EARNINGS MANAGEMENT AND AUDIT QUALITY IN INDONESIAN IPO COMPANIES

A THESIS

Presented as Partial Fulfillment of the Requirements to Obtain the Bachelor Degree in Accounting Department

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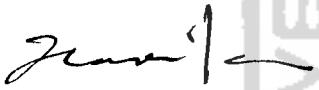

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UNIVERSITAS ISLAM INDONESIA ★ YOGYAKARTA ★ FAKULTAS EKONOMI

Asmai Ishak, Drs. M. Bus, Ph,D

This Thesis is proudly dedicated to:

My Father *Aries Widyatmo Hadi*
My Mother *Sri Heryati*
My Brother *Adhy Dwi Prayoga*
My Sister *Desy Triana Prameswari*
My Dearest *Marvino Ryan Putra*

And for all the people who have given me much encouragements and helps
No matter how big or small it is, those are too valuable to be forgotten
Thank you for being the best part in my life,
now and then...

Be thankful for difficult times, during those times you grow
Be thankful for your limitations, because they give you opportunities for improvement

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For my beloved and biggest lifetime supporters, my father and my mother, this thesis is especially dedicated to both of you. Your love, pray, advises, and supports have encouraged and accompanied me for the rest of my life and every single thing that I had done. Thank you for every single thing you have given and sacrificed for me, I believe I could never able to pay this back as good as you both do. But, this thesis is the best gift that I can proudly present during my studies

and until this moment. And my deepest hope in the next step in my life, I attempt to give both of you my "another best gift"... I love you both...

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like you all, what a fantastic thing. I won't ever forget those journeys, jokes and our crazy, silly, happy, sad, or even annoying memories"*...but when we leave this year we won't be coming back, no more hanging out coz we're on different track... Cause we're moving on and we can't slow down, these memories are playing like a film without sound...As we go on we remember, all the times we had together, as our life changes, come whatever, we will still be friends forever...I keep thinking that it's not goodbye, keep on thinking it's a time to fly...*" [Vit.C-Graduation] If you believe and attempt to, you can make it all happened, so keep on movin' and don't ever give up, guys... Good luck!!

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Adistyana Dyah Wulandari

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Abstract

Wulandari, Adistyana Dyah (2006). Earnings Management and Audit Quality in Indonesian IPO Companies. Yogyakarta. International Program. Faculty of Economics. Islamic University of Indonesia.

This paper examines the relationship between audit quality (as measured by auditor size and industry specialization) and earnings management (as measured by unexpected accruals) in Indonesian IPO companies. Prior studies done by Zhou and Elder (2003) prove that big five auditors and industry specialist auditors constrain earnings management for IPO firms in the US. The purpose of this study is to provide further evidence for Indonesian case.

Data employed in this research is secondary data. The population of this research is all non-manufacturing and manufacturing companies listed in Jakarta Stock Exchange (JSX) which do an IPO process through out 1996-2004. The data period is pooled time series data. Some data are insufficient, incorrect, and incomplete. Final Research object is 55 data.

The result of this research shows that industry specialist auditors have significant influence to less earnings management in the IPO year in Indonesia. This evidence shows that in Indonesia, industry specialist auditors are better organized as a prominent element of audit quality by the IPO companies in Indonesia.

Abstrak

Wulandari, Adistyana Dyah (2006). Manajemen Laba dan Kualitas Audit Perusahaan IPO di Indonesia. Yogyakarta. Program Internasional. Fakultas Ekonomi. Universitas Islam Indonesia.

Skripsi ini meneliti tentang hubungan antara kualitas audit (yang diukur dengan ukuran auditor dan auditor spesialis industri) dan manajemen laba (yang diukur dengan unexpected accrual) pada perusahaan IPO di Indonesia. Penelitian terdahulu yang dilakukan oleh Zhou dan Elder (2003) menunjukkan bahwa auditor big five dan auditor spesialis industri berlawanan dengan manajemen laba pada perusahaan IPO di Amerika Serikat. Tujuan penelitian ini adalah untuk memberikan bukti lebih lanjut pada kasus yang sama di Indonesia.

Data yang dikumpulkan adalah data sekunder. Populasi penelitian ini meliputi semua perusahaan non-manufaktur dan perusahaan manufaktur yang terdaftar pada Bursa Efek Jakarta (BEJ) yang melakukan IPO selama periode 1996-2004. Periode data dikumpulkan secara time-series. Terdapat beberapa data yang masih kurang, salah, dan tidak lengkap. Obyek akhir penelitian ini terdapat 55 data.

Hasil penelitian ini menunjukkan bahwa auditor spesialis industri mempunyai pengaruh signifikan terhadap berkurangnya manajemen laba dalam tahun IPO di Indonesia. Bukti menunjukkan bahwa auditor spesialis industri di Indonesia terorganisir lebih baik sebagai elemen penting dari kualitas audit oleh perusahaan IPO di Indonesia.

STATEMENT OF FREE PLAGIARISM

Herein I declare the originality of this thesis; there is no other work which has ever presented to obtain any university degree, and in my concern there is neither one else's opinion nor published written work, except acknowledge quotation relevant to the topic of this thesis which have been stated or listed on the thesis bibliography.

If in the future this statement is not proven as it supposed to be, I am willing to accept any sanction complying with the determinate regulation for its consequence.

Yogyakarta, November 9, 2006

Adistyana Dyah Wulandari

Chapter I

INTRODUCTION

1.1 Background

As the growth of the company rises so rapidly, the needs toward additional capital are increasing too. On its progress, this additional fund is a crucial part since the company needs it more for supporting its operational activity. Going public is the leading alternative way of fund sourcing for most companies. Going public means that the company sells its stocks to the capital market. For realizing this alternative, the Initial Public Offering (IPO) mechanism process is needed. IPO is the mechanism that must be done by the company when do the first stocks offering to the public in prime market. IPO still becomes the simplest and the cheapest for most of companies in fulfilling fund needs as consequences of rapidly growth of the company and the increasing fund needs for investment.

Accrual accounting provides management with discretion in the reporting of earnings, and thus provides opportunity for managers to engage in earnings management in IPO (Chen, Lin & Zhou, 2005). The matter of accounting information processed by capital market, particularly earnings and its components, is the chief consideration by those who participate in capital market. Subramanyam (1996) found that discretionary accruals related to the stocks price, future earnings and cash flows. He concludes that managers choose accruals for improving the informativeness of accounting earnings. Moreover, by deciding accruals, managers have the possibility

to inform their private information so that they can enhance earnings ability for reflecting the economical value of the company.

Accrual earnings is seen as the more superior measurement of company's productivity than cash basis since accruals eliminating time crisis and mismatching are attached to cash basis measurement (Dechow, 1994). Based on Indonesian Accounting Standard (PSAK par. 22), financial statements prepared on the accrual basis inform users not only of past transactions involving the payment and receipt of cash but also of obligations to pay cash in the future and of resources that represent cash to be received in the future. Hence, they provide the type of information about past transaction and other events that is the most useful to users in making economic decision. Nevertheless, accruals accounting becomes managerial discretion since there is a flexibility in GAAP. Management discretion can increase the informativeness of earnings by giving private communication (Watts and Zimmerman, 1986). In addition, the misalignment between managers and stockholders stimulates managers in using the flexibility given by GAAP for regulating the earnings opportunistically which causes distortion upon the earnings reported (Watts and Zimmerman, 1986).

Incentives in earnings management is created by explicit or implicit contract that is based on earnings reported and any kinds of situations whereas the earnings reported have a significant role (Aloysia Y.D., 2003). Most of earnings management study focus on this incentive and assumed that management ability is for making accounting adjustment for the same opportunistic reasons among companies. In fact,

it is not like what has been assumed. Factors which differentiate those companies and limit management ability to control the earnings covering company's internal governance structure (Dechow, *et al.*, 1995), and previous year accounting decision made by company which limit future accounting decision (Sweeney, 1994).

Auditing has a vital position in diminishing information asymmetry in IPO process. Because it reduces information asymmetry that exist between management and company's stakeholders which is apparent to the external party of company to verify the validity of financial statements. The effectiveness of auditing and its ability to prevent the earnings management are expected to be varied with the quality of auditors. High quality auditors have more ability in detecting dubious accounting practices, when they are detected then the auditors will give their unqualified opinion on their financial statement. Hence, high-quality auditing acts as the effective prevention for earnings management, since it can disfigure management's reputation and decrease the value of the company itself if this misreporting detected.

Titman and Trueman (1986) develop a model in which the price of shares in an IPO is increasing in tandem with the quality of information provided by the offering company. Datar *et al.* (1991) find that the information asymmetry in the IPO process is mitigated by the role of auditor and audit quality. The choice of auditor is made jointly with other decisions such as the percentage of retained ownership in the offering (Copley and Dauthett, 2002). Empirical evidence indicates an increased demand for audit quality at the time of IPO; companies frequently change to a big

five auditor at the time of an IPO (Carpenter and Strawser, 1971; Menon and Williams, 1991)[3].

Becker *et al.* (1998) find that unexpected accruals are reduced when existing publicly-traded companies use a big five auditor. From this study, they find that accruals reported by non-big five auditors' clients are higher than unexpected accruals reported by the big five auditors' clients. They conclude this as an indicator that lower audit quality is connected with greater accounting flexibility.

The study conducted by Zhou and Elder (2003) finds that big five auditors and industry specialist auditors constrain earnings management for IPO firms in the US. Then, in 2005, in different environment Chen, Lin and Zhou did the same research about IPO firms in Taiwan. It is found that the big five auditors are related to less earnings management in the IPO year in Taiwan. This shows that higher quality auditors constrain earnings management for Taiwan IPO firms. Therefore, this paper would examine whether the relationship between audit quality and earnings management happened in US and Taiwan would also exist in Indonesian IPO firms.

1.2 Problem Formulation

Based on the background stated above, the formulated problem proposed by this paper is:

What is the relationship between audit quality as measured by auditor firm size and industry specialist auditor with earnings management to the IPO companies in Indonesia?

1.3 Research Objective

The previous studies show that high quality auditors constrain earnings management and present more precise information. It is very crucial, since there is a motivation from management to take part in earnings management in the IPO process to acquire greater progresses and at-issue earnings management is negatively related to post-issue earnings performance and stock returns. Motivated by those implications from previous studies, this paper investigates whether any relationship between the qualities of audit as measured by auditor size and industry specialization and earnings management measured by unexpected accruals also exist in Indonesian IPO companies.

1.4 Research Contribution

This paper is expected to be able to give a contribution in auditing development in Indonesia by showing that there is a significant influence of management incentives in engaging earnings management process to the information presented by the big five auditor compared to non-big five auditor in Indonesian IPO companies. Besides that, there is an indication that non-big five auditor associated with greater flexibility of accounting. So, it will give an idea to the participant of capital market about the level of validity on earnings reported by companies, or in other words the market will be more responsive to the financial reporting audited by the big five auditor rather than the non-big five auditor.

1.5 Writing Schematic

1.5.1 Chapter 1

Provides background of the study: the basic reason of company engaging in IPO process; the basic method of measurement in financial reporting, which is accrual basis; the proofs from previous studies reported that there is a constraints between earnings management and industry specialist auditors and big five auditors; brief overview of earnings management incentives; the role of auditing in IPO companies, problem formulation, purpose of the study, and contribution of the study.

1.5.2 Chapter 2

Provides financial reporting which is based on Indonesian Accounting Standard (PSAK): the objective of financial reporting; types of financial reporting commonly used for this study (Financial Statements); qualitative characteristics of financial statement, Earnings management: definition of earnings management; motivation of earnings management which are capital market motivation, contracting motivation, and regulatory motivation; method used by previous study in detecting the practicality of earnings management in IPO companies related to the quality of audit, auditing quality as control towards management discretion of company, the basic concept of IPO and its relation to earnings management. It also provides hypothesis formulation upon the relation between earnings management and audit quality as measured by auditor firm size and the

relation between earnings management and audit quality as measured by industry specialist auditor in IPO process in Indonesia.

