

The Effectiveness of Internal Audit for Fraud Prevention

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Abstract

This study explores the measurement of the effectiveness of internal audits from the perception of internal auditors to prevent fraud. It examines the antecedents that affect the effectiveness of internal audits to prevent fraud. This study uses a mixed-method exploratory sequential design approach called instrument development design. This research's unit of analysis is the local government's internal auditor, namely the Financial and Development Supervisory Agency (BPKP), representing the Province of North Sulawesi, and the Inspectorate of the entire Province of North Sulawesi. The data collected were 165 questionnaires, and the analysis technique used PLS. The results of this study, audit effectiveness for fraud prevention is affected by audit quality. Then, the higher the independence of the internal auditor's functions in audit assignment, the better the audit quality, which will increase the effectiveness of internal audit in preventing fraud.

Keywords: Fraud, Internal Audit, Quality Audit

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Introduction

The existence of an internal audit is an integral part of the government because it can increase the effectiveness and efficiency of activities within the government. Internal audit is an activity that provides adequate assurance and provides consultancy, which certainly has an impact on preventing fraud within the organization (Adetoso *et al.*, 2013; Asiedu & Deffor, 2017; Labuschgne, H., and Moroney, 2006; Omar, N. & Bakar, 2012). Furthermore, Government Regulation of the Republic of Indonesia No. 60 of 2008 concerning the Government's Internal Control System article 11 suggests that the effectiveness of the internal audit function will be realized when it can achieve its objectives, namely: (1) Providing adequate confidence in obedience, economy, efficiency, and effectiveness in achieving the objectives of implementing the duties and functions of government agencies ; (2) providing early warning and increasing the effectiveness of risk management in carrying out the duties and functions of government agencies. The impact of achieving this effectiveness is to realize good governance, which leads to a clean government/bureaucracy or a government that is free from fraud.

Fraud in the form of misstatement of accounting records and misuse of assets in local governments is minimized by implementing the government's internal control system (SPIP) (Mulyani & Suryawati, 2011; Rendika, 2013; Wahyuni, 2017). In addition, the prevention and detection of fraud are carried out by the government's internal supervisory apparatus (APIP), namely BPKP and the inspectorate, through operational audits, audits of procurement of goods and services, computer forensics audits (EDP Audits), and complaints kits (Whistleblower system) (Wuysang *et al.*, 2016). However, the role of internal government supervisors in carrying out their duties and functions has not been carried out optimally because of several obstacles. Barriers experienced by internal auditors, among others, the lack of competence of auditors, the limited budget for supervision, negative perceptions of supervision, the dominance of external supervisory institutions, and the absence of commitment from top management and related elements in local government (Gamar & Djamhuri, 2015; Suseno, 2010).

The effectiveness of the internal audit function plays a role in preventing fraud when the auditor has professional competence and expertise in evaluating and managing fraud risk. In addition, independence to report fraud is also considered to increase the effectiveness of Internal Audits (Al-Twaijry et al., 2003; Cohen & Sayag, 2010; Endaya & Hanefah, 2016; Tackie, Marfo-Yiadom, & Oduro Achina, 2016). Meanwhile, to achieve quality audit work based on quality theory (Teas, 1994), service providers must have three criteria: professionalism and skills, attitudes and behaviour, and reputation. So that in this study, audit quality plays a role in mediating Professional Competence and Skills and the Independence of the Internal Audit Function on Audit Effectiveness. Based on the mediating part, the researcher concludes that this research model has a new concept because it involves audit quality as a mediator of the causal relationship. Following the background description stated earlier, the research problems are formulated as follows: 1) What are professional competencies and skills, the independence of the internal audit function, affect the effectiveness of internal audits in preventing fraud?; 2) Does audit quality mediate the influence

of professional competence and proficiency, the internal audit function's independence, on the effectiveness of internal audit in preventing fraud?

