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Research Article

Analysis of Auditee Characteristics, Audit Fee, And Public Accounting Firm Size as a Determinant of Qualified Audit Opinion

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Abstract: This research aims to analyze the effect of auditee characteristics, audit fee, and public accounting firm size to determine the issuance of qualified audit opinion on manufacturing companies listed on the Indonesia Stock Exchange (IDX) in 2012-2016 period. The independent variables in this research are current Ratio, receivable to sales ratio, net profit margin ratio, operating margin to total assets ratio, debt ratio, audit fee, and public accounting firm size. SPSS Statistics version 22 is used to test the hypothesis. The result shows that the debt ratio influences to determine the qualified audit opinion. Meanwhile, the current Ratio, receivable to sales ratio, net profit margin ratio, operating margin to total assets ratio, audit fee, and public accounting firm size does not affect the qualified audit opinion.

Keywords: qualified audit opinion, auditee characteristics, audit fee, public accounting firm size, a manufacturing company, IDX.

1. Introduction

This study aims to specify the determinant of the qualified audit opinion in Indonesia that is influenced by the characteristics of auditee companies that can be seen from the financial ratios of liquidity, profitability and solvency, audit costs, and the size of Public Accounting Firm. According to the Accountant Professional Standards (PSA 29), the level of opinion that is most expected by each audited entity is unqualified. By obtaining this opinion, it can generally be concluded that the company has implemented accounting principles well. An entity's reputation will undoubtedly increase by achieving an unqualified opinion. Sometimes, the financial recording and reporting by the company that is quite deviant or the condition of the company that is not healthy causes the auditor to issue opinions other than unqualified, which is a severe signal for a company. The signal is a negative response to the capital market by decreasing share value and cancellation of credit lending to companies that obtain audit opinions other than unqualified (qualified opinion, adverse opinion, and disclaimer opinion). It because the stakeholders consider the company to have lower performance and the financial condition is not as well as the company that obtains unqualified opinion.

The characteristic of a company is the condition inherent in a company that is usually described in the form of financial ratios. The company's characteristic reflected in financial ratios is an illustration of the performance of the company's management (Nugroho, 2011). If the financial condition and company performances are good, the market will respond positively by increasing the company's stock price. In general, a qualified audit opinion is given when the auditor in carrying out his audit duties discovers the characteristics of a lousy auditee, such as material misstatement, not following the applicable accounting rules, or a bad financial ratio that makes the auditor doubt the company's going concern (Muttaqin & Sudarno, 2012). Auditee's characteristics can be assessed from the company's financial dimension through financial Ratio that can be proxied through liquidity, solvency, and profitability ratios.

Liquidity is an indicator to measure a company's ability to pay all short-term financial obligations at maturity using currently available assets (Lie, Wardani, & Pikir, 2016). Suppose a company cannot pay off its short-term liabilities. In that case, the company's operation will be disrupted, and this may cause the auditor to doubt its ability to maintain its business continuity. Profitability is the company's ability

to generate profits derived from sales, total assets, and own capital (Lie et al., 2016). If a company cannot generate profits, the auditor tends to provide a qualified audit opinion by considering the company's going concern. Solvency is a comparison between the amounts of assets owned by a company that is financed by debt. If a company has a high solvency ratio, the company tends to have high debt, so the auditor tends to issue a going concern audit opinion for increased solvency.

Several studies have been done to examine the factors influencing the provision of qualified audit opinion in a company. Haryanto and Syafruddin (2011) show that the audit fee, operating margin ratio to total asset, and net income ratio to sales significantly influence qualified audit opinion. Still, the Current Ratio, the ratio of accounts receivable to sales, the size of audit firms does not affect giving qualified audit opinion. Setiawan and Suryono (2016) show profitability and leverage have a significant influence on the provision of going concern audit opinion; the company's liquidity and growth do not affect the provision of qualified audit opinion.

Based on the description above, this research formulates the research questions: (1) Is the characteristic of the auditee partially influential in determining qualified audit opinion in Indonesia? (2) Is the audit fee influential in determining qualified audit opinion in Indonesia? (3) Is the size of an accounting firm influential in determining qualified audit opinion in Indonesia?

