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The Effect of Audit Quality on Accuracy of Stock Price Prediction through Earnings Quality, Evidence from Indonesia

Sihar Tambun[1] Adler Haymans Manurung[2] Etty Murwaningsari[2]
Sekar Mayangsari[2]
1.Student of Doctoral Program, Department of Accounting, Trisakti Unviersity, Indonesia
2.Department of Accounting, Trisakti Unviersity, Indonesia

Abstract:
This article discusses the results of the study, which consists of three research models. The first research model examines the effect of audit quality on earnings quality. The second research model examines the effect of earnings quality and audit quality on the accuracy of stock price predictions. The third research model, examines the indirect effect of audit quality on the accuracy of stock price predictions, through earnings quality. In this study, the accuracy of stock price prediction is the dependent variable. Earnings quality as a mediating variable. Audit quality as an independent variable, using three measurements, namely the number of auditors, number of clients, and audit fees. Sample research consists of 54 issuers listed on the Indonesia Stock Exchange, during 2013-2016. The sample is selected using the purposive sampling method. The analytical method uses the ordinary least square estimation method, for models that test direct influence. For testing indirect effects, using the two least square methods. The results in the first research model prove that audit quality has a significant and positive effect on earnings quality. The results of the second research model, proving that earnings quality and audit quality have a significant influence on the accuracy of stock price predictions. The results of the third research model prove that earnings quality mediates significantly the influence of audit quality on the accuracy of stock price predictions.
Keywords: audit quality, audit fee, earnings quality, stock price predictions

INTRODUCTION

For an investor, the prediction of future stock prices is very important to ensure that the investments made provide high returns. Stock returns are obtained from two sources, first from the difference in stock prices when buying and selling, second from dividend distribution on profits. In Indonesia the development of stock investment is growing rapidly. However, the model for predicting stock prices is still difficult to find. Note on the Indonesia Stock Exchange, the shares outstanding in 2011 were 2,198,133 million shares, but in 2016 it had become 3,913,661 million shares. The number of listed companies also increased from 440 issuers in 2011 to 537 issuers in 2016. Increased market capitalization also occurred in 2016 amounting to 3,537,294 billion rupiahs to 5,753,613 billion rupiahs in 2016. All of these data indicate that the capital market in Indonesia is still continued to show transactions in large amounts and high share investment value. However, it needs to be observed, even though the frequency of trading continues to increase, the stock price predictions made by the majority analysts still deviate. Quoting from a Bloomberg report, data in Indonesia in 2011-2016, the average accuracy of predictions was only 9%, meaning 91% of the predictions were missed. Predictions are considered appropriate if the stock price prediction only misses no more than 5%. For example, if the actual stock price is 100, then the predicted stock price in the stock price range of 95 to 105 is still considered appropriate.

Stock price prediction uses fundamental analysis and tactical analysis approaches. The tactical analysis looks at the tendency of stock prices based on the occurrence of events that are repeated. Fundamental analysts pay attention to the current condition of the financial statements, to be used as a basis for predicting future stock prices. This fundamental analysis is most observed by researchers, to find out the truth. The researchers tried to see the link between predictions of future stock prices and factors that could influence them. Many are researching and linking the earnings quality presented in financial statements, with stock predictions. Researchers who observed this include Brown (1983), Lev (1989), Elliott and Philbrick (1990), Kim and Schroeder (1990), Charitou and Clubb (1999), Dechow et al. (2010), Perotti and Wagenhofer (2014), Attar and Maali (2017). The results of the study linking earnings quality with stock price predictions are still not consistent, both their significance and positive and negative influence coefficients, thus requiring further research to get strong conclusions. Furthermore, to ensure quality earnings, must look at the quality of the audit or who the auditor is to audit the financial statements. This means that it is necessary to examine the relationship between audit quality and earnings quality. Researchers who observe the relationship between audit quality and earnings quality, including Defond and Subramanyam (1998), Becker et al. (1998), Kim et al. (2003), Gull and Srinidhi (2007), Caramanis and Lennox (2008), Francis and Yu (2009), Clinch et al. (2010), Kanagaretnam et al. (2011), Chen et al. (2011), Memis and Cetenak (2012), Lee et al. (2013), and research from Tambun et al. (2017). The results of the study that correlate audit quality with earnings quality are still not consistent, so that further research is needed to get conclusions. Other researchers also tried to examine the relationship between audit quality and future stock price predictions, including research conducted by Brown (1983), Elliott and Philbrick (1990), Schleicher et al. (1996), Ashbaugh and Pincus (2001),

Hussainey (2009), Perotti and Wagenhofer (2014). The test results between audit quality and analyst predictions are still not strong, and require further research support, so that they can draw conclusions.

The researchers above have proven that audit quality is related to and influences the quality of earnings presented in the financial statements. Then, the quality of earnings presented in the financial statements also has a relationship with stock price predictions. Then it should also be observed, how the indirect effect of audit quality on stock price predictions, through earnings quality. An article has not been found that examines this indirect effect, and this research will fill the vacancy in the results of the research. This study will look at whether earnings quality can mediate the influence of audit quality on the accuracy of stock price predictions.