Literature Review

Professional Competence and Skills and Effectiveness of Internal Audit for Fraud Prevention

An institutional theory emphasizes the importance of legitimacy (Meyer & Rowan, 1977) because it is a driving force for the internal audit function to realize the effectiveness of its position (Lenz et al., 2018). It causes the organization to carry out a compliance process through pressure from the institutional environment. Coercive pressure/force requires the internal audit function to comply with regulations imposed by regulators or the government. Normative power requires that internal audits develop a professional identity through institutionalized practice. In this perspective, internal audits must comply with the APIP Audit Standards regulated in Permen-PAN 05 of 2008 and the Indonesian Government Internal Audit Standards compiled by the Association of Government Internal Auditors (AAIP), a professional organization for internal government auditors in Indonesia. Professional competence and skills are the elements governed by the two auditing standards. The effectiveness of the internal audit function is determined by proper staffing of the internal audit department and good management of such staff. An audit requires professional staff who collectively have the education, training, experience and professional qualifications necessary to carry out the various audits required by their mandate (Al-Twaijry, Brierley & Gwillian, 2003). Auditors must comply with the minimum continuing education requirements and professional standards published by the relevant professional organizations and the IIA (2008). Bou-Raad (2000) argues that auditors must have a high education level to be considered human resources. According to Bou-Raad, the diversity of the required skills is a significant challenge for professional bodies, tertiary institutions, and management.

Based on the interpretation of international standards, internal audit professional skills/expertise refer to the knowledge, skills, and other competencies internal auditors need to carry out their responsibilities effectively (The Institute of Internal Auditors, 2016). When the internal auditor has the knowledge, experience, and professional qualifications according to standards, he will be able to evaluate fraud risk and manage it so he can achieve the effectiveness of the internal audit function in detecting and preventing fraud.

The effectiveness of the internal audit function in detecting and preventing fraud can be achieved. Several studies that have investigated this issue have found that the professional qualifications of internal auditors in a department, which is determined by participation in professional training and development programs, their level of education, experience, professional qualifications, and professional membership, have a positive effect on the effectiveness of this department (Al - Twaijry *et al.*, 2003; Endaya & Hanefah, 2016; Lenz *et al.*, 2014). Furthermore, the competence of internal auditors positively affects the effectiveness of the internal audit function (Alzeban & Gwilliam, 2014; Shohihah *et al.*, 2018). Based on the institutional theoretical basis (coercive pressure) and previous studies, the research hypotheses can be summarized as follows:

H1. Professional competence and skills positively affect the effectiveness of internal audits for fraud prevention.

Independence of the Internal Audit Function and Effectiveness of Internal Audit for Fraud Prevention

Adherence to the standards set by the government (coercive pressure) and adherence to norms and values on the rules of professionalism (normative pressure) are factors that determine the effectiveness of internal audit (Getie et al., 2010; Lenz et al., 2018; White, 1976). Independence is a characteristic of the internal audit function, which is regulated by the auditing standards set by the government and the AAIP. Standard setters identify independence as a vital attribute of the audit department. It is enough to emphasize the importance of independence, especially organizational independence for the continuity of the internal audit function (Brown, 1983). Auditors must be independent enough from those who have to be audited. In other words, the internal auditors, in carrying out their work, should not be intervened by any party, especially the auditee. Because, in reality, internal auditors are employees of the organization. Organizational independence contributes to the accuracy of the auditor's work and provides confidence to the organization or company that they can rely on the results and reports of internal auditors. The independence of the internal audit function as regulated in the government internal audit standards set by Permen-PAN and AAIP clarify the reporting line at the highest level in the organization; this strengthens the independence of internal auditors to dare to report when there are indications of fraud in the accounting system and financial statements, as well as realizing its role in preventing fraud effectively.

Previous studies in developing countries highlight the lack of independence of the internal audit function and raise concerns about how this lack of independence affects the strength of the internal audit department, including the study of Brierley *et al.* (2001) (Sudan), Mulugeta (2008) (Ethiopia), and Ahmad *et al.* (2009) (Malaysia). The lack of organizational independence in the internal audit function can also weaken the ability of internal auditors to convince audit boards and committees when assisting these bodies to carry out their corporate governance tasks effectively (Andrew D. Chambers & Marjan, 2015; Christopher *et al.*, 2009). Cohen and Sayag (2010) and Alzeban and Gwilliam (2014), through their empirical studies, found that there is a positive relationship between organizational independence and the effectiveness of the internal audit function, so the research hypotheses can be summarized as follows:

H2. The internal audit function's independence positively affects the effectiveness of internal audits for fraud prevention.

