

# Audit Firm Size, Auditor Industry Specialization and Audit Quality: An Empirical Study of Indonesian State-Owned Enterprises

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## Abstract

Early researches on listed firms proved that both audit firm size (Carey and Simnett, 2006; Francis and Yu, 2009; Chen et al. 2009; Choi et al., 2010) and auditor industry specialization (Balsam et al., 2003; Krishnan, 2003; Solomon et al. 1999; Monsouri et al., 2009; Gull et al., 2009) have significant influence on audit quality. The present research was intended to determine whether audit firm size and auditor industry specialization have significant influence on audit quality in Indonesian State-Owned Enterprises (SOEs). This research is critical, since there are several cases of financial statement manipulation that have been performed on SOEs since 2001, and in 2003, 12 auditors have been recommended by BPK (Badan Pemeriksa Keuangan - The Supreme Audit of Indonesia) to be investigated by PPAJP (Pusat Pembinaan Akuntan dan Jasa Penilai - The Center for Accountants and Appraisers Supervision) due to their role in manipulating SOE'S financial statement, which they were audited (Langgeng Subur, Chairman of PPAJP, [akuntanonline.com](http://akuntanonline.com), September 16<sup>th</sup>, 2013). The research was conducted on 36 SOEs by using 108 financial statements of years 2010-2012. It found out that both audit firm size and auditor industry specialization have insignificant influence on audit quality of SOEs in Indonesia. The findings of the present research were inconsistent with the earlier researches conducted on some listed firms (Carey and Simnett, 2006; Francis and Yu, 2009; Chen et al. 2009; Choi et al. 2010; Krishnan, 2003; Solomon et al. 1999; Monsouri et al. 2009; Gull et al. 2009) that had found that both audit firm size and auditor industry specialization have significant influence on audit quality.

**Keywords:** audit firm size, auditor industry specialization, audit quality

## 1. Introduction

Financial statement is a key information in decision making (Ross et al., 2012:12). Therefore, financial statement has to capture the real economic condition (Watkins et al., 2004), and doesn't contain asymmetric information. Asymmetric information is an information that give benefit to the party that who controls information and disadvantage to another party who has no control on informations (Scott, 2009:13). The objective of audit is to ensure that a financial statement is free of misstatement, either from error or fraud (GAO in Gramling et al. 2012:805), and audit may able to reduce agency costs and informational asymmetry (Almutairi et al. 2009; Chen et al. 2005).

Although financial statement have been audited, there are no guarantee that the statement is free from material misstatement, both from error or even fraud. Therefore, auditor will always be blamed when manipulated financial statement scandal is revealed, such as in Enron, WorldCom, Global Crossing, ImColne Systems, and Tyco International (Shafie, et al. 2009). Manipulation of financial statement also occurs in Italy which performed by Parmalat in 2000 (Cameran, et al. 2006), in India which performed by Satyam Computer Service, Ltd in 2009, and Olympus Corporation in Japan on 2011 which also involving Big 4 (Tunakotta, 2013:436-445, and 501-506). In Indonesia, the first financial scandal which was revealed to public was Bank Duta in 1990. After that, lots of financial statement manipulation cases have taken place till latest years, involving both listed firms such as Fren in 2008 (Kontan.co.id., March 3, 2009) and by non-listed firms. In 2013, BPK give recommendation to PPJP as an authority of supervising both public accountants and public accounting firms to investigate 12 auditors because their audit reports had found no accounting manipulation by SOEs which they were audited (Langgeng Subur, Chairman of PPAJP, [Akuntanonline](http://Akuntanonline.com), September 16, 2013). Because financial statement manipulation cases are still happening, audit quality becomes a concern for both financial statement users. Auditing firm, professional and regulatory bodies are often subject of criticism and face pressures to restore confidence in auditing (Hol, and Zaman, 2012). Up until now, it remains a debatable topic of discussion among stakeholders, regulators, standard setters, auditors, and others, and in some researches (International Auditing and Assurance Standards Board-IAASB, 2014).

Audit quality are commonly researched on listed and non state-owned enterprises (Francis et al. 2009; Balsam et al. 2003; Carrey and Simnett, 2006; Francis and Yu, 2009; Laurence et al. 2011; Asthana and Boone, 2012). This research was conducted on state-owned enterprises (SOEs) of Republic of Indonesia, which are involved 36 SOEs and used 2010-2012 financial statements data. Previous researches on listed firms proved that

audit firm size has significant influence on audit quality (Carry and Simnett, 2006; Francis and Yu, 2009; Chen et al. 2009; Choi et al. 2010). Other variable which have significant influence on audit quality is auditor specialization in certain industries (Balsam et al. 2003; Solomon et al. 1999; Monsouri et al. 2009; Gull et al. 2009). The question in this research is, do audit firm size and auditor specialization in certain industries have significant influence on audit quality of SOEs in Indonesia? This question is critical because, only part of listed Indonesian SOE which were audited by Big 4. While the majority of non-listed SOE were audit by non-Big 4. The result of this research is not consistent with prior researches which object were listed companies, whereby this research could not found significant influence of audit firm size and auditor industry specialization on audit quality in SOEs.

