. doi: 10.30996/dih.v9i18.278

Widayati, S., Usman, D. N., & Sriyanti. (2014). Ekonomi lokal sebagai bagian dari pengembangan wilayah pertambangan yang berdampak terhadap pendapatan daerah (Studi kasus pertambangan pasir dan batuan Kab. Bandung Barat). *Prosiding SNaPP: Sains, Teknologi*, 4(1), 499-504.

West Java Governor Regulation Number 62 of 2016 concerning main tasks, functions, unit task details and work procedures of DPMPTSP (Peraturan Gubernur Jawa Barat Nomor 62 Tahun 2016 tentang tugas pokok, fungsi, rincian tugas unit dan tata kerja DPMPTSP). Retrieved from <https://dpmptsp.jabarprov.go.id/web/pages/detail/63-tentang-dinas-pmptsp-provinsi-jawa-barat/89>

## JURNAL TATA KELOLA & AKUNTABILITAS KEUANGAN NEGARA

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#### Vol. 5 No. 1, Jan - Jun 2019: 1 - 102

- Akbar, B., Djazuli, A., & Jariyatna. (2019). Measuring efficiency and effectiveness of Indonesian Regional Development Banks, 5 (1): 91-101. DOI: 10.28986/jtaken.v5i1.309.
- Herianti, E. (2019). Budget turbulence and budget deviation: Do local government have the ability to reduce them?, 5(1): 1-20. DOI: 10.28986/jtaken.v5i1.285.
- Krisnamurti, J. H., & Gunawan, B. (2019). Analysis of the responsibility of government institutions in returning state losses according to Law Number 30 of 2014 on Government Administration, 5(1): 73-89. DOI: 10.28986/jtaken.v5i1.284.
- Kwarto, F., & Yunaenah, N. (2019). Tax reform in the performance of tax officers and its implications on tax compliance in the perception of tax payers, 5(1): 21-35. DOI: 10.28986/jtaken.v5i1.198 .
- Natawibawa, I. W. Y., Mulya, I. M. O., & Yoh, W. H. (2019). Transparency and accountability as determinants in the financial management of universities: A study on state universities in Malang City, 5(1): 57-72. DOI: 10.28986/jtaken.v5i1.247 .
- Sitanala, T. F. (2019). Can internal control system reduce fraudulent use of village funds in adverse selecton conditon, 5(1): 37-56. DOI: 10.28986/jtaken.v5i1.294 .

### Author Index

#### Vol. 5 No. 2, Jul - Dec 2019: 103 - 212

- Astuti, Y. D., & Adrison, V. (2019). The audit board of Republic of Indonesia's opinion and bribery in local governments in Indonesia, 5(2): 125-138. DOI: 10.28986/jtaken.v5i2.379 .
- Patty, J. R. (2019). Budget forecast errors and budget deviation: the role of financial capability index, 5(2): 157-175. DOI: 10.28986/jtaken.v5i2.353
- Rianto, L. (2019). Application of inventory turnover analysis on Indonesian ministry/agency financial statement , 5(2): 177-189. DOI: 10.28986/jtaken.v5i2.377
- Suyasa, G., Hamdi, M., Teguh, P., & Megandaru. (2019). Implementation of rock mining policy after Law Number 23 of 2014 (Study of rock mining permit in Subang District, West Java Province), 5(2): 191-212. DOI: 10.28986/jtaken.v5i2.318
- Sitanala, T. F. (2019). Superior authority and fraudulent acts in goods and services procurement: the role of code of ethics, 5(2): 139-155. DOI: 10.28986/jtaken.v5i2.374
- Wibowo, A. (2019). Promoting development program effectiveness: the expected role of public sector audit in state finance management, 5(2): 103-123. DOI: 10.28986/jtaken.v5i2.358

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## AUTHOR GUIDELINES

### General Requirements

This journal broad scope provides a platform to publish primary and secondary research (review articles) in areas of accounting (public sector accounting), auditing, management and governance of state finances, accountability of state finances, public administration policy related to state finances, and state finance law. The article should be free from plagiarism and written accordingly under the guidelines from JTAKEN. The article should never been published in any others publication media or publishing houses, either in printed or electronic form. The article shall be written in English.

