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## The Effect of Information Technology, Competence and Independence on Audit Quality with Motivation as a Moderating Variable

**Abstract.** The auditor must have high competence, be independent and be able to operate information technologies to ensure the high quality of the audit. The purpose of this study is to examine the impact of information technology, competence and independence on audit quality in the South Sulawesi BPKP office with motivation as a moderating variable. This is a quantitative research using primary data. The population in this study was 126 auditors; the sample was 51 auditors who met predetermined criteria. The selection of auditors was carried out based on compliance with two criteria: 1) work experience of three years or more; 2) education not lower than a bachelor's degree in accounting. Hypothesis testing used in this study uses a t-test with the help of Smart PLS 3.2 software. The results of this study indicate that information technology, competence, and independence have a positive and significant impact on audit quality. Therefore, companies should pay considerable attention to the development of auditors' competence, analyze their relationship with audit objects, and implement information technologies to increase user confidence in audit results. Of course, motivation is a driver of self-development and effective work, but in this study, motivation does not moderate the impact of information technology and independence on audit quality. At the same time, the interaction relationship between competence and motivation affects audit quality. This means that an auditor will continue to get motivated to increase his knowledge due to several factors, especially environmental factors. So, the deeper the knowledge known, the better the auditing results.

**Keywords:** information technology, competence, independence, audit quality, motivation, auditor.

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## Вплив інформаційних технологій, компетентності та незалежності на якість аудиту з мотивацією як модеруючою змінною

***Анотація.** Аудитор повинен бути компетентним і незалежним, вміти оперувати інформаційними технологіями, щоб забезпечити високу якість результатів аудиту. Метою цього дослідження є вивчення впливу інформаційних технологій, компетентності та незалежності на якість аудиту в офісі BPKP у провінції Південне Сулавесі (Індонезія) з мотивацією як модеруючою змінною. Це дослідження є кількісним з використанням первинних даних. Об'єкт дослідження представлений 126 аудиторами; цільова вибірка складала 51 аудитора, який відповідав заздалегідь визначеним критеріям. Відбір аудиторів здійснювався за відповідністю двом критеріям: 1) досвід роботи від трьох років; 2) освіта не нижче бакалавра із бухгалтерського обліку. Перевірка гіпотез цього дослідження проводилася з використанням t-тесту за допомогою програмного забезпечення Smart PLS 3.2. Результати дослідження показують, що інформаційні технології, компетентність і незалежність мають позитивний і значний вплив на якість аудиту. Тому компаніям слід приділяти значну увагу розвитку компетентності аудиторів, аналізувати їх взаємовідносини з об'єктами аудиту та впроваджувати інформаційні технології для підвищення довіри користувачів до результатів аудиту. Звичайно, мотивація є рушієм саморозвитку та ефективної роботи, але в цьому дослідженні мотивація не модерує вплив інформаційних технологій і незалежності на якість аудиту. Водночас взаємозв'язок між компетентністю та мотивацією впливає на якість аудиту. Це означає, що аудитор завдяки мотивації підвищує свої знання на основі врахування такого фактору як інформаційні технології. Отже, чим глибші знання матиме аудитор, тим кращими будуть результати аудиту.*

***Ключові слова:** інформаційні технології, компетентність, незалежність, якість аудиту, мотивація, аудитор.*

### INTRODUCTION

The information in the financial reports is a source for making management and investment decisions. However, its completeness and reliability may need to be clarified. The purpose of an audit is to increase stakeholders' confidence in the information in financial statements.

The audit is collecting and evaluating measurable evidence of information by an economic entity that is competent and independent in reporting the information by the criteria set. The audit report contains information that has been guaranteed to be correct because an auditor has thoroughly and deeply examined it. Every auditor who conducts an examination must have good competence, an independent attitude, and be able to understand the development of technology to produce good quality and provide trust by users of the report.