LITERATURE REVIEW AND HYPOTHESIS

Valuation theory is one of the theories used by analysts before recommendations are given to investors. This theory discusses the valuation of invested assets, both real assets and financial assets. The initiator of the valuation method is Graham and Dodd (1934). Further development of this theory was developed by many researchers, one of which was Damodaran. According to Damodaran (2002), in general there are three approaches used in valuation, namely:

1. Relative valuation is a valuation model that assesses an asset through comparison with the prices of other similar assets. The calculation method that is usually used to make comparisons is price earnings ratio (PER) and price book value ratio (PBV).
2. Contingent claim valuation is a valuation method using the option pricing model approach to assess an asset that has properties such as options.
3. Discounted cash flow valuation is the value of an asset is the present value (PV) of the estimated cash flows that will be generated in the future (expected future cash flow) of an asset that is discounted by using a certain discounted rate.

Valuation theory explains the value of an asset in the future using data currently available. This valuation theory is generally used by analysts if they want to predict the value of each future asset. The valuation theory will be relevant to use when supported by quality earnings as presented in the financial statements. Valuation theory is also related to audit quality because the feasibility of the transaction and the worthiness of an asset must also be audited by the auditor by considering its current relevance value. Using the valuation theory approach and the support of previous researchers, then the research hypothesis is determined in this study.

Hypothesis Development in the First Research Model

DeAngelo (1981) explained that audit quality can be measured by audit fees, auditor size, and specialization. Audit fees are seen from the acquisition of fees from audit services per year. Auditor size can be seen from the number of auditors in the Public Accountant Office, and from the number of clients owned by the Public Accountant Office. Francis and Yu (2009) prove that audit quality has a large contribution in detecting earnings management in a company. Kim et al. (2003) proved the influence of conservatism from an auditor to maintain audit quality, against the possibility of earnings management. Becker et al. (1998) prove the significant impact of audit quality on earnings management detection by managers. The number of auditors in the Public Accounting Firm is related to the quality of earnings presented in the audited financial statements. According to Chen et al. (2013) Attributes the big 4 accounting firm has better accuracy in evaluating auditee violations in presenting financial statements. The big 4 auditors have better competence and independence to produce quality audits. This is due to the big 4's public accounting firm having many auditors and many choices to develop a quality audit team. Other researchers who have proven the significant effect of the number of auditors in the public accounting firm on earnings quality or the quality of the presentation of financial statements include Behn et al. (2008), Clinch et al. (2010), Kanagaretnam et al. (2011), Chen et al. (2011), and Memis and Cetenak (2012). Based on the description above, the hypothesis is set as follows, H1: There is a significant effect of the number of auditors on earnings quality.

The number of clients owned by the Public Accountant Office has been made as previous researchers as a proxy of audit quality, Francis and Yu (2009) have done. Deis and Groux (1992) examine that the large number of clients from a public accounting firm is one of the determinants that influence audit quality. Other researchers who have proven the existence or influence of the number of clients on the quality of earnings include Breesch and Branson (2009), Francis and Yu (2009), Hakim and Omri (2010), Kanagaretnam et al. (2011) and Chen et al. (2013). Based on the description above, the hypothesis is set as follows, H2: There is a significant effect of the number of clients on earnings quality.

Audit fees are related to accrual quality or the quality of the presentation of financial statements. Audit fees are agreed based on the scope of the audit and audit expertise needed in the field. This has been proven by researchers Gull and Srinidhi (2007) and Alali's research (2011). The quality of the accrual in question is the recognition of profit presented in the annual financial statements. According to Lee et al. (2013) the increasing audit costs, the auditor will tend to provide high audit quality and this is not in line with institutional monitoring and monitoring. The results of the study prove that qualified auditors will be able to detect deficiencies in the presentation of financial statements at the time of the audit. In addition, qualified auditors will also be able to

detect the possibility of earnings management activities in the financial statements. Based on the results of previous studies and the arguments above, audit quality has the potential to have a positive effect on earnings quality. Other researchers who have proven the effect of audit fees on earnings quality or the quality of presentation of financial reports include DeAngelo (1981), Watkins et al. (2004), Li et al. (2009), Kanagaretnam et al. (2011), and research from Yasina and Nelson (2012). Based on the description above, the hypothesis is as follows, H3: There is a significant effect of audit fees on earnings quality.