### Submission

1. The paper used by the author should be sized in A4 paper.
2. The article published in JTAKEN should be accompanied by Curriculum Vitae (CV) & Statement of Authenticity and Copyright Release. Template is available online at [jurnal.bpk.go.id](http://jurnal.bpk.go.id).
3. The article should be submitted online via journal website ([jurnal.bpk.go.id](http://jurnal.bpk.go.id)).
4. The length of the article around 18-20 pages, including figure, graphic, or table.

### The Article Guidelines

#### 1. Research Article Structure

##### a. Article Title

- Briefly describe the substance of article, no more than 15 words, 18 point Calibri, UPPERCASE, bold, centered, exactly 16 point line spacing, 0 point spacing before and after.
- Translation title uses 16 point Calibri, italic, UPPERCASE, bold, centered, exactly 16 point line spacing, 0 point spacing before and after.

#### b. Authors

- This line consists of the author's name (full name with no abbreviations) and the author's affiliation along with the address and email address.
- Authors' name is written using 11 point Calibri and centered below the title
- If the author is more than one person, they should be separated with a comma (,).
- If the address more than one, it should be marked with an asterisk (\*) and followed by the current address.
- Author's address and email using 10 point Calibri, exactly 15 poin spacing, 0 poin spacing before and after.

#### c. Abstract and keywords

- The abstract should concisely inform the reader about the research purpose, its background, methods, findings, and value or conclusion.
- An abstract consists of no more than 200 words in English.
- Abstract using 10 point Georgia and single line spacing.
- Keywords in abstract consist of 3-6 words, separate with a semicolon (;).

#### d. Article's Body

The body of article consists of introduction, research method, result and discussion and conclusion. The body of article is written as follows:

- Using 11 point Georgia, exactly 15 point line spacing, before 8 point and after 8 point, 2 cm for top and right margin and 2.5 cm for bottom and left margin.
  - Foreign terms should be written in italic.
  - Abbreviations should be followed with explanation when the first time mentioned except for the unit of
-

measurement.

e. Introduction

The introduction must contain (shortly and consecutively) a general background, objective, literature review (state of the art) as the basic of the brand new research question, statements of the brand new scientific article, main research problems, and the hypothesis (optional). The introduction contains previous similar research and the differences with the present research as well as the contributions given.

f. Research Method

In general, research methods include framework, data collection method, data analysis method, location and time of research. The research method describes the type, data source, and variable definition. The method also provides detailed descriptions so that other authors can assess and duplicate the procedure.

g. Result and Discussion

This part consists of the research results and how they are discussed. Research results can be presented in table or figure followed with information that easy to understand. In the discussion section it is stated that there is a relation between results and basic concepts or the research hypothesis so that it can be seen its suitability and contradiction with other research. The discussion also explains the limitation of the research and its implications both theoretically and by application.

h. Conclusion

This is the final part containing conclusions and suggestion. The conclusions will be the answers of the hypothesis, the research purpose and the research findings. The suggestion are based on the result of the analysis and conclusion made and also associated with further ideas from the research.

i. References

- Author must cite the publications on which the article work is based. Cite only items that the author have read.
- Primary references should be  $\pm 40\%$ -80% from all references cited.
- References should be taken from the last ten years.
- The references use Georgia 11 point in indentation special hanging paragraph format, exactly 15 point line spacing, 8 point before and after, the upper and right borders are 2 cm each, while the left and bottom borders are 2,5 cm each.
- All references must be written in American Psychological Association (APA) style and listed in alphabetical order. The references should use a reference management software such as Mendeley, End Note, Zotero, etc.

j. Appendices/Acknowledgements

Appendix (es) can be included if necessary. Author can only write essential acknowledgments for those who have contributed in the research.

2. Non research (review) article structure consists of article title, authors, abstract and keywords, introduction, result and discussion, conclusion, references, appendices/acknowledgements.

3. Heading

Heading should be made in three levels. Level four cannot be accepted.