1.5.3 Chapter 3

Provides population and sample taken for the study, definition of variables used, measurement of variables: how to measure earnings management and how to measure audit quality, operational hypothesis, and statistical tool used for this study in measuring the connection of all variables.

1.5.4 Chapter 4

Data and analysis which show statistic, hypothesis testing, and classical assumption test.

1.5.5 Chapter 5

The conclusion and recommendation for further study

Chapter II

THEORETICAL FRAMEWORK

2.1 Financial Statements

2.1.1 Objectives of Financial Statements

Financial statements are a part of the process of financial reporting. The data mostly used for this study are derived from the financial statement, so that the discussion will be put more emphasis on financial statements types. Based on PSAK (Indonesian Accounting Standard) par. 12, the objective of financial statement is to provide information about the financial position, performance and changes in financial position of an enterprise that is useful to a wide range of users in making economic decision.

The arrangement of financial statement itself is both for showing how the overall of company's performance based on financially point of view and fulfilling the need for its users. Nevertheless, in taking economical decision, the users cannot solely rely on the disclosure of the financial statement, because the financial statement does not provide all the information required by its users, which is probably needed in making such decision. Basically financial statement exposes financial influences from past events and there is no such an obligatory for presenting non-financial information.

Financial statements also show the results of the stewardship of management, or the accountability of management for the resources entrusted to it. Those users who

wish to assess the stewardship or accountability of management do so in order that they make economic decisions; these decisions may include, for example, whether to hold or sell their investment in the enterprise or whether to a reappoint or replace the management (PSAK par. 14).

2.1.2 Types of Financial Statements

A complete set of financial statements normally include balance sheets, an income statement, a statement of changes in financial position (which may be presented in a variety of ways, for example, as a statement of cash flows or a statement of funds flow), and those notes and other statements and explanatory material that are an integral part of the financial statements (PSAK par. 07). Moreover, it also includes the schedule and additional information that is related to the financial statements. Principally, each statement provides owners, management, and other interested parties with relevant financial data.

2.1.3 Characteristics of Financial Statements

Qualitative characteristics are the attributes that make the information provided in financial statements useful to users. The four principal qualitative characteristics are understandability, relevance, reliability and comparability (PSAK par. 24).

(1) Understandability

An essential quality of the information provided in financial statements is that it is readily understandable by users. For this purpose, users are assumed to have a

reasonable knowledge of business and economic activities and accounting and a willingness to study the information with reasonable diligence. However, information about complex matters should be included in the financial statements because of its relevance to the economic-decision making needs of users and it should not be excluded merely on the grounds that may be too difficult for certain users to understand.

(2) Relevance

To be useful, information must be relevant to the decision-making needs of users. Information has the quality of relevance when it influences the economic decision of users by helping them evaluate past, present or future events or confirming, or correcting, their past evaluations. The predictive and confirmatory roles of information are interrelated. Information about financial position and the past performance is frequently used as the basis for predicting future financial position and performance and other matters in which users are directly interested, such as dividend and wage payments, security price movements, and the ability of the enterprise to meet its commitments as they fall due.

(3) Reliability

To be useful, information must also be reliable. Information has the quality of reliability when it is free from material error and bias. It can also be depended upon by users to represent faithfully that which it either purports to represent or could reasonably be expected to represent. Information may be relevant but also unreliable in nature or representation that its recognition may be potentially misleading.

(4) Comparability

Users must be able to compare the financial statements of an enterprise through time in order to identify trends in its financial position and performance. Users must also be able to compare the financial statements of different enterprises in order to evaluate their relative financial position, performance and changes in financial position. Hence, the measurement and display of the financial effect of like transactions and other events must be carried out in a consistent way throughout an enterprise and over time for that enterprise and in consistent way for different enterprises.

2.2 Earnings Management

2.2.1 Definition

Based on FASB 1984, it is clearly stated that the primary task of financial reporting is to effectively communicate financial information to outsiders in a timely and credible manner. So that it provides an opportunity for managers to implement their decision in financial reporting. Managers can use their knowledge about the business to improve the effectiveness of financial statements as a means of communicating with potential investors and creditors. However, earnings management is also likely to occur when managers have incentives to mislead their financial statement users (both external and internal) by exercising discretion over accounting choices in financial reporting (Xiong, 2006).

Basically, there are three definitions in explaining what actually earnings management is. Managing earnings is "*the process of taking deliberate steps within the constraints of generally accepted accounting principles to bring about a desired level of reported earnings.*" (Davidson, Stickney and Weil (1987), cited in Schipper (1989:92). Then, Schipper (1982) defines earnings management as "*purposeful intervention in the external financial reporting process, with the intent of obtaining some private gain (as opposed to say, merely facilitating the neutral operation of the process).*"... "*A minor extension of this definition would encompass "real" earnings management, accomplished by timing investment or financing decisions to alter reported earnings or some subset of it.*" The other authors, Healy and Wahlen (1999) identify that "*earnings management occurs when managers use judgment in financial reporting and in structuring transactions to alter financial reports to either mislead some stakeholders about underlying economic performance of the company or to influence contractual outcomes that depend on reported accounting numbers.*"

In general, recent evidence indicates that earnings management appears to be a common practice among firms (Heninger, 2001) and has recently been made a top priority for the SEC (Levitt, 1998). While managers require discretion to effectively communicate their information to financial statement users, accounting standards should limit opportunities for managers to present earnings in misleading information (Xiong, 2006).

As Beneish (2001) states that earnings management happen more frequently than is observed from judicial actions. It is not obvious whether the earnings

management is pervasive: it seems improbable that firms would face similar incentives to manage earnings over time. So, the emergence of earnings management evidence depends much on the firm performance itself, implying that the occurrence of earnings management is more likely when a firm's performance is either unusually good or unusually bad.

2.2.2 Motivation of Earnings Management

The incentives or motivations of earnings management have been attracted many researchers to be examined. Healy and Wahlen (1998) has identified that the motivation of earning management can arise from: (i) capital market expectation and valuation; (ii) contracts that are written in terms of accounting numbers; and (iii) anti-trust or other government regulation. The explanations are as follow.

2.2.2.1 Capital Market Motivation

Capital market motivation appears because there is the widespread use of accounting information by investors and financial analysts to help value stocks can create an incentive for managers to manipulate earnings in an attempt to influence short-term stock price performance (McNichols and Wilson, 1988). Dye (1988) and Trueman and Titman (1988) develop analytical models that demonstrate examples of frictions that can lead earnings management intended to influence the decisions of external capital providers which result in the widespread of accounting information by investors and financial analyst to help value stocks create an incentive for

managers to manipulate earnings in an attempt to influence short-term stock price performance.

Several studies examine earnings management prior to management buyouts. DeAngelo (1988) reports that earnings information is important for valuations in management buyouts and hypothesizes that manager of buyout firms have incentives to "understate" earnings. It is found that there is little evidence of earnings management by buyout firms from an examination of changes in accruals. However, Perry and Williams (1994), who examine the unexpected accruals controlling for changes in revenues and depreciable capital, finds that unexpected accruals are negative (income decreasing) prior to management buyout.

Other studies of earning management for capital market reason have been for examining whether the earnings management are supposed to meet the expectations of financial analyst, specific types of investors, or management (represented by public forecasts of earnings). Payne, Robb, and Payne (1997) and Burgstahler and Eames (1998) find that firms manage earnings to meet analysts' forecast. Bushee (1998) reports that firms appear to manage earnings through R&D cuts if they have a high percentage of ownership by institutions with high portfolio turnover. On the other hand, basically, institutional ownership does not encourage managers to manage earnings in this way. Finally, Kaznik (1999) finds evidence that is consistent with firms using unexpected accruals to manage earnings upward if it is in danger of failing to meet a management earnings forecast.

Generally, study conducted around earnings management use unexpected accruals as an alternative for earnings management. Teoh, Wong and Rao (1998) examine depreciation estimates and bad debt provisions surrounding initial public offers. They find that, relative to a matched sample of non-IPO firms, the sample firms are more likely to have income-increasing depreciation policies and bad debt allowances in the IPO year and for several subsequent years.

For capital market intentions, there is a reasonably little evidence on the degree of earnings management. Teoh, Wong and Rao (1998) find that for firms making initial public offerings median unexpected accruals in the offer year are surprisingly large, 4-5% of assets. Erickson and Wang (1998) state that unexpected accruals are 2% of assets in the quarter of a stock acquisition. Teoh, Wong and Rao also report that approximately 62% of firms making initial public offers have higher unexpected accruals than a matched sample of control firms. If the expected frequency is 50%, this implies that roughly 12% of the equity issue firms manage earnings. Nevertheless, there is a difficulty in interpreting this evidence since the frequency of earnings management for this sample, therefore, gives little indication of the overall frequency of earnings management for capital market reasons (Healy and Wahlen, 1998).

Teoh, Welch and Wong (1998a) and Teoh, Wong and Rao (1998) find a similar pattern for initial public offers. The implication of these findings is that prior to public equity offers some managers pump up reported earnings in an effort to raise the expectations of investors for future performance and increase the offered price.

Finally, Sloan (1995) reports that future stock returns have negative effect for firms whose current earnings include large accrual components, and positively effect for firms with low accrual components. Xie (1998) shows that these results are more attributable to shock for abnormal accruals rather than normal accruals. Xie also gives evidence that the shocks to abnormal accruals are consistent with earnings management incentives. So, it means that the investors do not totally take a look through earnings management which is reflected in abnormal accruals. Thus, firms which manage their earnings upward result in declining subsequent stock price while firms with downward-managed earnings have positive return.

In conclusion, the evidence shows that some firms emerge to manage earnings based on stock market motivation. It is still questionable whether the magnitude of this behavior is widespread or infrequent. Further, there is conflicting evidence on whether it actually has an effect on stock prices and several recent studies indicate that there are situations when investors do not see through earnings management (Healy and Wahlen, 1998).

2.2.2.2 Contracting Motivation

Earnings management for contracting reasons is likely to be of interest to standard setters for two reasons (Healy and Wahlen, 1998). First, there is a high probability of earnings management in misinforming financial statements and influencing to resource allocation. Second, the usage of financial reporting is used for communicating management information to stock investors, debt investors, and

investors' representatives on board of directors. Many studies conducted in investigating this phenomenon whether earnings management can be enlightened by lending and compensation contract.

Lending Contracts

Many researches perform in the area of firms which are close to lending agreement of earning management. Healy and Palepu (1990) and DeAngelo, DeAngelo and Skinner (1992) examine whether firms close to their dividend agreement changed accounting methods, accounting estimates, or accruals to avoid cutting dividends or making costly restructuring decisions. Holthhausen (1981) observed whether firms close to their dividend restraint changed to straight-line depreciation. Those studies above show that there is not any adequate evidence of earnings management among the firms which is closely related to their dividend covenant. As an alternative, if firms face difficulties in financial condition, they had more tendencies to manage cash flows by decreasing dividend payments and reorganizing their operations and contractual relations.

Research done by DeFond and Jiambalvo (1994) and Sweeney (1994) on firms that disobey a lending agreement, report facts of earnings management by firms which closely related to their lending agreement. Sweeney also shows evidence on the incidence and resource allocation outcome of earnings management for lending contract intention.