In Indonesia, the case of marking up food packages affected by COVID-19 in 2021 is illustrative when the South Sulawesi Regional Police initially gave responsibility for examining the report to the BPKP of South Sulawesi Province. However, it then withdrew its request after waiting for 6 months. The reason is that BPKP has provided no audit results to the South Sulawesi regional police. So, BPKP is considered not independent in carrying out its duties as an audit examiner (Hakim, 2021).

The Financial and Development Supervisory Agency (BPKP) is an internal supervisor under and responsible to the president. BPKP organises government affairs in the state or regional financial supervision and national development.

This study investigates the impact of information technology, competence and independence on the audit quality performed by BPKP auditors. Motivation was chosen as the moderating variable in this study.

### LITERATURE REVIEW

#### *Agency Theory*

Agency theory is based on economic theory and explains the contractual relationship between principals and agents. The point of view of this theory is that the principal (owner or top management) oversees agents (employees or lower managers) to carry out efficient performance. Agency theory can help an auditor to find out the problems that occur between principal and agent. The role of third parties in the company is significant. Auditors who are third parties are considered capable of bridging between agents and principals as a form of responsibility. The auditor is tasked with providing an opinion on the fairness of the results of the financial statements that have been presented by the agent, which

can be seen from the quality of the audit produced by the auditor. Agency theory states that the need for independent auditor services can be explained based on agency theory, namely the relationship between the owner (principal) and management (agent).

### *Audit*

The audit is a systematic process of objectively obtaining and evaluating evidence on assertions about economic activities and events to ascertain the degree of association between these assertions and established criteria and communicating the results to interested parties. An auditor carries out the auditing process. The auditor is an independent and competent person who carries out audits. The auditor is responsible to the accountant profession, professional partners, the organization in which the auditor is sheltered, the auditor or auditee, himself, and at large to the public. The purpose of auditing financial statements by auditors is to provide accountant opinions on the feasibility of presenting financial statements regarding financial position, results of operations and money flows about generally accepted accounting principles. Therefore, an auditor will provide the results of the accountant's report as a manifestation of his opinion from the results of the financial audit he has done (Tandiontong, 2016).

### *Audit Quality*

AAA Financial Accounting Standard Committee (2000) states that "audit quality is determined by two things, namely competence (expertise) and independence, both of which directly affect quality and potentially influence each other. Furthermore, users' perceptions of financial statements on audit quality are a function of their perceptions of auditors' independence and expertise" (Christiawan, 2002).

### *Information Technology*

Information technology is a tool used in communicating and providing information. Technology has a broad role in audit reporting. Information technology, as part of the audit procedure, is used in processing data, especially on devices related to the information system to be audited. Information technology is vital in audit because most accounting operations are carried out with computer media, so audit data processing must also use a computer that facilitates auditor analysis.

Information technology can automate tasks or processes performed by humans, integrate various parts, and provide information directly to superiors, and can be used to form strategies. The government needs to optimize the use of advanced information technology for building network management information systems and work processes that allow it to work in an integrated manner by simplifying access between units (Mene et al., 2018).

Thus, **H1**: it is assumed that information technology positively affects audit quality.

### *Competence*

Competence is the ability possessed by a person in carrying out his duties. Competency in auditors is very important to produce excellent and objective audit quality. Auditors must have competence or expertise in the form of methods and techniques in auditing. Every auditor needs to develop their abilities or competencies, both technically and non-technically, to understand industry development. Previously updated capabilities provide experience to auditors, thus influencing auditor scepticism. The more seminars or trainings that are carried out, the more competence they have. Because competence in auditors increases based on the experience that auditors have passed, competence can be seen from different points of view (Suryo, 2016).

Thus, **H2**: it is assumed that competence positively affects audit quality.