This research made a contribution, that is, it recognized a need to develop other variables besides audit firm size and auditor specialization that may enhance audit quality in SOEs, i.e. supervision auditors by BPK, because reviewed by BPK has found manipulation on audited financial statement of SOEs. In auditor selection, audit committee should develop some criteria to achieve to high quality audit. Another consideration, is that other approach could also be used in defining audit quality, not only relying in audit output as commonly approach, which is by detecting finding of errors, but also from an audit process approach, which is by how auditors perform their audit in compliance with their professional standards, as of audit quality has already defined by GAO (Gramling et al. 2012:805), PCAOB (2013) and IAASB (2014).

## **2. Literature Review and Hypothesis**

### **2.1 State-Owned Enterprise (SOE)**

Indonesia has 135 SOEs as of December 31, 2012, which consists of two types: corporation and public firm. This distinction was based on their business area, authority, and intervention of government on the firms' businesses activity. SOEs have a critical role in Indonesia's economic growth. One of the SOEs' roles in economy is producing goods and services useful for public welfare, by controlling certain strategic activities in the interest of the state. SOE State Ministry of Indonesia data, shows that during five years from 2010 to 2014, total asset of SOEs increased from IDR 2,505 trillion to IDR 4,580 trillion, profit increased from IDR 103 trillion to IDR 154 trillion, and total work labor absorbed increased from 688,656 to 774,983. Moreover, according to laws, another critical role of SOEs are as a source of state income through dividends. Given the huge role of SOEs, the quality of financial statement is crucial for SOEs.

SOEs' organizational structure is similar to listed firms'. In enhancing the qualities of their financial statement and internal control, SOEs have an internal control department and an audit committee with duties of monitoring financial statement and audit processes performed by both internal and external auditors. The two organizational units should have been capable of securing the qualities of financial statements and audits. However, financial statement manipulation cases still often occur as described above.

### **2.2 Audit Quality**

Audit quality is debatable but difficult to understand (Knechel et al. 2013), because an audit process involves implementation of testing procedures that could not be observed by users of the financial statement (DeAngelo, 1981; Hussainey, 2009). Thus, there are some researcher defined audit quality by an approach of audit results, and auditor and audit firm competency. DeAngelo (1981) defines audit quality as "the market-assessed joint probability that a given auditor will both (a) discover a breach in client's accounting systems, and (b) report the breach". The auditor ability to detect any errors is related to the auditor competence, and willingness to report the errors is related to the auditor independence (Shafie et al. 2009).

Lee, Lie and Wang (1999) in Widiastuty and Febrianto (2011) define audit quality as the probability that an auditor will not release an audit report with unqualified opinion for a financial statements that contains any material misstatement. Titman and Trueman (1986) and Hussainey (2009) define audit quality as the accuracy of information an auditor provided for the investors. Palmrose (1988), and Davidson and Neu (1993) define audit quality as an auditor capabilities to detect and eliminate any misstatements and manipulations in a financial statements. Moreover, Wallace (1980) in Watkins et al. (2004) suggests that audit quality is determined by the auditor competence in reducing noises and biases and in enhancing the fineness of accounting data.

Watkins et al. (2004) define of audit quality from two viewpoints, namely, auditor reputation and auditor monitoring competence on a financial statement. Auditor reputation is an assessment by others, particularly by the users of financial statement. Reputation is measured by the users' perceptions on the auditor competence and independence. Those auditors who are perceived as high in both competence and independence are considered to produce trustworthy financial statements. The second meaning of audit quality is from the viewpoint of an auditor monitoring competence on financial statements. The monitoring competence is determined by an auditor competence and independence, measured by the audited financial statement information quality. Moreover, a financial statement information quality is reflected by informations accuracy, or to the extent of which information reflects the real condition (Watkin et al., 2004), or ability to eliminate the bias of the information provided (Wallace, 1980 in Watkins et al., 2004).

Since, the definitions of audit quality by Titman and Trueman (1986), Davidson and Neu (1993) and Wallace (1980), Watkins et al. (2004), and DeAngelo (1981) emphasize the ability of auditors in discovering errors and biases and reporting them, therefore previous in researches used numerous discretionary accruals or abnormal accruals as a proxy of audit quality (Francis et al. 1999; Chen et al. 2004; Nagy, 2005; Cameran et al. 2008; Ventkataraman et al. 2008; Choi et al., 2010), because discretionary accruals or abnormal accruals were perceived as errors in a management designed financial statement.

Francis (2011) views an audit quality from two approaches. First, from audit failure that occurs because the auditor isn't independent, or with erroneously issuing auditor report with clean-opinion, but not supported with sufficient evidences. Second, the relationship between a going-concern auditor report and client's business failure. An audit is considered as failure if the client's business failure is not preceded by a presentation of a modified opinion on the client's going concern, or, in the other words, the auditor fails to predict the firm failure and thus keeps on presenting a clean opinion, otherwise supposed to going concern opinion (Francis, 2011).

In this research, audit quality is defined as the capability of auditor in discovering and reporting any errors in a financial statement. The most common errors made in financial statement is aggressive income or discretionary accruals. Discretionary accruals are accruals that could be manipulated by management and usually intended to achieve a desired profitability or income. This is caused by the management has an authority in control and creating policies, including those company accounting policies that favor their position as managers. An auditor is obligate to disclosed non fair discretionary accruals to prevent misstatement of financial statement.

### **2.3 Audit Firm Size and Audit Quality**

Firth and Liao Tan (1998) in Wibowo and Rosienta (2009) state that audit quality is often tied to an audit firm scale. DeAngelo (1981) maintains that big audit firms have a superior audit quality, since they already have invested in large audit technology and staff training, and thus they are more competent and more accurate in detecting the problems related to misstatement and goingconcern assumptions than small audit firms. Titard (1971), Hartley and Ross (1972), and Shockley (1981) in Wati and Bambang (2003) mentions two key reasons for why big audit firms are more independent than small ones, namely: (1) separation of a department that delivers audit services and one that delivers non-audit services and (2) the revenues gained by an accounting firm is influenced by not only one client.