Hypothesis Development in the Second Research Model

Earnings quality and accuracy of analyst predictions are related because one of the analyst sources in predicting stock performance is the historical data in the financial statements. Fundamental analysis conducted by analysts will be good, if the earnings in the financial statements are presented properly. Many studies that examine the projection of stock returns, one of which is Lev (1989), managed to find a relationship between the level of stock returns and changes in earnings. Earnings quality can be indicated as earnings information capabilities get a response from the market, so that the low quality of earnings can be interpreted as the ability of earnings information announced by the company, getting a low response from the market. Lev (1989) research has motivated other researchers to examine other potentials related to the low rate of return on profits. Research conducted by Brown (1983) and Elliott and Philbrick (1990), provides evidence of certain accounting methods (as part of the formation of earnings quality) capable of increasing predictability (i.e., reducing errors in analyst estimates). Attar and Maali's research (2017) provides evidence that earnings management has a negative impact on earnings quality and also has a negative impact on the accuracy of profit predictions. Perotti and Wagenhofer's (2014) research provides evidence that accrual attributes (abnormal accruals and accrual quality) are good measurements to predict more future benefits. Based on the results of previous studies and arguments above, the quality of earnings has the potential to have a positive effect on the accuracy of analyst predictions. Then the hypothesis is set as follows, H4: There is a significant effect of earnings quality on the accuracy of stock price predictions.

Audit quality and the accuracy of analyst predictions have relevance, especially audited financial statements. One of the analyst bases for predicting future stock prices is fundamental data in financial statements. If the auditor is able to detect misstatements in the financial statements, the financial statements are free from material misstatement. Such reports are certainly good to use as a basis for projections. The research of Ashbaugh and Pincus (2001) references that the auditor checks the accuracy of the presentation of financial statements so that they are useful for predictive purposes. Hussainey (2009) also states that large accounting firms have a large number of auditors, will present a higher quality of financial statements than small accounting firms. The aim is for investors to anticipate future earnings, for companies whose financial statements are audited by The Big Four's public accounting firm. This means that the audit quality of the Big Four has a higher ability to produce quality earnings information, so that it can improve the accuracy of investor predictions of the profits that will be obtained in the future. Hussainey (2009) and Schleicher et al. (1996) proved a positive relationship between audit quality and the ability of investors to predict future earnings. Hussainey (2009) states that companies that report positive earnings with financial statements audited by The Big Four's public accounting firm have the ability to predict earnings, but companies that report negative earnings with financial statements audited by non-Big four accounting firms cannot predict earnings. So it is considered better if we examine the sensitivity of audit quality from both parties, both companies that report positive earnings, and companies that report negative earnings. Based on the results of previous studies and arguments above, the number of auditors has the potential to have a positive effect on the accuracy of analyst predictions. Then the hypothesis is set as follows, H5: There is a significant effect of the number of auditors on the accuracy of stock price predictions.

Bhattacharya et al. (2003) states that high profit performance in accordance with generally accepted accounting standards will benefit analysts. Nurrohman and Zulaikha (2013) found that audit quality has a significant positive effect on stock returns. Audit quality of financial statements is measured based on the ability of users of financial statements to anticipate the benefits to be obtained in the future, will be much higher if the financial statements are audited by The Big Four Public Accounting Firm (Lee at al., 2007). It is clear that the experience of auditing various types of companies, contributing to the financial statements audited by The Big Four is able to provide an overview to predict future earnings. Based on the results of previous studies and arguments above, the number of clients has the potential to have a positive effect on the accuracy of analyst predictions. Then the hypothesis is set as follows, H6: There is a significant effect of the number of clients on the accuracy of stock prices predictions.

Cheong and Zurbruegg's (2016) study examines the role of audit quality on the type of information analyst that is included in the stock price. Cheong and Zurbruegg's (2016) study used the number of clients as one of the measurement proxies of audit quality. To calculate the results and prospects of the company, investors need an assessment from the accountant's services to ensure that the company's financial statements contain relevant information, and have high audit quality. High audit quality is demonstrated by the auditor's ability to detect

material misstatements, and the auditor's ability to detect manipulation practices that may be found in financial statements. However, to obtain quality audit services, issuers must pay audit fee rates, which are based on auditor working hours (Davidson and Neu, 1993). Companies that have presented financial reports with high audit quality are expected to help the market anticipate changes in profits to be increasingly improved (Collins et al, 1994). Based on the results of the previous research and the arguments above, the hypothesis is as follows, H7: There is a significant influence of audit fees on the accuracy of stock price predictions.

Hypothesis Development in the Third Research Model

Salerno's research (2014) investigates that reported earnings quality impacts have accuracy in financial analyst estimates. Hussainey's (2009) study, Schleicher et al. (1996), and the research of Ashbaugh and Pincus (2001) have proven that the number of auditors directly has a positive and significant effect on earnings quality. While the quality of earnings also directly affects the accuracy of predictions of analysis, as well as the research conducted by Brown (1983), Elliott and Philbrick (1990), and the research of Perotti and Wagenhofer (2014). Based on the research, direct influence between variables has been formed. So it is very logical, if indirect effects can also be tested from this model. Thus it can be concluded that quality earnings will potentially be able to mediate the influence of the number of auditors on the accuracy of predictions from analysts. Research by Nurrohman and Zulaikha (2013) proves that audit quality has a significant positive effect on stock returns one year ahead. Based on the results of the research and the arguments above, the following hypothesis is formed, H8: There is an influence of the number of auditors on the accuracy of stock price predictions, through earnings quality.