2. Literature Review and Hypothesis Development

2.1 Ratio of Current Assets to Current Liabilities (Current Ratio)

According to Haryanto and Syafruddin (2011), concerning the liquidity, the smaller the ratio of current assets to current liabilities, the less liquid the company is so that it cannot pay its debts to its creditors. When a company experiences a severe liquidity problem, it can make the auditor doubt its survival. In such circumstances, the likelihood of an auditor giving a qualified audit opinion is higher. Januarti and Fitrianasari (2008) indicate the current Ratio affects the issuance of a going concern audit opinion. This finding supports Caramanis and Spathis (2006) and Yaşar, Yakut, and Gutnu (2015). Their studies state that the current Ratio has a high probability of qualified audit opinion reports issuance. However, Setiawan and Suryono (2016) state that liquidity proxied by the current Ratio does not affect the provision of a going concern audit opinion. From the explanation above, the researchers believe that the current Ratio is one factor that can influence the auditor's decision to provide a qualified audit opinion. Therefore, the hypothesis in this variable relationship is:

H1.1: Ratio of current assets to current liabilities affect the provision of qualified audit opinion.

The Ratio of receivables to sales is believed to capture the risk or difficulty in the auditing process that involves more audit time and effort than other assets. When this ratio is high, it will indicate the number of possible receivables that cannot be collected. In this circumstance, the possibility of being given a qualified audit opinion will be even higher. This is in line with Dopuch, Holthausen, and Leftwich (1987). However, it contradicts the research conducted by Caramanis and Spathis (2006) and Haryanto and Syafruddin (2011), who states that there is no significant influence on receivable to sales ratio qualified audit report. From the previous explanation, the researchers believe that the receivable to assets ratio is one factor that can influence the auditor's decision to provide a qualified audit opinion. Therefore, the hypothesis in this variable relationship is:

H1.2: Ratio of receivable to sales affect the provision of qualified audit opinion.

2.2 Ratio of net profit margin

According to Haryanto and Syafruddin (2011), the ratio of net income to sales (net profit margin) is a ratio that calculates the extent of a company's ability to generate net income at a certain level of sales. A low-profit margin indicates low sales for a specific cost level, or a cost level that is too high for a particular sales level, or a combination of both. In general, a low ratio can indicate management inefficiency. Thus the chance of obtaining a qualified audit opinion is greater. Haryanto and Syafruddin (2011) also suggest that the net income ratio to sales significantly affects the provision of qualified audit opinions. This finding contrary to research conducted by Caramanis and Spathis (2006), where the ratio of net profit margin does not significantly affect the provision of qualified audit opinion. From the

explanation above, the researchers believe that the Ratio of net profit margin is one of the factors that can influence the auditor's decision in providing a qualified audit opinion. Therefore, the hypothesis in this variable relationship is:

H1.3: Ratio of net profit margin affects the provision of qualified audit opinion.

2.3 Ratio of Operating profit to Total Assets (ROTA)

Caramanis and Spathis (2006) state that the Ratio of Operating Profit Margin (OPM) to Total Assets (TA) has a significant effect on the probability of giving qualified audit opinion. The higher the OPM / TA value, the more influential the management of company assets will be. Conversely, the lower value of OPM / TA shows the inefficiency of overall managerial performance, so the possibility of issuance of qualified audit opinions is higher. However, this result is not in line with research conducted by Yaşar et al. (2015), who indicate the Ratio of Operating Profit Margin to Total Assets does not significantly influence the provision of qualified audit opinion. From the above explanation, the following hypothesis can be drawn:

H1.4: Ratio of operating margin to total asset affects the provision of qualified audit opinion.

2.4 Debt Ratio

Kasmir (2016) explains that the debt ratio is the ratio used to measure total debt and total assets ratio. In other words, how much the company's assets are financed by debt or how much the company's debt affects the management of assets. The higher the total debt than the total assets, the worse will be the management and repayment of the company's debt. On the contrary, the lower the total debt value compared to total assets, and then it shows the overall efficiency of the company's performance. So, with the high level of debt, it will be possible to give a qualified audit opinion. According to Lie et al. (2016) research, the debt ratio has a significant effect on the acceptance of going concern audit opinion. If a company has a high solvency ratio, the company tends to have high debt. Noverio and Dewayanto (2011) also supported this research, which states that debt ratio has a significant influence on the acceptance of going concern audit opinion. Meanwhile, according to Rudyawan and Badera (2009) research, debt ratio does not affect the issuance of going concern audit opinion. From the above explanation, the following hypothesis can be drawn:

H1.5: Debt ratio affect the provision of qualified audit opinion.