- Heading level 1: UPPERCASE, left aligned, bold, 18 point Calibri, exactly 15 point line spacing, 8 point spacing before and after.
  - Heading level 2: *Capitalize Each Word*, left aligned, bold, 11 point Georgia, exactly 15 point line spacing, 8 point spacing before and after.
  - Heading level 3: *Sentence Case*, left
-

aligned, bold, italic, 11 point Georgia, exactly 15 point line spacing, 8 point spacing before and after.

- Heading level 4 is not recommended.

#### 4. Table

- Table placed left aligned.
- Table title placed above the table, left aligned, 10 point Calibri, exactly 15 point line spacing.
- Table content using 9-10 point Calibri, exactly 12 point line spacing, 0 point spacing before and after.
- Number of table is identified using Arabic numerals (1, 2, 3,...).
- "Table" and "Number" written in bold, while table title written in normal format.
- Source and information placed below the table, left aligned, italic, 9 point Calibri.

#### 5. Figure

- Figure can be a graphic, matrix, picture, diagram, and others, placed centered in page.
- Figure title written below the figure, using 10-11 point Calibri, exactly 15 point line spacing, left aligned. "Figure" and "Number" written in bold, while the content written in normal format.
- Number of figure is identified using Arabic numerals (1, 2, 3,...).
- Source and information placed below the figure title, left aligned, italic, 9 point Calibri.
- Figure should be in black and white with extension .jpg or .tif. If it is made in color to explain meaning, it must provide the respective high resolution figure minimum 300dpi.

#### 6. Citation Format

Authors should ensure that every reference cited in the text appears in references and vice

versa. All references cited should follow APA referencing style and the formatting guide as follows:

- References to previous research must be made in text with a year-old system on one of two forms, for example: Andrianto (2007) or (Andrianto, 2007).
- If the reference used is more than one, it should be mentioned together with the arrangement in the order of date, for example: (Mardisar & Sari 2007; Solomon, 2010; Muljono, 2012).
- If there are more than 2 (two) authors, then the author's name must be followed by "et al." .

There are two types of references, those are electronics and non-electronics sources. The reference examples are as follows:

##### a. Book

##### 1) Without the author's name

*Employment the professional way: A guide to understanding the Australian job search process for professionally qualified migrants.* (2000). Carlton, Australia: Australian Multicultural Foundation.

##### 2) One author

Saidi, M. D. (2011). *Hukum keuangan negara*. Jakarta: Raja Grafindo Persada.

##### 3) Two authors

Hendriksen E. S., & Van Breda, M. F. (2002). *Accounting theory*. New York, NY: McGraw-Hill.

##### 4) Three to five authors

Albrecht, W. S., Albrecht, C. O., Albrecht, C. C., & Zimbelman, M. F. (2014). *Fraud examination* (5th ed.). Boston: Cengage Learning.

##### 5) Six or more authors

List the first six authors,.....and ended the last author without "&" .

Siregar, B., Suripto, B., Hapsoro, D., Widodo, E., Herowati, E., Kusumasari, L., Nurofik. (2013). *Akuntansi biaya*. Jakarta: Salemba Empat.



## b. E-book

Jonick, C. (2017). *Principles of financial accounting*. Retrieved from <https://www.e-booksdirectory.com/details.php?ebook=12161>.

## c. Books published by organizations or institutions

Ikatan Akuntan Indonesia. (2011). *Standar profesional akuntan publik*. Jakarta: Salemba Empat.

## d. Journal Article

## 1) Printed Edition

Journal with volume and number

Gumanti, T.A. (2001). Earnings management dalam penawaran saham perdana di Bursa Efek Jakarta. *Jurnal Riset Akuntansi Indonesia*, 4(2), 165-183.

Journal with volume

Elliston, F.A. (1982). Anonymity and whistleblowing. *Journal of Business Ethics*, 1, 167-177.

## 2) Online Edition

Lowe, D. J., Pope, K. R., & Samuels, J. A. (2015). An examination of financial sub-certification and timing of fraud discovery on employee whistleblowing reporting intentions. *Journal of Business Ethics*, 131(4), 757-772. doi: 10.1007/s10551-013-2020-8.