Furthermore, Cheong and Zurbruegg (2016) research examined the role of audit quality on the types of information analysts included in stock prices, in all samples of developed and developing markets. Specifically, researchers investigate the amount of information and its relationship to the synchronicity of stock returns. The results of the study prove that little information can be obtained by the market from financial statements, if the application of accounting standards is weak. But if the application of accounting is strong, then a lot of information is relevant to future stock returns. Furthermore, research by Callen et al. (2013) proves that the quality of accounting information is closely related to stock prices. The quality of accounting information is defined as the quality of audited financial statements. If the quality of accounting information is low, then the prediction results will be worse compared to the realization. Conversely, if the quality of accounting information is good, then the predicted equity and cash flow in the future will be better. In line with the research conducted by Nuryaman (2013), showing that the number of auditors and the number of clients as representing the size of audit firm as a proxy of audit quality, can positively and significantly moderate the relationship of earnings management with stock returns. Based on the results of previous research and the arguments above, it can be concluded that quality profits will potentially be able to mediate the influence of the number of clients on the accuracy of predictions from analysts. In this mediation the following hypothesis is formed, H9: There is an influence of the number of clients on the accuracy of stock price predictions, through earnings quality.

Bangun and Safei (2011) conducted a study and found that the interaction between earnings management and audit quality had a positive and significant influence on stock returns. This can be interpreted as The Big Four Public Accountant Office has the ability to detect better earnings management practices, thereby increasing the company's stock returns. Nuryaman (2013) found that high audit quality has the ability to moderate the negative relationship between earnings management and stock returns, because high audit quality will increase investor confidence in the financial statements, so that the stock returns of the company are influenced. In addition, research conducted by Herawaty (2009) also proves that audit quality is a variable that is able to moderate the relationship between earnings management and firm value. Logically, the higher the quality of the auditor, the better the quality presented in the financial statements. Furthermore, quality profits will be a good basis for use in predicting future stock prices. If the company has a high profit, naturally the stock price will also move up. Especially if the profits obtained by the company are consistent for many years. Quality earnings are achieved because of the lack of profit management activities, as well as a series of earnings information obtained by the company, of course, can be used as a means of predicting future stocks. Thus it can be concluded that quality earnings will potentially be able to mediate the effect of audit fees on the accuracy of analyst predictions. In this mediation the following hypothesis is formed, H10: There is an influence of audit fees on the accuracy of stock price predictions, through earnings quality.

METODOLOGY

The analytical method uses the ordinary least square estimation method, for models that test direct effect. For testing indirect effects, use the two least square methods. Research data processing using stata software. The sample is selected using the purposive sampling method. The purposive sampling criteria are mainly available predictive data during the study period. Another criterion is that companies have high liquidity in stock trading. There are seven variables in this study, which are used as dependent variables, mediating variables, independent variables, and control variables. The dependent variable in this study is the accuracy of stock price prediction,

which measures the accuracy of predictions from analysts. Accuracy of stock price predictions, calculated by the formula Ln ((stock price prediction - actual stock price) / actual stock price)). The mediation variable in this study is earnings quality. Earnings quality is measured using proxy of abnormal accruals from Francis et al. 2005. Furthermore, the independent variable in this study is audit quality. Audit quality uses three measurements, namely the number of auditors in the Public Accounting Firm, the number of clients, and the number of audit fees. The variable number of auditors is measured using a formula Ln Σ auditor. The variable number of clients is measured using a formula Ln Σ client. The audit fee variable uses measurement Ln Σ audit fee. There are two control variables, namely firm size and cash flow from operations. Firm size variable uses measurement Ln Σ asset. Cash flow from operations uses measurement Ln Σ CFO. The equation model in this study consists of three equations. The first equation model consists of three hypotheses. The second equation model consists of four hypotheses. The third equation model consists of three hypotheses. These three models were tested using stata software, for direct influence and for indirect effects. The three models of the equation are as follows:

1. The first equation: Quality = α + β1 auditor + β2 Client + β3 Fee + ε
2. The second equation: Predict = α + β1 Quality + β2 Auditor + β3 Client + β4 Fee + β5 Size + β6 CFO + ε
3. The third equation: Quality = α + β1 auditor + β2 Client + β3 Fee + ε; and Predict = α + β4 Quality + β5 Auditor + β6 Client + β7 Fee + β8 Size + β9 CFO + ε

RESULT

The realization of the number of research samples that can be obtained by researchers is 54 issuers, during the period 2013-2016. The sample selection is based on purposive sampling with the criteria that the company actively conducts stock trading and the analyst company predicts the shares of the company during the period under study. In addition to stock price prediction data, researchers also obtained data from the financial statements or from the company's annual report, which was published on the Indonesia Stock Exchange website. Description of the data from the research variables can be seen in table 1.

