



JURNAL

Riset Akuntansi dan Keuangan Indonesia

URL : <http://journals.ums.ac.id/index.php/reaksi/index>



The Effectiveness of Internal Audit Office's Roles: Evidence from Indonesia's State-Owned University

Eva Wulandari¹, Rusdi Akbar²

¹Fakultas Ekonomi, Universitas Tidar, Magelang, Indonesia

²Fakultas Ekonomika dan Bisnis, Universitas Gadjah Mada, Yogyakarta, Indonesia

email: rusdi.akbar@ugm.ac.id

Keywords:

Effective, Internal Audit Office, State-Owned University, Mixed Method, Institutional Theory

ABSTRACT

This study investigates the factors influencing the effectiveness of Internal Audit Office (IAO) in State-Owned University (SOU) in Indonesia. An explanatory sequential mixed method was employed on the data collected from the chairperson or members of the IAO and also management of 31 SOU in Indonesia. PLS-SEM is utilized to analyze the effect of independence, competence, management support, and the relationship between internal and external auditors on the effectiveness of the Internal Audit (IA). Thematic content analysis was used to map the results of interviews with selected participants to explain how the factors affect the effectiveness of the IA. The test results show that competence, management support, and the relationship between internal and external auditors have a significant positive effect on the effectiveness of IA, while independence has no significant effect. The practice of IA at SOU shows the existence of coercive isomorphism in the presence of rules governing the formation and tasks of IA. The existence of encouragement from professional organizations to certify internal auditors in SOU shows the existence of normative isomorphism.

INTRODUCTION

Since 1999, the focus of internal audit (IA) has shifted from past accountability to enhancing present and future performance to assist organizations in operating more effectively and efficiently (Mihret and Yismaw, 2007). In line with New Public Management, an effective IA function is increasingly seen as a key pillar of governance (Lenz et al., 2018) and an instrument for improving public sector performance (Coetzee and Erasmus, 2018). An efficient IA function is necessary for public sector organizations to be accountable for the use of public monies (Alqudah et al., 2019). More beneficial and high-quality state financial governance will result from the effective and efficient utilization of public finances.

The effectiveness of the Indonesian government's internal audit can be seen in the Audit Report on the Ministry's Internal Control System, which lists the internal control system's primary weaknesses and suggests ways to strengthen them. Hadi Poernomo, the Audit Board of the Republic of Indonesia's (ABRI) chairman, indicated that the ABRI continued to find weaknesses in the internal control system in the implementation of the income and expenditure budget as well as the internal control system that led to state losses (Badan Pemeriksa Keuangan, 2011). The results of the 2019-2021 ABRI examination showed that there were 24,611 issues with the internal control system that could lead to actual or potential losses as well as deficits in state revenue. ABRI offers suggestions for enhancing the internal control framework to increase the effectiveness of government internal control (Badan Pemeriksa Keuangan, 2011).

Internal Audit Office (IAO) activities in each Indonesian ministry are carried out by the Internal Supervisory Unit (ISU). At the Ministry of Education, Culture, Research, and Technology, IAO activities are held by the Internal Supervisory Unit (ISU) in each State-Owned University (SOU), which is regulated by the Indonesian Regulation of Minister of Education and Culture Number 22 of 2017. ISU of a SOU is carried out by lecturers and academic staff with limited tenure. Therefore, the internal audit function is not optimal due to personnel changes that follow changes in leadership. This study aims to determine how

effective ISU is at implementing good governance in SOU, and also to investigate the important role that IA plays within SOU's ISU.

The purpose of this study is also to provide additional empirical support for the literature (Christopher, 2014; Janse & Coetzee, 2015; Siyaya et al., 2021) that IA is the most critical component and plays a significant role in raising the governance and accountability of public sector institutions, including SOU management. It also highlights the significance of academic research focusing more on the effectiveness of IA (Nerantzidis et al., 2020; Lenz et al., 2018). Compared to research on external audits, studies on the effectiveness of IA are still few in number and have not yet been investigated in the field of academic research (Arena et al., 2006; Arena and Azzone, 2007; Cohen and Sayag, 2010), particularly in the context of developing countries (Abuazza et al., 2015) and higher education institutions (HEI) (Christopher, 2014; Siyaya et al., 2021). Additionally, this study seeks to support earlier findings that IA effectiveness in HEI has been ineffective due to internal auditors' low competence, a lack of management support, and limited task scope.

According to prior studies, few researchers have conducted IA research at the ministerial (national) level in the public sector, and the theory is still not commonly implemented. The majority of this study is focused on local governments (Nerantzidis et al., 2020). Researchers who are interested in the extent of the quality of IA and their contribution to the governance of public sector companies pay the most attention to the effectiveness of IA (Nerantzidis et al., 2020; Lenz et al., 2018). However, internal auditors and management are still mostly used as respondents in prior studies, despite the reality that management is best capable of determining how much IA contributes to corporate governance (Nerantzidis et al., 2020; Lenz and Hahn, 2015). The factors that are most studied for their influence on the effectiveness of IA are independence, competency, relationships with external auditors, training, and budgets (Nerantzidis et al., 2020; Lenz and Hahn, 2015). Thus, by validating the determining factors of IA effectiveness in the context of a university that is part of the ministry, based not only on the assessment of internal audit but also on the perspective of management using Institutional Theory to explain the results of research, this study

contributes to extending the findings of previous studies.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Institutional theory

Due to institutional theory's capacity for comprehending and evaluating the diffusion of organizational order, it is relevant to study the effectiveness of IA (Lenz et al., 2018). The concept of institution and institutionalization has been determined in a variety of ways in organizational research, and institutional theory has a variety of dimensions (Akbar et al., 2012). Studies by Al-Twaijry (2003), Arena and Jeppesen (2015), and Lenz et al. present evidence that institutional pressure has an impact on how public sector firms behave in IA (2018). The ability of the institutional theory to draw attention to the discrepancy between organizational performance as it occurs and performance as required by the external environment is its key strength (Al-Twaijry et al., 2003).

