



FACTORS INFLUENCING AUDIT QUALITY OF BANKING BUSINESS SECTOR IN INDONESIA

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ABSTRACT

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Improved audit quality is needed to increase investor's confidence in a company's financial statements. Competence and independence are requirements to produce a quality audit. This study is a quantitative study that aimed to analyze the effect of audit tenure, time budget pressure, firm size, and auditor specialization on audit quality. The population and data in this study comprised banking companies listed in the Indonesia Stock Exchange (IDX) in 2015-2019 and were obtained using the purposive sampling method. Earnings surprise benchmark was used as a measure of audit quality in this study with logistic regression analysis method as the analysis method. The results of the study indicated that audit tenure and time budget pressure did not provide an increase in audit quality. While the size of the company had an effect on the decline in audit quality significantly, the auditor specialization greatly improved audit quality. The implication of this research proves that to maintain audit quality, auditors must always maintain and improve their professional qualifications and plan more mature audits on audit work in larger companies.

Contribution/Originality: This study answers the question that regulations and technological advances will not decrease or increase audit quality. However, the size of the client company and the specialization of auditors is a very important issue to be considered and a factor that will continue to affect audit quality.

1. RESEARCH BACKGROUND

A company's financial statements are prepared with the aim of conveying information related to the company's performance and financial position and cash flows, which can be used as a benchmark in making economic decisions for users both internal and external to the company. In the preparation of these financial statements, errors or fraud cannot be always avoided. Manipulation in practice causing distortion of the quality of financial statements is not uncommon. The responsibility for the preparation and quality of financial reports belongs to company managers and those responsible for the preparation and presentation of financial statements (Dimitrijevic, Jovkovic, & Milutinovic, 2020).

Manipulation of information may occur due to differences in interests between management and other users of financial statements, causing agency conflicts (Jensen & Meckling, 1976). Therefore, it is necessary to have a third party from outside the company, namely a public accountant (auditor) as an independent party, who has a higher competence in carrying out tasks in the form of auditing financial statements. The quality of the auditor is very important to note because it affects the quality of the results of the audit conducted. The quality of the audit results

will increase the credibility of the financial statements so as to minimize the risk of information gaps for users, especially investors (Mgbame, Eragbhe, & Osazuwa, 2012).

According to DeAngelo (1981), audit quality is defined as the possibility of the auditor detecting and reporting errors in the client company's financial statements. This definition contains important points regarding the audit that must be carried out by an independent and competent auditor in order to produce a high-quality audit. In this case, competence relates to auditors being able to find misstatements in financial statements, while independence relates to auditors daring to report misstatements in financial statements (Panjaitan, 2014). High audit quality can also act as a deterrent to effective earnings management practices because financial statements reflect management's reputation (Handoyo & Agustianingrum, 2017). To maintain audit quality, auditors must comply with the rules contained in the Professional Standards of Public Accountants determined by the Indonesian Institute of Certified Public Accountants.

The long-standing relationship between auditors and clients can lead to closeness between them. It is not good if it happens because it can affect the independence of the auditor in carrying out his duties, namely examining the client's financial statements by detecting and disclosing misstatements in them. So that the close relationship can affect the resulting reduced audit quality due to the decreasing level of independence and auditor objectivity (Al-Thuneibat, Al Issa, & Ata Baker, 2011; Buntara & Adhariani, 2019; Primadita, Fitriany, & Kiantara, 2021). In line with that, Carey and Simnett (2006) argued that the engagement period between the auditor and the client is proven to have a negative relationship to audit quality where the longer tenure results in lower audit quality. However, a different opinion was expressed by Jackson, Moldrich, and Roebuck (2008), which stated that audit quality will increase along with the length of the bond between the auditor and his client. Giri (2010) also conveyed a similar opinion, namely a unidirectional relationship between audit tenure and audit quality where the longer the audit tenure, the higher results the quality of the audit. Furthermore, in his research, Giri (2010) stated that this happens because the longer the auditor provides audit services in the same company, the more the auditor will recognize the system being implemented so that the auditor's chances of detecting errors are higher.

The demand to produce quality audit reports with a limited time is a challenge for auditors. The limited time budget pressure to complete a job can be referred to as time budget pressure (Siagian & Meutia, 2016). When the time budget pressure gets higher and exceeds the level that can be done normally, it will have a negative effect on audit quality. Azad (1994) stated that time that puts too much pressure on the auditor can cause the auditor to behave dysfunctional, such as trusting the client's explanations too much, prematurely signing off, and failing to investigate related issues, which will ultimately result in quality audit reports being produced low. In a research conducted by Arisinta (2013) it was shown that time budget pressure has a positive effect on audit quality. Meanwhile, the results of Nirmala and Cahyonowati (2013) stated that time budget pressure has a significant negative effect on audit quality.

The next factor that affects audit quality is the company size. Big companies get a lot of media attention, while small companies tend to get less attention from their stakeholders. Small companies imply less information, also have weak supervisory systems. Therefore, the effect of a high-quality audit will be more felt by small companies, while improving audit quality is not so influential for large companies because they already have better quality control than small companies. A better internal control system in large companies when compared to small companies will make it easier for auditors to obtain the information needed so that the resulting audit quality will increase (Fernando, Abdel-Meguid, & Elder, 2010). In the research conducted by Darya and Puspitasari (2017) the results show that the size of the client company has a positive and significant effect on audit quality, in line with the research of Siregar and Elissabeth (2018) which convey a similar opinion. However, other results are shown by Rahmi, Setiawan, Evelyn, and Utami (2019) which says that the size of the client company has no effect on audit quality.