Table 1. Statistics Descriptive

Variable	Minimum	Maximum	Mean	Std. Dev.
Predict (Y2)	0.46	1.36	0.8565	0.13388
Quality (Y1)	-1.38	13.97	0.0000	0.99441
Auditor (X1)	115	799	564.29	202.557
Client (X2)	143	2604	1220.10	470.301
Fee (X3)	8907	780774	4.05E5	274239.667
Size (Control 1)	1327802	2.E8	2.54E7	3.427E7
CFO (Control 2)	405518	2.E8	1.80E7	3.172E7
N = 270				
Description: Predict is an analyst prediction, calculated by the formula Ln ((stock price prediction - actual stock price) / actual stock price)). Quality is the quality of earnings, measured using a proxy of abnormal accruals. Auditor is audit quality (the first measurement), measured by the formula Ln Σ auditor. Client is audit quality (the second measurement), with the formula Ln Σ client. Fee is audit quality (the third measurement), with the formula Ln Σ audit fee. Size is the size of the company, with the formula Ln Σ asset. CFO is cash flow from operation, measured by Ln Σ CFO.				

Source: Run Stata Results, 2018

Pay attention to the description of the research data above, interesting and need to be observed, including the mean of earnings quality (quality) 0,0000 which means balanced between data that has positive accruals and negative accruals. However, positive accrual data is quite high with a maximum number reaching 13.97 which means that the arrangement of profits through accrual activity is still high. The data above is the actual data which calculated the minimum, maximum, mean and standard deviation values. Not that the research data becomes abnormal, because the research data for auditor variables, client variables, fee variables, variable size and CFO variables are also logged, so that all data is normal and evenly distributed. For variable audit fee data, variable size data, and CFO, all three are presented in millions of rupiah.

Table 2. Correlation

Variable	Predict	Quality	Auditor	Client	Fee	Size	CFO
Predict	1.000						
Quality	0,639***	1.000					
Auditor	0,205***	0,350***	1.000				
Client	0,252***	0,382***	0,793***	1.000			
Fee	0,032	0,085	0,781***	0,686***	1.000		
Size	0,086	0,021	0,368***	0,272***	0,403***	1.000	
CFO	-0,028	0,020	0,304***	0,150**	0,324***	0,650***	1.000

Description: *Significant at α = 10%, **Significant at α = 5%, ***Significant at α = 1%. Predict is an analyst prediction, calculated by the formula Ln ((stock price prediction - actual stock price) / actual stock price)). Quality is the quality of earnings, measured using a proxy of abnormal accruals. Auditor is audit quality (the first measurement), measured by the formula Ln Σ auditor. Client is audit quality (the second measurement), with the formula Ln Σ client. Fee is audit quality (the third measurement), with the formula Ln Σ audit fee. Size is the size of the company, with the formula Ln Σ asset. CFO is cash flow from operation, measured by Ln Σ CFO.

Source: Run Stata Results, 2018

In table 2 can be seen the correlation between research variables. It can be seen that there is a very close correlation between predictive variables with quality, auditor and client. Likewise, the correlation between quality and auditor and client, a very close correlation. The results of this correlation illustrate that there is a significant relationship between the independent variable and the dependent variable. Includes a close relationship between mediating variables and independent variables. If the correlation between research variables is strong and strong, then the potential influence in the regression test also has the potential to be there.

Hypothesis Testing in the First Research Model

The analytical method uses the ordinary least square estimation method, for models that test direct influence. Before this test is carried out, it has been proven that this model has passed the classical assumption test and has chosen the best model of this equation. The most suitable model test is done with Chow Test, LM Test, Hausman Test, and the best model is the comment effect. The following results are run using stata software.

Table 3. Effect of Audit Quality on Earnings Quality

The first equation: Quality = α + β1 auditor + β2 Client + β3 Fee + ε

- H1: There is a significant effect of the number of auditors on earnings quality
- H2: There is a significant effect of the number of clients on earnings quality
- H3: There is a significant effect of the amount of audit fees on earnings quality

Source	SS	df	MS		
Model	140.574419	3	46.8581396	Number of obs	= 270
Residual	125.425578	266	.471524731	F(3, 266)	= 99.38
				Prob > F	= 0.0000
Total	265.999997	269	.988847573	R-squared	= 0.5285
				Adj R-squared	= 0.5232
				Root MSE	= .68668

quality	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
auditor	3.551748	.379883	9.35	0.000	2.803787	4.299708
client	2.169375	.330725	6.56	0.000	1.518203	2.820547
fee	-1.834612	.125902	-14.57	0.000	-2.082504	-1.586721
_cons	-6.358419	.6143887	-10.35	0.000	-7.568102	-5.148735

Description: Significant if tScore > 1,96 and PValue < 0,05. Predict is an analyst prediction, calculated by the formula Ln ((stock price prediction - actual stock price) / actual stock price)). Quality is the quality of earnings, measured using a proxy of abnormal accruals. Auditor is audit quality (the first measurement), measured by the formula Ln Σ auditor. Client is audit quality (the second measurement), with the formula Ln Σ client. Fee is audit quality (the third measurement), with the formula Ln Σ audit fee. Size is the size of the company, with the formula Ln Σ asset. CFO is cash flow from operation, measured by Ln Σ CFO.

