

## THE EFFECT OF AUDITOR'S COMPETENCE AND INDEPENDENCE ON INFORMATION SYSTEM AUDIT QUALITY

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### ABSTRACT

*Users of financial statements always rely on the results of audits conducted by competent and independent auditors because the audits are carried out through quality processes and efforts. Competent and independent auditors are needed to obtain quality audit results. Because most modern information systems use information technology, the information technology audits become an important component in all external and internal audits. This study aims to examine the effect of auditor's competence and auditor's independence on the information systems audit quality. The research sample used in this study is external auditors working in public accounting firms in West Java. The statistical test instrument used is a multiple regression test. The results show that the auditor's competence has an effect on information systems audit quality, while the auditor's independence has no effect on information systems audit quality.*

*Keyword: Competence, Independence, Audit Quality.*

### 1. INTRODUCTION

Every company must be able to capture all information relating to financial and non-financial activities and events. All information must be relevant and can be communicated to the users of the information. The quality of information is influenced by management's ability to control the activities of the company and prepare reliable financial reports (Hayes et al., 2014).

The assumption that the management involved in the company will always maximize the value of the company is not always fulfilled. Management has its own interests that conflict with the interests of the owner of the company so that there is a problem, called the agency problem, due to information asymmetry. To reduce the existence of agency problems, it is necessary to have an independent party who can be the mediator in handling the

conflict, known as an independent auditor (Tandiontong, 2016).

The independent auditor is responsible for the performance of the audit function of the financial statements of public companies and non-public companies (Hayes et al., 2014). The accuracy of information produced by auditors derived from financial statements depends on the quality of the auditor (Tandiontong, 2016). In the practical literature, audit quality is how fit the audit is with auditing standards (Tandiontong, 2016).

Academics, such as De Angelo (1981) and Watkins et al (2004), generally agree that quality audits must be carried out by competent and independent auditors (Tandiontong, 2016). Arens et al. (2015) also states that auditing must be carried out by competent and independent people. Competent auditors are auditors who have technological ability, understand

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and carry out correct audit procedures, understand and use correct sampling methods, etc. Whereas an independent auditor is an auditor who, if there is a violation, will independently report the violation (Tandiontong, 2016).

Today's modern information systems mostly use information technology (IT). IT auditing is an important component in all external and internal audits (Hall and Singleton, 2009). Information technology can be used to automatically post information from a transaction processing system to the general ledger for financial reporting. When information technology is used to post information automatically, there may be little or no visible evidence of unauthorized interventions in information systems. Therefore, auditors must understand how improper transaction processing can be completed (Hayes, 2014).

Current developments in the use of information technology require that auditors have sufficient expertise, coupled with knowledge related to the problems of their clients, to enable them to obtain and interpret all the evidence needed to provide reasonable assurance that financial statements are presented fairly. (Hayes, 2014). IT audits are associated with auditors who use various technical expertise and knowledge to conduct audits through computer systems, or provide audit services where processes or data, or both, are embedded in various forms of technology. These auditors, if they have certification, are bound by ethics and guidelines that emphasize professionalism in their work, for example independence, skepticism and prudence (Hall and Singleton, 2009).

The external auditor is responsible for testing the reliability of the client's information technology systems and should have expertise and experience in the field of information technology. The component of information system consists of hardware, software, communication, and other important facilities, such as input, storage, process, transfer, and

output of information. Information technology audits must ensure that the company's information system is adequate by using two types of controls: 1) general computer audit control consisting of policies and procedures related to support for application control functions, and 2) application control audit relating to accuracy, completeness, validity, and data authorization which is entered, processed, and reported (Otero, 2019).

Research conducted by Wright and Capps (2012) entitled "*Auditor Independence and International Information Systems Quality Audit*" examines the factors that influence the information system audit quality. The results show that auditor's independence has less effect on audit quality than auditor's competence.

According to military observer, Connie Rahankundini Bakrie, the role of technology auditors is very important for the advancement of the Indonesian defense industry. The absence of technology auditors in providing an assessment of the quality of the national defense industry is the main cause of the continuing emergence of polemic related to defense equipment. Connie gave an example, the absence of a technology audit of PT Dirgantara Indonesia made every offer of cooperation from manufacturers of defense equipment, other than Airbus, was always underestimated (jpn.com, 2017).

Based on the background and phenomena above, the researcher is interested in examining the effect of auditor's competence and independence on information systems audit quality. The difference between this research and previous research is on sample selection, in which the sample used in this research is taken from external auditors working in public accounting firms in West Java. This research is expected to be useful for the public accounting firms to see the influence of external auditor's competence and independence on information system audit quality. This research is also expected

to be a reference material for further research related to factors that influence the information systems audit quality.