2.5 Audit Fee

The audit fee paid by the auditee to the auditor has believed to affect an auditor's effort in collecting audit evidence. The maximum attempt in collecting audit evidence will result in high audit quality that allows the discovery of the error, fraud, or material misstatement in the auditee's financial statement. Thus, it can be said that high audit costs will also produce high audit quality so that the possibility of an auditor to detect material misstatement and provide a qualified audit opinion on the audit report is higher. Arisinta (2013) concluded that the higher audit fee could determine higher audit quality than the lower audit fee. From the above explanation, the following hypothesis can be drawn:

H2: Audit fees affect the provision of qualified audit opinions.

2.6 Audit Firm Size

Francis and Yu (2009) state Big Four Firms produce higher audit quality than non-Big Four, and Big Four more often publish audit reports with going concern qualification (the researcher will proxy that to be a qualified audit opinion). It is because the Big Four auditors have more experience. Farrugia and Baldacchino (2005) also supported the research, which states that non-Big Four were sometimes not good enough or lacking competence in producing qualified company financial statements based on International Standards on Auditing. However, this research contradicts Haryanto and Syafruddin (2011) research, which states the insignificance of the relationship between audit firm size and audit opinion. Researchers believe that the size of audit firms is one of the factors that can influence the auditor's decision to provide a qualified audit opinion. Therefore, the hypothesis in this variable relationship is:

H3: Accounting firm size affect the provision of qualified audit opinion.

3. Research Methodology

This study uses quantitative research data where the sample used is a manufacturing sector company listed on the Indonesia Stock Exchange (IDX) with the period 2012-2016. This study focuses on manufacturing companies because the manufacturing companies have a large production scale and involve more and complex accounting records and calculations (Dopuch et al., 1987). Furthermore, the selection of the manufacturing company also aims to avoid the industrial effect, which is an industrial risk that differs from one industrial sector to another Haryanto and Syafruddin (2011). Purposive sampling was used to select the samples using several criteria (1) Are the manufacturing companies listed on the Indonesia Stock Exchange for the period 2012-2016. (2) Having a financial report published on Indonesia Stock Exchange and has been audited for the period 2012 to 2016 and has a financial report that can be measured using financial ratios. (3) Companies that publish annual audit financial reports on the IDX website from 2012 to 2016 and stated in the rupiah currency. (4) Companies that are not delisting during the observation period. (5) Having the data needed in the study indicates the name of the auditor, professional data fee, audit opinion, and data that meets the calculation of liquidity, solvency, and profitability ratios. Samples that have been obtained were processed using SPSS 22.

The variables in this study are divided into two, the dependent variable and the independent variable. Independent variables consist of current Ratio, Ratio of accounts receivable to sales, net profit margin, operating margin to total assets ratio, debt ratio, audit cost, and audit firm size. The dependent variable consists of qualified audit opinion. A score of 1 is given for a qualified audit opinion and 0 for an unqualified audit opinion. The size of the accounting firm is proxied to be Big Four (score 0) and non-Big Four (score 1).

This study uses descriptive statistical analysis, t-test, and logistic regression analysis. Data testing uses logistic regression analysis because the dependent variable is a non-metric variable, and the independent variable is a combination of metric and non-metric (Ghozali, 2013). The logistic regression analysis equation used in this study is:

Prob(QUALIF*i*) = b0 + b1CA/CL*i* + b2REC/NS*i* + b3NI/SAL*i*+ b4OP/TA*i* + b5TP/TA*i* + b6AUDIT FEES*i* + b7AUDIT FIRM SIZE*i*+ e*i*,

Prob(QUALIF*i*) = Probability of audit opinion (category 1 for auditee with qualified audit opinion, category 0 for auditee with non-qualified audit opinion)

b0 = constants

CA/Cl*i* = Current Assets / Current Debt

REC/NS*i* = Receivable / Net Sales

NI/SAL*i* = Net Profit / Net Sales

OP/TAi = Operating profit / Total Assets

TP/TA*i* = Total Debt / Total Assets

AUDIT FEES*i* = Audit Fee

AUDIT FIRM SIZE*i* = Dummy variable of accounting firm size (category 0 for Big Four auditors and category 1 for non-Big Four auditors)

3.1 Operational Variable

Current Ratio

This ratio compares current assets with current debt. The current ratio provides information about the ability of current assets to cover the current debt. The greater the comparison of current assets with current debt, the higher its ability to protect its short-term liabilities. It means that current assets must be well above the current debt amount. In research conducted by Yaşar et al. (2015), current ratio data is presented on a ratio scale.