Source: Run Stata Results, 2018

Test the first hypothesis, the results of the study prove that the number of auditors has a significant effect on earnings quality, with a value of t 9.35 > 1.96 and p value of 0.000 <0.050. This result concludes that the first

hypothesis can be accepted. The direction of influence shows a positive or one direction effect. This means that the greater the number of auditors in a public accounting firm, the better the quality of earnings owned by the company, the better. This can occur because of the large number of auditors, giving many choices to form a good audit team, according to client needs. The more auditors, the more choices the auditor team has, both based on experience background and background of knowledge. Thus it can be concluded that the number of auditors can be used as indicators of the quality of corporate earnings. The high and low quality of earnings owned by the company, also influenced by the number of auditors in the public accounting firm, who are tasked with auditing the company's financial statements. The results of this study support and complement the research conducted by DeAngelo (1981), Becker et al. (1998), Kim et al. (2003), Behn et al. (2008), Francis and Yu (2009), Clinch et al. (2010), Kanagaretnam et al. (2011), Chen et al. (2011), and research from Memis and Cetenak (2012).

Test the second hypothesis, the results of the study prove that the number of clients has a significant effect on earnings quality, with a values of t 6.56 > 1.96 and p value of 0.000 <0.050. This result concludes that the second hypothesis in this study is acceptable. The direction of influence shows a positive and unidirectional influence. This gives an understanding that, if there are more and more clients from public accounting firms, then this can improve audit quality because it provides a lot of experience. Then, a large number of clients are a description of the trust of the client in the audit quality that is owned by a public accounting firm. The large number of clients is a guarantee of audit quality, and this has a significant effect on the quality of earnings presented in the financial statements, the company audited by the accounting firm. The results of this study support previous research conducted by Deis and Groux (1992), Francis and Yu (2009), Breesch and Branson (2009), Hakim and Omri (2010), Kanagaretnam et al. (2011) and research from Chen et al. (2013).

Test the third hypothesis, the results of the study prove that the amount of audit fees has a significant effect on earnings quality, with a value of t -14.57 > -1.96 and p value of 0.000 <0.050. Statistically, these results conclude that the third hypothesis in this study is acceptable. However, the direction of influence shows anomaly, because the direction of influence is negative and not in the same direction. This gives an understanding that, if the audit fee is higher it will reduce the quality of earnings in the financial statements of the company audited by the public accounting firm. This is where the anomaly is. In theory, a high audit fee occurs because of the working hours needed by many auditors, and involves reliable auditors with expensive qualifications. But this situation has the effect of reducing the quality of earnings in the financial statements of companies audited by the public accounting firm. According to the interpretation of the researcher, there is a possibility that the facts in the field are different, expensive payments are not comparable to the quality of the audit carried out. Or in other words, the audit fee is expensive, but the audit quality that runs is no different from the quality of audits carried out by other public accounting firms, with a low audit fee. The results of this study complement the previous research conducted by DeAngelo (1981), Watkins et al. (2004), Gull and Srinidhi (2007), Li et al. (2009), Kanagaretnam et al. (2011), Yasina and Nelson (2012), and Lee et al. (2013).

Hypothesis Testing in the Second Research Model

The same analysis method is also carried out for this research model, which uses the ordinary least square estimation method, for models that test direct influence. Before this test is carried out, it has been ascertained that this model passes the classical assumption test and has chosen the best model of this equation.

Table 4. Effect of Profit Quality and Audit Quality on Accuracy of Stock Price Prediction

The second equation: Predict = α + β1 Quality + β2 Auditor + β3 Client + β4 Fee + β5 Size + β6 CFO + ε
• H4: There is a significant effect of earnings quality on the accuracy of stock price predictions
• H5: There is a significant effect of the number of auditors on the accuracy of stock price predictions
• H6: There is a significant effect of the number of clients on the accuracy of stock prices predictions
• H7: There is a significant influence of audit fees on the accuracy of stock price predictions

Source	SS	df	MS		
Model	9.13328647	6	1.52221441	Number of obs =	270
Residual	10.1503886	263	.038594634	F(6, 263) =	39.44
Total	19.2836751	269	.071686524	Prob > F =	0.0000
				R-squared =	0.4736
				Adj R-squared =	0.4616
				Root MSE =	.19646

predict	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
quality	.2301284	.0175797	13.09	0.000	.1955135	.2647432
auditor	-.4685979	.1262857	-3.71	0.000	-.7172575	-.2199382
client	-.1480433	.104174	-1.42	0.156	-.3531646	.057078
fee	.2315898	.0492409	4.70	0.000	.1346333	.3285463
size	.100182	.0387892	2.58	0.010	.023805	.176559
cfo	-.0817394	.0293364	-2.79	0.006	-.1395035	-.0239754
_cons	.2846635	.2734826	1.04	0.299	-.2538305	.8231575

Description: Significant if tScore > 1,96 and PValue < 0,05. Predict is an analyst prediction, calculated by the formula Ln ((stock price prediction - actual stock price) / actual stock price)). Quality is the quality of earnings, measured using a proxy of abnormal accruals. Auditor is audit quality (the first measurement), measured by the formula Ln Σ auditor. Client is audit quality (the second measurement), with the formula Ln Σ client. Fee is audit quality (the third measurement), with the formula Ln Σ audit fee. Size is the size of the company, with the formula Ln Σ asset. CFO is cash flow from operation, measured by Ln Σ CFO.