### *Independence*

Independence is a component of auditor ethics that must be owned and maintained to maintain clients' trust. The auditor cannot be influenced in an examination because it performs work in the public interest. Auditors who have an attitude of independence will produce quality audit examinations. Mulyadi (2010) in (Rahayu et al., 2020) states that independence is a mental attitude free from influence, not controlled by other parties, and not dependent on others. Independence also means honesty in an auditor in considering facts and the existence of impartial, objective considerations in the auditor in formulating and expressing his opinion. Auditors are not allowed to side with anyone's interests. Auditors must be honest not only to the management and owners of the company but also to creditors and other parties.

Thus, **H3**: it is assumed that independence positively affects audit quality.

### *Motivation*

Motivation is a process that begins with physiological or psychological needs that activate behaviours or triggers aimed at goals. Motivation can give a person a strong enthusiasm for achieving the desired goals. The auditor's motivation in carrying out the audit is to continue the business and business continuity that benefits him. The auditor's motivation also arises because he believes he can carry out the audit to customer demand and commercial needs (Mills, 1993).

Thus, **H4**: it is assumed that motivation enhances the positive impact of information technology on audit quality.

Thus, **H5**: it is assumed that motivation enhances the positive impact of competency on audit quality.

Thus, **H6**: it is assumed that motivation enhances the positive impact of independence on audit quality.

Figure 1 schematically presents the model of the influence of selected independent variables on audit quality, which is a dependent variable.

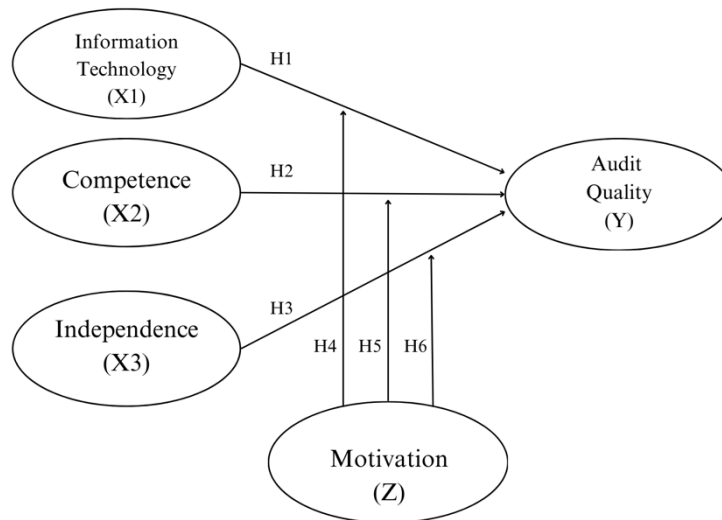


Figure 1. Research Theoretical Framework

**RESEARCH METHODOLOGY**

This research uses a quantitative approach because it uses numbers, starting from data collection, interpretation of the data, and appearance of the results. The research was located at the BPKP Office of South Sulawesi

Province, with primary data sources being data obtained directly from distributing questionnaires. The sample used in this study was purpose sampling, namely determining the sample with certain criteria. The criteria set in the sample selection are as follows:

Table 1. Sample Selection Criteria

No	Criteria	Number of Auditors
1	A person has worked as an auditor at BPKP for three years or more. After all, there is an assumption that auditors who have three years of service are considered to have experience in adapting to the conditions of their work environment (Trisnangsih, 2007).	51
2	A person has a minimum educational background of bachelor or undergraduate majoring in accounting. There is an assumption that auditors at the BPKP office with at least a bachelor's or undergraduate degree in accounting have sufficient insight into the auditor profession (Simangunsong, 2022).	
<b>Total research sample</b>		<b>51</b>

The technique used in this study and the statistical method used to test the hypothesis is to use multiple regression with the help of Partial Least Square (PLS) 3.2 software.

**RESULTS**

The analysis technique in this study uses SmartPLS (Partial Least Square). Data analysis focuses on determining the influence of competence, independence, and information technology on audit quality with

motivation as a moderation variable in the BPKP office of South Sulawesi Province.