Lee et al. (1993) in Febrianto and Widiastuty (2010) stated that if both auditors and their clients have equally relatively small size, then there is a high probability that the income of the auditors relies on the audit fee they gain from their clients. Conversely, big audit firms incline to be more independent of their clients, either the clients are big or small in size.

Lennox (1999) suggests that big audit firms are more capable in detecting signs of financial frauds that occur and disclose them in their audit opinion. This is confirmed in a research by Krishnan (2003) that states that big audit firms may perceptibly reduce questionable accounting practices and report any error the management committed. Dong Yu (2007) also stated that big audit firms' auditors have more experiences with various clients, and it gives them with some collective experiences and hence capability of delivering high quality audit. Watts and Zimmerman (1986) in Wibowo and Rossietta and (2009) suggest that the bigger the audit firm, the better the quality of audit to be produced. Dopunch and Simunic (1982) in Kordelas (2012) stated that investors perceive that big audit firms are of higher quality because they have those characteristics that are related to more observable audit quality, such as specialized training and peer review, than non-big firms are. Inhoff(1988) in Teoh and Wong (1993) surveyed some financial analysts and found differences in their perceptions on the audit quality of big 8 and non big 8. The big 8 were perceived as having better audit quality than non big 8. Becker et al. (1998) found that non big audit firms' clients reported discretionary accruals with average 1.5% - 2.1% of total asset higher than that reported by big audit firms' clients.

Dahlan (2009) research in correlation between audit quality, discretionary accruals and auditor independence in listed companies at Kuala Lumpur Stock Exchange in 2000-2002, found that the discretionary accruals of companies which have audited by big 5 were smaller than company audited by non-big 5. This finding is in accordance with earlier studies (Palmrose, 1988; Borilovicht and Kattelus, 1997), concluding that the audit quality of big 5 is higher than that of non big 5.

Choi et al. (2010) investigated the correlation between audit firm size, audit quality, and audit pricing by using a sample of firms in United States of America during of 2000-2005. This research results it was concluded that big 4 produced better audit quality and charged higher audit fees on their clients than non-big 4 did.

Kordelas (2012) investigated earning management and audit quality in public companies in USA listed at NYSE and NASDAQ stock exchanges during of 2000-2010. The research findings revealed that audit firm size has a negative and significant correlation with discretionary accruals. It indicates that big 4 auditors produced lower discretionary accruals than non big 4 did. This finding is consistent with Balsam et al. (2003), Rusmin (2010), and Chen et al. (2005), which have concluded that big 4 auditors provide premium quality audit and have better competence of restricting earning management practices. Francis and Yu (2009) also found that big 4 produced

higher quality audit, and more inclined to issue going-concern opinions, and their clients do not have aggressive earning management behaviors.

Indonesia's public opinion that big 4 are of higher audit quality than that of non big 4. This is evidently show by the audit market share of the big 4 in 2010 that achieved 70% (Republic of Indonesia Ministry of Finance, *Kompas* December 13, 2010), and in 2011 the revenues of big 4 achieved 65.5% of the total revenues of all Audit firms in Indonesia (Agus Sutanto, Vice Chairman of PPAJP, [akuntanonline.com](http://akuntanonline.com), June 14, 2013).

Based on the preceding description, the first hypothesis of research was that audit firm size has influence on audit quality, proxied by discretionary accruals.

H<sub>1</sub>: Audit firm size has influence on audit quality

## 2.4 Auditor Industry Specialization and Audit Quality

Auditors should have knowledge not only in auditing and accounting but also on clients' industry. Kusharyanti (2003) stated that auditing for manufacturing companies is the same in principle as auditing insurance companies, but the nature of business, accounting principles, accounting systems, and prevailing tax rules may be different. It requires audit firms to have knowledge on the characteristics of certain industries that affect auditing. Audit firms with lots of clients in the same industry (specialization in a given industry) will better recognize any audit risks characteristically present in the industry. Therefore, other characteristic of audit firm is that it has auditors with audit specialization in a given industry (Craswell et al. 2002).

Krishnan (2003) points out that a company audited by a specialized auditor will provide a higher certainty level, giving some added value to its clients, and is capable of delivering higher quality audit services than one audited by non-specialized auditor.

Some earlier researches confirmed that auditors industry-specialized has influence on audit quality. Balsam et al. (2003) investigated the correlation between auditor industry specialization and earning quality, finding that auditor specialization decreases discretionary accruals and increases ERC (earnings response coefficient). Krishnan (2003) also stated that auditing by an industry specialization auditor produces lower discretionary accruals than that by a non industry specialization auditor. Meanwhile, Van, et al. (2006) also found that the abnormal accruals of those companies that were audited by auditors with a certain industry specialization were lower than ones audited by non-specialized auditors.

The experiments by Salomon et al. (1999) on partner auditors and senior managers of some audit firms, with specific knowledge on finance and health industries, found that both partner auditors and senior managers have better knowledge on financial errors in auditing their clients where they have specific knowledge on the industry than when they audit their clients of other industry where they do not have specific knowledge on the industry. Monsouri, et al. (2009) and Gull et al. (2009) also found that specialized auditors have significant influence on the competence of detecting frauds. Carcello and Nagy (2005) also found a negative and significant correlation between auditor specialization in certain industries and the frauds committed by their clients (client financial fraud).