Source: Run Stata Results, 2018

The results of the fourth hypothesis test, the results of the study prove that earnings quality has a significant effect on the accuracy of stock price predictions, with a value of t 13.09> 1.96 and p value of 0.000 <0.050. This result concludes that the fourth hypothesis is acceptable. The direction of influence is positive or unidirectional. The higher the quality of earnings, the more accurate the prediction of stock prices. Quality earnings will support the accuracy of stock price predictions for the future. This means that earnings quality can be used as a good indicator for predicting stock prices. The higher the quality of earnings, the higher the level of accuracy of the prediction of stock prices. High earnings quality, which is presented in the financial statements, means that financial statements free from accrual factor (or just a little influence) of accrual games for income and expenses. If this accrual factor is small then it will support analysts to provide accurate predictions on future stock prices. The results of this study support previous research conducted by Brown (1983), Lev (1989), Elliott and Philbrick (1990), Schroeder (1990), Perotti and Wagenhofer (2014), and Attar and Maali (2017).

The results of the fifth hypothesis test, the results of the study prove that the number of auditors has a significant effect on the accuracy of the prediction of stock prices, with t -3.71> -1.96 and p value 0.000 <0.050. This result concludes that the fifth hypothesis is acceptable. But this has experienced anomaly compared to theory. The large number of auditors is a high picture of audit quality, and should have a positive influence on the accuracy of stock price predictions. But the result is the opposite, the more the number of auditors causes the accuracy of stock price predictions, the more decreasing. The result of this anomaly raises the thought that the number of auditors should not be used as an audit quality measurement, but as an auditor size measure only. The results of this study support previous research, conducted by Ashbaugh and Pincus (2001), and Hussainey (2009).

The results of the sixth hypothesis test, the results of the study prove that the number of clients has no significant effect on the accuracy of the prediction of stock prices, with a value of t -1.42 <-1.96 and p value 0.156> 0.050. This result concludes that the sixth hypothesis is rejected. This means that the number of clients owned by a public accounting firm cannot be used as an indicator by analysts, to predict future stock prices. The results of this study do not support and contradict the previous research conducted by Bhattacharya et al. (2003), Lee at al. (2007), and Nurrohman and Zulaikha (2013).

The results of the seventh hypothesis test, the results of the study prove that the amount of audit fees has a significant effect on the accuracy of the prediction of stock prices, with a value of t 4.70> 1.96 and p value 0.000 <0.050. These results conclude that the seventh hypothesis is accepted. Influence is given positively or in the same direction. That is, the higher the audit fee will support the accuracy of stock price predictions. This means that audit fees can be used as an indicator to predict future stock performance. Audit fees can represent audit quality, because the amount of the audit fee depends on the extent of the audit assignment given to the auditor. The wider the scope of the audit, the audit fees paid will also be more expensive. Thus it can be concluded that the audit fee as a proxy of audit quality, is able to influence the accuracy of predictions from analysts on future stock prices.

The results of this study support as well as complement previous research, conducted by Davidson and Neu (1993), Collins et al. (1994), as well as research by Cheong and Zurbruegg (2016).

Hypothesis Testing in the Third Research Model

For testing indirect effects, use the two least square methods on the panel data structure. The results of testing this data can be seen in Table 5.

Table 5 Effect of Audit Quality on the Accuracy of Stock Price Prediction, Through Profit Quality

The third equation: Quality = α + β1 auditor + β2 Client + β3 Fee + ε

Predict = α + β4 Quality + β5 Auditor + β6 Client + β7 Fee + β8 Size + β9 CFO + ε

- H8: There is a significant effect of the number of auditors on the accuracy of stock price predictions, through earnings quality
- H9: There is a significant effect of the number of clients on the accuracy of stock price predictions, through earnings quality
- H10: There is a significant effect of audit fee amounts on the accuracy of stock price predictions, through earnings quality

Structural equation model — Number of obs = 270
Estimation method = ml
Log likelihood = -366.12236
Indirect effects

	OIM Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
predict <-						
quality	0	(no path)				
auditor	.8173578	.1064278	7.68	0.000	.6087633	1.025952
client	.4992348	.0844009	5.92	0.000	.333812	.6646575
fee	-.4221963	.0428982	-9.84	0.000	-.5062752	-.3381175

Description: Significant if zScore > 1,96 and PValue < 0,05. Predict is an analyst prediction, calculated by the formula Ln ((stock price prediction - actual stock price) / actual stock price)). Quality is the quality of earnings, measured using a proxy of abnormal accruals. Auditor is audit quality (the first measurement), measured by the formula Ln Σ auditor. Client is audit quality (the second measurement), with the formula Ln Σ client. Fee is audit quality (the third measurement), with the formula Ln Σ audit fee. Size is the size of the company, with the formula Ln Σ asset. CFO is cash flow from operation, measured by Ln Σ CFO.