## e. Thesis/Dissertation

## 1) Unpublished thesis/dissertation

Ramadhany, A. (2004). *Analisis faktor-faktor yang mempengaruhi penerimaan opini going concern: Studi empiris pada perusahaan manufaktur yang mengalami financial distress di Bursa Efek Jakarta*. (Unpublished master's thesis). Universitas Diponegoro, Semarang.

## 2) Thesis/dissertation from online database

Burger, M. A. (2012). *Accounting measurement and beta risk measures*. Retrieved from ProQuest Digital Dissertations. (UMI No. 3522298).

## f. Magazine

For magazines that are published monthly, the date of publication consists only of year and month. But for magazines that are published weekly, the exact date of publication is provided.

Sianturi, H. R. (2019, Januari). Memanggul beban utang atik harga BBM. *Gatra*, XXV(9), 92-95.

Hamel, G., & Zanini, M. (2018, November-December). The end of bureaucracy: How a Chinese appliance maker is reinventing management for the digital age. *Harvard Business Review*, 96(6), 51-59.

## g. Newspaper

## 1) Printed Edition

Sutaryono, P. (2019, Januari 3). Tantangan perbankan 2019. *Kompas*, p.6.

## 2) Online Edition

Zain, W. (2018, June 8). Behind the rise of income inequality in Indonesia. *The Jakarta Post*. Retrieved from <http://www.thejakartapost.com/academia/2016/06/08/behind-the-rise-of-income-inequality-in-indonesia.html>.

## h. Internet Documents

Dawson, J., Smith, L., Deubert, K., & Grey-Smith, S. (2002). *Trek 6: Referencing, not plagiarism*. Retrieved from <http://www.academicworld.com/referencing-not-plagiarism.html>.

7. The Editorial Board and Managing Editor reserve the right to amend, refine the article as long as it does not alter the substance of the article. The article which is inappropriate with the JTAKEN writing guidelines will be returned to the author before the reviewing process.

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The author submits the article via Open Journal Systems (OJS) on [jurnal.bpk.go.id](http://jurnal.bpk.go.id) page. To make submission, the author must have a user account and registered as a user.

### User Registration

a. Registration process is started by clicking "register with this site" button on the register page.

**Figure 1.** JTAKEN Home Page for Registration

b. Authors are required to fill out a form that includes language, username, password and profile.

**Figure 2.** Author Registration Form Page

- c. Click "Confirmation" to get your username and password sent to author's email. Next on "register as" section, click the "reader" and "author" then click "register" to complete registration.

URL

Phone

Fax

Mailing Address

Country

Bio Statement  
(E.g., department and rank)

Confirmation

Working Languages

Register as

☒ Send me a confirmation email including my username and password

☐ Bahasa Indonesia

☐ English

☒ Reader: Notified by email on publication of an issue of the journal

☒ Author: Able to submit items to the journal

\* Denotes required field

**Figure 3.** Author Registration page

## Article Submission

These are the following steps to make an online submission for the article:

- a. After log in you will be directed to your Author's User Home Page. To start the submission, click "New Submission".



**Figure 4.** Page "New Submission"

- b. Article submission consists of five steps, including start, upload submission, enter metadata, upload supplementary files, and confirmation. At the first step, the author can download the Curriculum Vitae (CV), and Statement of Authenticity and Copyright Release. Besides, the author can give comments to the Editor before click "Save and continue".

Home > User > Author > Submissions > **New Submission**

### Step 1. Starting the Submission

1. START 2. UPLOAD SUBMISSION 3. ENTER METADATA 4. UPLOAD SUPPLEMENTARY FILES 5. CONFIRMATION

Encountering difficulties? Contact Veronika Dewi P for assistance (021 25549000 ext 3311).

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#### Submission Language

This journal accepts submissions in several languages. Choose the primary language of the submission from the pulldown below.

Language \* English

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#### Submission Checklist

Indicate that this submission is ready to be considered by this journal by checking off the following (comments to the editor can be added below).