Management Compensation Contracts

The proofs reported by studies conducted on the area on compensation contract of managers' earnings management motivation are reliable with managers who use accounting judgment to increase earnings-bonus award. Guidry, Leone and Rock (1998) find that divisional managers for a large multinational firm are likely to defer income when the earnings target in their bonus plan will not be met, and when they are entitled to the maximum bonuses permitted under the plan. Healy (1985) and Holthhausen, Larcker and Sloan (1995) show that firms with caps on bonus awards are more likely to report accruals that defer income when that cap is reached than firms that have comparable performance but which have no bonus cap.

Facts acknowledged from those studies, basically propose that at least some managers in managing their earnings, raise bonus award or to raise their job security. However, there is no evidence whether this performance is extensive, or relatively infrequent, and no evidence on which accruals are most commonly used to manage earnings for compensation reason (Healy and Wahlen, 1998). Moreover, no research has investigated whether compensation-based earnings management has an effect to the stock prices (Healy, Kang and Palepu, 1987 and Defeo, Lambert and Larcker, 1989.

In conclusion, those studies of earnings management imply that lending and compensation contract influence some firms in managing their earnings. On the other hand, there is not any adequate evidence whether this actions is extensive. Additionally, it is not easy to assume the degree of any earnings management and

there is no much proofs that earnings management for contracting motivation can drive to material resource allocation.

2.2.2.3 Regulatory Motivation

Healy and Wahlen (1998) classified three types of regulatory motivation in earnings management, they are: earnings management to circumvent industry regulations, earnings management to reduce the threat of investigation and intervention management for tax purposes has its own standard, so they presume that it is out of discussion.

Industry Regulations

In the country like U.S, actually all of the industries are controlled or regulated to some level, however, some industries like banking, insurance and utility industries face regulatory monitoring which is clearly attached to accounting data. Banking regulation itself oblige that those banks should satisfy certain capital adequacy requirements as written in terms of accounting numbers. Then, insurance regulations require that the member of that insurance company to assemble circumstances for minimum financial health. Last, on the utilities industries, utilities have historically been rate-regulated and allowed to receive just normal return on their invested assets. It regularly emphasizes that those regulations above have created motivation in managing the income statement and balance sheet variables of interest regulators. Some studies give evidence that is consistent toward this hypothesis. Even though the

facts strongly show that the firms use accounting policy to manage regulatory restraint and that this action is common, only small number is known whether the regulators examine earnings management for regulatory reason. However, the stock market evidence indicates that investors see through regulatory earnings management (Healy and Wahlen, 1998).

Anti-Trust and Other Regulations

Watts and Zimmerman (1978) state that it is often alleged that managers of firms that are vulnerable to an anti-trust investigation or other adverse political consequences have incentive to manage earnings to appear less profitable. In another case, it is like managers of firms who hunt for government subsidy or protection. Cahan (1992) shows that firms under investigation for anti-trust violations reported income-decreasing abnormal accruals in investigation years. Jones (1991) reports that firms that are seeking import have a tendency to postpone their income in the year of application. Key (1997) studies unexpected accruals for cable television industry at the time of Congressional hearings on whether to deregulate this industry. She finds that there is a consistent evidence with the firms in the industry postponing earnings during Congressional scrutiny. In conclusion, basically there is an indirect proof that regulators react to the existence of earnings management. And, there is also an indirect proof on how the investors respond to earning management for anti-trust reasons.

higher issuing price. And when this circumstance is attributable to earnings management, it cannot be carried on to the following periods; therefore it will be negatively reflected in the stock price.

2.3 Audit Quality

People may have different perspective upon the term of "audit quality". Survey done by Epstein and Geiger (1994) indicates that 70% of investors believe that audits should provide absolute assurance that there are no material misstatements or fraud in the financial statements. Auditing is a monitoring form used for companies in decreasing company's agency cost with its bondholders and stockholders (Jensen and Meckling, 1976; Watts and Zimmerman, 1983). Because of that decreasing in misreporting of accounting information, the value of auditing comes up to the surface. Auditing is also a valuable control mechanism in controlling management discretion of company, so this value can be varied with the quality of auditors.

DeAngelo (1981) in Wooten (2003) develop two-dimensions audit quality definition. First, it should be able to detect materiality misstatement, and second, that materiality misstatement must be reported. DeAngelo (1981) makes a theory that big five auditors do a better auditing since they have a good reputation. And also, the big five auditors have more human resources, so that, they can have more qualified employees. Research in the Australian audit market (Craswel *et al.*, 1995) indicates that industry specialist auditors receive a fee premium that represents a significant portion of the premium to big five firms in the Australian audit market [4,5]. Elder

(1995) finds that IPO underpricing is lower for companies that use an industry specialist auditor. It shows that industry specialist auditors present higher quality audits contrast with the non-industry.

Becker *et al.* (1998) find that non big six auditors reports the average of discretionary accrual is 1.5 % - 2.1 % of total assets higher than discretionary accruals reported by the big six auditors. It is consistent with the assumption that big six auditors allow more flexibility in discretionary accruals.

Measuring audit quality is also problematic. The outcome of audit quality is not directly or immediately observable. Audit quality control procedures attempt to maintain high standards of control over the process of an audit, but an audit failure usually becomes known in the context of business failure (Wooten, 2003).

In 1978, the AICPA (Institute of Certified Public Accountants) established the Quality Control Standard Committee and gave its responsibility to help CPA (Certified Public Accounting) firms develop and implement quality control standards. For a CPA firm, quality control comprises the methods used to make sure that the firm meets its professional responsibilities to clients. There is a close linkage between quality control and GAAS (Generally Accepted Auditing Standard), however, there is still a distinction among them. SAS 25 (AU 161) requires a CPA firm to establish quality control policies and procedures. The standard distinguishes that a quality control system can provide only reasonable assurance, not a guarantee, that GAAS are followed. The Quality Control Standard Committee has identified nine elements of quality control that firms should deem in setting their policies and procedures.

Those nine elements of quality control are: (1) independence; (2) assigning personnel to engagements; (3) consultation; (4) supervision; (5) hiring; (6) professional development; (7) advancement; (8) acceptance and continuation of clients; and (9) inspection.

2.4 Initial Public Offering (IPO)

Initial Public Offering (IPO) is the first sale of company's stock to the public investors. Basically, the main purpose of IPO is to raise the company's capital as the company grows so rapidly. Occasionally, IPO is closely related with the huge gains on the first day; while at the other times, when the market is cold, they flop.

When the company decides to "go public", it means that the company will engage in IPO by selling its partial ownership to the public. Most of the companies choose to raise its capital through IPO rather than issuing debt securities. The general reason is that capital raised through IPO does not have to be repaid, while debt securities such as bonds must be repaid by interest. However, by using this mechanism in raising additional capital for company means that the current owners of privately held company lose their ownership.

If the company will perform in IPO, firstly the company should hire an investment in a bank to facilitate the sale of its shares to the public. This process is called as underwriting; bank plays role as an underwriter varies according to the method of underwriting agreed upon, but basically it has the same function.

In doing IPO, company should publish a prospectus before listed in Jakarta Stock Exchange. Prospectus is essentially an invitation or offering to the public to subscribe for or buy the securities of the company. A prospectus must contain all important information about the company making the IPO, and must be filed with the relevant authorities. For that reason, the information presented in the prospectus relates to the terms on which the invitation or offer is made. The information grafted in prospectus are: number of shares and first stock price offered in IPO process; schedule of IPO activities; purposes of IPO; the usage of fund from IPO; liabilities statements; description and analysis of management; business risk; the important events after financial reporting date; the information about the companies; owner's equity and dividend policy; taxation; underwriter which express net earnings projection for the next year and stock price determination; profession supported capital market; requirements for buying stocks; and the publication of prospectus.

According to the Security Act of 1933, the company will file registration statement with the Securities and Exchange Commission (SEC). The registration statement must completely release all material information to the SEC, including the description of a company, detailed financial statements, biographical information of insider, and the number of shares owned by each insider. After filing, the company must wait for the SEC to investigate the registration statement and approve of the full disclosure.

Earnings management in the process of IPO raises four main points of motivation. First, management has incentives to engage in income increasing

earnings management to ensure that the issue is fully subscribed and/or priced higher to garner greater proceeds, because their compensation and/or reputation depend on the success of the IPO (Chen, Lin & Zhou, 2005). Manager has an incentive to adjust earnings for maximizing the prosperity of the company or even the manager itself (Aloysia Y.D., 2003). Second, at the issuing stage, earnings management is found to be negatively related to post issue earnings performance (Teoh *et al.*, 1998b) and post issue stock returns (Teoh *et al.*, 1998a). Consequently, at the issuing stage, there is a considerable implication of resource allocation. Third, APB 20 allows IPO firms to change accounting principles in the prospectus as long as financial statements of previous years are restated. So, it could give an opportunity for the management to contribute in earnings management. Fourth, there is significant information asymmetry between the owners-managers and investors (Leland and Pyle, 1977), and between informed and uninformed investors (Rock, 1986; Beatty and Ritter, 1986).

2.5 Hypothesis Formulation

2.5.1. Earnings management and audit quality as measured by auditor quality

Becker *et al.* (1998) find the companies with non-big five auditors (a proxy for lower audit quality) report unexpected accruals that have a significantly increasing in income compared to companies with big five auditors. In addition, the study conducted by Francis *et al.* (1999) shows that there is a greater chance in high accrual companies for opportunistic earnings management that have a motivation to hire big five auditors to provide assurance that the earnings are believable. Because there is a

tendency in those high accruals companies in appointing big five auditor, nevertheless report less unexpected accruals, so it is reliable with the statement that the big five auditors constrain opportunistic reporting of accruals.

The other previous studies find that auditor has an important role in reducing asymmetry information at IPO process. Balvers *et al.* (1998) and Hogan (1997) report that the big five auditor are closely related to lower under-pricing of the offering. Besides that, Becker *et al.* (1998) and Francis *et al.* (1999) give evidence that there is reduction level of earnings management related to the higher quality auditor in non-IPO settings.

Balvers *et al.* (1998) report that high quality auditor provides better information of earnings, which makes it easier for the investment banker to price the issue correctly and maintain reputation quality. It is consistent with Titman and Trueman (1986), who state shares price in an IPO increase with the quality provided by the offering company, which they argue is partially verified by the quality of auditor. Zhou and Elder (2003) give evidence that audit quality provided by big five auditors is a crucial constraint in earnings management in the IPO process in the US. For that reason, this paper will examine whether IPO companies which use big five auditors will engage in less earnings management than IPO companies with non-big five auditors:

Ha1 IPO companies in Indonesia audited by big five auditor engage in less earnings management than companies audited by non-big five auditors.

2.5.2 Earnings management and audit quality as measured by industry specialist auditor

Craswell *et al.* (1995) report that industry specialist auditors market themselves in terms of both a general reputation and industry expertise. DeAngelo (1981) finds that industry specialization is classified as one potential reason for the selection of big five auditors by IPO firms. Based on Titman and Trueman (1986) model, pricing of an IPO is increasing with the quality of information related with the capability of the auditor. They imply that industry knowledge is one indicator of auditor capability. Elder (1999) reports that IPO under-pricing is lower for companies which use industry specialist auditor. Zhou and Elder (2003) report that industry specialist auditors can be used to constraint earnings management in IPO process in the US. Based on its capability and experience of industry specialist, this paper also expects that there is constraint between industry specialist and earnings management in the IPO process which lead to the second hypothesis:

Ha2 Companies audited by industry specialist auditors engage less in earnings management in the initial public offering process in Indonesia.

Chapter III

RESEARCH METHOD

3.1 Population and Sample

Population is the main target for the conducted study which consists of group or collection of data where the problems occurred. This paper will take data population from the analysis period from the year 1996-2004. The study conducted for this research takes sample of IPO companies listed in Jakarta Stock Exchange (JSX) excluded financial institution like banks or other credit agencies. Besides that, those companies have fulfilled the required data based on its accessibility and completeness for this study.