Audit Quality and Internal Audit Effectiveness for Fraud Prevention

Referring to the institutional theory (DiMaggio & Powell, 1983) that organizational change due to adherence to the rules (coercive) set by the government and compliance to the rules of professionalism (normative) requires the internal audit function to carry out its assignments following the standards set by the government, namely the Standards APIP audit and the government's internal auditor professional organization, namely SAIPI. When the internal auditors carry out their assignments according to standards, they can make practical plans, find material errors, and communicate effectively on the recommendations produced. It shows that the audit work is of high quality. Internal auditors who do quality work can carry out their roles effectively as confidants and consultants, especially in fraud detection and prevention. Previous research has revealed that the ability of the internal audit department to provide valuable findings and recommendations and perform work to standards is critical to audit effectiveness. Raad G (2000) suggests that the scope of the auditor's duties includes evaluating areas that require a high level of

judgment and audit reports that directly impact decisions or actions taken by management. Furthermore, Glazer and Jaenike (1980) argue that performing audit work following internal audit standards contributes significantly to audit effectiveness.

Sawyer (1995) revealed that an internal audit must prove its value and reputation to the organization. Internal audit must evaluate its performance and continuously improve its services (Ziegenfus, 2000). Therefore, to obtain a high quality of work, the internal auditor must have skilled staff, carry out a scope of work following standards, plan an effective audit, carry out effective planning, assignments accompanied by supervision or quality review, and effective communication (Getie Mihret & Wondim Yismaw, 2007). Mihret and Yismaw (2007), through a case study conducted at educational institutions in Ethiopia, found two factors that most influence the effectiveness of internal audit, namely the quality of internal audit and management support. Through empirical studies, Cohen and Sayag (2010) and (Tackie et al., 2016) also prove a positive relationship between audit work quality and internal audit effectiveness. So that the research hypotheses can be summarized as follows:

H3. Audit quality positively affects the effectiveness of internal audits for fraud prevention.

Professional Competence and Skills, Audit Quality, and Internal Audit Effectiveness for Fraud Prevention

Based on Quality Theory, one of the criteria for assessing service quality is that the service provider has the professionalism and skills needed to solve problems (Teas, 1994). In the context of internal audit, DeAngelo (1981) states that audit quality is assessed by the auditor's ability to find and report material misstatements in the client's financial statements. Previous researchers have argued that performing audit work following internal audit standards contributes significantly to audit effectiveness (Glazer & Jaenike, 1980) and provides added value to internal auditing (Ridley & D'Silva, 1997). It is in line with institutional theory (coercive pressure), which reveals that to gain legitimacy, organizations will increase professionalism and comply with professional behavioural norms that are regulated by standards and have an impact on improving performance (Dimagio and Powel, 1983; Meyer & Rowan, 1977; and Zucker, 1987). In this study, the performance referred to is the effectiveness of the internal audit function.

Previous research on professional competence and skills has been carried out in the private sector, including Deribe and Regasa (2014) on commercial banks in Ethiopia. A survey method shows that competence is the main factor besides performance and information technology positively affecting audit quality. Gul et al. (2013) conducted an archival study on companies in China. They found that individual auditors affect audit quality with their characteristics (i.e., educational background, work experience in audit firms, and political affiliation). Furthermore, Cohen and Sayag (2010) and Tackie *et al.* (2016) found that good quality audit work can increase the effectiveness of the internal audit. So that the research hypotheses can be summarized as follows: H4. Audit quality mediates the effect of competence and professional skills on the effectiveness of internal audits for fraud prevention.

Independence of the Internal Audit Function, Quality of Audit, and Effectiveness of Internal Audit for Fraud Prevention

Referring to the theory of quality, one of the criteria for assessing a service product is quality if people do it with the attitudes and behaviour needed to solve problems (Teas, 1994). Suppose it is

associated with the quality of internal audits. In that case, independence is one of the attitudes needed so that the internal audit quality can be considered reasonable. An internal audit requires independence to report material errors in the accounting system and financial statements to achieve audit quality (DeAngelo, 1981). When the internal audit function is not intervened by management and the internal auditor has unrestricted access to the data needed when conducting the audit process, the internal auditor can maximally find material errors in the accounting system and financial statements so that audit quality can be achieved. Referring to the institutional theory (DiMaggio & Powell, 1983) that organizational change due to adherence to the rules (coercive) set by the government and compliance to the rules of professionalism (normative) requires the internal audit function to carry out its assignments following the standards set by the government, namely the Standards APIP audit and the government's internal auditor professional organization, namely SAIPI. When the internal auditors carry out their assignments according to standards, they will be able to make effective plans, find material errors, and carry out effective communication on the recommendations produced. It shows that the audit work is of high quality. Internal auditors who do quality work will be able to carry out their roles effectively as confidants, and consultants, especially in fraud detection and prevention.