According to DiMaggio and Powell (1983), institutional isomorphism is the process that motivates organizations to obtain recognition, caused by three exogenous factors: coercive, normative, and mimetic. Coercive factor is caused by strong elements of formal and informal organizational pressure. Coercive pressure is closely related to compliance with binding laws and regulations (Lenz and Hahn, 2015). Normative factor arises from the increasing demands of professionalization in an organization. The legitimacy of universities and other professional organizations, which are involved in creating and popularizing organizational regulations, exerts pressure on organizations to become more professional (Ahyaruddin and Akbar, 2018). Mimetic power refers to the phenomena wherein organizations frequently take their cues from other, more successful, and respectable businesses (Lenz and Hahn, 2015).

IA effectiveness

The Institute of Internal Auditors (IIA, 2015) defines IA as:

“independent and objective consulting and assurance activities designed to add value and improve the operation of the organization”. The definition of IA implies that its goal is to make auditees' operations more effective and efficient. If the organization's aims and objectives are accomplished, the IA will be successful (Dittenhofer, 2001; Mihret and Yismaw, 2007; Lenz et al., 2017).

IA is a systematic approach to assess and enhance the efficiency of risk management, governance, and control systems to assist organizations in achieving their objectives (Arena and Jeppesen, 2015; Lenz et al., 2018). IA provides consulting and insurance services that include all governance activities in the public sector, protecting the public interest while assuring the effectiveness and efficiency of financial and administrative control (Arena and Jeppesen, 2015).

IA's independence

The fifth principle of the Three-Line Model, namely third-line independence, explains that IA independence is built through independence from bias, independence from interference from other parties in the planning and implementation of audit activities, adequacy of personnel to carry out tasks, full access to organizational resources and data, and accountability to the governing organs (IIA, 2020). The International Standard of Professional Practice of Internal Audit Attribute 1100 states that 'IA activities must be independent and objective in carrying out their duties' (IIA, 2017). IA's independence and level of authority to report the findings of its work have an impact on how objective it is.

IA is independent when it holds a high position in the organizational structure that permits effective communication with management, creating unbiased assessment without interference and reporting of findings free from the influence of the audited unit (Mihret and Yismaw, 2007). Numerous studies exploring the impact of independence on the effectiveness of IA showed significant findings (Stewart and Subramaniam, 2010; Cohen & Sayag, 2010; Asaolu et al., 2016). In both private and public sector organizations, an efficient IA performs an independent assessment of financial data, operations and systems, and overall

procedures to make beneficial recommendations for essential improvements (Mihret and Yismaw, 2007).

Based on the above background, the first hypothesis is:

H1: The independence of IA has a positive effect on the effectiveness of IA

Internal auditor competence

Competence is one of the key elements in ensuring the effectiveness of IA in the public sector (Al-Twajry et al., 2003; Alzeban and Gwilliam, 2014; Asiedu and Deffor, 2017). IIA believes that organizations are best served by fully equipped IA teams with professionally skilled people who offer value-added services necessary for effectiveness and efficiency in management (IIA, 2015). The challenge is that internal auditors must be knowledgeable in many different areas in order to carry out their responsibilities properly. Ongoing training is necessary for internal auditors to improve technical competence when auditing and conducting supervision (Al-Twajry et al., 2003; Mihret and Yismaw, 2007; Alzeban and Gwilliam, 2014).

In terms of inadequate competence and a shortage of qualified internal auditors, the public sector in developing nations faces common problems. Inadequate continuing professional education and training backgrounds are factors limiting the IA function in South Africa (Schyf, 2000), Sudan (Brierley, 2001), and Saudi Arabia (Al-Twajry et al., 2003; Alzeban and Gwilliam, 2014). The findings of Ali et al. (2007) and Ahmad et al. (2009) in the Malaysian public sector reveal a lack of experience, training, and knowledge has a negative impact on IA, so training is an important factor in enhancing IA capabilities. Standard-setters have expressed concern and highlighted the significance of internal auditors having the knowledge, skills, and other abilities required to carry out IA requirements and responsibilities (Alzeban and Gwilliam, 2014).

Based on the above background, the second hypothesis is:

H2: The competence of IA has a positive effect on the effectiveness of IA

Management support for IA

The Three-Line Model for the relationship between management and IA specifies that IA and management meet on a frequent basis to ensure that IA work is pertinent to and consistent with the operational and strategic needs of the business. Internal Auditors serve as trustworthy advisors and strategic partners, always collaborating and communicating to prevent needless overlapping, duplication, or gaps (IIA, 2020).

For a long time, management's support for the IA function was considered essential to the function's effectiveness (Cohen and Sayag, 2010), and it had an impact on the objectivity of IA (Al-Twajry et al., 2003). Management support, according to Mihret and Yismaw (2007), Alzeban and Gwilliam (2014), Cohen and Sayag (2010), and Asaolu et al. (2016), is a significant determinant in the effectiveness of IA. Through strong support from management, IA will have adequate staff and adequate resources, enabling staff to carry out their duties effectively (Cohen dan Sayag, 2010; Alzeban dan Gwilliam, 2014; Asiedu dan Deffor, 2017).

Based on the above background, the third hypothesis is:

H3: Management support of IA has a positive effect on the effectiveness of IA

Internal auditor-external auditor relationship

Internal and external auditor coordination and cooperation have long been acknowledged as crucial and advantageous to organizations and stakeholders (Lenz et al., 2018). One reason for the poor quality of IAs and the effectiveness of external audits, particularly during the implementation of recommendations on external audit results is the lack of cooperation between internal auditors and external auditors (Brierley et al., 2001). To facilitate more high-quality audits, this might take the form of collaborative planning and the sharing of knowledge, viewpoints, and reports (Pilcher et al., 2013). The quality of audits will suffer if internal and external auditors do not cooperate, while strong collaboration will increase audit economy, efficiency, and effectiveness and assist management in delivering high-quality public services (Alzeban and Gwilliam, 2014).