Based on the preceding description, the second hypothesis of the research was that auditor specialization in a certain industry has influence on audit quality, proxied by discretionary accruals.

H<sub>2</sub>: Auditor industry specialization has influence on audit quality

## 3. Research Method

### 3.1 Independent and Dependent Variables

#### 3.1.1 Independent Variable

This research in using audit firm size and auditor industry specialist as the independent variable. Audit firm size was measured by using nominal scale, 1 for big 4 and 0 for non big 4. Auditor industry specialized was also measured by using a nominal scale, 1 for specialized auditor and 0 for non-specialized auditor. In the research, the measurement of auditor specialization employed a model that was used by Craswell et al. (2002); Ferguson and Stokes (2002); Verleyen and De Beelde (2002), and by Fitriany and Setiawan (2011) as well. The auditor specialization was measured by the percentage of clients audited by audit firm in a given industry. Then, weighting was carried out on a basis of total asset of a firm by the following formula:

$$\text{Specialization} = \left( \frac{\text{total clients of the audit firm in the industry}}{\text{total emitten in the industry}} \right) \times \left( \frac{\text{average assets of the audit firms's clients in the industry}}{\text{average total emitten in the industry}} \right)$$

The basis of the determination of specialization is that if the audit firm controls > 10% market share in an industry (Craswell et al., 2002; Ferguson and Stokes, 2002; Verleyen and De Beele, 2002; in Fitriany and Setiawan, 2011).

#### 3.1.2 Dependent variable

Meanwhile, audit quality as the dependent variable was measured by an estimated discretionary accruals



modified Jones's model (1991). Jones's model was used because it is the best measurement of discretionary accruals (Francis et al. 1999). The equations in the model to compute discretionary accruals are as follows:

$$ACC_{j,t} = EARN_{j,t} - CFO_{j,t} \quad (1)$$

and

$$ACC/TA_{jt-1} = \beta_1 (1/TA_{jt-1}) + \beta_2 (\Delta REV_{j,t} - \Delta REC_{j,t})/TA_{jt-1} + \beta_3 (PPE_{jt}/TA_{jt-1}) + \epsilon_{j,t} \quad (2)$$

Where:

- ACC<sub>j,t</sub> = total accruals of company j in year t
- EARN<sub>j,t</sub> = total net income of the current year operation of company j in year t
- CFO<sub>j,t</sub> = total cash flow from operation of company j in year t
- REV<sub>j,t</sub> = change in the revenues of company j from year t-1 to year t
- REC<sub>j,t</sub> = change in the receivables of company j from year t-1 to year t
- PPE<sub>j,t</sub> = fixed asset of company j on the end of year t
- ε<sub>j,t</sub> = errors of company j in year t

The estimated coefficient of equation (2) was used to compute the estimated accrual of each company, assumed as containing no discretionary component. The difference between the estimated accruals and actual accruals is the discretionary accruals.

### 3.1.3 Control Variables

The research used client size, debt ratio, and loss suffered by the company as control variables .

- a. **Client size** was included in the model because it has negative influence on discretionary accruals. According to Kordelas (2012), big firms have less incentive to be involved in earning management because their financial statements are inspected and analyzed by third party financial specialists. Choi et al. (2010) maintains that the larger the company, the less chance they perform earning management.
- b. **Debt ratio**, describing decreases in a company's financial condition. Francis & Yu (2009) suggest that those companies with more debts use accruals more often in increasing profits, so that it is predicted that their debt levels will have a positive correlation with their discretionary accruals.
- c. **Loss**. Management tends to perform a reported earning management to avoid reporting profit decreases and losses. Therefore, deficiency of corporate income reporting by management has influence on the incentive received. Financial loss variable is used to control any possible influence of corporate financial performance. Francis and Yu (2009) revealed a negative association of net-loss companies and accrual quality, indicating lower incentive for discretionary accruals.

### 3.2 Population and Sample

The research sample consisted of 36 SOEs from total population of 115 SOEs of the Government of Indonesia which were not involved in financial service industry, with a breakdown of sample as shown in table 1. The financial statements observed were 108 in total, covering years 2010-2012 from 36 SOEs.

**Table 1**  
**Sampling Procedure**

Description	Number of SOE
SOEs registered in Ministry of SOE for 2010-2012.	135
SOEs involved in financial industry.	(20)
Number of non financial SOEs.	115
SOEs that didnot publish their annual financial statements for period of 2010-2012.	(67)
SOEs whose data on research variables to be researched hadnot been available completely in their financial statement in 2010-2012.	(6)
SOEs for which there were no data available about it's auditors.	(2)
Number of SOEs existing in each industry was less than 3. This criterion was used to ensure a sufficient data pooling in each estimated industry specialization auditors.	(2)
SOEs selected as sample.	36
Number of observation: Financial statement period of 2010-2012; 36 SOEs x 3 years.	108

### 4. Data Analysis Method

The data was analyzed by using a multivariate analysis to determine the influence of audit firm size, auditor industry specialization on audit quality, and with control variables are client size, debt ratio, and loss. The equation of regression used in the research was as follows:

$$DAC_{jt} = \beta_0 + \beta_1 FIRM SIZE_{jt} + \beta_2 SPECLST_{jt} + \beta_3 CLNSIZE_{jt} + \beta_4 DEBT_{jt} + \beta_5 LOSS_{jt} + \epsilon$$

Where:

β = coefficient

DAC	=	discretionary accruals of firm j in year t
FIRMSIZE	=	audit firm size of firm j in year t
SPECLST	=	industry specialization auditor of firm j in year t
CLNSIZE	=	size of firms j in year t
DEBT	=	debt ratio on the asset of firms j in year t
LOSS	=	financial loss of firm j in year t
$\epsilon$	=	residual error

## 5. Results and Discussion

### 5.1 Descriptive analysis

From the descriptive statistic in Table 2 it could be seen that average discretionary accruals was 0.031 and standard deviation was 0.077, showing a relative high variation in discretionary accruals management by the firms, because the average was less below the standard deviation.