Purposive sampling will be used in taking sample for this study. According to Sugiono (1999), this sampling system means that a procedure in taking sample is based on definite consideration which reflects the primary purpose of the study. So, basically, this system is found on the ground of its core variable which embodying this study.

Sample is fractional population that specifies the point of the study. For this study, which examines the relationship between audit quality and earnings management in Indonesian IPO companies, the sample take from Jakarta Stock Exchange during 1996-2004 should fulfill the following criteria:

1. Companies listed in Jakarta Stock Exchange (JSX) by eliminating the financial institution during period of 1996 to 2004

2. Companies that conduct IPO during period of 1996 to 2004
3. Data acquired from those companies should meet the requirements, such as: IPO date and the auditor for the IPO are available from the database; and, necessary data to calculate total accruals, unexpected accruals, industry specialist, market-to-book ratio and leverage are available from the database.

3.2 Definition and Measurement of Variables

3.2.1 Earnings Management

In detecting and measuring earnings management in the IPO process, unexpected accruals method is used. Management studies conducted by Jones (1991) and Subramanyam (1996) also use unexpected accruals or discretionary accruals. Dechow *et al.* (1995) have given proof that modified Jones model is the most effective method in identifying earnings management than any other model in measuring unexpected accruals. The estimation model is as follows:

$$TACC_{it} = (\Delta CA_{it} - \Delta CASH_{it} - \Delta CL_{it} - \Delta STD_{it} - DEP_{it})/TA_{i-1} \quad (3.1)$$

$$TACC_{it} = \alpha_1 (1/TA_{it-1}) + \alpha_2 (\Delta REV_{it} - \Delta REC_{it})/TA_{it-1} + \alpha_3 PPE_{it} /TA_{it-1} + \varepsilon_{it} \quad (3.2)$$

Where:

$TACC_{it}$ = total accruals for company i in year t, defined as above.
ΔCA_{it} = change in current assets for company i in year t.
$\Delta CASH_{it}$ = change in cash for company i in year t.
ΔCL_{it} = change in current liabilities for company i in year t.
ΔSTD_{it} = change in short-term debt for company i in year t.
DEP_{it} = change in depreciation for company i in year t.
ΔREV_{it} = change in revenue for company i in year t.

ΔREC_{it} = change in receivables for company i in year t.
PPE_{it} = net property, plant and equipment for company i in year t.
TA_{i-1} = total assets for company i in year t.

The residual value obtained from the regression is the unexpected accruals. In addition the total assets of the previous year period are used as a deflator to control the potential scale bias.

3.2.2 Auditor Industry Specialization

In measuring audit quality, this paper uses an indicator of auditor industry specialization. Craswell *et al.* (1995), and Ferguson and Stokes (2002) use the percentage of the audit firm's share of total industry audit fees as an industry specialist measure. This measure integrates size weighting into market share (measured by audit fees). They define an auditor to be an industry specialist if the auditor attains 10% market share from both these two measures. In formulating this measurement, dummy variable can be used. The value of 0 is given when the auditor attains less than 10% of market share, and the value of 1 is given when 10% of market share or greater attained by the auditor. Since there is no available data for audit fees, this method cannot be implemented and as a substitute this paper uses a sales-based industry specialist measure. Audit firm industry specialization is defined as follows:

$$MS_{ik} = \frac{\sum_{j=1}^{J_{ik}} \sqrt{A_{ijk}}}{\sum_{i=1}^{I_k} \sum_{j=1}^{J_{ik}} \sqrt{A_{ijk}}} \qquad (3.3)$$

Where:

A_{ijk}	= total sales of client company j in industry k audit by auditor i.
i=1,2,…,I	= an index for audit firms.
j=1,2,…,J	= an index for client company.
k=1,2,…,K	= an index for client industry.
I_k	= the number of audit firms i in industry k.
J_{ik}	= the number of clients served by audit firm i in industry k.

Industry specialists are calculated yearly based on the company-year observation from Jakarta Stock Exchange (JSX) database.

3.2.3 Big Five Auditor and Non-Big Five Auditor

Many studies have been investigated that the big five auditors give higher quality audit than non-big five auditor. In Indonesia, the big five audit firms are Ernst & Young, Sidharta, KPMG, PricewaterhouseCoopers, Deloitte & Touche, and RSM International. In addition, the collapse of Arthur Andersen in 2002 gave impact also to the composition of big-five auditors in Indonesia. Previously, Prasetyo, Sarwoko & Co. was a member of Arthur Andersen, however, after the collapse; it is the member of Ernst & Young, and form a new name as Prasetyo, Sarwoko & Sandjaja. And for the treatment for this paper, both are included as big-five auditors in Indonesia.

Another way in measuring the quality of audit is by using dummy variable with the value of 0 for the low-quality auditor and the value of 1 for the high-quality auditor. DeFond and Jiambalvo (1991) consider that errors and irregularities are

forms of earnings management and hypothesize that the big six's clients has less possibility in having error and irregularities. DeFond and Jiambalvo (1993) also show that misalignment between auditor and client is caused by the motivation in controlling earnings and frequently occur in the companies that hire the big six auditors.

3.2.4 Control Variables

To support the hypothesis upon the relationship between earnings management and audit quality, as has been determined by the industry specialist auditor and big five and non big-five auditor, there are still control variables which also influence this relationship. Control variable is variable which influence independent variable but it is not the main factor for being further examined for the study. The control variables for this study are operating cash flow which deflated by lagged total assets, absolute value of total accruals, loss and income change indicator, market-to-book ratio, total sales, and leverage which is defined as total liabilities over total assets.

3.3 Operational Hypothesis

The first hypothesis will examine whether there is an emergence of significant constraint of audit quality provided by the big five auditor to the earnings management process in the initial public offering process in Indonesia.

Ho1 Indonesian IPO companies audited by the big five auditors do not engage less in earnings management than companies audited by non-big five auditors.

Ha1 Indonesian IPO companies audited by the big five auditor engage less in earnings management than companies audited by non-big five auditors.

The second hypothesis will also show the constraint between industry specialist and earnings management in the initial public offering process in Indonesia based on the capability and experience of the auditor industry specialist.

Ho2 Companies audited by industry specialist auditors do not engage less in earnings management in the IPO process in Indonesia

Ha2 Companies audited by industry specialist auditors engage less in earnings management in the initial public offering process in Indonesia.

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3.4 Statistical Tools

Regression model and analysis will be taken to test the hypothesis. The model is estimated using unexpected accruals (DAC) as the dependent variable. The main research variables are BIG5 and SPEC. It is related to the two hypotheses previously. The inclusion of those dependent, independent, and control variables above results in the following regression model:

2.2.3 Detection of Earnings Management in IPO Process

At the time a company does the mechanism of IPO process, a motivation for manipulating the earnings by the management may arise. It may happen because when a company does an IPO process, there is a high possibility for the management in making higher offering price and greater progress to the company and offering shareholders.

The IPO environment is characterized by information asymmetry between management and investors (Leland and Pyle, 1977) and between informed and uninformed investors (Rock, 1986; Beatty and Ritter, 1986). Beneficial or not, it depends on how much the earnings manipulation. Furthermore, Dye (1988) and Trueman and Titman (1988) demonstrate the emergence of information asymmetry between the management and shareholders as an essential condition for earnings management, because the shareholders cannot totally examine the company's performance and prospects in environment since they have not many adequate information (than the management does). The circumstance above can stimulate flexibility in management to manage reported earnings.

Teoh *et al.* (1998b) reported that there is a significant increase of IPO net income during the issuing year comparative to the following years, and to non-issuing peers. And IPO companies have an ability to report high earnings during the IPO by reporting unexpected accruals aggressively. Still on the same paper, Teoh *et al.* (1998a) also report that there is a negative relation between earnings management and stock returns. It means that earnings management can make the company to receive

$$DAC_{it} = \beta_0 + \beta_1 BIG5 + \beta_2 SPEC_{it} + \beta_3 OCF_{it} + \beta_4 ABSTA_{it} + \beta_5 LOSS_{it} + \beta_6 INCCHG_{it} + \beta_7 MTB_{it} + \beta_8 SIZE_{it} + \beta_9 LEV_{it} + \varepsilon_{it} \quad (3.4)$$

Where:

DAC_{it}	= Unexpected accruals.
$BIG5_{it}$	= 1 if the auditor is member of big five; 0 otherwise
$SPEC_{it}$	= 1 if the auditor is an industry specialist; 0 otherwise
OCF_{it}	= Operating cash flow deflated by lagged total assets.
$ABSTA_{it}$	= Absolute value of total accruals.
$LOSS_{it}$	= 1 if the company incurs a loss; 0 otherwise
$INCCHG_{it}$	= 1 if this year's income is greater than previous year's income; 0 otherwise
MTB_{it}	= Market-to-book ratio
$SIZE_{it}$	= Log of total sales
LEV_{it}	= Leverage, defined as total liabilities over total assets

The equation (3.4) relates hypothesis of earnings management as measured by unexpected accruals (DAC_{it}) to audit quality as measured by auditor type ($BIG5_{it}$) and industry specialization ($SPEC_{it}$). There are still many other variables which also take an important part in management's unexpected accruals decision in the IPO process. Becker *et al.* (1998) report that cash flow (OCF_{it}) also can influence this phenomena because there is differentiation amount between companies audited by the big five auditors with non-big five auditors. Total accruals ($ABSTA_{it}$) is used as control variable because Becker *et al.* (1998) give an evidence that it has negative relation to unexpected accruals. Francis *et al.* (1999) find that the likelihood of using the big five auditors is increasing the companies' endogenous propensity for accruals.

The Loss ($LOSS_{it}$) and income change ($INCCHG_{it}$) indicator are added to the regression formula as the control variables to account for manager's incentives to

avoid earning decreases and losses (Chen, Lin, and Zhou, 2005). It is consistent with Burgstahler and Dichev (1997) who find that companies manage reported earnings to avoid reporting earnings decreases and losses. Market-to-book value (MTB_{it}) at the end of IPO offering year is used as substitute for growth opportunity because there is a probability of information communication in some managers' earnings management decision although Teoh *et al.* (1998b) find that managers use unexpected accruals opportunistically in the IPO process.

An independent variable to control for the possible effect of size on earnings management in the IPO process, log of total sales ($SIZE_{it}$) is used. Leverage (LEV_{it}) may also be related to earnings management in IPO process which is defined as total liabilities over the total assets.

Based on the hypothesis, this study expects that the big five variable to be negatively related to total accruals and unexpected accruals. And industry specialist is expected to be significantly and negatively related to total accruals and unexpected accruals. Because this suggests that both big five auditors and industry specialist auditors constrain earnings management in the IPO process.

Regarding to the formulated hypotheses, this study use t-test to test the effect of earnings management as a dependent variable to audit quality as measured by industry specialist auditor and the big five and non-big five auditor as independent variables. The analysis for this hypothesis use significance level (α) = 5%, with the standard that Ho is rejected if P-value of t-test $\leq \alpha$ (5%).

From the equation (3.4) for the first hypothesis, if β_1 has negative sign and significant rejection towards Ho1, it means that Indonesian IPO companies audited by big five auditors are negatively related to the earnings management. Then, if it happens to the second hypothesis, if β_2 has negative sign and significant rejection towards Ho2, it can be interpreted as negative relation between industry specialist auditor and earnings management in the initial public offering process in Indonesia.