The relationship between independence and quality has been investigated by previous researchers who found that the threat of auditor independence can lead to low audit quality (Tepalagul & Lin, 2015; Watkins et al., 2004). In other words, independence can improve the quality of the auditor's audit. So then, audit quality is one of the factors that influence the effectiveness of internal audit (Cohen & Sayag, 2010; Getie Mihret & Wondim Yismaw, 2007), or it can be said that good audit quality can increase the effectiveness of the internal audit. So that the research hypotheses can be summarized as follows:

H5. Audit quality mediates the effect of internal auditor independence on the effectiveness of internal audits for fraud prevention.

Methods

The quantitative research method uses a survey approach. The population of this research is all local internal government auditors or inspectorate auditors throughout the province of North Sulawesi and BPKP of North Sulawesi Province who are currently active on duty. Researchers also use the Google Form application to simplify sending instruments. Respondents' answers will be quantified using scores with five Likert scale options: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = totally agree. This analysis was carried out using the evaluation of the measurement model following the stages in the study using Warp-PLS (Partial Least Square). The evaluation results of the measurement model for each variable, summarized in the outer loading and weight values, are used as a basis for providing variable descriptions.

Results and Discussion

Based on the sampling results, the total sample of this study was 165 respondents. Furthermore, this study was tested for validity and reliability. The convergent validity test determines whether the indicators are valid in measuring dimensions. Table 1 shows the results of the Convergent Validity test:

Variables	Indicators	Loading Factor	SE	P-value	Description
	Indicators	Loading ractor	SE	r-value	-
Professional Competence and Skills	X1.2	0,882	0,065	< 0.001	Valid
	X1.3	0,825	0,065	< 0.001	Valid
	X1.5	0,754	0,066	< 0.001	Valid
Independence of the Internal Audit Function	X2.1	0,728	0,067	< 0.001	Valid
Internal Audit Function	X2.2	0,721	0,067	< 0.001	Valid
	X2.3	0,686	0,067	< 0.001	Valid
	X2.4	0,78	0,066	< 0.001	Valid
	X2.5	0,697	0,067	< 0.001	Valid
Audit Quality	Y1.2	0,649	0,068	< 0.001	Valid
	Y1.3	0,708	0,067	< 0.001	Valid
	Y1.4	0,735	0,067	< 0.001	Valid
	Y1.5	0,738	0,067	< 0.001	Valid
	Y1.6	0,726	0,067	< 0.001	Valid
	Y1.7	0,719	0,067	< 0.001	Valid
	Y1.8	0,774	0,066	< 0.001	Valid
	Y1.9	0,772	0,066	< 0.001	Valid

 Table 1. Convergent Validity Results

Source: Data processed (2021)

Based on Table 1, the results of the measurement model analysis can be seen that all indicators produce a loading factor greater than 0.6. Thus the indicators that measure these variables are declared valid.

While discriminant validity is calculated using cross-loading with the criteria that if the loading factor value in a corresponding variable is greater than the indicator correlation value with other variables, the indicator is declared valid in measuring the corresponding variable. The results of the cross-loading calculation are presented in Table 2:

	X1	X2	М	Y1
X1.2	0,882	0,074	-0,194	0,121
X1.3	0,825	-0,024	0,065	-0,125
X1.5	0,754	-0,06	0,155	-0,005
X2.1	0,19	0,728	-0,038	0,156
X2.2	-0,074	0,721	-0,296	0,1
X2.3	-0,07	0,686	-0,01	-0,513
X2.4	-0,093	0,78	0,053	0,362
X2.5	0,05	0,697	0,296	-0,167
M1.1	-0,071	-0,003	0,84	0,119
M1.2	0,082	-0,2	0,831	-0,129
M1.3	-0,011	0,093	0,839	-0,074
M1.4	0,002	0,112	0,811	0,085
Y1.2	0,018	-0,178	0,12	0,649

Table 2. Cross Loading Calculation Results

Y1.3	0,146	-0,123	0,055	0,708
Y1.4	-0,137	-0,036	-0,104	0,735
Y1.5	-0,045	-0,062	0,009	0,738
Y1.6	0,326	-0,086	-0,036	0,726
Y1.7	-0,052	0,138	-0,163	0,719
Y1.8	-0,115	0,21	-0,097	0,774
Y1.9	-0,117	0,099	0,222	0,772

Source: Data processed (2021)

Testing the validity of the formative model is intended to determine whether or not an indicator is valid in measuring formative latent variables. Testing the validity of the formative model is indicated by the size of the probability value. An indicator is declared valid if the probability value is level of significance (Alpha (α) = 5%).