Testing the structural relationship model serves to explain the variables in the study. Testing of structural models is carried out through t-tests. The basis used in testing the hypothesis directly is the output and the values contained in the output of path coefficients and indirect effects. The results of hypothesis testing are presented in Table 1.

Table 2. Direct Relationship

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ((O/STDEV))	P Values	Hypothesis
Information Technology (X1) → Audit Quality (Y)	0.407	0.422	0.105	3.872	0.000	Accepted
Competence (X2) → Audit Quality (Y)	0.151	0.153	0.071	2.118	0.035	Accepted
Independence (X3) → Audit Quality (Y)	0.291	0.265	0.108	2.685	0.008	Accepted
Z*X1 → Audit Quality (Y)	-0.014	-0.040	0.152	0.091	0.927	Rejected
Z*X2 → Audit Quality (Y)	0.167	0.167	0.076	2.186	0.029	Accepted
Z*X3 → Audit Quality (Y)	-0.139	-0.112	0.136	1.023	0.307	Rejected

Statistical testing on each hypothesized relationship using PLS is carried out by simulation, namely by bootstrapping the sample. The following are the results of the PLS analysis with the bootstrapping method.

#### H1 Testing

The effect of information technology (X1) on audit quality (Y) based on the t-test table is  $0.000 < 0.050$ . At the same time, the t-value is  $3.872 > t$  table (1.96). Thus, H0 is rejected, and H1 is accepted, which means information technology (X1) influences audit quality (Y).

#### H2 Testing

The effect of competency (X2) on audit quality (Y) based on the t-test table is  $0.035 < 0.050$ , while the t-value is  $2.118 > t$  table (1.96). Thus, H0 is rejected, and H2 is accepted, which means competency (X2) influences audit quality (Y).

#### H3 Testing

The effect of independence (X3) on audit quality (Y) based on the t-test table is  $0.008 < 0.050$ , while the t-value is  $2.685 > t$  table (1.96). Thus, H0 is rejected, and H3 is accepted, which means independence (X2) influences audit quality (Y).

#### H4 Testing

The effect of the interaction between motivation (Z) and information technology (X3) on audit quality (Y) based on the t-test table is  $0.927 > 0.050$ . In contrast, the t-value is  $0.091 < t$  table (1.96). Thus, H0 is accepted, and H4 is rejected, which means there is no interaction between information technology and motivation. However, other studies show that motivation positively and significantly affects audit quality.

#### H5 Testing

The effect of the interaction between motivation (Z) and competency (X1) on audit quality (Y) based on the t-test table is  $0.029 < 0.050$ , while the t-value is  $2.186 > t$  table (1.96). Thus, H0 is rejected, and H5 is accepted, which means interaction between motivation

and competency positively and significantly affects audit quality.

#### H6 Testing

The effect of the interaction between motivation (Z) and independence (X2) on audit quality (Y) based on the t-test table is  $0.307 > 0.050$ , while the t-value is  $1.023 < t$  table (1.96). Thus, H0 is accepted, and H6 is rejected, which means there is no interaction between motivation and independence. However, other studies show that independence positively and significantly affects audit quality.

#### DISCUSSION

##### The Effect of Information Technology on Audit Quality

Research results show that information technology has a positive effect on audit quality. The application of information technology will make it easier for an auditor to conduct examinations because of the integration of information technology that can provide information quickly in its operation. Improved technology will make the quality of reports also good so that the existence of audit technology can improve the quality of audits produced by auditors. Information technology applications can facilitate organizational problems within companies, such as the analysis and distribution of information presentation (Selvi et al., 2023).

This research aligns with the state of Junaid et al. (2021) that the application of information technology will make auditors use the technology effectively and appropriately in auditing activities.

##### The Effect of the Interaction between Motivation and Information Technology on Audit Quality

Research results show that the interaction between information technology and motivation does not affect audit quality. However, information technology is an integral part of the management system today. So, without each individual's motivation, information technology will still be used and needs to be understood by an auditor.