Chapter IV

RESEARCH FINDINGS, DISCUSSION AND IMPLICATIONS

4.1 Preparation of the Research

This research was started by studying the literature, journals and website to obtain relevant topic to conduct a research. The data that were needed in the research were obtained from Indonesian Capital Market Directory (ICMD) 1996-2004 and Capital Market data base on Jakarta Stock Exchange (JSX) Corner at Faculty of Economics of Islamic University of Indonesia, with data criteria:

a. The company listed in Jakarta Stock Exchange (JSX) in 1996-2004 which had done IPO process at that period. Those samples exclude banking and any other financial institutions since they did not meet the requirement for this research. The companies were from varied industries that, in order to ease in the research process, were classified as manufacture and non-manufacture companies. The rough data found 58 companies that had done IPO through 1996-2004. However, there were 55 companies had sorted and passed the requirements as sample of the research with the completeness data on each variable. Since the case of this research was IPO companies, so the data taken was only in the year when those companies did an IPO process and it just happened once. In this research, there was no available data for year 2001 and 2002 because there were no companies did an IPO process in both two years.

b. The data used for this research were: the names of auditor, type of industry, change in cash, change in receivable, change in depreciation, gross fixed assets, change in current assets, change in total assets, change in current liabilities, change in short-term debts, change in revenue, total liabilities, total equities, operating cash flows, net income (loss), market-to-book ratio, total sales, and leverage.

c. The data were obtained, and then processed by making several calculations using Microsoft Excel computer software to measure the notation as a basis in making research variables needed in the research.

4.2 Process of the Research

The data used in the research were quantitative data that were acquired from Indonesian Capital Market Directory (ICMD) 1996-2004 and Capital Market Data based on Jakarta Stock Exchange (JSX) Corner at Islamic University of Indonesia. The companies that became the samples of the research were 55 companies. The data were selected based on the requirement of fulfillment for the research.

The first step in processing the data was gathering needed data, then calculate the value of total accrual. Microsoft Excel was used to calculate the value of each variable. Afterward, data processing was done by regressing Jones model equation (3.2) to analyze regression toward total accrual with independent variable Property, Plant, Equipment (fixed assets), revenue, and receivable whereas all variables were

divided by lagged of total assets. The residual value from this regression was obtained for the unexpected accruals (DAC).

The next step was to test the unexpected accruals (3.3) with independent variable of the big-five auditors (dummy variable), industry specialist auditor (dummy variable), operating cash flow, absolute value of total accruals, loss (dummy variable), income change (dummy variable), market-to-book ratio, size (log of total sales), and leverage through the research period. The unexpected accrual values used for regression process were its absolute values (ABDAC). The data were processed by using *Eviews* 3.0 for the statistical calculations by using ML-ARCH (Maximum Likelihood-Autoregressive Conditional Heteroscedasticity) model.

4.3 Descriptive Statistics

The samples in the research were the Indonesian manufacturing and non-manufacturing firm listed in JSX which were doing IPO process through the period 1996-2004. Based on the research process, the research findings found 55 companies as the sample research.

Table 4.1
Descriptive Statistics

Var	N	Mean	Std.Deviation	Minimum	Median	Maximum
TAC	55	-0.00432	0.16398	-0.07277	-0.00598	0.10413
ABDAC	55	0.21877	0.16062	0.10788	0.20489	0.27392
BIG5	55	0.89091	0.31463	1	1	1
SPEC	55	0.70909	0.45837	0	1	1
OCF	55	0.03966	0.15812	-0.03077	0.04817	0.12108
ABSTA	55	0.11933	0.11138	0.03334	0.09890	0.16104
LOSS	55	0.25455	0.43962	0	0	0.5
INCCHG	55	0.6	0.49441	0	1	1
MTB	55	0.92309	2.08902	0.5	0.81	1.79500
SIZE	55	11.18736	0.66047	10.83643	11.28595	11.56562
LEV	55	0.46873	0.26544	0.27534	0.45718	0.63886

Table 4.1 provides descriptive statistics for the sample. The averages of total accruals are negative by -0.00432 or -0.432% of last year total assets (median = -0.00598). The averages of unexpected accruals are 0.21877 or 21.88% and the median of unexpected accruals is 0.20489 or 20.49%. Big five auditors are used by 89.09% of the sample firms, and around 70.91% of firms use industry specialist auditors. The mean and median operating cash flows are 0.03966 and 0.04817 or about 3.97% and 4.82%. The mean and median of absolute value of total accruals are 11.93% and 9.89% respectively. The median firm has positive net income and positive income change in the IPO year. The average market-to-book ratio at the end of the offering year is 0.92309 or 92.31%, the spread of data ranging from the minimum value of 0.5 and with the maximum value of 1.795. And the average log of sales is 11.187%. The mean and median leverage are 0.46873 and 0.45718 or 46.87% or 45.72%, respectively.

4.4 Pearson Correlation

Table 4.2 Pearson Correlation Coefficients for Regression Variables

	TAC	ABDAC	BIG5	SPEC	OCF	ABSTA	LOSS	INCCHG	MTB	SIZE	LEV
TAC											
ABDAC	-0.130										
BIG5	-0.082	0.105									
SPEC	-0.059	-0.095	-0.096								
OCF	-0.598	-0.140	0.071	0.137							
ABSTA	-0.309	0.649	0.173	0.088	-0.157						
LOSS	-0.247	0.293	0.071	-0.177	-0.444	0.427					
INCCHG	0.264	-0.216	-0.048	0.131	0.307	-0.153	-0.545				
MTB	0.227	0.033	-0.015	0.005	0.154	-0.247	-0.361	0.285			
SIZE	-0.235	0.004	0.259	0.474	0.344	0.092	-0.091	0.099	0.066		
LEV	-0.540	0.156	0.186	0.233	-0.031	0.330	0.448	-0.351	-0.338	0.478	

Table 4.2 shows Pearson correlation coefficients between variables. Total accruals and unexpected accruals are negatively related (ρ = -0.130) with each other. The big five variable is negatively related to total accruals (ρ = -0.082), however, in another side, it is positively correlated to unexpected accruals (ρ = 0.105). Industry specialist auditor is negatively related to both total accruals (ρ = -0.059) and unexpected accruals (ρ = 0.095). There is a negative correlation between industry specialist auditor and big five auditors (ρ = -0.096). This condition is not consistent with Chen, Lin and Zhou (2005) who expect that industry specialist auditor and big five auditor should have a positive correlation. As described in table 4.1, 89.09% of firms (49/55) audited by big five firms, and around 70.91% of firms (39/55) use industry specialist as auditors. That is, there are 10 firms out of 49 big five audited firms are not industry specialists.

4.5 Results of Hypothesis Testing

Table 4.3
Result of Regression Equation (3.4)

Dependent Variable: ABDAC				
Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	-0.097047	0.113362	-0.856085	0.3920
ABSTA	0.998670	0.158511	6.300326	0.0000
BIG5	-0.032273	0.075824	-0.425627	0.6704
INCCHG	-0.060038	0.072517	-0.827918	0.4077
LEV	0.080627	0.100582	0.801606	0.4228
LOSS	-0.037870	0.072021	-0.525819	0.5990
MTB	0.022453	0.015251	1.472246	0.1410
OCF	-0.198528	0.046596	-4.260622	0.0000
SIZE	0.024282	0.007820	3.105131	0.0019
SPEC	-0.082711	0.035151	-2.353010	0.0186
R-squared	0.468712	F-statistic		2.782380
Adjusted R-squared	0.300255	Prob(F-statistic)		0.006268

Test of research hypotheses using unexpected accruals in the fiscal year of IPO offering as dependent variable are informed in table 4.3. The table shows that big five variable has a negative relation with unexpected accruals (BIG5; *coefficient* = -0.032273, z-statistic = -0.425627). It seems that it has been predicted before that there is a negative correlation between the big five auditors and earnings management. However, the significant level of probability is inconsistent with the hypothesis which is > 5% or 0.6704. It means that ***the first null hypothesis (Ho1) is failed to be rejected***, because to reject Ho the significance level should be < 5% or 0.05.

The result for the first hypothesis is not consistent with Chen, Lin and Zhou (2005) that state the big five auditors are associated with lower unexpected accruals in the fiscal year of IPO offering and high quality auditors constraining earnings management and give more precise information. Although there is a negative relation

between the big five auditors with unexpected accruals, it cannot be proved that the big five auditors are the main indicator in reducing the earnings management in Indonesian IPO companies case.

For industry specialist auditor variable, it is negatively related to unexpected accruals (SPEC; *coefficient* = -0.082711, z-statistic = -2.353010). As expected, the significance level of probability is consistent with the hypothesis which is < 5% or 0.0186. It means that ***the second null hypothesis (Ho2) is rejected.***

So, in Indonesian case from the regression result in table 4.3, the main actors who play an important role in reducing earnings management in fiscal year of IPO offering is industry specialist auditors. Probably, in Indonesia, industry specialist auditors are better organized as a prominent element of audit quality by the IPO companies in Indonesia. This finding is consistent with Zhou and Elder (2003) and Craswell *et al.* (1995) that believe that industry specialist specialization is an important element in auditor quality.

Some of control variables are significantly related to unexpected accruals. Leverage is found to be positively related to earnings management (LEV; *coefficient* = 0.080627, z-statistics = 0.801606) which indicate that these companies use earnings management to satisfy debt agreement requirements. Nevertheless, based on the findings of this paper, leverage does not have a significant influence upon it since the significance level of probability is > 5% or 0.4228.

Then, operating cash flow is found to be negatively related to unexpected accruals (OCF; *coefficient* = -0.198528, z-statistic = -4.260622), suggesting that

companies with strong operating cash flow position are less likely to use unexpected accruals to boost earnings in the IPO operating year. In this case, it has significant influence since the significance value is < 5% or 0.000.

As predicted, firm size is found to be positively related to earnings management (SIZE; *coefficient* = 0.024282; z-statistic = 3.105131). It designates that large companies engage more in income increasing earnings management in the IPO year. Based on the result data of this paper, it has significant influence since the significance value is < 5% or 0.0019.

The other variables like LOSS and INCCHG are found to be negatively correlated with the value of -0.037870 and -0.060038 with the probability of 0.5990 and 0.4077 respectively. Subsequently, the last two variables like ABSTA and MTB are found to be positively correlated with the coefficient of 0.99867 and 0.022453 with the probability of 0.000 and 0.1410. In short, from those four variables above only ABSTA that has significant influence to the dependent variable, while the rest are not.

The other interpretation of data that can be derived from regression result is from its adjusted R-squared, which is 0.300255. Based on this result, it is still weak for explaining the earnings management based on these ten independent variables because there are still 0.699745 or around 69.97% influences that are determined by the other variables. Although both big five and industry specialist auditors variable show negative relation toward earnings management, only industry specialist auditor variable which gives significant influence in reducing earnings management.

4.6 Classical Assumption

4.6.1 Outlier

The data indicated as an outlier when its significance value reaches more than 2.5 and it means that the data is not normally distributed. Cook distance is used to examine this phenomenon. To solve this problem is simply by deleting the outlier data of which significant level is greater than 2.5.

4.6.2 Multicollinearity

Practically, most of the time, there is a tight relationship between independent variables or a linear relationship between independent variables in the regression model (Widarjono, 2005:131-135). The result is that the model will be difficult in examining the effect of its independent variables to the dependent variables (Maddala, 2001:268-270).

The purpose of multicollinearity test is to discover whether there is a relationship between one or more independent variables with the other independent variables or not. Detection of multicollinearity can be done by testing coefficient correlation (r) between independent variables (Farrar and Glauber, 1967:92-97). There is *rule of thumb*, if the coefficient correlation has a high R^2 or greater than 0.85. There is an indication of multicollinearity on the model (Widarjono, 2005:135). Healing the problem of multicollinearity can be by deleting one or more variables which have a high correlation in the regression model, or by adding the research data, or even by reversing one year for the variables that has been used.g

4.6.3 Heteroscedasticity

Heteroscedasticity exists when there is an inconsistency of variable variances in the model. If the calculation of standard error is not in minimum level, the estimation or hypothesis testing based on t-test or f-test cannot be trusted for regression result (Widarjono, 2005:147). Most of the cases, this condition occurs on cross sectional data, however, Engle (1982) is the first who analyzes that there is an indication of heteroscedasticity in time series data. According to Engle, the changing residual value happens because residual variance is not only a function of independent variable in this year but also depends on how much residual on the previous year. Then, Engle developed model Autoregressive Conditional Heteroscedasticity (ARCH). This phenomenon occurs in this research.