Account Receivable to Sales Ratio

Kasmir (2016) explains that this ratio is also referred to as the Ratio of the average age of accounts receivable, which is the Ratio to determine how much time the company can do to withdraw its receivables into cash. The longer the receivable turnover, the greater the funds embedded in the receivables.

Net Profit Margin Ratio

Kasmir (2016) explains that the net profit margin ratio is the ratio used to measure net profit or net income per sales in rupiah. The greater the number produced, the better the performance will show.

Operating Profit to Total Assets

Lie et al. (2016) explain that the Ratio of operating income (in this case, earnings before interest & tax) to total assets is one of the ratios of profitability used to measure the company's ability to generate operating profit assets owned by the company.

Debt Ratio

Noverio and Dewayanto (2011) explain that the debt ratio is the ratio used to measure total debt and total assets ratio. In other words, how much the company's assets are financed by debt or how much the company's debt affects the management of assets. Creditors prefer a low debt ratio because the security level of their funds is getting better.

Audit Fee

The audit fee is the audit company's amount of fee to the audit company for audit service provided by the audit company. This data uses a proxy of professional fee or expert honorarium obtained by looking at the auditee annual financial statements in 2012-2016 on the administrative and general expense components in the notes to financial statements (Kurniasih & Rohman, 2014).

Audit Firm Size

Public Accounting Firm size is classified as Big Four and non-Big Four Audit Company (Francis & Yu, 2009). It is a dummy variable, a categorical variable or dichotomy Where the 0 scores for Big Four audit companies and 1 for non-Big Four companies.

4. Result and Discussion

The population in this study is 539 manufacturing companies listed on the Indonesian Stock Exchange (IDX). The sample in this study is 68 companies. This study using five years of data; the total data is 340 data, in which 40 samples obtained qualified audit opinions and 300 samples obtained unqualified audit opinions. Table 1 summarizes the descriptive statistics of the data.

Table 1 Descriptive statistics

Descriptive Statistics					
	N	**Minimum**	**Maximum**	**Mean**	**Std. Deviation**
Current Ratio	340	0,1064	464,984	4,6422	28,449
Receivable to sales ratio	340	0,0095	1,2603	0,1806	0,1532
NPM	340	-183,22	81,86	1,8948	21,2616
ROTA	340	-0,5242	0,53	0,8057	0,1299
DAR	340	0,0014	25,56	0,6482	2,398
Audit Fee	340	0	190,176	11,397	24,582

Table 1 shows that overall, the company has a minimum current ratio of 0.1064 or 10.64%, and the maximum value is 464.984 or 46498.4%. The current ratio's average value is 4.642 or 464.2%, with a standard deviation of 28.448 or 2844.8%. The minimum value of receivable to sales ratio of 0.0095 or 0.95%, and the maximum value is 1.2603 or 126.03%. The average value of receivables to sales Ratio is 0.1805 or 18.05%, with a standard deviation of 0.153 or 15.3%. The minimum value of the net profit margin ratio of -183.2204 or -18322.04%, and the maximum value of 81.8859 or 8185.9%. The average

value of the net profit margin ratio is 1.895 or 189.5%, with a standard deviation of 21.261 or 2126.1%. The operating profit to total assets (ROTA) variable indicates a minimum ROTA value of -0.524 or -52.4% and a maximum value of 0.53 or 53%. The average value of the ROTA ratio is 0.08 or 8%, with a standard deviation of 0.1298 or 13%. The debt to assets ratio (DAR) variable indicates a minimum value of DAR of 0.0014 or 0.14% and a maximum value of 25.564 or 2556.4%. The average value on DAR is 0.648 or 64.8%, with a standard deviation of 2.397 or 239.7%. The audit cost variable indicates a minimum audit fee of 0 rupiahs and a maximum value of 190.176 billion rupiahs. The average value of audit fee is 11.397 billion rupiahs with a standard deviation of 24.582 billion rupiahs.