## 2. LITERATURE REVIEW AND HYPOTHESIS

### Agency Theory

Agency theory emphasizes the importance of company owners (shareholders) handing over the management of the company to professionals, called agents, who have more understanding in carrying out daily business. Agency theory states the need for independent auditor services. Agency theory is the relationship between the owner (principal) and the management (agent) (Tandiontong, 2016). In this connection, management is seen as an agent trying to get contributions from principals such as bankers, shareholders, and employees (Hayes, 2014).

The development of a company or business entity has caused many conflicts to occur between the shareholders or investors (principal) and the management or directors (agent), referred to as agency conflict. To reduce the existence of agency conflict, it is necessary to have an independent party who can be an intermediary in handling the conflict, known as an independent auditor (Tandiontong, 2016).

### Competence

Competence is the knowledge, experience, and expertise to complete a task done by someone (Hayes et al., 2014). Arens et al. (2015) states that an auditor must have the qualifications to understand the criteria used and must be competent to know the type and the number of evidence to be collected in order to reach the right conclusions after examining the evidence.

Competence is related to expertise, knowledge, and experience. So, a competent auditor is an auditor who has sufficient knowledge, training, skills and experience in order to successfully complete his audit work (Tandiontong, 2016).

In order to meet the principle of professional competence and prudential

attitudes, a certified public accountant (CPA) has to: (a) maintain professional knowledge and expertise at the level required to provide confidence that the clients will receive competent and professional services, and (b) act attentively and accurately in accordance with applicable professional standards and professional codes of ethics when carrying out professional activities and providing professional services (IAPI, 2018).

Professional competencies can be grouped into two different stages, namely (a) achieving professional competence; and (b) maintaining professional competence. Professional competence requires high standards of general education followed by education, training, special examinations in relevant subjects, and work experience. Maintaining professional competence requires ongoing understanding and awareness of relevant technical, professional and business developments through continuing professional education (Hayes, 2014). Sustainable Professional Education Development (PPL) enables every certified public accountant (CPA) to develop and maintain his ability to act competently in a professional environment (IAPI, 2018).

### Independence

For the audited company, auditor independence is one of the basic requirements to maintain public confidence in the reliability of audit reports (Hayes et al., 2014). The value of auditing is very dependent on public perceptions of auditor independence. The reason that many users want to rely on public accountants' reports is their expectations of an unbiased perspective (Arens et al., 2015). AICPA states that auditors must be independent in information, and not independent on clients who compile information (Tandiontong, 2016). Independence adds credibility to the audit report, in which a number of investors, creditors, employees, the government, and other stakeholders rely on the report to make decisions about the company (Hayes, 2014).

The code of ethics explains independence as independence in mind and independence in appearance (IAPI, 2018). Independence in mind reflects the auditor's mind which enables the audit to be carried out with an unbiased attitude. Independence in appearance is the result of another interpretation of this independence (Arens et al., 2015).

IAPI (2018) explains that independence is (a) independence in mind: mental attitude of mind that makes it possible to state a conclusion without being influenced by pressure that can reduce professional judgment, thus allowing individuals to act with integrity and apply professional objectivity and skepticism; (b) independence in appearance: avoidance of facts and circumstances so as to be rational and well-informed third party, taking into account all certain facts and circumstances, concluding the integrity, objectivity, or professional skepticism.

Professional accountants must use professional wisdom to identify a number of threats to independence (threats of personal interest, personal review, advocacy, closeness, and intimidation), evaluate the significance of a number of threats that have been identified, and carry out safeguards to eliminate these threats or reduce them to the level which can be accepted if needed. The code of ethics emphasizes that during the audit assignment, it is still necessary to pay attention to the public interest and ask all members of the audit team to remain independent of the audit client (Hayes, 2014).

### **Information System Audit**

Each company must be able to obtain relevant information related to a number of events and activities, both internal and external, in financial and non-financial forms. Relevant information for financial reporting is recorded in the accounting system and becomes subject to a number of procedures: such as initiating, recording, processing and reporting entity transactions. Information systems used by

companies include accounting systems, production systems, budget information, staffing systems, system software, application software for word processing, calculation, presentation, communication, and databases, as well as records and documents produced by this software. The quality of information generated by the system affects the ability of management to make the right decisions in controlling the activities of the entity and presenting reliable financial reports (Hayes, 2014).

Information technology can be used to automatically post information from a transaction processing system to the general ledger for financial reporting. When information technology is used to post information automatically, there may be little or no visible evidence of unauthorized interventions in information systems. The auditor must also understand how improper transaction processing can be completed (Hayes, 2014).