Variables	Indicators	Weight	Standard Errors	P value
	Y2.1	0,321	0,073	< 0.001
Effectiveness of Internal Audit for Fraud Prevention	Y2.2	2 0,348 0,072		< 0.001
	Y2.3	0,353	0,072	< 0.001
	Y2.4	0,176	0,075	0,01

 Table 3. Results of Formative Model Validity Testing

Source: Data processed (2021)

Based on Table 3, it can be seen that all indicators measuring the effectiveness of internal audits for fraud prevention produce a probability value < level of significance (Alpha (α) = 5%). Thus the indicator is declared valid or able to measure the effectiveness of internal audit variables for fraud prevention.

Calculations that can be used to test construct reliability are Cronbach alpha and composite reliability. The test criteria state that if the composite reliability is greater than or equal to 0.7. and Cronbach's alpha is greater than or equal to 0.6, then the construct is declared reliable. The results of the calculation of composite reliability and Cronbach alpha can be seen through the summary presented in the following table:

Table 4. Calculation Results of Composite Reliability	y and Crondaci	і Аірпа
Variables	Composite Reliability	Cronbach Alpha
Professional Competence and Skills	0.862	0.758
Independence of the Internal Audit Function	0.846	0.771
Audit Quality	0.900	0.873

Table 4. Calculation Results of Composite Reliability and Cronbach Alpha

Source: Data processed (2021)

The Goodness of fit Model is used to determine the ability of endogenous variables to explain the diversity of exogenous variables, or in other words, to determine the magnitude of the contribution of exogenous variables to endogenous variables. The Goodness of fit Model in PLS analysis uses R-Square and Q-Square predictive relevance (Q2). The Goodness of fit Model results is summarized in the following table.

Endogen	R-Squared	Q-Square
Audit Quality	0.664	0.663
Internal Audit Effectiveness	0.176	0.173

Table 5. Results of Goodness of Fit Model

Source: Data processed (2021)

The results of testing the direct relationship of this research can be seen in Table 6 below:

Exogen Variables	Endogen Variables	Path Coefficient	SE	P-Value	Description
Professional Competence and Skills	Effectiveness of Internal Audit for Fraud Prevention	-0.108	0.076	0.079	Not Supported
Independence of the Internal Audit Function	Effectiveness of Internal Audit for Fraud Prevention	0.015	0.078	0.426	Not Supported
Audit Quality	Effectiveness of Internal Audit for Fraud Prevention	0.14	0.076	0.032	Supported

Table 6. Results of Direct Effect Hypothesis Testing

Source: Data processed (2021)

While the results of testing the indirect relationship in this study can be seen in Table 7 below:

 Table 7. Indirect Effect Test Results

Exogen	Mediation	Endogen	Indirect Coeff.	SE	Description		
Professional	Audit Effectiven						
Competence and	Quality	Internal Audit for	0.015	0.055	Not Supported		
Skills	-	Fraud Prevention					
Independence of the	Audit	Effectiveness of					
Internal Audit	Quality	Internal Audit for	0.065	0.054	Fully Mediated		
Function		Fraud Prevention					

Source: Data processed (2021)

The test results obtained empirical evidence that hypothesis 1 is not supported. It means that professional competence and skills do not affect the effectiveness of internal audits to prevent fraud. This empirical evidence is inconsistent with the results of studies by Alzeban & Gwilliam (2014) and Endaya & Hanefah (2016). Still, it is compatible with investigations conducted by Cohen & Sayag (2010), Arena & Azzone (2009), and Maheasy & Riyanto (2017). Alzeban & Gwilliam (2014) conducted a survey study on the factors that influence the effectiveness of internal audits in the Suadi public sector. Their study used managers' perceptions of the audit department as a 'quasi-external' measure; the baseline analysis was repeated using IAE's internal auditors' perceptions as the dependent variable. The results show that there is a positive correlation between the competence of the internal auditor and the effectiveness of the internal audit. Endaya & Hanefah (2016) examined the effect of professional skills on the effect veness of internal audits on members of the Libyan Association of Accountants and Auditors (LAA). Empirical evidence from the study of Endaya & Hanefah (2016) supports the hypothesis of the effect of professional skills. According to them, this is consistent with the International Standards of the Professional