Table 2 Crosstabulation Table

Crosstabulation Accounting Firm Size and Audit Opinion				
		Opinion		**Total**
		Unqualified	***Qualified***	
Audit Firm - *Big four*	Count	134	6	140
	Expected Count	123,5	16,5	140,0
	% of Total	39,4%	1,8%	41,2%
Audit Firm - Non-*Big four*	Count	166	34	200
	Expected Count	176,5	23,5	200,0
	% of Total	39,4%	10,0%	58,8%
Total	Count	134	6	140
	Expected Count	123,5	16,5	140,0
	% of Total	39,4%	1,8%	41,2%

Table 2 is the result of cross-tabulation between the Public Accounting Firm and audit opinion. For companies with unqualified audit opinions audited by Big Four firms, there are 134 firms or 39.4% of the total sample with an expected frequency of 123.5 firms and 6 companies with qualified audit opinions audited by Big Four firms or 1,8% of the full sample with expectation frequency of 16.5 firms. Whereas for companies with unqualified audit opinions audited by non-Big Four are 166 firms or 48.8% of the total selection of companies with expectations frequency of 176.5 firms, and companies with qualified audit opinions audited by non-Big Four is 34 firms or 10% of the full sample of companies with a frequency of expectation of 23.5 firms.

Table 3 Chi-Square Test

Chi Square Table					
	Value	**Df**	**Asymp. Sig. (2-sided)**	**Exact Sig. (2-sided)**	**Exact Sig. (1-sided)**
Pearson Chi-Square	12,824	1	0,000		

Based on Table 3, it can be seen that the calculated Chi-Square test value is 12.824 ≥ 3.84 Chi-Square table or with p-value 0.000 < 0.05, it can be concluded that accounting firm has a meaningful relationship with an audit opinion.

Assess Model Fit (Hosmer and Lemeshow's Goodness of Fit Test)

Table 4 Hosmer and Lemeshow *Goodness of Fit Test*

Hosmer and Lemeshow Test			
Step	**Chi-Square**	**Df**	**Sig.**
1	12,927	8	0,114

In Table 4, the result of the fit model test uses Hosmer, and Lemeshow's Goodness of Fit Test shows the Chi-Square value of 12.927 < 15.50731 Chi-Square tables or significance value of 0.114 > 0.05 means that the variable model made is fit/right to explain empirical data.

Coefficient Determination Test

Table 5 Test Result of Coefficient Determination (Nagelkerke R Square)

Coefficient Determination			
Step	**-2 Log likelihood**	**Cox & Snell R Square**	**Nagelkerke R Square**
1	100,234	0,349	0,678

Table 5 uses Nagelkerke R Square to show the coefficient of determination in the logistic regression model. Nagelkerke R Square value is 0.678 or 67.8%. It means that the qualified audit opinion variable can be explained by the independent variables in this study by 67.8%, while other variables outside the research model explain the remaining 32.2%.

Correlation Matrix

Table 6 Correlation Matrix

Classification Table[a]					
			Predicted		
			Auditor *Switching*		
Observed			**No Substitution of Accounting Firms**	**Substitution of Accounting Firms**	**Percentage Correct**
Step 1	**Opini**	*Unqualified*	298	2	99,3
		Qualified	15	25	62,5
	Overall Percentage				95,0

a. The cut value is 0,500

In Table 6, the predictive power of the regression model to predict the probability of a company obtaining a qualified audit opinion is 62.5%. It shows that by using the regression model, 25 companies (62.5%) are predicted to get qualified audit opinions from a total of 40 companies that obtain qualified audit opinions. The predictive strength of the company model that brings unqualified audit opinion is 99.3%, which means that with the regression model used, there are 298 companies (99.3%) predicted to obtain an unqualified audit opinion out of a total of 300 companies that receive an unqualified audit opinion. Table 6 gives the overall percentage value of 95%, which means that the accuracy of this research model is 95%.

Multicollinearity Test

Table 7 Correlation Matrix

Correlation Matrix								
	Constant	**X1.1**	**X1.2**	**X1.3**	**X1.4**	**X1.5**	**X.2**	**X.3**
Step 1 Constant	1,000	-,594	-,340	-,043	-,134	-,727	,004	-,530
X1.1	-,594	1,000	-,034	-,086	-,174	,353	-,355	,014
X1.2	-,340	-,034	1,000	,124	-,053	,207	,039	-,148
X1.3	-,043	-,086	,124	1,000	-,453	,267	-,011	-,014
X1.4	-,134	-,174	-,053	-,453	1,000	,291	,011	,096
X1.5	-,727	,353	,207	,267	,291	1,000	-,307	,171
X.2	,004	-,355	,039	-,011	,011	-,307	1,000	,345

X.3	-,530	,014	-,148	-,014	,096	,171	,345	1,000

Table 7 shows no multicollinearity between independent variables because of the correlation coefficient between the independent variables below 0.8.