This research is not in line with Selvi et al.' (2023) research, which states that information technology can increase motivation in high work because high motivation is needed to do all the work.

#### **The Effect of Competency on Audit Quality**

Research results show that competence positively and significantly affects audit quality. If the auditor's competence increases, the resulting audit's quality will improve. However, if the competence possessed is lacking, the audit quality is also lacking. An auditor must be competent in doing his job to complete all the work efficiently and produce good audit quality. Agency theory explains a contractual relationship between the principal or government and the agent or auditor to produce quality audits.

Rahayu et al. (2020) state that competence has a positive and significant effect on audit quality because competence is a supporting factor for the quality of audit results. In other words, the more competent the auditor, the better the quality of the audit results.

#### **The Effect of the Interaction between Motivation and Competence on Audit Quality**

Research results show that the interaction between motivation and competence positively and significantly affects audit quality. So, motivation can moderate competence toward audit quality and have an appropriate direction. If auditor has the motivation to improve competence, it will produce good audit quality. However, if an auditor is not motivated to improve their competence, the results will be less quality. Agency theory explains that all individuals act in their interests. So that agents or auditors will always encourage themselves to produce quality examination results and be trusted by principals or the government.

Khairunita (2020) states that to produce quality auditor performance, auditors must have good competence. However, in addition to the auditor's competence, motivation is also needed in the auditor to produce high audit quality so that the better the level of motivation, the better the quality of the audit he conducts.

#### **The Effect of Independence on Audit Quality**

Research results show that independence positively and significantly affects audit quality. So, an independent attitude can lead to quality audit results. An independent attitude is an attitude where an auditor is impartial by any party. This means the resulting auditing results can be of high quality because they have a high integrity value. So that auditors who do not have an independent attitude will find it challenging to produce good audit quality. The need for auditor independence services that can be explained based on agency theory, namely the relationship between the owner (principal) and management (agent).

Dokman (2020) states that when an auditor has an independent principle in his duties, it will better guarantee that the quality of the audit produced is more independent or trustworthy.

#### **The Effect of the Interaction between Motivation and Independence on Audit Quality**

Research results show that the interaction between independence and motivation does not affect audit quality. Thus, motivation cannot moderate independence in this study to produce quality examination results. Independence is an attitude that an auditor must possess to maintain the objectivity of the auditing results. So, this independent attitude is mandatory even without any motivation or encouragement being carried out. Agency theory states that reducing agency problems requires an independent party, an independent auditor, who can mediate in handling the conflict.

The results of this study align with the research conducted by Karnisa & Chariri (2015), which states that motivation cannot moderate independence of audit quality.

#### **CONCLUSION**

Based on the results of data analysis and discussion of the research results, the following can be drawn:

- 1) Information technology has a positive effect on audit quality. This means that the ability to know information technology by an auditor can produce good audit quality because information technology is able to assist in solving problems that occur in the inspection process.
- 2) Competence has a positive effect on audit quality. This means that if an auditor who has extensive knowledge and will continue to expand this knowledge, it will produce superior or good quality.
- 3) Independence has a positive effect on audit quality. This means that if an auditor is independent in doing his job, he will gain trust which will have an impact on the quality of the auditing results.
- 4) The interaction between information technology and motivation has no effect on audit quality. This means that even though an auditor does not have the motivation to keep up with the development of information technology in conducting audit activities, information technology will continue to be used in carrying out audit checks by an auditor.
- 5) The interaction relationship between competence and motivation affects audit quality. This means that an auditor will continue to get motivated to increase his knowledge due to several factors, especially environmental factors. So, the deeper the knowledge known, the better the auditing results.
- 6) The interaction relationship between independence and motivation has no effect on audit quality. This means that the attitude of independence possessed by an auditor is an attitude that absolutely must be possessed. Even though it does not have a driving factor or motivation in carrying out an independent attitude, this attitude must be possessed by an auditor in order to be able to carry out quality auditing.

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