For the control variable of client size, the descriptive statistic result of Ln asset showed that the value of mean was 20.052 and standard deviation 1.4924. It indicated that the data deviation of client size was good because the value of mean was below that of standard deviation.

For the control variable of debt ratio, the descriptive statistic result showed that the value of mean was 0.523 and standard deviation 0.222. It indicated that the data deviation on debt ratio was relative good.

The descriptive statistic results in Table 3, the frequency distribution of audit firm size variable of 108 observations, showed that SOEs were audited more by non-big 4 that is, 77,8% and 22.8% by big 4. Meanwhile, the frequency distribution of auditor industry specialization variable showed that SOEs were audited more by non-specialization, that is, 63,8%, and the remaining 32.8% by specialist auditor. And the frequency distribution of loss variable showed that 2.8% SOEs used as sample suffered some losses in time period of 2010-2012, and the remaining didn't.

### 5.2 Hypothesis Testing

The result of data processing by a regression analysis was presented in table 4. From the result of the procession an equation of regression was obtained as follows:

$$DAC_{it} = 0.098 - 0.020 \text{ FIRMSIZE} - 0.018 \text{ SPECLST} - 0.002 \text{ CLNSIZE} + 0.012 \text{ DEBT} + 0.066 \text{ LOSS}$$

#### 5.2.1 Hypothesis 1 (H<sub>1</sub>)

The equation of regression above showed that audit firm size has influence in increasing audit quality by 0.020. The testing of first Hypothesis (H<sub>1</sub>) in table 4 showed that the value of t-count was -0.892 that is less than t-table 1,96. This result shows although audit firm size has influence in decreasing discretionary accruals, however the influence was insignificant. Thus, the hypothesis that audit firm size has influence on audit quality proxied by discretionary accruals was rejected.

The research result was inconsistent with the research by Kordelas (2012), Choi et al. (2010), Dahlan (2009), and Francis and Yu (2009) which were found that the discretionary accruals was smaller for the firms audited by big 4 than that by non-big 4, and the larger size the audit firm, the higher the quality of audit produced. However, the research result was in consistent with that of Yasar (2013), Luhgiatno (2010), Watkins et al (2004), and Khurana and Raman (2004). However, the finding of he research consistent with Kabir, et al (2011) and Razi (2011), which found that association the big 4 with *discretionary accruals* wasn't significance.

Khurana and Raman (2004) stated that the higher quality of audit by big 4 appeared only in United States of America, not in other nations they researched (Australia, Canada, and England). According to them, the determinant factor of the difference was litigation risk for auditors, where litigation risks in USA are relatively higher than other contries. Thus, in USA, big 4 pay more attention on the quality of their audit. Therefore, it could be concluded that audit firm size are not always to be able to improve audit quality in the countries where the litigation risks they are facing is relatively insignificant.

In addition, to the small risk of litigation risk in Indonesia, there was other factor that caused audit firm did not having significant influence on audit quality in Indonesian SOEs, that is, the sole ownership of SOEs' by the government only. The ownership of SOEs that is concentrated in the state makes a one-sided control, and thus if the control of government is not stringent that there will be no incentive to enhance audit quality.

#### 5.2.3 Hypothesis 2 (H<sub>2</sub>)

The equation of regression for the research data processing revealed that the coefficient of auditor specialization was minus 0.018. It meant that auditor specialization in a given industry could improve an audit quality by 0.018. The testing of second hypothesis (H<sub>2</sub>) in table 4 showed the value of t-count of -1.080 and this less than t-table 1,96. It meant that auditor specialization in certain industry has a negative influence on discretionary accruals, but the influence was insignificant. Thus, the hypothesis that industry specialized auditors have significant influence on audit quality as proxied by discretionary accruals was rejected.

Meanwhile, from the testing of control variables are firm size, debt ratio and financial loss showed the

same value where their t-count less than 1,96. It means that client size, debt ratio, and loss have not significant influence on discretionary accruals.

The research result was inconsistent with that of Fitriany and Setiawan (2011), Balsam et al. (2003), and Krishnan (2003) that found that the firms audited by industry specialized auditors inclined to be prudent in reporting discretionary accruals. It meant that industry specialized auditors could detect the earning management practices performed by the firms. A research by Gull et al. (2009) also found that specialized auditors have significant influence on discretionary accruals.

However, this research is consistent with that of Kono and Yuyetta (2013) and Luhglatno (2010), which have found that there was insignificant influence of industry specialized auditors on discretionary accruals. In our opinion, the insignificance of influence of specialized auditor on audit quality probably because the proportion of sample of the present research by 63% was audited by unspecialized auditors, and only 37% by specialized auditors, and thus its influence on discretionary accruals could not be clearly seen.