Logistic Regression Significance Test results

Table 8 Variable in the Equation

Variable in the Equation					
Step 1[a]		**B**	**Df**	**Sig.**	**Exp(B)**
	X1.1	-1,041	1	,142	,353
	X1.2	-1,221	1	,703	,295
	X1.3	,006	1	,605	1,006
	X1.4	4,325	1	,224	75,539
	X1.5	4,772	1	,000	118,125
	X.2	,000	1	,201	1,000
	X.3	1,355	1	,101	3,876
	Constant	-3,693	1	,019	,025

Table 8 shows that the test results on regression coefficients produce the following equation:

Prob(QUALIF*i*) = -3,693–1,041CA/CL*i*–1,221REC/NS*i* + 0,006NI/SAL*i*+ 4,325OP/TA*i* + 4,772TP/TA*i* -0,00011AUDIT FEES*i* + 1,355AUDIT FIRM SIZE*i* –*e*

Based on Table 8, the current ratio variable (X1.1) has a significant level of 0.142, greater than 0.05. It means that this variable does not have a substantial effect on the provision of qualified audit opinion. This result supports the research conducted by Haryanto and Syafruddin (2011), Lie et al. (2016), Setiawan and Suryono (2016). Still, this research is contrary to the study by Caramanis and Spathis (2006), which states that there is an influence of the current Ratio on qualified audit opinion.

The Receivables to Sales variable (X1.2) has a significant level of 0.703, which is greater than 0.05. It means that this variable does not have a substantial effect on the provision of qualified audit opinion. This result supports research conducted by Caramanis and Spathis (2006) and Haryanto and Syafruddin (2011), but this study contradicts with Dopuch et al. (1987), which states that receivable to sales ratio has a significant influence on the provision of qualified audit opinion.

Net Profit Margin (X1.3) variable has a significant level of 0.605, greater than 0.05. It means that this variable does not have a considerable effect on the provision of qualified audit opinion. This result supports research conducted by Caramanis and Spathis (2006). This research contradicts Haryanto and Syafruddin (2011) research, which states that the ratio of net profit margin has a significant effect on the provision of qualified audit opinions.

Variable of Operating Profit to Net Sales (X1.4) has a significant level of 0.224, more significant than 0.05. It means that this variable does not have a substantial effect on the provision of qualified audit opinion. This result supports the research conducted by Yaşar et al. (2015). This research is contrary to Caramanis and Spathis (2006) and Haryanto and Syafruddin (2011), which state that the ratio of operating profit to net sales is the main factor that can significantly differentiate companies that are given qualified audit opinion and unqualified.

The audit cost variable (X2) has a significant 0.201, which is greater than 0.05. It means that this variable does not have a considerable effect on the provision of qualified audit opinion. This result supports research conducted by Caramanis and Spathis (2006). This study contradicts research conducted by Haryanto and Syafruddin (2011) and Arisinta (2013).

The accounting firm size variable (X3) has a significant level of 0.101, greater than 0.05. It means that this variable does not have a considerable effect on the provision of qualified audit opinion. The result of this study are in line with research conducted by Caramanis and Spathis (2006) and Haryanto and Syafruddin (2011). This study contradicts the research conducted by Francis and Yu (2009) and

Farrugia and Baldacchino (2005). They state that Big Four firms can produce audit quality better than non-big four accounting firms. Auditors in Big Four accounting firms have more competence in detecting earnings management and material misstatement, which can lead to a decrease in audit quality which causes the provision of qualified audit opinion.

Conversely, the variable of debt to assets ratio (X1.5) produces a positive effect of 4.772, and the level of significance of the variable of debt to assets ratio (X1.5) is 0.000, which is smaller than 0.05. It means that this variable has a significant effect on providing qualified audit opinion. The result of this study is in line with the research conducted by Dopuch et al. (1987) and Lie et al. (2016). This research contradicts research conducted by Setiawan and Suryono (2016) which states that debt ratio does not have significantly affect