The experience and expertise of auditors in performing audit services for companies in certain industrial sectors makes auditors specialized. Auditors who have specialization will master the conditions of the client company better. They are considered capable of detecting errors that occur in audited financial statements more quickly. Auditors who are increasingly specialist will make the auditors increasingly master a certain industry (Panjaitan, 2014). Specialization of auditors in certain industries also results in higher quality audits than auditors without specialization (Knechel, Naiker, & Pacheco, 2007). Research conducted by Owoso, Messier, and Lynch (2002) and Havasi and Darabi (2016) suggested that there is a positive relationship between specialist auditors and audit quality. In their research, Owoso et al. (2002) also said that specialist auditors are superior to finding faults if they are given audit assignments that are in accordance with their specialization. In contrast to that, the results of research conducted by Blandon and Bosch (2018) and Maharani and Triani (2019) indicate that auditor specialization does not have a significant effect on audit quality, in line with research by Nurintiati and Purwanto (2017) which stated a similar opinion.

In previous studies that discussed several factors that affect audit quality, it showed that there were inconsistencies in research results and some suggestions given by previous researchers. Therefore, the current research aimed to re-examine this research topic. The researchers combined the independent variables, namely audit tenure, time budget pressure, company size, and keeping auditor specialization with audit quality as the dependent variable in the banking industry sector. The reason to choose the banking industry sector was due to the issue of misreporting financial data and earnings management becoming more prominent in recent years in this industry sector (Handoyo & Kusumaningrum, 2022). Furthermore, banking companies are a highly-regulated industry, which are always in the public spotlight, and have different accounting systems and reporting formats that makes them more complex than others. In addition, reviewed from debt level and to have high debt level, companies that have a high debt level are required to have high transparency to fulfill information needed. This leads auditors to improve their accuracy in doing audits on the banking companies client (Handoyo & Maulana, 2019). This causes the quality of the auditor to become a challenge in itself to uncover irregularities in the financial statements.

2. LITERATURE REVIEW

2.1. Agency Theory

Agency theory was first described by Jensen and Meckling (1976). This theory reflects the contractual relationship between the management of the company as an agent and the owner of the company, namely the shareholders as the principal where there is a delegation of authority from the principal to the agent. In this case, the principal authorizes the agent to make a decision that is favorable to the principal. According to agency theory, the separation between ownership and management of a company can cause agency problems, namely differences in interests between agents and principals. The principal as the shareholder wants the maximum profit, while the agent as the manager wants a large bonus.

The agent as the party running the company certainly has access to more information about the company. On the other hand, the principal as an external party has a limited access to the management of the company. Principals find it difficult to observe and monitor management behavior directly. This can create information asymmetry between the agent and the principal. The two parties have different interests where it raises the assumption that the agent tends to be close to the principal. Principals are advised not to simply believe in the financial statements prepared by agents as a form of accountability (Godfrey, 2010). This assumption naturally arises because the limited access owned by the principal can be a gap and open up opportunities for management to make deviations, namely by manipulating the company's financial statements, where management has the obligation to report the company's performance as outlined in the financial statements as a form of accountability. The financial statements are manipulated with the intention of being in accordance with the objectives to be achieved by management, resulting in the financial statements being no longer relevant and reflecting the actual condition of the company.

The existence of an agency conflict between the two parties, namely the principal and the agent, requires a third party who is an independent auditor to carry out an audit of the company's financial statements. Panjaitan (2014) stated that a third party acts as a liaison between the agent and the principal and to ensure that the behavior of the agent is consistent with the interests of the principal. Therefore, the auditor as a third party is needed to monitor management activities whether they are in line with the interests of the principal or not through financial reporting. The auditor will examine and evaluate the financial statements and provide a true audit opinion in order to produce a high quality audit.

2.2. Audit Quality

Audit quality is defined as the probability that the auditor will find and report a violation of the client's accounting system (DeAngelo, 1981). This definition illustrates a point that audit tasks must be carried out by professional and experienced auditors so that the resulting audit quality is high. The quality of an audit process is very important to ensure that the financial statements presented are relevant and reliable so that they can be used as a basis for decision making by users.

Hartadi (2012) stated that quality is work professionalism that must be maintained by professional public accountants. An auditor must uphold independence in order to maintain quality audit results by always prioritizing the interests of the principal over the interests of the agent or the auditor's personal interests in issuing audit reports. In addition to independence, high competence must also be possessed by an auditor. Auditors are required to complete a certification for the public accounting profession issued by the Indonesian Institute of Certified Public Accountants (IICPA), in which to obtain the certificate, the auditor will pass certain stages.

To support professionalism in carrying out their duties, auditors must adhere to audit standards determined by the Indonesian Institute of Certified Public Accountants, such as general standards, fieldwork standards, and reporting standards. These standards are closely related to a number of important aspects, namely planning, monitoring, fraud detection, risk determination, and increasing credibility, as well as providing client satisfaction (Abdelrhman, Labib, & Elbayoumi, 2014). The existing audit standards will increase the auditor's sense of responsibility in carrying out his duties so that the public's view and trust in the auditor will increase. In addition, auditors are also required to comply with the law and adhere to the existing professional code of ethics. That way, the quality of audit results will always be maintained and can improve the image of the Public Accounting Firm itself where it reflects that the audit process has been carried out in accordance with standards and regulations to produce high audit quality.