Information system audit or information technology audit focuses on various aspects of computer-based information systems in the company. This audit includes implementation evaluation, operation, and control of various appropriate computer resources. Because most modern information systems use information technology, IT audits are usually an important component in all external and internal audits (Hall and Singleton, 2009).

Information technology (IT) audits are associated with auditors who use various technical expertise and knowledge to conduct audits through computer systems, or provide audit services where processes or data, or both, are embedded in various forms of technology. The scope of IT audits has expanded to include in-depth systems (for example, auditing system development procedures) and their scope (for example, involving more systems and technology) (Hall and Singleton, 2009).

To understand the accounting system adequately, the auditor must identify the main groups of transactions in the client's operational activities and understand

the accounting process and the financial reporting process as a whole, from how the transactions begin to the inclusion in the financial statements. Important points of interest to the auditor are when financial information changes during the recording and accumulation flow in the ledger (Hayes, 2014).

Control procedures related to information processing are controls that are carried out to ensure accurate input and processing, adequate documents and records, and control of computer applications (Hayes, 2014). Auditing standards describe two categories of control over IT systems, namely general control and application control (Arens et al., 2015).

General controls are a number of policies and procedures that relate to many applications and support the effective application control functions by helping to ensure the continuity of appropriate operating activities on information systems. General controls include access controls, such as user IDs, passwords, and data backup, and recovery procedures (Hayes, 2014). General controls are applied to all aspects of IT functions, including IT administration, separation of IT tasks, system development, physical and online security of access to hardware, software, and related data, backup and contingency planning for unforeseen emergencies as well as hardware control (Arens et al., 2015).

Application controls apply to transaction processing (Arens et al., 2015). Application controls are the controls that apply to applications that start, record, process, and report a number of transactions (such as MS Office, SAP, QuickBooks). A chart of accounts is an important application control because it provides a framework for determining the information to be presented in financial statements and budgets. Control devices that are widely used are the use of serial numbers on documents and transaction entries (Hayes, 2014).

### **Audit Quality**

In the practical literature, audit quality is how fit the audit is with auditing standards. Audit quality is interpreted as the probability of an auditor in finding and reporting an error or deviation that occurs in a client's accounting system. Quality audits are audits conducted by competent and independent people (Tandiontong, 2016).

According to Tandiontong (2016), there are two types of audit quality: perceived audit quality and monitoring quality. Perceived audit quality is the quality of audit according to the assessment of other parties, for example the market. In addition, perception is related to past performance, not to actual performance. On the other hand, Watkins et al. (2004) argues that auditor quality should be described by the quality or strength of the auditor's monitoring. The auditor as the "eye" of shareholders must be able to provide assurance that the financial statements submitted by the auditor are free from material misstatements.

### **Hypothesis**

Quality audits are audits conducted by competent and independent people. Competent auditor is an auditor who has technological ability, understands and carries out correct audit procedures, understands and uses correct sampling methods, etc. Whereas independent auditor is an auditor who, if he finds a violation, will independently report the violation (Tandiontong, 2016).

Because most modern information systems use information technology, IT audits are usually an important component in all external and internal audits (Hall and Singleton, 2009). Information technology audits are associated with auditors who use various technical expertise and knowledge to conduct audits through computer systems, or provide audit services where processes or data, or both, are embedded in various forms of technology (Hall and Singleton, 2009).

This research is a replication of previous research conducted by M. Keith Wright and Charles J. Capps III entitled "*Auditor Independence and Internal Information Systems Audit*". The results of the study indicate that independence has less effect on audit quality of information systems than competence.

The difference between this research and previous research is that the previous research took a sample of internal auditors, while this research takes a sample of external auditors working in public accounting firms in West Java. Whereas the similarity between this research and previous research is that both discuss the factors that influence the information system audit, consisting of the competence and independence of auditors.

Based on the description above, the researcher proposes the following hypotheses:

- H1: Auditor competence has an influence on information system audit quality.  
H2: Auditor independence has an influence on information system audit quality

### 3. METHODS

The method used in this research is descriptive method with a survey approach. According to Indriantoro and Supomo (2002), descriptive method is a study of problems in the form of the current facts of a population. Survey method, according to Indriantoro and Supomo (2002), is data collection and analysis techniques in the form of opinions of the subjects studied (respondents) through question and answer. There are two ways in the survey method: (1) questionnaire (written question) and (2) interview (oral question).

Research variable, according to Sugiyono (2014), is an attribute or nature or value of people, objects or activities that have certain variations that are determined by researchers to be studied and concluded. The independent variables used in this study are auditor competence and auditor independence, while the

dependent variable is information system audit quality.