## 6. Conclusion

Based on the result of testing conducted in the research it was found that both audit firm size variable and auditor specialization have negative but insignificant influence on discretionary accruals. It indicated that did not different audit quality in SOEs in time period of 2010-2012 between big 4 and auditor specialization with non-big 4 and auditor non-specialization.

Further researches may consider some other independent variables that may influence audit quality, such as audit tenure. Audit tenure is interesting matter in Indonesia, because Government Rule No. 20, 2015 stated that limitation of audit tenure could be applied only for auditor (5 years), while audit firms is not limited. This is different from prior rule (PMK – Financial Ministry Rule No. 17, 2008) where auditor tenure were limited for 3 years and audit firms for 6 years. In Addition audit fee and quality review from accountant regulator should be considered to be researched as variables that could influence audit quality of SOEs. Besides, the definition of audit quality may be used as an audit process approach, as offered by GAO in Gramling et al. (2012:805). Further research also may add other control variables that influence audit quality, e.g., Leverage, ROI, corporate health level, and good corporate governance.

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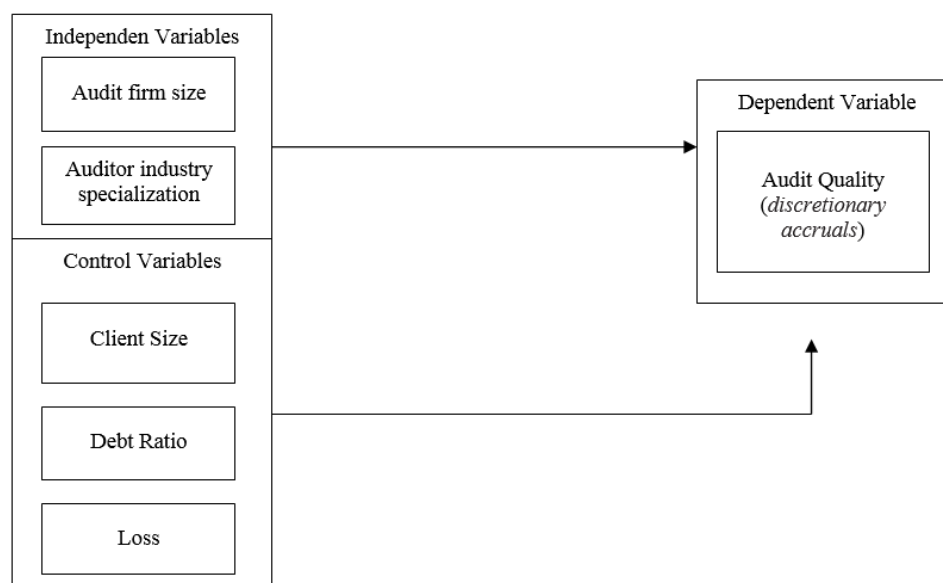
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### Appendix -1

#### Theoretical Framework



### Appendix-2

**Tabel2**  
**Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
DAC	108	-.13253	.35975	.0316483	.07772033
Client Size	108	24.76643	33.64430	29.0521179	1.49247682
Debt ratio	108	.08742	.90105	.5233995	.22288403
Valid N (listwise)	108				

**Appendix-3**

**Tabel3**  
**Descriptive Statistics**

	Proportion <i>Dummy = 1</i>	Proportion <i>Dummy = 0</i>
Audit firm size	22.2%	77.8%
Auditor Specialist	37.2%	62.8%
Loss	2.8%	97.2%

**Appendix-4**

**Tabel 4**  
**Hasil Pengujian**

**DACit = 0.098 – 0,020 SIZEKAP – 0.018 SPECLST – 0,002 CSIZE  
 + 0.012EBTit + 0.066 LOSS**

Variabel	Coefficient	t-Statistic	p value
(Constant)	.098	.531	.007
Audit firm size	-.020	-.892	.374
Auditor specialist	-.018	-1.080	.283
Client size	-.002	-.337	.737
Debt ratio	.012	.728	.154
Loss	.066	1.436	.154
N	108		
Adjusted R-squared	.011		
F-statistic	1.243		
p value (F-statistic)	.295		

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.334 <sup>a</sup>	.111	.086	.07690949	1.749

a. Predictors: (Constant), ln\_ait, (Revit-Recit), PPE/Ait)

b. Dependent Variable: TAC/Ait)

**ANOVA<sup>a</sup>**

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	.077	3	.026	4.340	.006 <sup>b</sup>
Residual	.615	104	.006		
Total	.692	107			

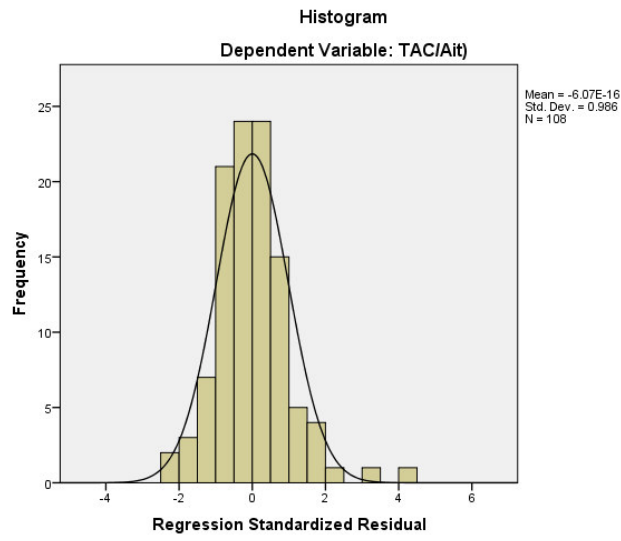
a. Dependent Variable: TAC/Ait)

b. Predictors: (Constant), ln\_ait, (Revit-Recit), PPE/Ait)