Practice of Internal Auditing (ISPPIA). Professional skills are one of the characteristics or attributes that internal auditors must possess. Studies conducted by Cohen & Sayag (2010), Arena & Azzone (2009), and Maheasy & Riyanto (2017) have different empirical evidence from Alzeban & Gwilliam (2014) and Endaya & Hanefah (2016). Cohen & Sayag (2010), through a survey study conducted in Israel, found that professional skills do not affect the effectiveness of the internal audit. It is because the effectiveness of AI depends more on the organization's characteristics than on the qualifications and work setting of the AI staff. Arena & Azzone (2009) found the same thing through a study conducted on the Chief Audit Executive (CAE) of the 153 largest companies in Italy. According to them, the change in the role of internal auditors has determined the creation of new skills to carry out activities more closely related to risk management and corporate governance. Maheasy & Riyanto (2017) conducted research in the context of internal government auditors, namely 39 Regional Inspectorates from six Provinces in Indonesia, and also found that professional proficiency did not affect the effectiveness of the internal audit.

Empirical evidence that does not support hypothesis 1 (H1) in the current study is suspected because approximately 74% of the respondents from this study have a non-accounting educational background. Auditors must carry out Risk Based Internal Audit (RBIA), Probity Audit, and Fraud Control Plan (FCP) to prevent fraud. Professional competence and skills are needed as auditors with an educational background in accounting so they can understand and implement fraud prevention procedures. They must understand and have expertise in audit business risk, risk management, fraud risk and its control, and probability audit.

The test results obtained empirical evidence that hypothesis 2 (H2) is not supported. It means that the independence of internal audit has no significant effect on the effectiveness of internal audit to prevent fraud. This empirical evidence is inconsistent with the results of studies by Alzeban & Gwilliam (2014), Baharud-din, Shokiyah, & Ibrahim (2014), and Cohen & Sayag (2010). However, it is consistent with Setyaningrum & Kuntadi (2019). Alzeban & Gwilliam (2014) examines the factors that influence the effectiveness of internal audit in Saudi Arabia. They look at it from the perspective of managers and internal auditors of Saudi Arabian public sector organizations. One of the factors studied is the independence of internal auditors, and the results of their research prove that the effect of independence on the effectiveness of internal audits is strong.

Baharud-din *et al.* (2014) investigated the factors that contribute to the effectiveness of internal audits in the Malaysian public sector from the perception of internal auditors. This study uses a cross-sectional survey to determine the effectiveness of the internal audit. The results showed a positive and significant relationship between the independence and effectiveness of the internal audit. Cohen & Sayag (2010), in a survey study on the effectiveness of internal audits in public and private sectors in Israel, found that greater organizational independence was positively related to the effectiveness of internal audits, especially on audit quality indicators and auditee evaluation. The results of research conducted by Setyaningrum & Kuntadi (2019) are different from Alzeban & Gwilliam (2014), Baharud-din, Shokiyah, & Ibrahim (2014), and Cohen & Sayag (2010). Setyaningrum & Kuntadi (2019) obtained empirical results that independence does not affect the effectiveness of internal audits because auditors are required to be independent. The context of their study is the auditor at the Inspectorate General of the Ministry of Transportation in Indonesia.

Empirical evidence that does not support hypothesis 2 (H2) in the current study is suspected because to achieve internal audit effectiveness that focuses on fraud prevention, internal auditors must be able to implement Risk Based Internal Audit (RBIA), Probity Audit, Fraud Control Plan (FCP), and Internal Control System. In carrying out the audit assignment, the internal auditor is more influenced by the ability and understanding of the rules and techniques in implementing the instrument. Next, it is followed by an attitude as a consultant who helps the auditee by providing suggestions for improvement related to the auditee's weaknesses or shortcomings in implementing the prevention program. The attitude that wants to help the auditee is something that internal auditors must have more than the attitude of independence in the context of fraud prevention. It also indicates that the auditors believe that impaired independence will not affect the effectiveness of internal audit, which focuses on fraud prevention.