Standard 2050—Coordination and Trust in the International Professional Practices Framework (IIA, 2017)—emphasizes that there is a need

for coordination between internal auditors and external auditors through information sharing and coordination of activities. The standard stated that each audit party to establish a professional working relationship in order for the internal auditor to achieve his goals and provide better services.

In light of the foregoing context, the fourth hypothesis is:

H4: Relationship between internal auditors and external auditors has a positive effect on the effectiveness of IA

RESEARCH METHODS

Research design, sampling, and data collection procedure

This study used an explanatory sequential mixed method with two stages: the first was the collection of quantitative data, and the second was the analysis of the results. The qualitative second stage involved conducting an interview based on the quantitative first stage findings. The explanatory sequential mixed method's purpose is to use qualitative data to provide a detailed explanation of the first quantitative results (Creswell et al., 2018).

The population of this study was SOU in Indonesia, and the sampling method was purposive sampling. The criteria established were public universities with an ISU and that have been audited by the Inspectorate General of the Ministry of Cultural Education, Research, and Technology (IGMCERT).

To collect quantitative data, an online survey of the management of the Indonesian SOU, as well as its chairman, secretary, and members of the ISU, was used. ISU respondents completed questionnaires on dependent variables such as independence, competence, management support, and the relationship between internal and external auditors. Meanwhile, university administration respondents completed a questionnaire on an independent variable, namely effectiveness. This study's qualitative data collection method was in-depth interviews, which were open-ended questions gathered through structured interviews with several respondents who responded differently to questionnaires than other respondents.

Operational definition and variable measurement instruments

The operational definition and measurement of each variable are presented in the following table:

Table 1. Operational Definition and Variable Measurement

Instruments			
Symbol	Variable	Operational Definition	Variable Measurement
X ₁	Independence	Communication lines and levels of reporting in the organization that allow IAs when carrying out their responsibilities free from interference and conflicts of interest; have direct contact with the board and senior management; have unlimited access, and not do non-auditing wor	Level of independence, level of reporting, proximity to the board of directors and senior management, conflicts of interest, interference, unrestricted access, selection and removal of the head of IA, and performance of non-audit activities
X ₂	Competence	Knowledge and skills necessary to carry out the duties and responsibilities of an IA	The ability to employ technology, the efficiency with which audit procedures are carried out, the matching of knowledge and experience to the organization's needs, and continuous improvement
X ₃	Management Support	Management acceptance and gratitude for the contribution and value of IA	Support IA to carry out its duties and responsibilities, involvement in IA plans, IA teamwork reports submitted to management, management responses to IA reports, and IA resources

Symbol	Variable	Operational Definition	Variable Measurement
X ₄	Internal Auditor-External Auditor Relationship	Coordination and cooperation of internal and external auditors	Attitude towards external auditors; coordination, discussion of common interests; discussion of audit plans; frequency of meetings; dependence of external auditors on IA work; sharing working papers; and management's push towards the relationship between the two
Y	Effectivity	The quality of the audit function perceived by the auditee, in particular, the audited department within the audited organization	IA ability to plan, evaluate and improve risk management, increase organizational productivity, assess the consistency of results with predetermined goals and objectives, implement IA recommendations, evaluate internal control systems, and recommendations for improvement

The variable measurements of Asiedu and Deffor (2017), Aghghaleh (2014), and Alzeban and Gwilliam (2014) were used in this study. Because the questionnaire's questions were submitted in Indonesian, they were first translated into Indonesian from English. The questions must then be translated from Indonesia back into English to ensure that the translation was accurate. Furthermore, the initial reliability of the scale was evaluated using a Cronbach's Alpha score of > 0.6 to ensure that the questionnaire's questions were sufficient, correct, and understandable (Hair et al., 2014).

Based on some auditing research, control factors such as tenure and gender were chosen (Rusmin et al., 2014; Zaher, 2015; Armeanu, 2017; Katmon, 2019; Al-Absy, 2019; Feng, 2020; McLaughlin, 2021). A total of 30 pilot test respondents came from students who had taken auditing courses, lecturers, and government internal auditors who were not research samples.

Respondents were also asked to provide advice on understanding the questions and how to fill out the questionnaire.

Data Analysis

The quantitative data in this study was processed using the Partial Least Square - Structural Equation Modelling (PLS-SEM) WarpPLS 7.0 software. Thematic analysis of qualitative data was performed using a deductive thematic analysis approach based on Braun and Clarke (2006), which identified, analyzed, and reported on themes found in the data.

RESULTS AND DISCUSSION

Descriptive and correlative analysis

As many as 62 chairman/head or member respondents completed the questionnaire completely. Meanwhile, only 31 of 62 university or faculty authorities, as well as finance and administrative workers at both the university and faculty levels, completed the surveys and returned them. Therefore, 62 out of the 31 universities that participated in the study's questionnaire had comprehensive responses from the ISU and university administration. Table 2 contains information on the profiles of the respondents.