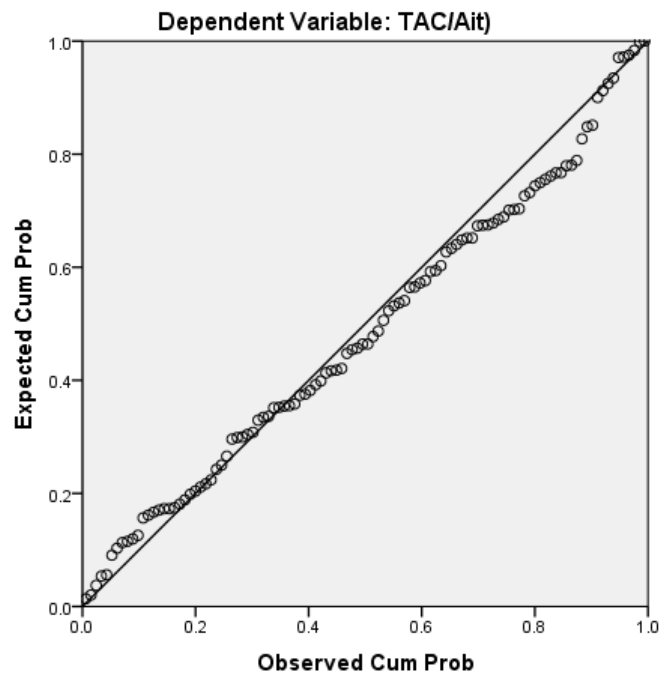
**Coefficients<sup>a</sup>**

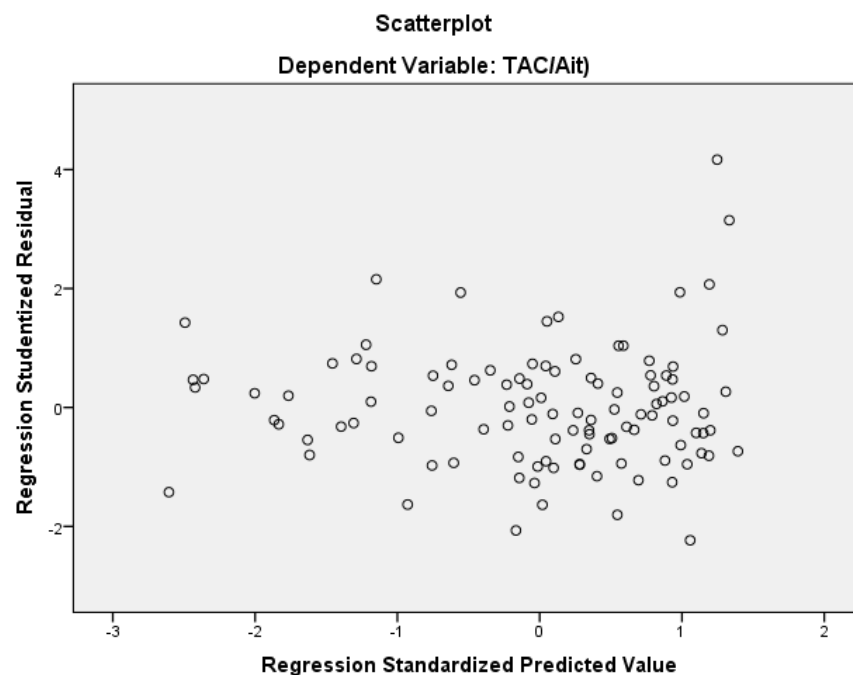
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	.280	.142		1.969	.052		
(Revit-Recit)	.006	.029	.019	.209	.835	.996	1.004
PPE/Ait)	-.090	.030	-.276	-2.975	.004	.990	1.010
ln_ait	.009	.005	.162	1.741	.085	.987	1.013

a. Dependent Variable: TAC/Ait)



**Normal P-P Plot of Regression Standardized Residual**





**Appendix-5**

Output of SPSS of Discretionary Accruals

**Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
DAC	108	-.13253	.35975	.0316483	.07772033
Client Size	108	24.76643	33.64430	29.0521179	1.49247682
Debt_ratio	108	.08742	.90105	.5233995	.22288403
Valid N (listwise)	108				

**Frequency Table**

**Audit Firm Size**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid NON BIG 4	84	77.8	77.8	77.8
BIG 4	24	22.2	22.2	100.0
Total	108	100.0	100.0	

**Auditor specialization**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Non Specialist	68	63.0	63.0	63.0
Specialist	40	37.0	37.0	100.0
Total	108	100.0	100.0	

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.240 <sup>a</sup>	.057	.011	.07728273	1.847

a. Predictors: (Constant), Size, Debt ratio, Loss, audutir specialist, audit firm size

b. Dependent Variable: DAC



**ANOVA<sup>a</sup>**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.037	5	.007	1.243	.295 <sup>b</sup>
	Residual	.609	102	.006		
	Total	.646	107			

a. Dependent Variable: DAC

b. Predictors: (Constant)Size, Debtratio, Loss, Auditor Specialist, Audit firm size