The population in this study is all external auditors working in public accounting firms located in West Java. This study only takes a sample of external auditors working in Public Accounting Office in West Java. According to Sugiyono (2014), sample is part of the number and characteristics possessed by the population. If the population is large, and it is impossible for the researchers to study all things in the population, the researchers can use the samples taken from that population.

According to Sugiyono (2014), sampling technique is a technique in selecting the samples. The sampling technique used in this study is in the form of Simple Random Sampling. Simple Random Sampling is a sampling of members of the population carried out randomly without regard to strata existing in that population (Sugiyono, 2014). The number of samples used in this study is 34 auditors working in public accounting firms in West Java.

### Hypothesis Testing

Analysis method used in this study is multiple regression analysis. Multiple regression analysis is used by researchers if the researchers intend to predict the state of the dependent variable, if two or more independent variables as predictors are manipulated (Sugiyono, 2014).

The research model can be seen in the following figure 1.

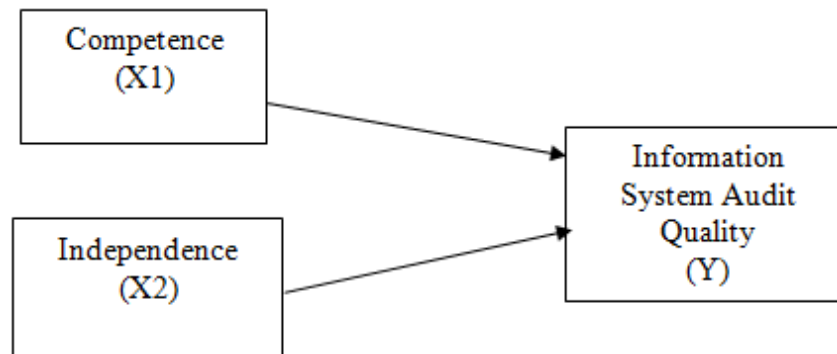
### 4. RESULT AND DISCUSSION

The following are the results of multiple linear regression analysis to test the hypotheses raised in the study (Table 1).

#### Discussion of the Results of Hypothesis Test of the Effect of Competence on Information System Audit Quality

The first hypothesis (H1), states that auditor's competence has an influence on information system audit quality. Based on table 1, it can be seen that the significance value is  $0.011 \leq 0.05$ , or  $P_{\text{value}} \leq \alpha$ . So, H1

Figure 1. Research Model

Table 1. Multiple Linear Regression Testing Results  
Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	21.657	8.016		2.702	.011
	TOTALK	.694	.258	.433	2.693	.011
	TOTALID	.297	.333	.143	.890	.380

a. Dependent Variable: TOTALSIA

Source: Processed Data

is accepted. It means that competence has an effect on information systems audit quality.

The result of this study is in line with the result of the research conducted by M. Keith Wright and Charles J. Capps III (2012) that competence has an influence on information system audit quality. Tandiontong (2016: 80) also states that competent auditors are auditors who have technological ability, understand and carry out correct audit procedures, understand and use the correct sampling method, etc. Quality audits are audits conducted by competent people.

#### Discussion of the Result of Hypothesis Test of the Effect of Auditor Independence on Information Systems Audit Quality

The second hypothesis (H2), states that independence has an influence on information system audit quality. Based on table 1, it can be seen that the significance value is  $0.380 > 0.05$ , or  $P_{\text{value}} > \alpha$ . So, H1 is rejected It means that independence has no effect on information system audit quality.

The result of this study is in line with the result of the research conducted by M. Keith Wright and Charles J. Capps III (2012) that independence has little effect on information system audit quality. This is because auditor competence has a greater effect than auditor independence. Hall and Singleton (2009: 4) state that information technology audits are associated with auditors who use various technical expertise and knowledge to conduct audits through computer systems, or provide audit services where processes or data, or both, are inherent in various forms of technology.

#### 5. CONCLUSION

Based on the results of the study and discussions, it can be concluded that competence has an effect on information system audit quality, while independence has no effect on information system audit quality. The results of this study are in line with the results of previous studies that auditor's competence has a greater effect than auditor's independence on the

information system audit quality. The results of this study indicate that auditor's competence must be improved in order to produce qualified information systems. Auditor's competence can be increased through training or seminars so that it can add insight to external auditors when they conduct audits, especially information systems auditing. The limitation in this study is on the limited number of samples used because many public accounting firms were busy with their audit reports when the researcher collected data so that there were only a few public accounting firms that are willing to fill out the questionnaire. It is recommended that further research add the number of samples of external auditors. Further research is also expected to add other variables, in addition to competence and independence that affect the information system audit quality.

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