Table 2. Respondents Profiles

Characteristics	Number	Percentage
Gender		
Male	29	47%
Female	33	53%
Total	62	100%
Position		
Chairman ISU	24	39%
Secretary ISU	3	5%
Member ISU	4	6%
Dean	2	3%
Vice Dean	1	1%
Vice Director	6	10%
Head of Department, Secretary of Department, Head of Undergraduate, Head of Laboratory	5	8%
Finance Staff	11	18%
Head of Section	6	10%
Total	62	100%
Tenure		

Characteristics	Number	Percentage
≤ 1 year	10	17%
1-5 year	28	45%
> 5 year	24	38%
Total	62	100%
U n i v e r s i t y		
Governance		
Task Force	16	52%
Public Service Agency	13	42%
Incorporated Legal Entity	2	6%
Total	31	100%

Validity Test Results

Evaluation of measurement models on reflective variables is carried out through convergent validity tests, discriminant validity tests, and reliability tests (Hair et al., 2014). The validity test results are based on convergent validity tests using loading factor values of >0.70 and p-value values < 0.05 and the discriminant validity test is met if the loading of an indicator on the construct measured is greater than the loading of other constructs (Hair et al., 2014). A total of 12 indicators out of 47 indicators did not meet the convergent and discriminant validity tests, so they were removed while still considering the validity of the construct's contents (Hair et al., 2014). Table 4 shows the results of the convergent validity test of 35 indicators that were declared valid and worthy of subsequent analysis. Table 3 shows that the criteria for discriminant validity have been met.

Table 3. Correlation between latent variables

	IDP	CMP	MS	RLT	EFC
IDP	0.753	0.575	0.727	0.430	-0.104
KMP	0.575	0.808	0.646	0.390	0.006
DKM	0.727	0.646	0.761	0.574	0.135
HAE	0.430	0.390	0.574	0.867	0.169
EFK	-0.104	0.006	0.135	0.169	0.756

Reliability Test Results

Reliability testing using composite reliability values and Cronbach's Alpha > 0.70 (Hair et al., 2014). Table 4 shows the reliability test results of all indicators that have met the internal consistency reliability above 0.70, so that they can be used for subsequent analysis.

Table 4. Convergent Validity Test Results

Variable	Indicator	Loading	P-Value
Independence	IDP1	0.845	<0.001
	IDP2	0.824	<0.001
	IDP3	0.657	<0.001
	IDP4	0.665	<0.001
Competence	CMP1	0.744	<0.001
	CMP2	0.917	<0.001
	CMP3	0.827	<0.001
	CMP4	0.883	<0.001
	CMP5	0.823	<0.001
	CMP6	0.618	<0.001
M a n a g e m e n t Support	MS1	0.736	<0.001
	MS2	0.816	<0.001
	MS3	0.763	<0.001
	MS4	0.798	<0.001
	MS5	0.651	<0.001
	MS6	0.791	<0.001
Internal Auditor-External Auditor Relationship	RLT1	0.883	<0.001
	RLT2	0.866	<0.001
	RLT3	0.953	<0.001
	RLT4	0.851	<0.001
	RLT5	0.820	<0.001
	RLT6	0.824	<0.001
Effectivity	EFC1	0.735	<0.001
	EFC2	0.703	<0.001
	EFC3	0.770	<0.001
	EFC4	0.676	<0.001
	EFC5	0.783	<0.001
	EFC6	0.715	<0.001
	EFC7	0.748	<0.001
	EFC8	0.833	<0.001
	EFC9	0.793	<0.001
	EFC10	0.759	<0.001
	EFC11	0.797	<0.001
	EFC12	0.748	<0.001
	EFC13	0.756	<0.001

Structural Model

The structural model of PLS research was evaluated using R2 (R-Squared) and Q-Squared. Table 5 shows a coefficient of determination (R2) of 0.166, that 16.6% variance of Effectiveness can be explained by the variance of Independence, Competence, Management Support, and Internal Auditor-External Auditor Relationship. The model

estimation results show good predictive validity (0.378) because it is valued above zero. Meanwhile, the reliability of the research variables has met the reliability requirements with a composite reliability value and Cronbach's Alpha is more than 0.70, and the convergent validity requirement has also been met with an AVE value above 0.50 (Hair et al., 2014). Meanwhile, the full collinearity test criteria have been met with a Full Collinearity VIFs value below 3.3 which indicates a model free from vertical, lateral, and common method bias collinearity problems (Hair et al., 2014).

Table 5. Latent Variable Coefficient

Coefficient	EFC	IDP	CMP	MS	RLT
R ²	0.166				
Composite Reliability	0.945	0.859	0.980	0.891	0.948
Cronbach's Alpha	0.937	0.793	0.890	0.853	0.933
AVE	0.572	0.567	0.653	0.579	0.752
Full Collinearity VIFs	1.221	2.932	1.807	3.285	1.863
Q-squared	0.378				

Hypothesis Testing Results

This study's hypothesis testing is based on a structural equation model, which examines the

values of path coefficients, standard errors, p-values, and effect sizes derived from the results of the analysis. The results of hypothesis testing using PLS-SEM analysis can be seen in Figure 2 and Table 6.

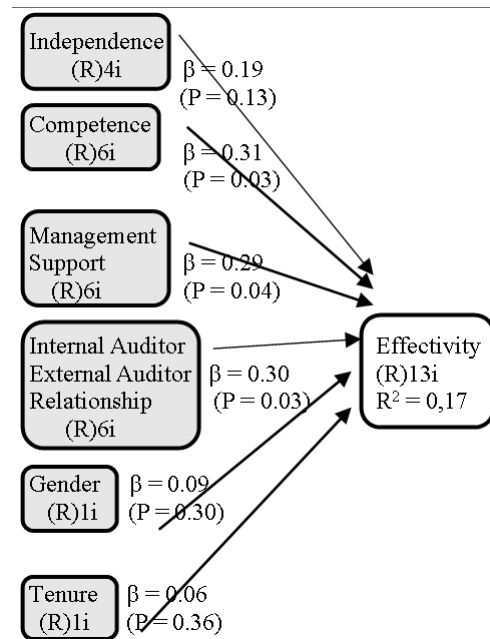


Figure 1. PLS-SEM Test Results

Table 6. Hypotheses Testing Results

	Path Coefficient	P-Values	Standard errors	Effect sizes	Result
Independence à Effectivity	0.190	0.127	0.164	0.046	Unsupported
Competence à Effectivity	0.304	0.029*	0.155	0.092	Supported
Management Support à Effectivity	0.307	0.028*	0.155	0.104	Supported
Internal Auditor-External Auditor Relationship à Effectivity	0.285	0.039*	0.156	0.093	Supported

* Significant at the level of 0.05 (2-tailed)

The results of hypothesis testing show that only the first hypothesis is insignificantly supported with a p-value > 0.05, while hypotheses 2, 3, and 4 are supported with a p-value < 0.05. The effectiveness of IAs at Indonesian SOU is positively affected by the competence of IA, management support, and the relationship between internal auditors and external auditors, but not by the independence of IA.