The test results obtained empirical evidence that supports hypothesis 3 (H3). It means that the higher the audit quality, the higher the effectiveness of the internal audit. This empirical evidence is consistent with the results of the study of Cohen & Sayag (2010), Tackie, Marfo-Yiadom, & Oduro Achina (2016), and Rudhani, Hashani, & Vokshi (2017). Cohen & Sayag (2010) conducted a survey study on organizations in the public and private sectors in Israel and obtained results that the quality of audit work has a positive and significant relationship on two of the three dimensions of internal audit effectiveness. The implication is that the greater the quality of audit work, the greater the auditing quality and auditees' evaluation (the dimensions of the effectiveness of internal audit). In addition, Tackie *et al.* (2016) examined the effect of audit quality on the effectiveness of internal audit quality has a positive impact on the effectiveness of the internal audit. It is due to the compliance with international auditing standards and local audit laws from local government internal auditors.

The results of the empirical analysis of Rudhani et al. (2017) in the public sector in Kosovo prove that audit quality has a positive relationship with the effectiveness of the internal audit. Audit quality is a fundamental element of the effectiveness of internal audits because it is one of the most influential factors. The results of this study support the institutional theory (Dimaggio & Powell, 1983). This theory states that coercive (government rules) and normative (professional rules) pressures that underlie the function of internal auditors to realize their effectiveness, namely by complying with norms of professional behavior regulated by standards. So when the internal auditor can carry out his assignments according to applicable standards or, in other words, his audit work is of quality, he can perform his role effectively as a giver of confidence and a consultant to prevent fraud. When internal auditors carry out their assignments according to standards, they can make practical plans, find material errors, and communicate effectively on the recommendations produced. It shows that the audit work is of high quality. The indicators measured in audit quality in the form of audited area coverage, effective audit planning, conducting audits according to standards, conducting effective communication, and helpful audit recommendations for management decision-making have proven to be influential in realizing the effectiveness of internal audits for fraud prevention.

The test results obtained empirical evidence that hypothesis 4 (H4) is not supported. It means that audit quality does not mediate the effect of competence and professional skills on the effectiveness of internal audits to prevent fraud. The direct influence of competence and professional skills on

audit quality and audit effectiveness for fraud prevention is insignificant. The test results show that the p-value of the direct impact of competence and professional skills on audit quality is 0.08 (> 0.05), and the p-value of the direct influence of competence and professional skills on the effectiveness of internal audit is 0.079 (> 0.05). So, audit quality requirements are not fulfilled as a variable that mediates the effect of competence and professional skills on the effectiveness of the internal audit. The absence of a direct influence of professional competence and skills on audit quality is suspected because the context of measuring competence and professional skills is used in the context of the private sector or company (Al-Twaijry *et al.*, 2003; Cohen & Sayag, 2010), which may need to be re-evaluated when implemented for measuring the context of the public sector, especially local government. Then, the educational qualifications of internal auditors in the public sector with an accounting background are only about 26% of the total respondents. The rest have other educational backgrounds, such as law, IPDN, engineering, and public health. The discrepancy between the auditor's education qualifications impacts the auditor's inability to find errors in the auditee's accounting system and financial reports.

The test results obtained empirical evidence that hypothesis 5 (H5) is supported. Based on the causal step approach, audit quality fully mediates the effect of internal auditor independence on the effectiveness of the internal audit. It means that the higher audit quality caused by the independence will increase the effectiveness of internal audits in preventing fraud. Quality theory (Teas, 1994) reveals that one of the criteria for assessing a quality service product is that the person doing the work must have the attitude and behavior to solve problems. Therefore, if it is related to internal audit quality, independence is one of the attitudes needed for a quality audit assignment. Furthermore, the institutional theory states that coercive (government rules) and normative (professional rules) pressures underlie internal auditors' function to realize their effectiveness by complying with norms of professional behavior regulated by standards. So, when the internal auditor can carry out his assignments according to applicable standards or, in other words, his audit work is of quality, he can perform his role effectively. Thus, if the auditor is independent in carrying out his assignments, it will increase audit quality and improve the effectiveness of internal audits to prevent fraud. However, to the researcher's knowledge, no previous research has tested audit quality to mediate the effect of independence on the effectiveness of the internal audit.