Source: Run Stata Results, 2018

The results of the eighth hypothesis test, the results of the study prove that there is an influence of the number of auditors on the accuracy of the prediction of stock prices through earnings quality, with a value of z 7.68> 1.96 and p value of 0.000 <0.050. This result concludes that the eighth hypothesis is accepted. That is, the quality of earnings is able to mediate the relationship between the number of auditors and the accuracy of stock price predictions. Earnings quality can mediate significantly the effect of the number of auditors on the accuracy of stock price predictions. If analysts want to predict stock prices, then the quality of earnings becomes important to note, because earnings quality is able to mediate the relationship of the number of auditors with the accuracy of analyst predictions of stock prices. The results of this study strengthen and complement the results of research previously carried out by Brown (1983), Elliott and Philbrick (1990), Schleicher et al. (1996), Hussainey (2009), Nurrohman and Zulaikha (2013), Perotti and Wagenhofer (2014), and research from Salerno (2014). Then, testing the ninth hypothesis also proved to be true and acceptable, because the influence of the number of clients on the accuracy of the prediction of stock prices, through the quality of earnings resulted in a value of z 5.92> 1.96 and p value of 0.000 <0.050. That is, the quality of earnings is able to mediate the relationship between the numbers of clients on the accuracy of stock price predictions. Earnings quality can mediate significantly the effect of the number of clients on the accuracy of the prediction of stock prices. Earnings quality is able to mediate significantly and positively on the relationship of the number of clients to the accuracy of stock price predictions. So that it can be concluded that the quality of earnings will be a stimulus to the accuracy of stock price predictions. The results of this study strengthen and complement the results of research previously carried out by Callen et al. (2013), Nuryaman (2013), and research from Cheong and Zurbruegg (2016). Furthermore, the tenth hypothesis test proved to be correct and acceptable, because the effect of audit fees on the accuracy of stock price predictions through earnings quality resulted in a value of z -9.84> -1.96 and p value of 0.000 <0.050. But the results experience anomaly because the resulting coefficient is negative. The result of this anomaly concludes that audit fees have a significant effect on the accuracy of stock price predictions through earnings quality, but the resulting mediation

is negative (in opposite directions). The results of this study strengthen and complement the results of research previously carried out by Herawaty (2009), Bangun and Safei (2011), and research from Nuryaman (2013).

The three measures of audit quality (number of auditors, number of clients, and audit fees) have a significant effect on the accuracy of stock price predictions through earnings quality. Earnings quality can mediate significantly the effect of earnings quality on the accuracy of stock price predictions. Implementation, if the analyst wants to predict future stock prices, then analysts can see also the quality of earnings from the company, in addition to audit quality. Analysts can see, if audit quality is good, then earnings quality will also be good. If the earnings quality is good, then it is likely that the stock price will rise in the future. If audit quality and earnings quality increase, then it is certain that stock prices will increase in the future. Especially in this case, the quality of the auditor uses indicators measuring the number of auditors in a public accounting firm, and the number of clients in a public accounting firm.

CONCLUSION

In the first research model, the results of the study have proven that the number of auditors, number of clients, and audit fees can be a good model in predicting earnings quality. Individually, the number of auditors and the number of clients has a positive effect on earnings quality, while the audit fee has a negative effect on earnings quality. From the testing of this first model it can be concluded that good audit quality (indicator using the number of auditors and number of clients) will have a positive impact on earnings quality. Our implementation and recommendations, if the company management wants good earnings quality, then this can be achieved through the appointment or quality auditor assignment. Quality auditors can be seen from a public accounting firm that has many auditors, and a public accounting firm that has many clients. Having many auditors is a guarantee of quality, because it has a lot of human resources with different skills and competencies that are different, and complementary. Having many clients is a guarantee of audit quality, because the number of clients shows the amount of audit experience from the existing auditors.

In the second research model, it is proven that this model is good. Variable earnings quality, number of auditors, number of clients, and audit fees, together can influence the accuracy of stock price predictions. Individually, there is earnings quality and audit fees which positively influence the accuracy of stock price predictions. Implementation of the recommendations, if you want to predict future stock prices, the earnings quality and audit fees can be used as indicators. If the profit quality is good and audit fees increase, then it can be ascertained that future stock prices will increase. In this second research model, there are two control variables, firm size and cash flow operation. The control variable also has a significant effect on the accuracy of stock price predictions.

In the third research model, examined the indirect effect of audit quality (with three measurements) on the accuracy of stock price predictions, through earnings quality. In the third model in this study proves that earnings quality can mediate the influence of audit quality on the accuracy of stock price predictions. Implementation and recommendations, if analysts want to predict stock prices, whether stock prices rise or fall, it is necessary to pay attention to audit quality and earnings quality. If audit quality is good and profit is quality, then the stock price will move up. The higher the audit quality and earnings quality, the stock price movements will also increase, so analysts must predict the stock price will rise. The ability to predict stock prices is very important for analysts, so it can recommend to potential investors, which stocks are the best to buy. This research also proves that valuation theory is able to accommodate the theoretical approach in this study. The valuation theory explains that to predict future stock prices, it can be done by valuing the assets owned by the company at this time. Thus the results of this study helped strengthen the argument in valuation theory.

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