Qualitative Analysis

Research in state HEI has not used a qualitative approach (Schmidt and Günther, 2016), nor mixed methods, quantitative and qualitative (Lenz, 2015). This study contributes to the literature by conducting open interviews with chosen respondents based on outlier data from quantitative analysis, which is

then utilized to explain and add understanding to the quantitative results (Creswell and Clark, 2018). According to the quantitative data analysis findings, only one hypothesis is unsupported, while the other three are. The qualitative analysis aims to investigate the causes of such quantitative test results.

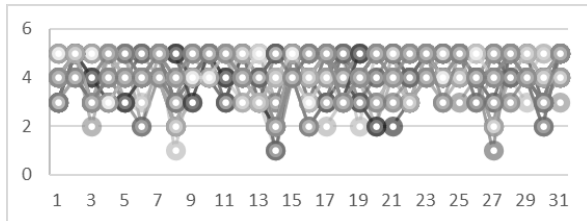


Figure 2. Scatter Plot Distribution of Respondent Data

The scatter plot's results reveal that the five interview respondents were two ISU chairmen, two ISU secretaries, and one member of the university administration. The management of the university serves as the secretary of the department. The interview lasts between 30 and 35 minutes. The interviews' findings determined the primary subject, which was subsequently grouped into a particular theme (Aronson, 1995).

Independence and institutional coercive isomorphism

The results of the initial hypothesis test demonstrated that the IA's independence had no positive effect on its effectiveness. These findings differ from those of earlier research (Mihret and Yismaw, 2004; Stewart and Subramaniam, 2010; Cohen and Sayag, 2010; Asaolu et al., 2016), which demonstrated that independence had a significant effect on the effectiveness of the IA. Indonesian Regulation of Minister of Education and Culture's (IRMEC) Number 22 of 2017 regulates the establishment of ISUs in SOU. ISU members of SOU are employees from Work Units (faculties and other work units), and have a four-year term that may only be extended once. It became impossible for universities to permanently appoint an ISU member who was not part of the work unit (faculty and other units) and had only one task as an internal auditor. As a result, ISU members might audit the faculties that serve as their work units and lose some of their independence. This is as stated by one of the interview participants:

ISU became less independent because ISU auditors concurrently served as lecturers,

making it impossible to be 100% independent. Lecturers are also actors in audited activities, so they are less objective. In addition, lecturers use a budget for which the budget is also audited. It would be preferable if ISU members other than lecturers increased their independence and concentrated on audits rather than burdening the work of lecturers. The main position of a lecturer is a functional position as a lecturer, whereas the audit should be carried out by someone with the functional position of auditor, making it difficult to do both at the same time by a lecturer and auditor (R2, secretary of ISU)

Another respondent also stated the following:

Because ISU also teaches, putting audits into practice is difficult; as a result, the chairman and secretary frequently handle all of ISU's tasks. ISU should not be a lecture so that they can concentrate on their task. It is suggested that ISU members be educational staff rather than lecturers in order to limit their responsibilities. Members are not permitted to be lecturers; however, the chairman and secretary may be. (R20, chairman of ISU)

IRMEC Number 22 of 2017 regulates the assignment of ISU which in the implementation of its duties is based on the assignment of the SOU's top management (Rector), and coordinates with the Rector. However, the Rector was not present when the assignment was to be completed, which presented a challenge at the moment. As a result, the Vice Rector issued the letter of assignment that the Rector was supposed to deal with. Since the Vice Rector is also an audited party, this has harmed the ISU's independence. The interview's findings supported the assertion:

The position of ISU is under the direct and equivalent of the senate so the Organization and Work Procedure of the University must be independent. However, sometimes the person who signs the ISU Letter of Assignment is not the Rector but is delegated to the Vice Rector. Even though the Vice Rector has interests or policies that sometimes do not want to be aligned with existing regulations. Therefore, there are times when the ISU must follow the will of the Vice Rector, so that it becomes non-independent. (R11, secretary of ISU)

Based on the preceding three interviews, it can be concluded that coercive isomorphism exists and that other powerful institutions, including the Ministry, exert formal pressure on SOU by regulating the recruitment of ISU members regulated in IRMEC Number 22 of 2017.

AICPA Code of Professional Conduct and the IESBA Code of Ethics for Professional Conduct explains that independence consists of 2 components, namely independence of mind and independence in appearance (Arens et al., 2012). When the presumptions of independence of thought and independence of appearance are met, the credibility of assurance service delivered by internal auditors is obtained (Stewart and Subramaniam, 2010). The SOU's ISU was established to assist the rector in conducting internal monitoring of the accomplishment of the institution's obligations and functions so that it appears independent.

Competence and institutional normative isomorphism

The results of the second hypothesis test demonstrate that IA competence has a favorable impact on IA effectiveness. According to the findings of earlier studies, competency is one of the key elements in establishing the effectiveness of IAs in the public sector (Al-Twajry et al., 2003; Alzeban and Gwilliam, 2014; Asiedu and Deffor, 2017). IRMEC Number 22 of 2017 stipulates that ISU members at least understand the duties and functions of the organization in the field of budget management, assets, and human resource. The appointment of lecturers as members of ISU comes from various faculties have represented that knowledge.