- ☐ Please read carefully. The journal only accepts articles that meet the JTAKEN's format and style. Any articles written in different format will NOT be reviewed.
- ☐ Due to the need for correspondence, all authors' personal contacts are required. Please provide e-mail address, and phone/mobile number.
- ☐ Submission articles supported with supplementary documents including and can be downloaded here:
  - **Author CV**
  - **Statement** of Originality and copyright transfer (Rp6000.00 stamp duty); and

Figure 5. "Starting the Submission" page

- c. The second step is uploading the article file. This page provide instructions to submit the article. The type of uploaded is Microsoft Word.

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To upload a manuscript to this journal, complete the following steps.

1. On this page, click Browse (or Choose File) which opens a Choose File window for locating the file on the hard drive of your computer.
2. Locate the file you wish to submit and highlight it.
3. Click Open on the Choose File window, which places the name of the file on this page.
4. Click Upload on this page, which uploads the file from the computer to the journal's web site and renames it following the journal's conventions.
5. Once the submission is uploaded, click Save and Continue at the bottom of this page.

Encountering difficulties? Contact Veronika Dewi P for assistance (021 25549000 ext 3311).

---

#### Submission File

File Name	132-622-1-SM.docx
Original file name	2. Contoh Submission Artikel.docx
File Size	28KB
Date uploaded	2018-02-05 03:45 PM

Replace submission file Browse... No file selected. Upload ENSURING A BLIND REVIEW

Save and continue Cancel No file selected.

Figure 6. "Uploading the Submission" Page

- d. After that, the author must fill the article metadata. Metadata is information about the submitted articles, including author information, article title and abstract, indexation, and references that has been used. Author can change metadata during the article review process. The more complete metadata, the easier the author's indexing/citation process will be. Some points that must be considered in filling metadata are:
- Author whose name consists of one word have to fill in his/her name in last name. First name can be filled with repetitions of last name or filled with dots or hypens.
  - If the author is more than one person, then click the "Add Author" button to add Author's information.
  - By clicking the up and down arrows (↑ ↓), articles with multiple authors can be arranged by the author's order. The arrow will change the author's position of the first, second, and so on.
  - At the end of each author column, author can find the delete function.
  - The author has to write abstract using the language according to the article written.
  - List the "keywords" in keywords column at the indexing section and separated with a semicolon.
  - Fill in all references or bibliography that become references to journal articles. Then click "Save and Continue" to proceed to the next step.

Last Name \*  
nita

Email \*  
vdewip@gmail.com

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ORCID IDs can only be assigned by the ORCID Registry. You must conform to their standards for expressing ORCID IDs, and include the full URI (eg. <http://orcid.org/0000-0002-1825-0097>).

URL

Affiliation

(Your institution, e.g. "Simon Fraser University")

Country  
Indonesia

Bio Statement  
(E.g., department and rank)

Add Author

Figure 7. Page to add author

**Title and Abstract**

Title \*  
Contoh Submission Artikel

Abstract \*  
**Abstrak**  
Abstrak menyajikan secara singkat dan padat mengenai latar belakang, tujuan, metode penelitian dan kesimpulan atau temuan utama dari penelitian ini. Abstrak berdiri sendiri, dalam arti tidak ada kutipan di dalamnya. Abstrak ditulis dalam dua bahasa, yaitu bahasa Indonesia paling banyak 250 kata, dan abstrak dalam bahasa Inggris, paling banyak 200 kata (Georgia, 10point, spasi 1). Apabila naskah menggunakan bahasa Indonesia, maka abstrak didahulukan dalam bahasa Inggris ditulis dengan huruf cetak miring (*italic*), sedangkan abstrak dalam bahasa Indonesia ditulis tidak dengan huruf cetak miring, dan sebaliknya.

**Indexing**

Provide terms for indexing the submission; separate terms with a semi-colon (term1; term2; term3).

Keywords  
Kata Kunci: tiga sampai enam kata dan dip

Language  
id

Figure 8. "Title, Abstract, Keywords, and Reference" Page

- e. On the fourth step, author must upload supporting documents such as research instruments, research data, figures, or tables if needed. The author also uploads the required supporting documents such as Curriculum Vitae (CV), Statement of Authenticity and Copyright Release. Then click "Save and Continue" to proceed to the next step.