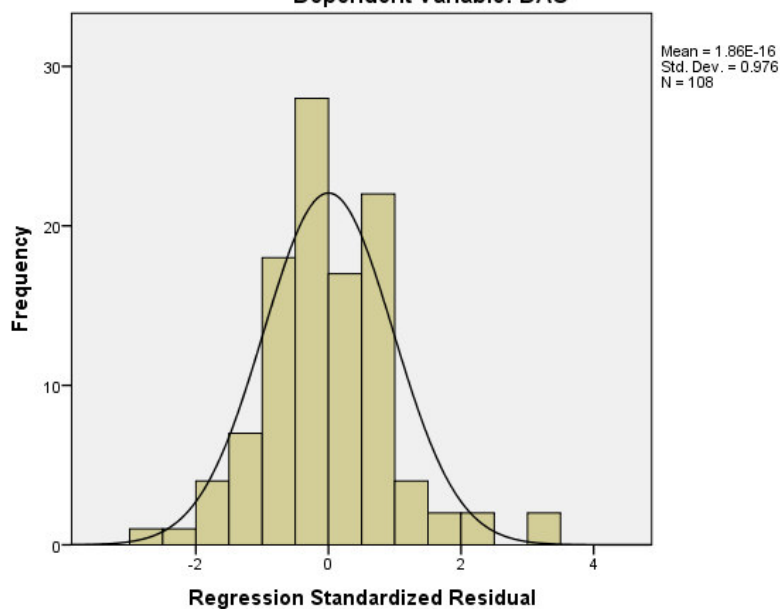
**Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.098	.184		.531	.597	
	Audit firm size	-.020	.022	-.108	-.892	.374	.636
	Auditor specialist	-.018	.017	-.114	-1.080	.283	.833
	Client size	-.002	.006	-.042	-.337	.737	.599
	Rasio_Debt	.012	.036	.036	.348	.728	.882
	Loss	.066	.046	.140	1.436	.154	.974

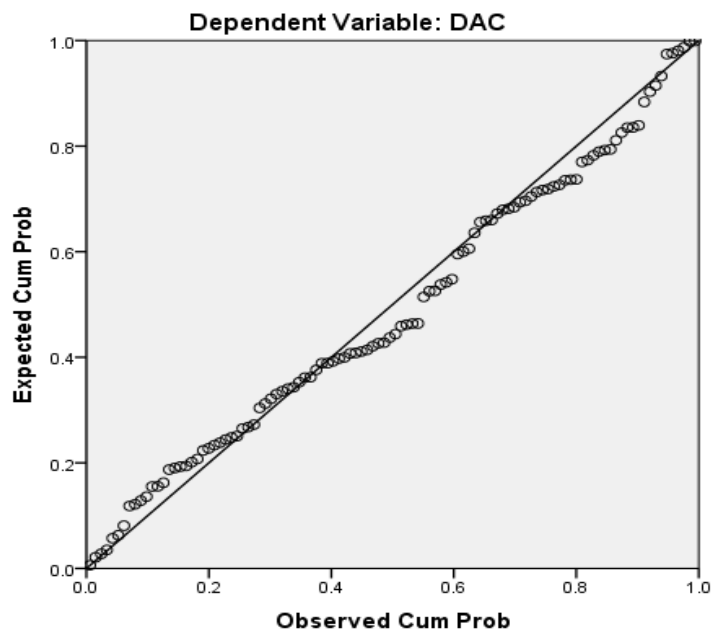
Dependent Variable: DAC

**Histogram**

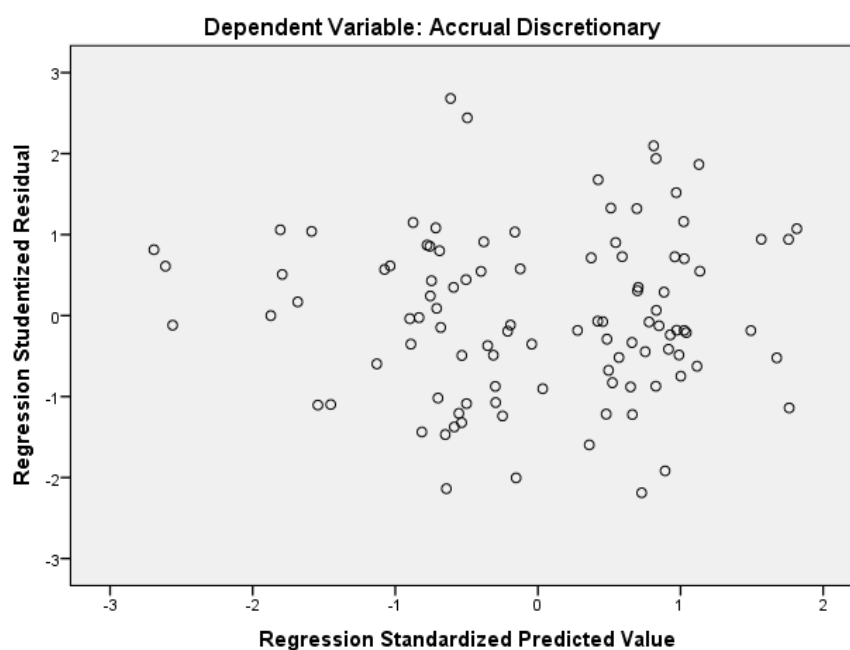
Dependent Variable: DAC



**Normal P-P Plot of Regression Standardized Residual**



**Scatterplot**



#### Appendix-6

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