5. Conclusion and Suggestion

5.1 Conclusion

The current Ratio does not have a significant effect on the provision of qualified audit opinion. It can be caused by the liquidity of manufacturing companies in Indonesia that are relatively stable or acceptable. The auditor provides audit opinion qualifications not only from the company's ability to meet its short-term obligations using current assets owned but also more likely to see overall financial conditions. The Ratio of receivable to sales does not significantly affect the provision of qualified audit opinion. It can be caused by the auditor not seeing any considerable audit risk and business risks reflected in this ratio so that it does not affect the auditor in issuing qualified audit opinion. Net profit margins do not have a significant effect on the provision of qualified audit opinion. The manufacturing companies with qualified and unqualified audit opinion groups have an average net income value that is relatively the same or not much different. It means that profitability and management performance in manufacturing companies with qualified and unqualified audit opinion groups are relatively the same. The Ratio of operating profit to total assets (ROTA) does not significantly affect the provision of qualified audit opinion. It can be caused by manufacturing companies with qualified and unqualified audit opinion groups have management and risk capabilities that are relatively the same in generating an operating profit by using all of their assets. Debt to assets ratio (DAR) has a significant effect on the provision of qualified audit opinion. It can be caused by manufacturing companies with qualified audit opinion groups having a much higher level of total debt than companies with unqualified audit opinions, which causes the auditor to doubt the company's survival to provide qualified audit opinions to the company. Audit fee proxied through professional fee or honorarium of expert does not significantly affect the provision of qualified audit opinion. The accounting firm can cause this to provide the best performance in accordance with the audit procedures established to produce the expected audit quality. So that whether it is giving qualified or unqualified audit opinions, the auditor will try to detect material misstatements in the company. The size of an accounting firm does not significantly influence the provision of qualified audit opinion. The accounting firm's size can cause this. The auditor at the accounting firm generally has the same expertise and ability to detect material misstatement in the company, and each accounting firm will try to maintain audit quality so that it can be used again for the next period.

5.2 Limitations and Suggestions

This study uses a sample of manufacturing companies to not necessarily describe the condition of all types of industries in the Indonesia Stock Exchange as a whole. The audit fee used in this study is a professional fee or expert fee that may not accurately describe audit costs because there may also be other expert fees in the professional fee.

Based on the research that has been done and the limitations that exist, then there are some suggestions as follows: (1) Future research should expand research variables by including non-financial variables such as auditor experience and expertise, social contracts, and auditor turnover. (2) Future studies are expected to use the actual audit costs on the company's financial statements rather than using the proxy of the professional fee so that research can describe the relationship between audit costs and providing audit opinion accurately. (3) Further research can expand the sample by extending the observation period or other industrial sectors such as the agricultural sector. The samples studied are

broader, and the research's accuracy to find out the influence of giving qualified audit opinion can be more accurate..

References

1. Baki, A. (2008). Kuramdan uygulamaya matematik eğitimi. Ankara: Harf Eğitim Yayıncılığı
2. Başol, G., Balgalmış, E., Karlı, M. G., & Öz, F. B. (2016) TEOG sınavı matematik sorularının MEB kazanımlarına, TIMSS seviyelerine ve yenilenen Bloom Taksonomisine göre incelenmesi. Journal of Human Sciences, 13(3), 5945-5967.
3. Breakwell, G. M., Wright, D. B., & Smith, J. A. (2012). Research questions and planning research. Londra: SAGE Publications.
4. Businskas, A. M. (2008). Conversations about connections:How secondary mathematics teachers conceptualize and contend with mathematical connections (doctoral dissertation). Simon Fraser University, Canada. Çepni, S.(2014). Araştırma ve proje çalışmalarına giriş (7.baskı). Trabzon: Celepler Matbaacılık
5. Francisco, J. M., & Maher, C. A. (2005). Conditions for promoting reasoning in problem solving: Insights from a longitudinal study. Journal of Mathematical Behavior, 24, 361–372.
6. Generazzo, S. D. (2011). Proof and reasoning in an inquiry-oriented class: The impact of classroom discourse (doctoral dissertation) University of New Hampshire, New Hampshire.
7. Goswami U. (2004). Neuroscience and education. British Journal of Educational Psychology, 74, 1–14
8. Güven B., Öztürk T. ve Demir E. (2014, Eylül). Ortaöğretim matematik öğretmen adaylarının ispat sürecindeki muhakeme hatalarının incelenmesi. XI. Ulusal Fen ve Matematik Eğitimi Kongresi'nde sunulan bildiri, Çukurova Üniversitesi, Adana, Türkiye.
9. Güven B. ve Demir E. (2015, Mayıs). Öğrencilerin İspat Sürecinde Yaptıkları Muhakame Hatalarına Yönelik Öğretmen Bilgisinin İncelenmesi. 2. Türk Bilgisayar ve Matematik Eğitimi Sempozyumu'nda sunulan bildiri,
10. Adıyaman Üniversitesi, Adıyaman, Türkiye.
11. Healy L., & Hoyles C. (1998). Justifying and proving in school mathematics: Technical report on the nationwide survey. Institute of Education, University of London.
12. Hiebert, J., & Grouws, D. A. (2007). The effects of classroom mathematics teaching on students' learning. In F. K. Lester (Ed.), Second handbook of research on mathematics teaching and learning (pp. 371-404). Charlotte, NC: Information Age Publishing.
13. Hsu, H. (2010). The study of Taiwanese students'experiences with geometric calculation with number (GCN) and their performance on GCN and geometric proof (doctoral dissertation,)The University of Michigan, Michigan.
14. Howe, K. R.(2001). Qualitative Educational Research: The Philosophical İssues. Wahington,DC: American Educational Research Association