The problem of heteroscedasticity on this paper has been solved by using estimation model ML-ARCH (Maximum Likelihood-Autoregressive Conditional Heteroscedasticity). The purpose of using maximum likelihood estimation is for estimating parameter in order to reach a higher the probability of its dependent variable (Widarjono, 2005:340), and then, the heteroscedasticity have been automatically eliminated by the *Eviews* software packaging.

4.6.4 Autocorrelation

The autocorrelation happened since there is a correlation between residual values in one observation with the other observation in certain period of time without

any influence by the other period. The indication of autocorrelation could be tested by using LM method. It has been solved automatically.

Chapter V

CONCLUSION AND RECOMMENDATION

5.1 Research Conclusion

In general, the objective of this research is to provide empirical evidence to the relationship between earnings management and audit quality in Indonesian IPO companies as measured by big five auditors and industry specialist auditors. Based on the research findings drawn from the hypothesis one and two, which use the IPO year of 1996-2004 (including all manufacturing and non-manufacturing companies excluding banking and other financial institutions listed in JSX) the researcher concludes that only the second hypothesis proves a significant influence towards less earnings management activity in Indonesian IPO companies case. Because based on the result for the first hypothesis, the big five auditors show a negative relation towards unexpected accruals, however, t-test for ρ-value resulted greater than 5%. So, the researcher concludes that there is no significant influence of big five auditor's role in minimizing the practicality of earnings management in Indonesian IPO companies case.

On the other hand, based on the result for the second hypothesis, the researcher finds that industry specialist is associated with the lower unexpected accruals. It is consistent that industry specialist hampering earnings management and providing more accurate information. Thus, in the case of Indonesian IPO companies, the main actor who has a vital position in reducing the practicality of earnings

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APPENDICES

APPENDIX 1

List of Sorted IPO Companies In Period 1996-2004

No	Company
1	PT.Astra Argo Lestari Tbk
2	PT.Andhi Chandra Automotive Products Tbk
3	PT.Adhi Karya (Persero) Tbk & Subsidiari
4	PT.Asia Intiselera Tbk & Subsidiary
5	PT.Alter Abadi Tbk
6	PT.Alfa Retailindo Tbk & Subsidiary
7	PT.Alumindo Light Metal Industry Tbk
8	PT.Asahimas Flat Glass Co, Ltd
9	PT.Aneka Tambang Tbk & Subsidiary
10	PT.Asiaplast Industries Tbk
11	PT.Astra Otoparts Tbk & Subsidiary
13	PT.Bhakti Investama Tbk
14	PT.Bintang Mitra Semestaraya Tbk & Subsidiary
15	PT.Bimantara Citra
16	PT.Budi Acid Jaya
17	PT.Cahaya Kalbar Tbk & Subsidiary
18	PT.Ciptojaya Kontrindoreksa Tbk
19	PT.Citra Marga Nusaphala Persada Tbk
20	PT.Ciputra Surya Tbk & Subsidiary
21	PT.Daya Guna Samudera Tbk
22	PT.Dyviacom Intrabumi Tbk
23	PT.Dharma Samudera Fishing Industries Tbk
24	PT.Daya Sakti Unggul Corp. Tbk & Subsidiaries
25	PT.Eterindo Wahanatama Tbk & Subsidiary
26	PT.Fortune Mate Indonesia Tbk
27	PT.Gowa Makassar Tourism Development Tbk
28	PT.Humpuss Intermoda Transportasi Tbk
29	PT.Intikeramik Alamasri Industri Tbk & Subsidiary
30	PT.Jaka Artha Graha Tbk & Subsidiary
31	PT.Jakarta Kyoei Steel Works Ltd Tbk
32	PT.Jakarta Setiabudi Property Tbk & Subsidiary
33	PT.Kedawung Setia Industrial Ltd Tbk
34	PT.Kawasan Industri Jababeka Tbk
35	PT.Perdana Bangun Pusaka
36	PT.Kridaperdana Indahgraha Tbk
37	PT.Lippo Cikarang Tbk
38	PT.Lippo General Insurance Tbk
39	PT.Lippo Karawaci Tbk
40	PT.Lautan Luas Tbk & Subsidiary

41	PT.Mitra Rajasa Tbk & Subsidiary
43	PT.Makindo Tbk & Subsidiary
44	PT.Panin Sekuritas Tbk
45	Perusahaan Gas Negara
46	PT.Ristia Bintang Mahkotasejati Tbk & Subsidiary
47	PT.Ricky Putra Globalindo Tbk & Subsidiary
48	PT.Rimo Catur Lestari Tbk & Subsidiary
49	PT.Suryainti Permata Tbk & Subsidiary
50	PT.Surya Intrindo Makmur Tbk & Subsidiary
51	PT.Summitplast Interbenua Tbk
52	PT.Selamat Sempurna Tbk
53	PT.Sunson Textile Manufacturer Tbk
54	PT.Siantar Top Tbk
55	PT.Surya Dumai Industri Tbk
56	PT.Tunas Baru Lampung Tbk & Subsidiary
57	PT.Tirta Mahakam Plywood Industry Tbk & Subsidiary
58	PT.Tempo Inti Media Tbk & Subsidiary
59	PT.Trimegah Securities Tbk
60	PT.Pembangunan Jaya Ancol Tbk & Subsidiary

APPENDIX 2

Code of Auditor Names and Industry Types

Code of Auditor Name

No	Auditor Name	Code
1	Drs. Bambang Sulistyanto & Co.	1
2	Drs. Berlin Nadeak	2
3	Drs. Hadi Sutanto & Rekan (PricewaterhouseCoopers)	3
4	Drs. Johan Malonda	4
5	Hans Tuanakotta & Mustofa (Deloitte & Touche)	5
6	HLB Hadori & Co	6
7	KPMG Hanadi Sujendro & Co	7
8	Prasetio, Sarwoko & Sandjaja (Ernst & Young)	8
9	Prasetio, Utomo & Co (Arthur Andersen)	9
10	Soedjana, Mulyana & Rekan	10

Code of Industry Type

No	Type of Industry	Code
1	Agriculture, Forestry & Fishing	1
2	Construction	2
3	Mining & Mining Services	3
4	Food & Beverage (Manufacturing)	4
5	Automotive & Allied Product	5
6	Apparel & Other Textille Product	6
7	Metal & Allied Product	7
8	Fabricated Metal Product	8
9	Plastic & Glass Product	9
10	Stone, Clay, Glass & Concrete Product	10
11	Chemical & Allied Product	11
12	Lumber & Wood Product	12
13	Photographic Equipment	13
14	Wholesale & Retail Product	14
15	Transportation Services	15
16	Holding & Other Investment Companies	16
17	Insurance	17
18	Securities	18
19	Real Estate & Property	19
20	Other	20

APPENDIX 3

List of Company's IPO Year, Industry Type, and Auditor

No	Company	IPO	Industry	Auditor
7	PT.Alumindo Light Metal Industry Tbk	1996	8	5
8	PT.Asahimas Flat Glass Co, Ltd	1996	10	7
15	PT.Bimantara Citra	1996	17	7
16	PT.Budi Acid Jaya	1996	12	7
17	PT.Cahaya Kalbar Tbk & Subsidiary	1996	4	1
19	PT.Citra Marga Nusaphala Persada Tbk	1996	21	9
21	PT.Daya Guna Samudera Tbk	1996	1	5
33	PT.Kedawung Setia Industrial Ltd Tbk	1996	9	9
34	PT.Kawasan Industri Jababeka Tbk	1996	20	9
35	PT.Perdana Bangun Pusaka	1996	14	9
39	PT.Lippo Karawaci Tbk	1996	20	9
52	PT.Selamat Sempurna Tbk	1996	5	9
54	PT.Siantar Top Tbk	1996	4	5
55	PT.Surya Dumai Industri Tbk	1996	13	9
5	PT.Alter Abadi Tbk	1997	3	9
13	PT.Bhakti Investama Tbk	1997	19	5
24	PT.Daya Sakti Unggul Corp. Tbk & Subsidiaries	1997	13	9
28	PT.Humpuss Intermoda Transportasi Tbk	1997	16	3
29	PT.Intikeramik Alamasri Industri Tbk & Subsidiary	1997	11	9
31	PT.Jakarta Kyoei Steel Works Ltd Tbk	1997	8	9
37	PT.Lippo Cikarang Tbk	1997	20	9
1	PT.Astra Argo Lestari Tbk	1998	1	3
4	PT.Asia Intiselera Tbk & Subsidiary	1998	4	5
9	PT.Aneka Tambang Tbk & Subsidiary	1998	3	9
11	PT.Astra Otoparts Tbk & Subsidiary	1998	5	9
20	PT.Ciputra Surya Tbk & Subsidiary	1998	20	9
25	PT.Eterindo Wahanatama Tbk & Subsidiary	1998	12	9
32	PT.Jakarta Setiabudi Property Tbk & Subsidiary	1998	20	3
38	PT.Lippo General Insurance Tbk	1998	18	9
40	PT.Lautan Luas Tbk & Subsidiary	1998	12	9
41	PT.Mitra Rajasa Tbk & Subsidiary	1998	16	4
43	PT.Makindo Tbk & Subsidiary	1998	19	9
46	PT.Ristia Bintang Mahkotasejati Tbk & Subsidiary	1998	20	9
47	PT.Ricky Putra Globalindo Tbk & Subsidiary	1998	7	9
49	PT.Suryainti Permata Tbk & Subsidiary	1998	20	9
53	PT.Sunson Textile Manufacturer Tbk	1998	6	9
14	PT.Bintang Mitra Semestaraya Tbk & Subsidiary	1999	20	9
18	PT.Ciptojaya Kontrindoreksa Tbk	1999	20	9
2	PT.Andhi Chandra Automotive Products Tbk	2000	5	3

6	PT.Alfa Retailindo Tbk & Subsidiary	2000	15	9
10	PT.Asiaplast Industries Tbk	2000	10	9
22	PT.Dyviacom Intrabumi Tbk	2000	21	4
23	PT.Dharma Samudera Fishing Industries Tbk	2000	1	5
26	PT.Fortune Mate Indonesia Tbk	2000	7	9
27	PT.Gowa Makassar Tourism Development Tbk	2000	20	9
30	PT.Jaka Artha Graha Tbk & Subsidiary	2000	20	2
36	PT.Kridaperdana Indahgraha Tbk	2000	20	6
44	PT.Panin Sekuritas Tbk	2000	19	5
48	PT.Rimo Catur Lestari Tbk & Subsidiary	2000	15	9
50	PT.Surya Intrindo Makmur Tbk & Subsidiary	2000	7	5
51	PT.Summitplast Interbenua Tbk	2000	10	9
56	PT.Tunas Baru Lampung Tbk & Subsidiary	2000	4	5
57	PT.Tirta Mahakam Plywood Industry Tbk & Subsidiary	2000	13	4
58	PT.Tempo Inti Media Tbk & Subsidiary	2000	21	9
59	PT.Trimegah Securities Tbk	2000	19	5
3	PT.Adhi Karya (Persero) Tbk & Subsidiary	2003	2	10
45	Perusahaan Gas Negara	2003	3	8
60	PT.Pembangunan Jaya Ancol Tbk & Subsidiary	2004	20	5