2.3. Audit Tenure

Audit tenure is the period of engagement between the auditors of a Public Accounting Firm and the same client company in succession (Werastuti, 2013). According to Hasanah and Putri (2018) audit tenure is the length of the engagement period between the auditor and the client which is measured in years. The long-standing relationship has become a polemic because it is felt that it can affect the performance of the auditor at the client company due to the emergence of emotional closeness between the two parties, decreased independence and competence, and so on (Nuratama, 2011). This opinion is in line with Al-Thuneibat et al. (2011); Buntara and Adhariani (2019) and Primadita et al. (2021) who stated that a fairly long bond span can affect the objectivity of the auditor in carrying out his work. However, on the other hand, if the audit is carried out in a short period of time, it can cause the auditor to not be optimal in obtaining information and exploring the client company. This is in line with Hamid (2013) research which says that the short audit tenure results in the auditor having little time to explore the client's business situation, thereby reducing the auditor's opportunity to evaluate information better.

In Indonesia, provisions related to tenure audit have been stated in the Regulation of the Minister of Finance (2008) concerning Public Accountant Services which regulates the provision of audit services on company financial

statements carried out by KAP with the longest time span, namely six years in a row, while by a public accountant the longest is three years in a row. Public accountants and KAPs are allowed to return to take assignments after one year of not providing audit services to the same client.

2.4. Time Budget Pressure

Auditors in providing audit services need to calculate the estimated time required in advance when planning the audit. The time budget is needed to measure the level of efficiency and the difficulties they face in measuring audit quality because there is a potential contrast between control costs and achieving high quality audits (Mashyekh Pul & Fallah, 2021). A form of pressure due to the limited time given to the auditor to carry out his duties is called time budget pressure or time budget pressure (Prasita & Adi, 2007).

Time budget pressure is defined as a situation that requires the auditor to be efficient in utilizing the specified time budget, in other words, there are rigid and tight time and budget restrictions (Sososutikno, 2003). According to Prasita and Adi (2007) time budget pressure is a form of pressure due to the limited time given to the auditor to carry out his duties. DeZoort and Lord (1997) stated that there are two types of auditor responses in dealing with time budget pressure, namely functional and dysfunctional.

For the functional type, the auditor will do his job properly and make the most of his time. As for the dysfunctional type, it is the opposite, where the auditor will take actions that can reduce audit quality. According to Coram, Ng, and Woodliff (2003), auditors who work with high time budget pressure tend to take actions that can result in reduced audit quality, such as reducing the number of audit samples, accepting weak audit evidence, and others. It is a challenge for auditors to face such conditions because with the increasingly complex task and limited time budget, they are required to produce quality audit reports.

2.5. Company Size

Company size is defined as a ratio in which companies are categorized as small or large which are measured in various ways such as total assets, log size, sales and market capitalization, and others (Hasibuan, 2009). Seftianne (2011) expressed a similar opinion that company size refers to the size of a company's scale which can be determined based on total assets, total sales, and average sales levels.

In a study conducted by Wuryatiningsih (2002) stated that total assets were chosen as an alternative to determine company size with the consideration that asset values tend to be more consistent than market capitalization and sales values. The bigger the company, the greater the total assets owned, and vice versa. Companies with large total assets reflect that the company is already at the point of maturity where the company's finances are in a stable condition and are considered to have good opportunities for a long period of time and can create profits than companies with small total assets.

2.6. Auditor Specialization

Auditor specialist describes the audit expertise and experience of an auditor in a particular industry field. According to Setiawan and Fitriany (2011) understanding and knowledge related to internal control and company business risks as well as audit risk in certain industries are owned by specialist auditors because industry-specialized auditors have handled a large number of clients in an industry so that they have more qualified experience and abilities. compared to unspecialized auditors. Dunn and Mayhew (2004) stated that the purpose of auditors specializing in a particular industry is to achieve product differentiation and provide higher audit quality.

According to Crasswell (1995) each industry has different characteristics. Therefore, audit needs are tailored to the needs of each industry. As is the case in auditing manufacturing companies with banking companies, although the principles are the same, there are still differences in certain aspects, both the nature of the business, the taxation

rules, or others. Such conditions indicate the need for auditor specialization in which the auditor must understand the characteristics of a particular industry to improve the quality of the resulting audit.

2.7. Hypothesis Formulation

2.7.1. Effect of Audit Tenure on Audit Quality

Audit tenure is the length of the relationship between the auditor and his client which is measured in years. The engagement period that is established for a long duration can lead to excessive intimacy between the two parties where it can result in a decrease in the independence and objectivity of the auditor in carrying out his duties so that it has an impact on the reduced quality of the resulting audit. It is feared that the longer tenure between the auditor and his client will make the opportunity for the auditor to detect and prevent the company from manipulating earnings and revealing the company's inability to be lower (Kusumawati, 2013). This also makes audit quality decline because auditor independence is decreasing (Primadita et al., 2021).