The results of the following interviews describe the condition:

ISU members from various faculties, including those of law, civil engineering, agriculture, and economics. (R5, chairman of ISU)

Five ISU members, one from each faculty, three from accounting, two from agriculture, and one from law. (R2, secretary of ISU)

Six people: a chairman, a secretary, four members—two from accounting, one from law, one from agriculture, one from management, and one from education—and a chairperson. (R20, chairman of ISU)

IRMEC Number 22 of 2017 also regulates the guidance to ISU by the IGMCERT through training and providing technical guidance. To equalize the essential knowledge and competencies among ISU members with various educational backgrounds, IA training and education are required in the public sector. In order that the negative impacts of having different educational backgrounds can be minimized through ongoing professional development (Ali et al., 2007; Ahmad et al., 2009). The following interviews provided further support for the response:

Five ISU members and fifteen auditors from lecturers have received training in procurement of goods and services, finance, and financial review. Before auditing, they are equipped first with the criteria and recommendations for the audit results. (R5, chairman of ISU)

Training has been provided and added knowledge for auditors who have never previously audited. (R2, secretary of ISU)

Training and webinars have been attended by ISU. (R20, chairman of ISU)

Additionally, each ISU respondent to the questionnaire has taken several trainings ranging from 3 to 8 trainings, and has also taken several seminars related to IA 1 to 3 times.

According to the institutional theory of isomorphism, the professionalization aspect of the IA through the elaboration of professional networks is one of the factors for the occurrence of institutional normative isomorphism (DiMaggio and Powell, 1983). Normative pressures affect the effectiveness of IA through professional identity and compliance with IIA standards (Lenz et al. 2018). Six of the fourteen respondents to the questionnaire have earned the Qualified IA certification from The Institute of Internal Auditors, and eight more have earned the Certified IA certification from the IA Education Foundation, demonstrating the importance of competence and professionalization for ISU SOU members.

Management support and institutional coercive isomorphism

Testing the third hypothesis reveals that management support has a positive effect on IA's effectiveness. These findings support earlier

research findings that management support is a critical factor influencing IA effectiveness (Al-Twajry et al., 2003; Cohen and Sayag, 2010; Alzeban and Gwilliam, 2014; Asaolu et al., 2016; and Asiedu and Deffor, 2017). IRMEC Number 22 of 2017 regulates HEI management support for ISU. It is stated that administrative guidance to ISU is carried out by the Rector through the provision of human resource facilities and infrastructure. Additionally, it was clarified that every SOU must allocate funds for ISU activities. This is confirmed from the following interview:

The Rector selects and appoints ISU members according to the Rector's Decree. ISU members are chosen after taking into account their qualifications and compliance with the law. The Rector has full autonomy in assigning lecturers as ISU members. Likewise, when there is a dismissal of ISU members, the Rector refers to the relevant regulations. Regarding the budget given, the Rector allocates in accordance with the regulations on State Higher Education Operational Assistance. The requirements for ISU facilities and infrastructure were jointly considered at the workshop to determine the work plan and budget. The Rector will allocate resources to maximize the provision of ISU infrastructure and facilities. (R5, chairman of ISU)

The mechanism for regulating the availability of human resources and infrastructure provided to ISU indicates the existence of institutional coercive isomorphism. The regulation

coercing the realization of management support through budget allocation regulated in IRMEC Number 22 of 2017 and regulations on State Higher Education Operational Assistance. The allocation of funds is in accordance with regulations in such a way that universities maintain their legitimacy. When regulations require it, organizations maintain their legitimacy by implementing IA (Lenz et al., 2018).

Internal auditors and external auditors' relationship and institutional coercive isomorphism

The results of testing the effect of the relationship between internal auditors and

external auditors on effectiveness showed positive influencing results. Previous studies explained that cooperation between internal and external auditors is a factor that causes the high quality and effectiveness of IAs (Brierley et al., 2001; Alzeban and Gwilliam, 2014) and is indispensable, especially in the implementation of recommendations on the results of external audits (Brierley et al., 2001; Alzeban and Gwilliam, 2014).

IRMEC Number 22 of 2017 regulates the relationship between ISU and external auditors, namely auditors IGMCERT. ISU may participate in the IGMCERT oversight program, and it delivers a copy of its report to the IGMCERT together with the Rector's report on the execution of its tasks. Then, ISU and IGMCERT can communicate and exchange data in order to conduct a more thorough audit. Therefore, the interaction between internal and external auditors includes organizational coordination in addition to auditors and auditees. This is supported by the following interview results:

When IGMCERT auditors come to audit, they are very helpful. Very good so that we can know where the error lies (R5, chairman of ISU).

We were asked to assist the IGMCERT auditor in checking the research report during an audit because the number of such reports is very large and their time for auditing is limited. The audit results are submitted to ISU and discussed as a group. We are more at ease consulting with the IGMCERT auditor. ISU can learn from IGMCERT auditor. They provided solutions to the obstacles faced by ISU. They are very helpful, and even allowed consultation through private chatting when the audit is over. (R2, secretary of ISU)

In accordance with the institutional theory of coercive isomorphism, such coordination is a form of coercive pressure that takes the form of complying with laws and rules that must be followed (Lenz and Hahn, 2015). The IGMCERT audit process involving ISU and established communication is a manifestation of IRMEC Number 22 of 2017 that ISU can be involved in IGMCERT supervision activities.