Home > User > Author > Submissions > New Submission

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1. START 2. UPLOAD SUBMISSION 3. ENTER METADATA 4. UPLOAD SUPPLEMENTARY FILES 5. CONFIRMATION

This optional step allows Supplementary Files to be added to a submission. The files, which can be in any format, might include (a) research instruments, (b) data sets, which comply with the terms of the study's research ethics review, (c) sources that otherwise would be unavailable to readers, (d) figures and tables that cannot be integrated into the text itself, or other materials that add to the contribution of the work.

ID	TITLE	ORIGINAL FILE NAME	DATE UPLOADED	ACTION
No supplementary files have been added to this submission.				

Upload supplementary file

Browse... No file selected. Upload ENSURING A BLIND REVIEW

Save and continue Cancel

Figure 9. "Uploading Supplementary Files" Page

- f. On the final step, the summary of all files uploaded will be displayed. To complete the article submission, click "Finish Submission".

Home > User > Author > Submissions > **New Submission**

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### Step 5. Confirming the Submission

1. START 2. UPLOAD SUBMISSION 3. ENTER METADATA 4. UPLOAD SUPPLEMENTARY FILES 5. **CONFIRMATION**

To submit your manuscript to Jurnal Tata Kelola & Akuntabilitas Keuangan Negara click Finish Submission. The submission's principal contact will receive an acknowledgement by email and will be able to view the submission's progress through the editorial process by logging in to the journal web site. Thank you for your interest in publishing with Jurnal Tata Kelola & Akuntabilitas Keuangan Negara.

#### File Summary

ID	ORIGINAL FILE NAME	TYPE	FILE SIZE	DATE UPLOADED
622	2. CONTOH SUBMISSION ARTIKEL.DOCX	Submission File	28KB	02-05

**Finish Submission** Cancel

---

Jurnal Tata Kelola & Akuntabilitas Keuangan Negara registered in:

Figure 10. "Finish Submission" Page

## Monitoring The Submitted Article

After doing the five steps, the author can see the status of article by clicking "active submission" on the user home page. On this page, you can see the status of the article is "awaiting assignment" (waiting for assignment). Furthermore, the progress status of the article can be seen on this page too.

### The Steps Passed By Each Submitted Article Are:

- 1) Awaiting Assignment: the submitted article is waiting to be examined by the editor or section editor. The author cannot delete or cancel submissions from the system if the article is proposed in this status.
- 2) Queued for Review: the article is in the queue for review process. The author will receive a notification about the results of the review decision.
- 3) Queued for Editing: the review process has been completed and the article is in editing process.
- 4) In review: the article is in the review process which will result in a decision:
  - a) Revision required: articles need minor revision by the author and must be sent back to the editor.
  - b) Resubmit for review: articles need major revision and reviewers need to review again.

**Both of those decisions can be changed to accepted or declined.**

- c) In editing: accepted article without revision and in editing process.
- 5) Decline: if the article is rejected, the article will be automatically removed to archive. If the author wants the article to be accepted then the author has to resubmit the article according to the advice of the reviewer.



Figure 11. "Active Submissions" page

## The Revision of Article

Article that has been reviewed and need to be revised, will be sent back to the author. The author will receive notification and some notes via email. Some steps to revise the article are:

- Click the article title on the "Active Submission" page, then click the "Review" button.



Figure 12. "Review" page

- Next, the author must download the article file from the "editor version" on the "Review" page.
- After that, the author revises the article according to editor's notes and uploads again through the "Upload author version". Editor will automatically receive a notification if the article has been sent/uploaded.