This statement is in line with research by Knechel and Vanstraelen (2007) which proved that the existence of a long audit tenure with clients makes the quality of an auditor no better or can be said to decrease in estimating the occurrence of earnings manipulation. This encourages audit rotation so that auditor independence is maintained and audit quality increases. In the study of Al-Thuneibat et al. (2011) also said that a long engagement between an auditor and a client can affect the independence of an auditor in finding and disclosing errors in the client's financial reporting where it results in the quality of the resulting audit decreasing. This opinion is consistent with the research results (Buntara & Adhariani, 2019; Paramita & Latrini, 2015; Primadita et al., 2021) who stated that the audit engagement period has a negative effect on audit quality.

Likewise, the results of research conducted by Nurintiati and Purwanto (2017) and Buntara and Adhariani (2019) revealed that longer tenure between auditors and their clients can result in lower audit quality. This means that audit tenure has a negative effect on audit quality. The case that struck the company Enron and the well-known Public Accounting Firm, namely Arthur Andersen, is an example that the long relationship between Public Accounting firm and clients can have an impact on audit quality. The audit tenure of Arthur Andersen and the Enron company has touched 20 years. These events indicate that tenure that is too long creates emotional closeness between the two parties and affects the decrease in auditor independence in providing audit services.

Based on the description above, the first hypothesis proposed in this study is:

H1: Audit tenure has a negative effect on audit quality.

2.8. Effect of Time Budget Pressure on Audit Quality

Time budget pressure is a condition where the auditor is required to efficiently utilize the specified time budget or there are time restrictions as well as a rigid and tight budget (Sososutikno, 2003). The existence of time budget pressure makes the auditor speed up the stages of the audit program by reducing the quantity of work that should be done (Arens, 2006). A pressure can affect the actions of an auditor in terms of making decisions and changing the strategy used and can hinder the process of extracting information. This can affect the quality of the audit results that are reduced.

This statement is in line with the research of Coram, Ng, and Woodliff (2004) who found that auditors who work with high time budget pressure tend to take actions that can result in a decrease in audit quality, such as by reducing the number of audit samples, accepting weak audit evidence, and others. Such conditions are a challenge for auditors because with high task complexity and limited time budgets, they are required to produce quality audit reports.

Surtikanti (2012) in her research said that insufficient time allocation for assignments allows auditors to work quickly by only completing important tasks and causes audit performance to tend to be ineffective. Meanwhile, research conducted by Nirmala and Cahyonowati (2013) suggested that time budget pressure has a significant

negative effect on audit quality. These results are consistent with the research results of Ningsih and Yaniartha (2013); Broberg, Tagesson, Argento, Gyllengahm, and Mårtensson (2017) and Nor, Smith, Ismail, and Taha (2017) who expressed a similar opinion. This means that the higher time budget pressure experienced by the auditor can trigger dysfunctional actions, thereby reducing the quality of the resulting audit (Kautsar, 2016).

Based on the description above, the second hypothesis proposed in this study is:

H2: Time budget pressure has a negative effect on audit quality.

2.9. The Effect of Firm Size on Audit Quality

Company size is a value that describes the size of a company. According to the research of Myers, Myers, and Omer (2003), generally large companies act as wider stakeholders. Dechow and Dichev (2002) said that larger companies tend to have relatively more stable cash flows than smaller companies. A large company size shows good company performance because the company can maintain stable profits without any manipulation treatment.

The company is obliged to maintain its good name in the wider community by publishing real financial statements. Large companies that have received a lot of attention from the public will choose to use the audit services of a large Public Accounting Firm to obtain high-quality audit results, which can maintain the company's reputation in order to remain good and increase the reliability of financial statements used by external parties. company.

In the research of Siregar and Utama (2006), which used the natural logarithm of the company's total assets at the end of the period as a measuring tool for estimating company size, the results show that company size has a positive influence on audit quality. In line with that, the research results of Siregar and Elissabeth (2018) also suggested that company size has a positive and significant effect on audit quality. Research conducted by Berig, Kalangi, and Wokas (2018) showed similar results that firm size had a positive effect on audit quality. This means that the larger the size of the company, the higher is the quality of the audit produced.

Based on the description above, the third hypothesis proposed in this study is:

H3: Firm size has a positive effect on audit quality.

2.10. Effect of Auditor Specialization on Audit Quality

Auditors act as parties who ensure that the accounting numbers contained in the financial statements are true and can be trusted. In addition to knowledge of accounting and auditing, an auditor must also have knowledge of the client's industry. When conducting audits of manufacturing companies and banking companies, although the auditing principles are the same, there are still differences in them such as the nature of the business, accounting principles, or different tax regulations. Therefore, auditors are required to have deeper insight regarding the characteristics of certain industries because they can affect the quality of the audits produced. This situation reflects that there is a need for auditor specialization.

Owhoso et al. (2002) suggested that specialist auditors have more understanding and knowledge of the client's business characteristics than non-specialist auditors. In addition, specialist auditors are considered to be more capable of finding errors or errors contained in financial statements so that companies can present better profit information. Furthermore, Setiawan and Fitriany (2011) said that auditors who have handled many clients in the same industry will have a more adequate understanding and ability related to internal control and company business risks as well as audit risk in the industry compared to auditors who do not have specialization.

The research conducted by Setiawan and Fitriany (2011) showed that auditor specialization has a positive and significant effect on audit quality. Panjaitan (2014) and Havasi and Darabi (2016) in their research also expressed a similar opinion. Specialized auditors increase the chances of finding errors and also inconsistencies than non-specialized auditors where it can improve the quality of audit results.