Effectiveness of IA and institutional isomorphism

The effectiveness of IA is measured by its success in ensuring the achievement of the goals and objectives of the auditee. More specifically, IA ensures that the auditee's control over finances, operations, reliability of financial statements, compliance with regulations, performance evaluation, and asset security is adequate (Dittenhofer, 2001). This is according to the results of the following interview:

ISU gives benefits since it contributes to the evaluation and policy-making process. Expecting to regularly be audited by ISU because the budget and activity implementation must match. ISU can continue to coordinate and assess in order to improve the department's capability to carry out its activities and programs in a manner that is consistent with quality standards. The outcomes of the activity can also be held accountable. (R35, secretary of the department)

Additionally, every university management respondent to the study stated that ISU gives benefits to universities. When the recommendation of ISU assists each work unit perform properly, there is a sense of added value. The establishment of IAs within the scope of SOU in Indonesia which is regulated by the IRMEC Number 22 of 2017 makes the ISU organizational structure uniform. The regulation reveals that isomorphic coercion exists in public universities. Meanwhile, isomorphic normative arises from professional organizations that develop standards, guidelines, and certifications for the IA profession, namely The IIA and the IA Education Foundation.

CONCLUSION

The effectiveness of IAs is examined in this study in relation to independence, competency, management support, and the connection between internal and external auditors. The test results revealed that only independence did not significantly affect the effectiveness of IA, although competence, management support, and the interaction between internal and external auditors did. Independence does not affect the effectiveness of IAs, since ISU cannot be independent in thought and appearance,

but only independent in appearance. Although ISU appears to be independent, it is impossible for ISU to think independently because ISU is recruited among lecturers who are also auditees and mandate as ISU are just supplementary tasks.

Internal auditors must possess certain skills through education and training in order to carry out their duties effectively. Without the support of management, IA will not be effective. An important factor in ensuring the effectiveness of IA at SOU is the availability of resources, facilities, and infrastructure, as well as the intention to follow up on the findings of the ISU assignment. The quality of internal auditor supervision and examination outcomes will be improved by cooperation between internal and external auditors. When the internal audit is only an added task and internal auditors come from various educational backgrounds, external auditors' guidance and advice are required.

This study expands the research literature in the area of public sector accounting, particularly with regard to the still-developing and understudied topic of financial accountability in public HEI. A theoretical contribution to the literature on public sector accounting research is the use of institutional theory, which is still hardly ever applied in studies of SOU. IA practices in SOU can be explained by institutional theory since those institutions are homogenous and subject to coercive and normative isomorphisms. While normative pressure is apparent in the encouragement of professional organizations for the certification of internal auditors in SOU, coercive pressure is aimed at the existence of rules governing the formation and responsibilities of IA in SOU.

The contribution of research methodologies employing quantitative and qualitative techniques, particularly at SOU, was able to explain why IA effectiveness was not realized. The results of qualitative testing could give a more detailed explanation of the reasons why competence, management support, and the interaction between internal and external auditors affect IA effectiveness but independence does not. Furthermore, the evaluation of the effectiveness of IA from the perspectives of SOU management ("outside-in") as well as internal auditors ("inside-out") provides a more objective perspective of the achievement of IA effectiveness in the context of SOU.

The findings of this study can be used as input by internal auditors of HEI to convince Rector to pay more attention to how IA tasks are carried out by assuring that the audit charter guarantees the independence of internal auditors. The findings of this study are able to offer an overview of the significance of IA functions and tasks for university leadership and management, not only for complying with laws and regulations but also for playing a significant role in achieving Good University Governance.

Future studies can analyze the differences in IA effectiveness between public and private universities. It is also possible to engage the supervisory board or external auditors as study respondents to obtain a more impartial viewpoint on the effectiveness of IA. The results of the subsequent study can also be used to provide explanations of the causal relationships of elements that affect the effectiveness of the IA.

REFERENCE

- Abuazza, W. O., Mihret, D. G., James, K., & Best, P. (2015). The perceived scope of internal audit function in Libyan public enterprises. *Managerial Auditing Journal*, 30(6/7), 560–581.
- Aghghaleh, S. F., Mohamed, Z. M., & Ahmad, A. (2014). The effects of personal and organizational factors on role ambiguity amongst internal auditors. *International Journal of Auditing*, 18(2), 105–114.
- Ahmad, N. H., Othman, R., Othman, R., & Jusoff, K. (2009). The effectiveness of internal audit in Malaysian public sector. *Journal of Modern Accounting and Auditing*, 5(9), 53–63.
- Ahyaruddin, M., & Akbar, R. (2018). Indonesian local government's accountability and performance: The isomorphism institutional perspective. *Journal of Accounting and Investment*, 19(1).
- Akbar, R., Pilcher, R., & Perrin, B. (2012). Performance measurement in Indonesia: The case of local government. *Pacific Accounting Review*, 24(3), 262–291.
- Ali, A., Gloeck, J., Ahmi, A., & Sahdan, M. (2007). Internal audit in the state and local governments of Malaysia. *Southern African Journal of Accountability and Auditing Research*, 7, 25–57.
- Al-Absy, M. S. M., Ku Ismail, K. N. I., & Chandren, S. (2019). Audit committee chairman characteristics and earnings management: The influence of family chairman. *Asia-Pacific Journal of Business Administration*, 11(4), 339–370.
- Al-Twaijry, A. A. M., Brierley, J. A., & Gwilliam, D. R. (2003). The development of internal audit in Saudi Arabia: An institutional theory perspective. *Critical Perspectives on Accounting*, 14(5), 507–531.
- Alqudah, H. M., Amran, N. A., & Hassan, H. (2019). Factors affecting internal auditors' effectiveness in the Jordanian public sector: The moderating effect of task complexity. *EuroMed Journal of Business*, 14(3), 251–273.
- Alzeban, A., & Gwilliam, D. (2014). Factors affecting the internal audit effectiveness: A survey of the Saudi public sector. *Journal of International Accounting, Auditing and Taxation*, 23(2), 74–86.
- Arena, M., Arnaboldi, M., & Azzone, G. (2006). Internal audit in Italian organizations: A multiple case study. *Managerial Auditing Journal*, 21(3), 275–292.
- Arena, M., & Azzone, G. (2007). Internal audit departments: Adoption and characteristics in Italian companies. *International Journal of Auditing*, 11, 91–114.
- Arena, M., & Jeppesen, K. K. (2015). Practice variation in public sector internal auditing: An institutional analysis. *European Accounting Review*, 25(2), 319–345.
- Arens, A. A., Elder, R. J., & Beasley, M. S. (2012). *Auditing and assurance services: An integrated approach* (14th ed.). Pearson Prentice Hall.
- Armeanu, D. Ș., Vintilă, G., Gherghina, Ș. C., & Petrache, D. C. (2017). Approaches on correlation between board of directors and risk management in resilient economies. *Sustainability*, 9(2), 173.
- Aronson, J. (1995). A pragmatic view of thematic analysis. *The Qualitative Report*, 2(1), 1–3.
- 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.
- Asiedu, K. F., & Deffor, E. W. (2017). Fighting corruption by means of effective internal audit function: Evidence from the Ghanaian public sector. *International Journal of Auditing*, 21, 82–99.
- Badan Pemeriksa Keuangan. (2011). BPK: Masih terdapat kelemahan yang memerlukan perbaikan. Retrieved April 19, 2021, from <http://www.bpk.go.id/news/bpk-masih-terdapat-kelemahan-yang-memerlukan-perbaikan>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101.
- Brierley, J. A., Husein, M. E., & Gwilliam, D. R. (2001). The problems of establishing internal audit in the Sudanese public sector. *International Journal of Auditing*, 5(1), 73–87.
- Christopher, J. (2014). Internal audit: Does it enhance governance in the Australian public university sector? *Educational Management Administration & Leadership*, 43(6), 954–971.
- Coetzee, P., & Erasmus, L. J. (2018). What drives and measures public sector internal audit effectiveness? *International Journal of Auditing*, 21(1).
- Cohen, A., & Sayag, G. (2010). The effectiveness of internal auditing: An empirical examination of its determinants in Israeli organisations. *Australian Accounting Review*, 20(3), 296–307.