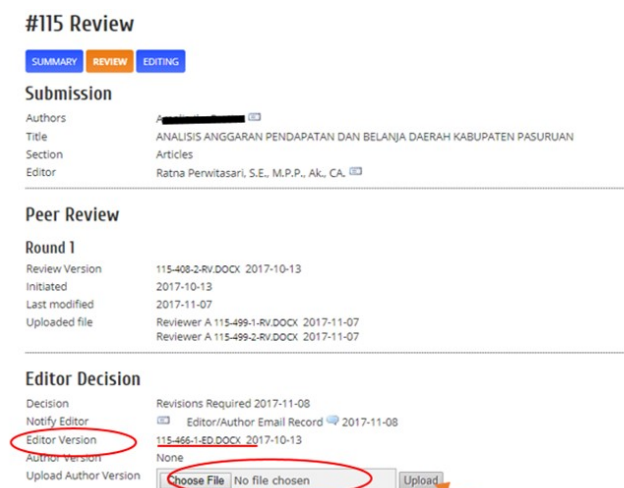


Fig. 13 Downloading and uploading revised article



## Copyediting

After the author has finished their revised article and stated accepted (Accept Submission), the next step is copyediting. The author will accept an e-mail/notification from editor to review the article. Some steps to see copyediting result are:

- Click the article title that will be revised on "Active Submission" page. Then click the "Editing" page.
- The author can see and download files from the Editor on the "Initial Copyedit" section and re-checks the article. The author can accept/reject any changes made by the editor in this step.
- The author uploads the article file again on "author copyedit" section. Click on the "e-mail" icon to send a notification e-mail to journal editor.

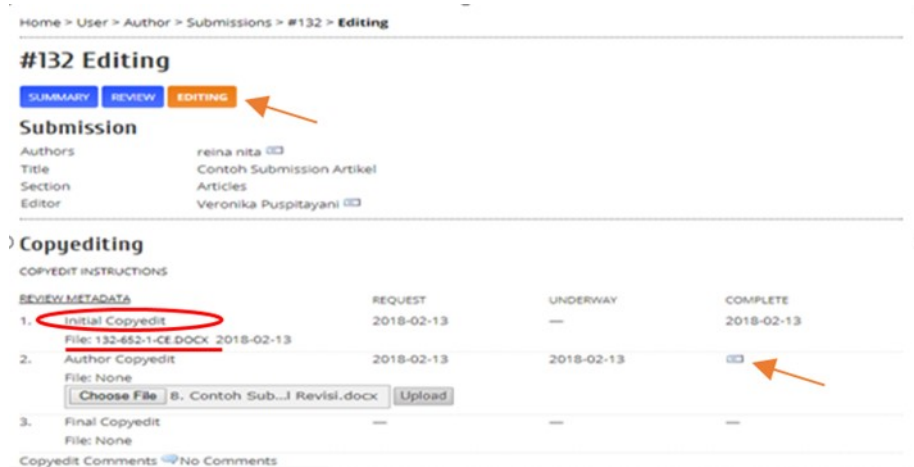


Figure 14. "Copyediting" page

## Proofreading

The next step after copyediting is proofreading. The author will receive an e-mail/notification from layout editor informed that the layout already finished and uploaded the galley. The author can do proofread at following these steps:

- Click the selected article title on "Active Submission" page. Then click "Editing" page.
- The author can see if the intial galley already correct by click "view proof" on galley format in "proofreading" section.
- The author can write suggestions and add comments on the proofreading corrections feature. After checking the view proof, the author must review the article metadata by clicking "review metadata".
- The author will finish the process by clicking "complete". This is the last step before the article published. When the journal has been published, the author will receive a notification.



REVIEW METADATA

1. Initial Copyedit  
File: 132-652-1-CE.DOCK 2018-02-13

2. Author Copyedit  
File: 132-654-1-CE.DOCK 2018-02-13  

Choose File No file chosen

3. Final Copyedit  
File: None 2018-02-13

Copyedit Comments No Comments

Layout

Galley Format  
1. PDF (Bahasa Indonesia) VIEW PROOF 132-657-1-PB.PDF 2018-02-13

Supplementary Files  
None

Layout Comments No Comments

Proofreading

REVIEW METADATA

	REQUEST	UNDERWAY	COMPLETE
1. Author	2018-02-13	2018-02-13	<div>YES</div>
2. Proofreader	—	—	—
3. Layout Editor	—	—	—

Proofreading Corrections No Comments

PROOFING INSTRUCTIONS

Figure 15. "Proofreading" page



**iii-iv Kata Pengantar**

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Gede Suyasa, Muchlis Hamdi, Prio Teguh, Megandaru

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