Based on the description above, the fourth hypothesis proposed in this study is:

H4: Auditor specialization has a positive effect on audit quality.

3. RESEARCH METHODS

The population used in this study are banking companies listed on the Indonesia Stock Exchange (IDX) during 2015-2019. Sampling was carried out using purposive sampling method which is a method based on certain criteria that are adapted to the research objectives. The criteria used in sampling were as follows:

- a. Banking companies that have been registered on IDX in 2015-2019.
- b. Published annual financial reports that have been audited by an independent auditor on the company website or IDX website during the research period (2015-2019).
- c. The company should not have experienced delisting from IDX during the study period (2015-2019).

Based on these criteria, 40 banking companies were selected as research samples from the entire population.

3.1. Dependent Variable: Audit Quality

In this study, the dependent variable used is audit quality. Audit quality is the possibility that the auditor when auditing the client's financial statements can find errors in the client's accounting system, and report them in the audited report, where in carrying out his duties the auditor is guided by auditing standards and the relevant public accountant code of ethics (Arisinta, 2013).

In this study, the measurement of audit quality is carried out using the earnings surprise benchmark developed by Carey and Simnett (2006) which is a measure or proxy for audit quality by utilizing information from financial statements, which is carried out by comparing the value of earnings against certain benchmarks in a period in the same industry. Audit quality is related to companies that carry out earnings management, such as preventing the reporting of losses and also checking the auditor's ability to find and disclose the existence of earnings management.

This measurement is carried out by using the Return on Assets (ROA) value and assessing whether ROA is included in the benchmark or not. The benchmark used is $\mu - \sigma < ROA < \mu + \sigma$, where μ is the average ROA of all sample companies and σ is the standard deviation. Audit quality is said to be poor if:

- ROA value $> \mu + \sigma$ or it is said that the profit exceeds the earning benchmark. This means that auditors provide opportunities for companies to expedite management practices, namely by compiling good financial reports by maximizing profits which ultimately management can get bonuses at this time or what is called windows dressing.
- ROA value $< \mu - \sigma$ or it is said that the loss exceeds the earning benchmark. This means that the auditor provides opportunities for companies to expedite management practices, namely by compiling bad financial reports by maximizing losses in the hope that management will get bonuses in the future or called taking a bath.

The formula formed from the audit quality variable (MEET_BE) is as follows:

- a. MEET_BE = 1, which is when the ROA value is within the benchmark ($\mu - \sigma < ROA < \mu + \sigma$) and indicates a good audit quality.
- b. MEET_BE = 0 i.e. when the ROA value is outside the benchmark ($ROA > \mu + \sigma$ or $ROA < \mu - \sigma$) and indicates poor audit quality.

3.2. Independent Variables

3.2.1. Audit Tenure

Audit tenure (AT) is the period of engagement between the auditors of a Public Accounting Firm and the same client company in succession (Werastuti, 2013). The measurement of audit tenure in this study refers to research conducted by Werastuti (2013), which uses an interval scale according to the length of the auditor's relationship with the client. Audit tenure is measured by counting the number of years of engagement in which the same Public

Accounting Firm performs audit engagements with the client company (auditee). The first year of engagement begins with the number 1, and is added by one for subsequent years.

3.2.2. Time Budget Pressure

Time budget pressure (TBP) is a condition where the auditor is required to be efficient in utilizing the time budget given to complete the work in accordance with the contract agreed between the auditor and the client (Nugroho, 2018). In this study, the measurement of time budget pressure was carried out with reference to the research of Nugroho (2018).

Time budget pressure is also defined as the time period required to complete audit activities measured in days from the date of the financial statements to the date of signing the independent auditor's report. The formula for measuring the time budget pressure variable is as follows:

$$\text{Time Budget Pressure} = \text{Time Distance (Days) between Financial Statement Date and Independent Auditor's Report Date}$$

3.2.3. Company Size

Company size (CS) is the scale of a company that is assessed by looking at its total assets (Darya & Puspitasari, 2017). In this study, the measurement of the firm size variable was carried out with reference to Collins and Kothari (1989), namely by performing the natural logarithm of the company's total assets at the end of the period. The formula for measuring firm size variables is as follows:

$$\text{Size} = \ln (\text{Total Assets})$$

3.2.4. Auditor Specialization

Auditor Specialization (AS) is a deeper expertise that offers a great insight to auditors regarding the condition of the company being audited. Auditors are considered capable of finding errors that occur in the client's financial statements better and faster. Auditors who are increasingly specialist will increasingly master a particular industry (Panjaitan, 2014). In this study, the measurement of the auditor's specialization variable was carried out in the way used by Crasswell (1995) where auditors are said to be specialists in an industry if they have audited at least 15% of the total companies in that industry. The percentage is calculated by the auditor industry specialization formula. This variable uses a dummy variable where a value of 1 will be assigned to auditors who have industry specialization and a value of 0 will be assigned to auditors who do not have industry specialization. The percentage of Auditor Industry Specialization (AIS) is calculated by the following formula:

$$\text{AIS} = (\text{Number of Audit Firm clients in industry Y} / \text{Number of all issuers in industry Y}) \times 100\%$$

4. RESULTS AND DATA ANALYSIS

4.1. Testing the Feasibility of the Regression Model

The feasibility test of the regression model was carried out using a statistical test tool, namely Hosmer and Lemeshow's Goodness of Fit Test. The model is said to be acceptable if the probability of significance is greater than 0.05. The test results can be seen in Table 1.