15. İskenderoğlu, T. ve Baki, A. (2011). İlköğretim 8.sınıf matematik ders kitabındaki soruların PISA matematik yeterlik düzeylerine göre sınıflandırılması. Eğitim ve Bilim, 36(161), 287-301
16. Kilpatrick, J., Swafford, J., & Findell, B. (2001). Adding It Up: Helping Children Learn Mathematics. Washington, DC: National Academy Press.
17. Kinach, B. M. (2002). Understanding and learning-to-explain by representing mathematics: Epistemological dilemmas facing teacher educators in the secondary mathematics methods course. Journal of Mathematics Teacher Education, 5(2), 153186
18. Kumandaş, H., ve Kutlu, Ö. (2014). Yükseköğretime öğrenci seçmede ve yerleştirmede kullanılan sınavların oluşturduğu risk faktörlerinin okul başarısı üzerindeki etkileri. Türk Psikoloji Dergisi, 29(74), 15-31
19. McCrone, S. M. S. & Martin, T. S. (2009). Formal Proof in High School Geometry: Student Perceptions of Structure, Validity, and Purpose. Teaching Proving by Coordinating Aspects of Proofs with Students' Abilities. In Stylianou, D. A.,. Blanton, M. L. & Knuth, E.J. (Eds.), Teaching and Learning Proof Across Grades: A K-16 Perspective, (pp. 204-221). New York/Washington, DC: Routledge/National Council of Teachers of Mathematics.
20. Milli Eğitim Bakanlığı [MEB]. (2013). Ortaöğretim matematik dersi (9, 10, 11 ve 12. sınıflar) öğretim programı. Ankara: MEB Yayınları.
21. Milli Eğitim Bakanlığı [MEB]. (2018). Ortaöğretim matematik dersi (9, 10, 11 ve 12. sınıflar) öğretim programı. Ankara: MEB Yayınları.
22. National Council of Teachers of Mathematics [NCTM]. (2000). Principles and standards for school mathematics. Reston, VA: Author
23. Petrou, M. & Goulding, M. (2011). Conceptualising teachers' mathematical knowledge in teaching. In T. Rowland & K. Ruthven (Eds.), Mathematical Knowledge in Teaching, Mathematics Education Library 50 (pp. 9-25). London: Springer.
24. Pulley, C. A. (2010). Using instruction to investigate the effects of assessing reasoning tasks on students' understanding of proof (doctoral dissertation). Illinois State University, Illinois, USA.
25. Shulman, L. S. (1986). Those who understand: Knowledge growth in teaching. Educational Researcher, 67,4-14
26. Stylianides, A. J. and Stylianides, G. J. (2009). Proof constructions and evaluations. Educational Studies in Mathematics, 72, 237-253. doi: 10.1007/s10649-009-9191-3
27. Tiemann, G. E. (2011). The impact of a school-wide high school advanced placement program and culture on participating students' high school achievement and engagement outcomes and first year university academic success (doctoral dissertation). University of Nebraska, USA.
28. Vale, C., McAndrew, A., and Krishnan, S. (2011). Connecting with the horizon: Developing teachers' appreciation of mathematical structure. Journal of Mathematics Teacher Education, 14(3), 193-212.

29. Van de Walle, J. A. (2013). Elementary and middle school mathematics: Teaching developmentally (7th ed.). Boston: Allyn and Bacon.