APPENDIX 4
Data to Calculate Unexpected Accruals (TACCit) Jones Model

No	IPO	$TA_{(t-1)}$	PPE_t	Δrev	Δrec	Δrev-Δrec	Δrev-Δrec/$TA_{(t-1)}$	$PPE_t/TA_{(t-1)}$
7	1996	2.43822E+11	2.16592E+11	16193070267	13506720713	2686349554	0.011017648	0.888318587
8	1996	7.40098E+11	6.8391E+11	-56303206719	-12025115884	-44278090835	-0.059827355	0.924080511
15	1996	1.71322E+12	1.09631E+12	1.45198E+11	1.59358E+11	-14159686000	-0.008264933	0.639909589
16	1996	2.5097E+11	2.23126E+11	1.49476E+11	12222545658	1.37254E+11	0.546893758	0.889052448
17	1996	73311847679	1.01077E+11	75879240058	6058378067	69820861991	0.952381698	1.37872511
19	1996	1.22127E+12	29831447089	71602373101	36536837965	35065535136	0.028712346	0.024426573
21	1996	1.87397E+11	4.29325E+11	2.17376E+11	39589031000	1.77787E+11	0.948717869	2.290989306
33	1996	1.03991E+11	82469115563	11489847951	17169088254	-5679240303	-0.054612706	0.793039442
34	1996	1.23688E+12	2.30892E+11	1.98966E+11	1.7922E+11	19745593144	0.015964064	0.186673229
35	1996	93996917419	46904763049	-2765423145	-2462820012	-302603133	-0.003219288	0.499003205
39	1996	7.39073E+11	1.22529E+11	1.23134E+11	15272764050	1.07861E+11	0.145941419	0.165787678
52	1996	1.03942E+11	79865305000	24519136000	3238115000	21281021000	0.204740199	0.768367196
54	1996	82385532104	50037953363	31021402125	1680063247	29341338878	0.356146742	0.607363357
55	1996	5.62081E+11	4.10444E+11	49066502253	47374547261	1691954992	0.003010164	0.730222586
5	1997	4.39304E+11	3.16439E+11	20436105206	22223171657	-1787066451	-0.004067945	0.720318209
13	1997	1.27134E+11	15082750502	42043302519	46878110187	-4834807668	-0.03802933	0.118636962
24	1997	2.02337E+11	1.56252E+11	29621616352	2059775104	27561841248	0.136217603	0.772238743
28	1997	8.29244E+11	3.55081E+11	36861462000	12283534000	24577928000	0.029638964	0.428198873
29	1997	3.6701E+11	4.10186E+11	77906620028	1.01097E+11	-23190366813	-0.063187328	1.117644563
31	1997	1.76482E+11	1.51473E+11	45113057743	67050430144	-21937372401	-0.124303841	0.858293668
37	1997	7.16212E+11		9516460293	44679556526	-35163096233	-0.049095965	0
1	1998	1.48681E+12	1.67118E+12	1.16897E+11	67731000000	49166000000	0.033068157	1.124003906
4	1998	1.56493E+11	71706099644	-28261934163	-85953815080	57691880917	0.368655808	0.458207805
9	1998	1.60079E+12	1.2663E+12	5.72353E+11	15724419181	5.56628E+11	0.347721565	0.791049132
11	1998	1.29616E+12	5.99598E+11	4.08608E+11	-1.37781E+11	5.4639E+11	0.421545068	0.462596055
20	1998	8.06949E+11	1.11533E+11	-44033098387	-35056179956	-8976918431	-0.011124514	0.138216168
25	1998	6.37102E+11	5.69786E+11	2.44236E+11	56011847707	1.88224E+11	0.295437923	0.894340438
32	1998	9.64802E+11	1.14176E+12	1.64686E+11	9739054005	1.54947E+11	0.160599458	1.183409505
38	1998	2.22291E+11	6009740383	-628076199	3754178498	-4382254697	-0.019714088	0.027035523
40	1998	4.59047E+11		2.85298E+11	-1.11727E+12	1.40257E+12	3.055399746	0
41	1998	5030632226	50543881697	-9323938205	-2441406675	-6882531530	-1.368124566	10.04722258

43	1998	1.16419E+12	16814009966	-64034220334	-1.52832E+11	88797730647	0.07627419	0.014442655
46	1998	2.17494E+11	1086562833	-26606782874	-1153469741	-25453313133	-0.117029789	0.004995822
47	1998	1.99119E+11	27772780691	1.18628E+11	-981612958	1.19609E+11	0.60069223	0.139478084
49	1998	4.40886E+11	163036078	-1.11906E+11	2677699896	-1.14584E+11	-0.25989427	0.000369792
53	1998	6.53703E+11		2.2383E+11	-75107008084	2.98937E+11	0.45729817	0
14	1999	3.02087E+11	1129891535	-448800350	4864991642	-5313791992	-0.017590265	0.003740284
18	1999	47825330066	70788220	-182207695	3226831515	-3409039210	-0.071281039	0.001480141
2	2000	45698140000	69178010891	50761469000	14366344000	36395125000	0.796424647	1.513803645
6	2000	4.02555E+11	3.69974E+11	6.44657E+11	12954423472	6.31703E+11	1.56923511	0.919065291
10	2000	1.75151E+11	2.02687E+11	62307086396	3879228160	58427858236	0.333585612	1.157213868
22	2000	7309337669	5906694870	2017852875	430419726	1587433149	0.217178795	0.808102613
23	2000	1.1487E+11	89024525172	68898937878	-2846276920	71745214798	0.624578436	0.775003585
26	2000	1.76188E+11	54092601184	69016972551	62425852259	6591120292	0.03740951	0.307015742
27	2000	1.83481E+11	6096954036	-29989286079	-6783803383	-23205482696	-0.126473647	0.033229389
30	2000	1.2678E+11	5342214534	887142700	4641138483	-3753995783	-0.029610251	0.042137584
36	2000	1.03448E+11	48827604280	-8872255521	-8572055497	-300200024	-0.002901951	0.472003084
44	2000	2.17797E+11	850229956	7091312838	-1.58358E+11	1.6545E+11	0.759650942	0.003903772
48	2000	74312900136	26972294866	86697963474	4590807717	82107155757	1.104884288	0.362955756
50	2000	1.18164E+11	61525234459	16677611252	15927748803	749862449	0.006345951	0.520676956
51	2000	1.36441E+11	48980320200	40109030115	20938739429	19170290686	0.140502189	0.35898476
56	2000	5.85145E+11	5.98288E+11	-29634435000	-4331353000	-25303082000	-0.043242425	1.022461317
57	2000	1.82178E+11	56155939732	54313963070	13000333526	41313629544	0.226776763	0.308248449
58	2000	27960680000	38485324000	-855371000	-677827000	-177544000	-0.006349774	1.376408728
59	2000	1.72086E+11	20929525461	14317116379	2593242007	11723874372	0.068127975	0.121622438
3	2003	1.08958E+12	1.87969E+11	6.7887E+11	2.77972E+11	4.00898E+11	0.367938153	0.17251513
45	2003	5.77009E+12	6.27731E+12	4.44381E+11	2.03109E+11	2.41271E+11	0.041814152	1.087905542
60	2004	5.71874E+11	23742193017	1.08394E+11	28675748935	79718494477	0.139398711	0.041516478

APPENDIX 5
Data to Calculate Index for Industry Specialist Auditor

SPEC 1996

No	Industry	Auditor	Sales	Sales Auditor	Index	Spec
7	8	5	245512081938	780093395491	0.314721	1
8	10	7	347290518252	1492740966180	0.232653	1
15	17	7	847376659000	1492740966180	0.567665	1
16	12	7	298073788928	1492740966180	0.199682	1
17	4	1	100110347005	100110347005	1	1
19	21	9	225444535820	1791080059390	0.125871	1
21	1	5	417215551000	1097645247138	0.380101	1
33	9	9	132529415508	1791080059390	0.073994	0
34	20	9	547900280630	1791080059390	0.305905	1
35	14	9	74713675461	1791080059390	0.041714	0
39	20	9	351008624216	1791080059390	0.195976	1
52	5	9	126544446000	576849290308	0.219372	1
54	4	5	117365762553	780093395491	0.150451	1
55	13	9	332939081755	1791080059390	0.185887	1

SPEC 1997

No	Industry	Auditor	Sales	Sales Auditor	Index	Spec
5	3	9	164142172224	901106079422	0.182156	1
13	19	5	64822463315	64822463315	1	1
24	13	9	244125371223	979878069987	0.249139	1
28	16	3	278794422000	278794422000	1	1
29	11	9	149221650660	979878069987	0.152286	1
31	8	9	229215839291	979878069987	0.233923	1
37	20	9	193173036589	979878069987	0.19714	1

SPEC 1998

No	Industry	Auditor	Sales	Sales Auditor	Index	Spec
1	1	3	458987000000	552864753989	0.830198	1
4	4	5	93877753989	93877753989	1	1
9	3	9	1021910684511	4151050730848	0.246181	1
11	5	9	1237180626801	4238981824472	0.291858	1
20	20	9	46160715733	4238981824472	0.01089	0
25	12	9	498428222767	4238981824472	0.117582	1
32	20	3	385411109051	844398109051	0.456433	1
38	18	9	16358113713	4238981824472	0.003859	0
40	12	9	600407593080	4238981824472	0.14164	1
41	16	4	51635793933	51635793933	1	1
43	19	9	30830765636	4238981824472	0.007273	0
46	20	9	14811367369	4238981824472	0.003494	0
47	7	9	247915738254	4238981824472	0.058485	0
49	20	9	21514116168	4238981824472	0.005075	0
53	6	9	503463880440	4238981824472	0.11877	1

SPEC 1999

No	Industry	Auditor	Sales	Sales Auditor	Index	Spec
14	20	9	19321705719	26689099559	0.723955	1
18	20	9	7367393840	26689099559	0.276045	1

SPEC 2000

No	Industry	Auditor	Sales	Sales Auditor	Index	Spec
2	5	3	115195474000	115195474000	1	1
6	15	9	2064600746518	2990426848814	0.690403	1
10	10	9	139599552467	2990426848814	0.046682	0
22	21	4	8198102390	328654954857	0.024944	0
23	1	5	230359262322	616355662492	0.373744	1
26	7	9	332605313367	751820373927	0.4424	1
27	20	9	40652776432	2990426848814	0.013594	0
30	20	2	9893210450	9893210450	1	1
36	20	6	2845099921	2845099921	1	1
44	19	5	20398019925	1133555246194	0.017995	0
48	15	9	192320377916	2990426848814	0.064312	0
50	7	5	153105575916	1133555246194	0.135067	1
51	10	9	170340665114	2990426848814	0.056962	0
56	4	5	666675546000	1133555246194	0.588128	1
57	13	4	320456852467	370764269467	0.864314	1
58	21	9	50307417000	2990426848814	0.016823	0
59	19	5	63016842031	1133555246194	0.055592	0

SPEC 2003

No	Industry	Auditor	Sales	Sales Auditor	Index	Spec
3	2	10	2234985183072	2234985183072	1	1
45	3	8	3596192187193	3596192187193	1	1

SPEC 2004

No	Industry	Auditor	Sales	Sales Auditor	Index	Spec
60	20	5	542815049915	542815049915	1	1