Table 1. Hosmer and Lemeshow test.

Step	Chi-square	df.	Sig.
1	12.984	8	0.112

Based on the test results, it can be seen that the chi-square value is 12.984 with a significance value of 0.112. The significance value greater than 0.05 (0.112 > 0.05) indicates that there is no significant difference between the model and the observed value, so that the feasibility of the regression model is said to be good because the model

can predict the value of the observations. From this analysis, it can be interpreted that the model used in the study was appropriate.

4.2. Assessing the Overall Model (Overall Fit Model)

Assessment of the overall model (overall fit model) is carried out based on the statistical value of -2 Log Likelihood (-2LL), namely by comparing the value of -2LL when the independent variable has not been entered (block number = 0) with a value of -2LL when the independent variable has entered (block number = 1). The regression model is said to fit the data if the value of -2LL (block number = 0) is greater than the value of -2LL (block number = 1). The results of the -2 Log Likelihood value can be seen in Tables 2 and Table 3.

Table 2. Iteration history block 0.

Iteration		-2 Log likelihood	Coefficients
			Constant
Step 0	1	206.514	1.160
	2	205.584	1.318
	3	205.583	1.325
	4	205.583	1.325

Note: a. Constant is included in the model.
 b. Initial -2 Log Likelihood: 205.583
 c. Estimation terminated at iteration number 4 because parameter estimates changed by less than 0.001.

Table 3. Iteration history block 1.

Iteration		-2 Log likelihood	Coefficients				
			Constant	AT	TBP	CS	AS
Step 1	1	197.503	5.549	0.058	0.007	-0.167	0.544
	2	194.628	7.852	0.088	0.011	-0.248	0.853
	3	194.573	8.219	0.093	0.012	-0.261	0.914
	4	194.573	8.228	0.093	0.012	-0.262	0.915
	5	194.573	8.228	0.093	0.012	-0.262	0.915

Note: AT: Audit tenure; TBP: Time budget pressure; CS: Company size; AS: Auditor Specialization
 a. Method: Enter.
 b. Constant is included in the model.
 c. Initial -2 Log Likelihood: 205.583
 d. Estimation terminated at iteration number 5 because parameter estimates changed by less than 0.001.

Based on Table 2, it can be seen that the initial -2 Log Likelihood value (block 0) is 205.583. Then, after the four independent variables were entered, the final -2 Log Likelihood value (block 1) decreased to 194.573 which can be seen in Table 3. The occurrence of this -2LL decrease where the initial -2LL value is greater than the final -2LL value indicates that the hypothesized model has been fit with the data or in other words the regression model can be said to be good.

4.3. Logistics Regression Analysis

The analytical model used is logistic regression analysis which aims to test whether the probability of the occurrence of the dependent variable (audit quality) can be predicted with the independent variables (audit tenure, time budget pressure, company size, and auditor specialization). The results of the logistic regression analysis can be seen in Table 4.

Table 4. Variables in the Equation.

		B	S.E.	Wald	Df	Sig.	Exp(B)
Step 1 ^a	Audit Tenure (AT)	0.093	0.151	0.378	1	0.539	1.098
	Time Budget Pressure (TBP)	0.012	0.008	2.154	1	0.142	1.012
	Company Size (CS)	-0.262	0.130	4.070	1	0.044	0.770
	Auditor Specialization (AS)	0.915	0.447	4.195	1	0.041	2.497
	Constant	8.228	4.194	3.848	1	0.050	3742.518

Note: a. Variable(s) entered on step 1: Audit Tenure, Time Budget Pressure, Company Size, Auditor Specialization.

Based on the B value contained in the table above, it can be obtained the following logistic regression model equation:

$$KA = 8.228 + 0.093 AT + 0.012 TBP - 0.262 UP + 0.915 SA + \varepsilon$$

The equation of the logistic regression model can be interpreted as follows:

1. The constant value of 8.228 indicates that if the variables of audit tenure, time budget pressure, company size, and auditor specialization are assumed to be zero, the audit quality will increase by 8.228 units.
2. The regression coefficient value of the audit tenure variable (AT) is 0.093 with positive parameters, which means that every time there is an increase in one audit tenure unit with the assumption that the other variables are zero, the chance of audit quality will increase by 0.093.
3. The regression coefficient value of the time budget pressure (TBP) variable is 0.012 with positive parameters, which means that every time there is an increase in one unit of time budget pressure with the assumption that other variables are zero, the chance of audit quality will increase by 0.012.
4. The regression coefficient value of the Company size variable (CS) is -0.262 with a negative parameter, which means that every time there is an increase in one unit of firm size with the assumption that other variables are zero, the chance of audit quality will decrease by 0.262.
5. The regression coefficient value for auditor specialization variable (AS) is 0.915 with a positive parameter, which means that every time there is an increase in one unit of auditor specialization with the assumption that the other variables are zero, the chance of audit quality will increase by 0.915.

4.4. Hypothesis Test

4.4.1. Coefficient of Determination (Nagelkerke R Square)

The coefficient of determination (Nagelkerke R Square) aims to determine how far the ability of the independent variable to explain the dependent variable. The Nagelkerke R Square value is between 0 and 1. The smaller Nagelkerke R Square value indicates that the ability of the independent variable to explain the dependent variable is very limited, while a value close to one means that the independent variable provides almost all of the information needed to predict the variation of variance.