Conclusion

Audit effectiveness for fraud prevention is influenced by audit quality; however, auditors' competence and professional skills do not influence the independence of internal auditors. Audit quality fully mediates the effect of the independence of the internal auditor's function on the effectiveness of internal audits for fraud prevention. The model results from this study indicate that the higher independence of the internal auditor function will improve audit quality and impact the effectiveness of internal audit in preventing fraud. The results of this study provide input in evaluating the effectiveness of internal audits for fraud prevention. The results of the study will also serve as an evaluation for regional examiners to socialize further and conduct training/workshops for examiners regarding fraud prevention instruments, namely: Risk-Based Internal Audit (RBIA), Fraud Control Plan (FCP), probity audit, and Government Internal Control System.

As a suggestion for future research this research model could be tested again on research objects that have different characteristics from internal auditors in the public sector, for example, the private sector in Indonesia. Then, other independent variables could be added, for example, information technology and management support.

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Appendix

Strongly Disagree (SD)	Disagree (D)	Neutral (N)	Agree (A)	Strongly Agree (SA)
1	2	3	4	5

Professional Competence and Skill

No.	Statements	SD	D	N	Α	SA
		(1)	(2)	(3)	(4)	(5)
1.	I have appropriate and relevant educational background in auditing					
2.	I have understanding about auditing standard, policy, procedure and auditing practice.					
3.	I have relevant knowledge about auditing, governance administration, law, and communication, so that I am capable of conducting audit on public sector, as well as identifying fraud.					
4.	I have been working as an internal auditor for more than 3 years.					
5.	I have participated in an auditor training and professional development program to maintain skills and obtain up-to-date information regarding the duties and functions of internal auditors.					
6.	I am a certified professional auditor.					
7.	I am a member of a government internal auditor professional organization.					

Independence of the Internal Audit Function

No.	Statements	SD	D	Ν	А	SA
		(1)	(2)	(3)	(4)	(5)
8.	I am independent enough to conduct my professional duties as an internal auditor.					
9.	The head of the Regional Inspectorate must report to the local government to enable the internal auditors to fulfill their responsibilities.					
10.	The leadership of the Regional Inspectorate has direct contact with the regional head.					
11.	In conducting my duties, I am not intervened by any party.					
12	I have unrestricted access to data, information and reports needed on the organizational unit and employees being audited.					
13.	I do not do any work outside of the audit activity.					
14.	The regional head approves the appointment and replacement of the head of the regional inspectorate.					

Audit Quality

No.	Statements	SD (1)	D (2)	N (3)	A (4)	SA (5)
15.	The coverage area audited is very significant for the organization.					
16.	Preparation of a risk-based annual internal audit plan.					
17.	The audit is conducted based on the priority order of auditing which requires assurance service and improvement of the management system.					
18.	I am capable of completing the audit work on time.					
19.	I conduct the inspection in accordance with the applicable auditing standards.					
20.	I am capable of finding material errors that occurred in the accounting system and audited financial reports.					
21.	I follow up regularly to check the actions taken by the auditee to fix any problems it finds.					
22.	Internal auditors communicate openly with regional leaderships regarding audit recommendations.					
23.	The recommendations and findings of the internal auditors are used by the regional leaderships as a consideration in making decisions.					

Effectiveness of Internal Audit for Fraud Prevention

A	Implementing a Risk-Based Internal Audit (RBIA)	SD (1)	D	N (2)	A	SA (5)
24	Internal auditore in audit accienmente have an	(1)	(2)	(3)	(4)	(5)
24	Internal auditors in audit assignments have an understanding of the business processes and business					
	risks of the auditee					
25	Internal auditors are facilitators and encourage auditors					
ĺ	that do not yet have risk management and risk registers					
	to implement it immediately					
В.	Facilitator for the implementation of the Fraud Control					
	Plan (FCP)					
26	Internal auditors socialize and educate auditees to					
27	implement the FCP. Internal auditors evaluate the FCP implementation of the					
21	auditee.					
С	Implementing Real Time Audits on strategic work					
	packages					
28.	Internal auditors conduct probity audits on high-risk					
	Goods and Services Procurement (PBJ) activities.					
29.	Internal auditors provide advice on the ongoing Goods					
	and Services Procurement (PBJ) process.					
D.	Evaluation of the Government Internal Control System (GICS)					
30.	Internal auditors evaluate the implementation of the					
	internal control system of the auditee					