APPENDIX 6
Data to Calculate DAC_{it}

No	IPO	BIG 5	SPEC	OCF	ABSTA	LOSS	INCCHG	MTB	SIZE	LEV
7	1996	1	1	-0.242446247	0.326895	0	1	0.66	11.390073	0.44039
8	1996	1	1	0.071410719	0.011870	0	0	0.62	11.540693	0.337285
15	1996	1	1	-0.006966067	0.098903	0	1	2.85	11.928076	0.55812
16	1996	1	1	0.243988465	0.018992	0	1	3.44	11.474324	0.514154
17	1996	0	1	0.257649543	0.021993	0	1	2.69	11.000479	0.075039
19	1996	1	1	0.199540434	0.098305	0	1	3.00	11.353040	0.469141
21	1996	1	1	0.487408891	0.133560	0	1	1.53	11.620360	0.196229
33	1996	1	0	-0.041730871	0.151162	0	1	1.68	11.122312	0.30148
34	1996	1	1	0.263686178	0.112866	0	1	1.78	11.738702	0.469831
35	1996	1	0	0.097643189	0.130268	1	1	0.48	10.873400	0.422874
39	1996	1	1	-0.030391721	0.167001	0	1	1.31	11.545318	0.601317
52	1996	1	1	0.228472635	0.052513	0	1	1.79	11.102243	0.242491
54	1996	1	1	0.157240022	0.018610	0	1	1.80	11.069541	0.340075
55	1996	1	1	0.115368403	0.036921	0	1	2.31	11.522365	0.578939
5	1997	1	1	0.203334557	0.370344	1	0	0.92	11.215220	0.641583
13	1997	1	1	-1.380003478	1.540219	0	1	1.29	10.811726	0.45042
24	1997	1	1	-0.15685385	0.024568	1	0	1.22	11.387613	0.659665
28	1997	1	1	0.046832967	0.016728	0	1	0.41	11.445284	0.787108
29	1997	1	1	-0.266396211	0.184992	1	0	0.65	11.173832	0.71363
31	1997	1	1	-0.308379145	0.103730	1	0	1.89	11.360245	0.943783
37	1997	1	1	-0.004608994	0.111269	0	1	0.52	11.285947	0.538533
1	1998	1	1	0.048168963	0.012764	0	1	1.24	11.661800	0.549121
4	1998	1	1	0.00031578	0.545025	1	0	-0.61	10.972563	1.182253
9	1998	1	1	0.3371154	0.137464	0	1	1.24	12.009413	0.271453
11	1998	1	1	0.091117441	0.245652	1	0	0.79	12.092433	0.820177
20	1998	1	0	0.014880424	0.019488	1	0	0.64	10.664273	0.657888
25	1998	1	1	-0.193880689	0.106686	1	0	0.59	11.697603	0.647793
32	1998	1	1	0.002644536	0.206403	1	0	-12.56	11.585924	1.031783
38	1998	1	0	0.041752805	0.108768	0	1	0.11	10.213733	0.084449
40	1998	1	1	0.415736723	0.212974	0	1	0.73	11.778446	0.481997

41	1998	0	1	-4.428580832	4.735840	1	0	0.35	10.712951	0.803166
43	1998	1	0	0.070838243	0.031247	0	1	1.12	10.488984	0.278082
46	1998	1	0	-0.102205455	0.094002	1	0	0.27	10.170595	0.326253
47	1998	1	0	0.056295071	0.393920	1	0	-0.66	11.394304	1.106191
49	1998	1	0	0.072490542	0.053655	0	0	0.14	10.332724	0.2726
53	1998	1	1	0.198953855	0.184983	0	0	0.44	11.701968	0.65256
14	1999	1	1	-0.031141694	0.038689	0	1	0.48	10.286045	0.453902
18	1999	1	1	-0.087331765	0.104533	0	1	0.81	9.867314	0.042784
2	2000	1	1	-0.055455824	0.309984	0	1	2.42	11.061435	0.137998
6	2000	1	1	0.209134915	0.155082	0	1	1.80	12.314836	0.53152
10	2000	1	0	0.055425162	0.023929	0	0	0.55	11.144884	0.305385
22	2000	0	0	-0.241465376	0.140849	1	1	0.70	9.913713	0.144449
23	2000	1	1	-0.001576901	0.171045	0	1	0.64	11.362406	0.305291
26	2000	1	1	-0.121932157	0.243566	0	1	1.02	11.521929	0.186433
27	2000	1	0	0.007208815	0.019432	0	0	1.18	10.609090	0.715634
30	2000	0	1	-0.116754076	0.118791	0	0	0.27	9.995337	0.137599
36	2000	0	1	0.016701686	0.014665	0	0	0.24	9.454098	0.193738
44	2000	1	0	-0.012272928	0.058253	0	1	0.57	10.309588	0.341923
48	2000	1	0	0.099349465	0.053013	0	1	0.37	11.284025	0.30218
50	2000	1	1	0.048194764	0.085097	0	1	2.08	11.184991	0.376677
51	2000	1	0	0.237010409	0.127387	0	1	2.48	11.231318	0.457175
56	2000	1	1	0.092306253	0.089319	0	0	1.04	11.823915	0.563542
57	2000	0	1	0.126787774	0.056228	0	1	0.29	11.505770	0.59115
58	2000	1	0	-0.310063918	0.233937	1	0	0.69	10.701632	0.0858
59	2000	1	0	0.052022127	0.028162	0	0	4.21	10.799457	0.169306
3	2003	0	1	0.005264122	0.035429	0	1	1.89	12.349275	0.830921
45	2003	1	1	0.096005863	0.005981	0	0	1.89	12.555843	0.63613
60	2004	1	1	0.23203342	0.038619	0	1	1.65	11.734652	0.272592

APPENDIX 7

Regression Result of Equation 3.4

Dependent Variable: ABDAC
Method: ML - ARCH
Date: 08/04/06 Time: 07:50
Sample(adjusted): 1 55
Included observations: 55 after adjusting endpoints
Failure to improve Likelihood after 6 iterations

	Coefficient	Std. Error	z-Statistic	Prob.
C	-0.097047	0.113362	-0.856085	0.3920
ABSTA	0.998670	0.158511	6.300326	0.0000
BIG5	-0.032273	0.075824	-0.425627	0.6704
INCCHG	-0.060038	0.072517	-0.827918	0.4077
LEV	0.080627	0.100582	0.801606	0.4228
LOSS	-0.037870	0.072021	-0.525819	0.5990
MTB	0.022453	0.015251	1.472246	0.1410
OCF	-0.198528	0.046596	-4.260622	0.0000
SIZE	0.024282	0.007820	3.105131	0.0019
SPEC	-0.082711	0.035151	-2.353010	0.0186
Variance Equation				
C	-0.436961	0.087016	-5.021622	0.0000
|RES|/SQR[GARCH](1)	-1.104339	0.138107	-7.996231	0.0000
RES/SQR[GARCH](1)	0.272542	0.160245	1.700786	0.0890
EGARCH(1)	0.718040	0.001418	506.4065	0.0000

R-squared	0.468712	Mean dependent var	0.218770
Adjusted R-squared	0.300255	S.D. dependent var	0.160616
S.E. of regression	0.134356	Akaike info criterion	-1.346350
Sum squared resid	0.740117	Schwarz criterion	-0.835393
Log likelihood	51.02463	F-statistic	2.782380
Durbin-Watson stat	1.801340	Prob(F-statistic)	0.006268

APPENDIX 8
Pearson Correlations

Correlations

		TAC	ABDAC	BIG5	SPEC	OCF	ABSTA	LOSS	INCCHG	MTB	SIZE	LEV
TAC	Pearson Correlation	1	-0.130	-0.082	-0.059	-0.598	-0.309	-0.247	0.264	0.227	-0.235	-0.540
	Sig. (2-tailed)	.	0.344	0.552	0.669	0.000	0.022	0.069	0.051	0.095	0.084	0.000
	N	55	55	55	55	55	55	55	55	55	55	55
ABDAC	Pearson Correlation	-0.130	1	0.105	-0.095	-0.140	0.649	0.293	-0.216	0.033	0.004	0.156
	Sig. (2-tailed)	0.344	.	0.445	0.491	0.307	0.000	0.030	0.114	0.810	0.976	0.255
	N	55	55	55	55	55	55	55	55	55	55	55
BIG5	Pearson Correlation	-0.082	0.105	1	-0.096	0.071	0.173	0.071	-0.048	-0.015	0.259	0.186
	Sig. (2-tailed)	0.552	0.445	.	0.487	0.608	0.206	0.609	0.730	0.912	0.056	0.174
	N	55	55	55	55	55	55	55	55	55	55	55
SPEC	Pearson Correlation	-0.059	-0.095	-0.096	1	0.137	0.088	-0.177	0.131	0.005	0.474	0.233
	Sig. (2-tailed)	0.669	0.491	0.487	.	0.318	0.524	0.196	0.341	0.973	0.000	0.088
	N	55	55	55	55	55	55	55	55	55	55	55
OCF	Pearson Correlation	-0.598	-0.140	0.071	0.137	1	-0.157	-0.444	0.307	0.154	0.344	-0.031
	Sig. (2-tailed)	0.000	0.307	0.608	0.318	.	0.254	0.001	0.023	0.263	0.010	0.820
	N	55	55	55	55	55	55	55	55	55	55	55
ABSTA	Pearson Correlation	-0.309	0.649	0.173	0.088	-0.157	1	0.427	-0.153	-0.247	0.092	0.330
	Sig. (2-tailed)	0.022	0.000	0.206	0.524	0.254	.	0.001	0.265	0.069	0.505	0.014
	N	55	55	55	55	55	55	55	55	55	55	55
LOSS	Pearson Correlation	-0.247	0.293	0.071	-0.177	-0.444	0.427	1	-0.545	-0.361	-0.091	0.448
	Sig. (2-tailed)	0.069	0.030	0.609	0.196	0.001	0.001	.	0.000	0.007	0.511	0.001
	N	55	55	55	55	55	55	55	55	55	55	55

INCCHG	Pearson Correlation	0.264	-0.216	-0.048	0.131	0.307	-0.153	-0.545	1	0.285	0.099	-0.351
	Sig. (2-tailed)	0.051	0.114	0.730	0.341	0.023	0.265	0.000	.	0.035	0.472	0.009
	N	55	55	55	55	55	55	55	55	55	55	55
MTB	Pearson Correlation	0.227	0.033	-0.015	0.005	0.154	-0.247	-0.361	0.285	1	0.066	-0.338
	Sig. (2-tailed)	0.095	0.810	0.912	0.973	0.263	0.069	0.007	0.035	.	0.634	0.012
	N	55	55	55	55	55	55	55	55	55	55	55
SIZE	Pearson Correlation	-0.235	0.004	0.259	0.474	0.344	0.092	-0.091	0.099	0.066	1	0.478
	Sig. (2-tailed)	0.084	0.976	0.056	0.000	0.010	0.505	0.511	0.472	0.634	.	0.000
	N	55	55	55	55	55	55	55	55	55	55	55
LEV	Pearson Correlation	-0.540	0.156	0.186	0.233	-0.031	0.330	0.448	-0.351	-0.338	0.478	1
	Sig. (2-tailed)	0.000	0.255	0.174	0.088	0.820	0.014	0.001	0.009	0.012	0.000	.
	N	55	55	55	55	55	55	55	55	55	55	55

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

management is only industry specialist auditors. This conclusion has been supported by the t-test; in which, ρ-value is less than 5%.

5.2 Research Recommendation

After completing this research the following recommendations have been drawn:

1. For further research, the researcher should find other variables that could give more clarification upon the relationship between earnings management and audit quality in Indonesian IPO companies' case. Because the result of this research shows that the significant influence of recent independent variables is only about 30.03%, and it is quite small percentage for explaining this relationship. So, the rest 69.97% of other variables should be found by the next researcher in order to get more precise outcome.
2. The future research should be conducted in a longer period, so the total amount of observation samples can increase and more varied. This is because the company only does once for IPO offering, so there will not be similar company in different year. Moreover, there is a possibility that there is not data obtained for a certain year since there is not any company does an IPO offering at that period, and, it can decrease the amount of data.