Table 5. Model summary.

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	194.573 ^a	0.054	0.083

Note: Estimation terminated at iteration number 5 because parameter estimates changed by less than .001

Based on the Table 5, it can be seen that the Nagelkerke R Square value is 0.083. This result means that the ability of the independent variable in explaining the dependent variable is 8.3%, while the remaining 91.7% is explained by other factors outside this study.

4.4.2. Partial Test (Wald's Test)

Partial test or Wald test aims to determine the effect of each independent variable on the dependent variable. Provisions for acceptance or rejection of the hypothesis are carried out using a probability value approach, namely comparing the probability value (Sig.) with a significance level (α) where is used at 5%. If the probability value is less than 5% or (Sig.) < 0.05, it indicates that the hypothesis is accepted, meaning that there is a significant effect of the independent variable on the dependent variable, whereas if the probability value is greater than 5% or (Sig.) 0.05, it indicates that the hypothesis rejected, which means that there is no significant effect of the independent variable on the dependent variable. The results of the Wald test can be seen in Table 4.

- *First Hypothesis Testing*

The first hypothesis in this study states that audit tenure has a negative effect on audit quality. The test results show that the audit tenure variable has a positive regression coefficient of 0.093, which means that audit tenure has a positive effect on audit quality. The significance value is 0.539, greater than 0.05, which means that audit tenure has no significant effect on audit quality. Based on this, it can be concluded that the first hypothesis (H1) is not supported.

- *Second Hypothesis Testing*

The second hypothesis in this study states that time budget pressure has a negative effect on audit quality. The test results show that the time budget pressure variable has a positive regression coefficient of 0.012, which means that time budget pressure has a positive effect on audit quality. The significance value is 0.142, greater than 0.05, which means that time budget pressure has no significant effect on audit quality. Based on this, it can be concluded that the second hypothesis (H2) is not supported.

- *Third Hypothesis Testing*

The third hypothesis in this study states that firm size has a positive effect on audit quality. The test results show that the firm size variable has a negative regression coefficient of 0.262, which means that firm size has a negative effect on audit quality. The significance value is 0.044, smaller than 0.05, which means that company size has a significant effect on audit quality. Based on this, it can be concluded that the third hypothesis (H3) is not supported.

- *Fourth Hypothesis Testing*

The fourth hypothesis in this study states that auditor specialization has a positive effect on audit quality. The test results show that the auditor's specialization variable has a positive regression coefficient of 0.915, which means that auditor specialization has a positive effect on audit quality. The significance value is 0.041, smaller than 0.05, which means that auditor specialization has a significant effect on audit quality. Based on this, it can be concluded that the fourth hypothesis (H4) is supported.

5. DISCUSSION

The results of testing the first hypothesis show that audit tenure does not have a significant impact on audit quality. This means that the length of the engagement period between the auditor and the client is not something that can be used as a reference that the audit results will be of high quality. On the one hand, the relationship that exists in a short time can make it difficult for the auditor to explore the client's complex business industry, thereby reducing the auditor's opportunity to better evaluate information so that the auditor produces poor audit quality (Junaidi, Miharjo, & Hartadi, 2012). On the other hand, long ties should be able to build an auditor's specific understanding of the condition of the client's company so that he knows if there are indications of manipulation of financial statements by the client. However, the long relationship can also make the auditor place too deep trust in the client so that the auditor does not update the audit procedure strategy in his assignment.

In addition, the independence and objectivity of the auditors are doubted because of the close relationship between the two parties. However, the results of this study prove that the length or shortness of an engagement will not affect the auditor's performance in carrying out his audit assignments. If the auditor carries out the assignment professionally, the audit results will remain of high quality. Furthermore, based on the Decree of the Minister of Finance No. 17 in 2008 regarding public accountant services, it is known that the longest audit firm conducts an engagement for 6 years and for public accountants only for 3 years can prove that there is no reason, whether long or short, the age of the engagement will affect the quality of the audit conducted. In this case, a public

accountant will still carry out professional audits because tenure audits have been regulated by the competent authority. Therefore, audit tenure cannot be used as a measure of audit quality. The results of this study are in line with research conducted by [Adeniyi and Mieseigha \(2013\)](#); [Rahmina and Agoes \(2014\)](#); [Muliawan and Sujana \(2017\)](#); [Khasani, Amilin, and Anwar \(2018\)](#); [Santoso and Achmad \(2019\)](#); [Yolanda, Arza, and Halmawati \(2019\)](#); [Blandon, Bosch, and Ravenda \(2020\)](#); [Siregar and Agustini \(2020\)](#); [Martani, Rahmah, Fitriany, Anggraita, and Yang \(2021\)](#) and [Effendi and Ulhaq \(2021\)](#) who expressed a similar opinion.

The results of the second hypothesis testing show that time budget pressure also does not have an impact on the quality of audit results. Although our expectations are in line with several previous studies that time budget pressure can influence auditors to perform dysfunctions that can affect audit quality, the results of this study prove that the length of time budgeted for auditors to complete their duties is not a benchmark that the resulting audit will be of high quality.