- Creswell, J. W., & Plano Clark, V. L. (2018). *Designing and conducting mixed methods research* (2nd ed.). Pustaka Pelajar.
- DiMaggio, P. J., & Powell, W. W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, 48(2), 147–160.
- Dittenhofer, M. (2001). Internal auditing effectiveness: An expansion of present methods. *Managerial Auditing Journal*, 16(8), 443–450.
- Feng, N. C. (2020). Individual auditor characteristics and audit quality: Evidence from nonprofits in the US. *Journal of Public Budgeting, Accounting & Financial Management*, 32(4), 551–575.
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2014). *A primer on partial least squares structural equation modeling (PLS-SEM)*. Sage Publications.
- Ikatan Akuntan Indonesia. (2021). *Kode etik akuntan Indonesia*.
- Janse van Rensburg, J. O., & Coetzee, P. (2015). Internal audit public sector capability: A case study. *Journal of Public Affairs*, 16(2), 181–191.
- Katmon, N., Mohamad, Z. Z., & Norwani, N. M. (2019). Comprehensive board diversity and quality of corporate social responsibility disclosure. *Journal of Business Ethics*, 157, 447–481.
- Lenz, R., Sarens, G., & D'Silva, K. (2014). Probing the discriminatory power of characteristics of internal audit functions. *International Journal of Auditing*, 18, 126–138.
- Lenz, R., & Hahn, U. (2015). A synthesis of empirical internal audit effectiveness literature. *Managerial Auditing Journal*, 30(1), 5–33.
- Lenz, R., Sarens, G., & Hoos, F. (2017). Internal audit effectiveness: Multiple case study research. *EDP Audit, Control, and Security Newsletter*, 55(1), 1–17.
- Lenz, R., Sarens, G., & Jeppesen, K. K. (2018). In search of a measure of effectiveness for internal audit functions. *EDP Audit, Control, and Security Newsletter*, 58(2), 1–36.
- McLaughlin, C., Armstrong, S., Moustafa, M. W., & Elamer, A. A. (2021). Audit committee diversity and corporate scandals. *International Journal of Accounting & Information Management*, 29(5), 734–763.
- Mihret, D. G., & Yismaw, A. W. (2007). Internal audit effectiveness: An Ethiopian public sector case study. *Managerial Auditing Journal*, 22(5), 470–484.
- Nerantzidis, M., Pazarskis, M., Drogalas, G., & Galanis, S. (2020). Internal auditing in the public sector. *Journal of Public Budgeting, Accounting & Financial Management*, 34(2), 189–209.
- Pilcher, R., Gilchrist, D., Singh, H., & Singh, I. (2013). The interface between internal and external audit. *Australian Accounting Review*, 23(4), 330–340.
- Rusmin, R., Astami, E. W., & Scully, G. (2014). Local government units in Indonesia. *Australasian Accounting, Business and Finance Journal*, 8(2), 88–109.
- Schmidt, U., & Günther, T. (2016). Public sector accounting research in higher education. *Management Review Quarterly*, 66, 235–265.
- Schyf, D. (2000). Obstacles in establishing internal auditing in the public sector. *Meditari Accountancy Research*, 8(1), 145–181.
- Siyaya, M. C., Epizitone, A., Jali, L. F., & Olugbara, O. O. (2021). Determinants of internal auditing effectiveness. *Academy of Accounting and Financial Studies Journal*, 25(2).
- Stewart, J., & Subramaniam, N. (2010). Internal audit independence and objectivity. *Managerial Auditing Journal*, 25(4), 328–360.
- The Institute of Internal Auditors. (2015). *International professional practice framework*.
- The Institute of Internal Auditors. (2017). *Implementation guides*.
- The Institute of Internal Auditors. (2019). *The internal audit charter*.
- The Institute of Internal Auditors. (2020). *The IIA's three lines model: An update of the three lines of defense*.
- Zaher, A. A. (2015). Going-concern opinions, executive tenure and gender. *Corporate Ownership & Control*, 12(3), 19–27.