Time budget pressure is a form of pressure that arises as a result of the time restrictions given to the auditor in carrying out his audit assignments. Time budget pressure given to professional and experienced auditors should not affect the quality of audit results. The existence of a limited time budget is to motivate the auditor to work effectively and efficiently based on the scope of work that has been agreed between the auditor and the client. Despite being under pressure, the auditor must maintain a high audit quality by carrying out his work in accordance with applicable standards.

Moreover, the advancement of audit technology with the development of Computer Assisted Auditing Techniques (CAATs), which is the use of a computer software program to carry out the audit function so as to simplify the audit process, can make it easier for auditors to analyze audit data and increase efficiency and effectiveness of time, cost, and human resources. This audit technique leads to the use of software, where the software is grouped into two, namely Generalized Audit Software (GAS) and Specialized Audit Software (SAS) which are currently widely available in the market and are used by auditors in searching for transactions from thousands of transactions according to the criteria required. With this audit technology, auditors can produce high-quality audits in a faster time span even though they are limited not only by time but also by place. So that the use of technology in carrying out the auditor's audit task can take many benefits ([Lugli & Bertacchini, 2022](#)). Therefore, time budget pressure cannot be used as a measure of audit quality. The results of this study are in line with research conducted by [Oklivia and Marlinah \(2014\)](#); [Zam and Rahayu \(2015\)](#); [Saputra, Susan, and Nurbaiti \(2016\)](#); [Svanberg and Öhman \(2016\)](#); [Tresnawaty and Kurniansyah \(2018\)](#) and [Pinto, Rosidi, and Baridwan \(2020\)](#) who expressed a similar opinion.

The results of testing the third hypothesis indicate that the size of the company has a negative effect on the quality of the resulting audit. In our hypothesis it is stated that the larger the audited company, the higher the quality of the audit results. This is because large companies tend to have better internal controls which result in better operational management so that in conducting audits, auditors can collect more reliable audit evidence ([Augustine, Chijioke, Sadiq, and Francis \(2013\)](#) and [Ngo, Luu, and Truong \(2021\)](#)). However, this study proves otherwise. This happens because companies with a larger scale have more flexibility to manipulate financial statements, for example by increasing profits fictitiously. This can happen because the company's business and operations are very complex so that users of financial statements are more difficult to spot the fraud ([Lobo & Zhou, 2006](#)). The more complex the company's business operations, the less opportunity for auditors to find errors or earnings management actions carried out by company management and this will result in reduced audit quality ([Handoyo & Agustianingrum, 2017](#)). This has happened to one of the largest banks in Indonesia where the auditor could not find that the bank had inflated its profits which was not detected by the auditors from 2015 to 2017 ([Handoyo & Kusumaningrum, 2022](#)). The results of this study are in line with the research conducted by [Fitriany, Utama, Martani, and Rosietta \(2015\)](#); [Ardhityanto \(2020\)](#) and [Renaningtyas \(2020\)](#).

In contrast to the results of testing the third hypothesis, the results of testing the fourth hypothesis prove that auditor specialization plays a very important role in audit quality. This means that auditor specialization can improve the quality of the resulting audit. Therefore, besides independence is needed an auditor should be able to implement abilities, knowledge and experiences to run a well-qualified auditing process (Nugraha & Handoyo, 2012). The specialist auditor reflects the auditor's expertise in conducting audits in an industry field.

Auditors who have specialization will be faster and more precise in detecting irregularities or errors that occur in the client's financial reporting compared to auditors who do not have specialization (Handoyo & Wardani, 2020). The ability to improve audit quality comes from their experience serving clients and learning the practices that exist in the industry. The number of clients that have been handled by auditors in one industry certainly affects their knowledge and abilities. This allows auditors to have broader insights regarding internal control and the company's business risks as well as audit risks in certain industries. These advantages make audits more effective and efficient so that the quality of the audits produced also increases. The results of this study are in line with the research conducted by Owoso et al. (2002); Dunn and Mayhew (2004); Lim, Tan, and Cheng (2010); Panjaitan (2014); Havasi and Darabi (2016); Rinanda and Nurbatiti (2018); Suciana and Setiawan (2018); Buchori and Budiantoro (2019); Fadhilah and Halmawati (2021) and Wicaksono and Purwanto (2021) who expressed a similar opinion.

6. CONCLUSION

The importance of increasing the professionalism of auditors will be needed to maintain audit quality. From the results of this study, it can be concluded that audit tenure and time budget pressure do not have an essential effect on audit quality. Experienced auditors will not be affected by the time tolerance set in the audit but are more influenced by the size of the company and by the specialization of the auditor. The larger the size of the company, the more auditors are required to prepare the audit carefully because if not, then the risk of audit quality will decrease as evidenced by the results of this study. Contrary to these results, auditor specialization becomes a non-negotiable necessity. Auditor specialization will provide assurance to improve audit quality. In this study, it is also proven that the duration of the auditor's contract with the auditee will not change the audit results.

7. LIMITATIONS

This study does not distinguish between auditors working with an extension of time or not and the company sample does not consider the age of the company even though the sample used is a company that is quite large because it is listed on IDX.

8. SUGGESTIONS

Further research should distinguish between auditors who work with an extension of time because it is very often found that auditors work with an extension of time. In addition, the sample of companies should consider the age of the company even though all of them are registered with IDX.

9. IMPLICATIONS

Producing quality audit results is a must for auditors so that auditors must always maintain and improve their professional qualifications and plan more mature audits on audit work in larger companies.

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