

The Effect of XBRL Technology, Dividend Payout Ratio, and Net Profit Margin on Manipulation of Financial Statement (Study on State-Owned Enterprises Listed on The Indonesia Stock Exchange for the 2018-2021 Period)

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Abstract

Manipulation of financial statements is an action taken to make a material misstatement of the company's financial statements in order to improve performance. Such activities in financial reporting may be brought on by party pressure and performance expectations, which do not accurately reflect the parties' true financial situation and performance. There are several factors that influence this practice, namely xbrl technology, dividend payout ratio, and net profit margin. This study aims to determine how the influence of xbrl technology, dividend payout ratio, and net profit margin on the manipulation of financial statements. This study uses quantitative methods. The population in this study is State-Owned Enterprises listed on the Indonesia Stock Exchange for the 2018-2021 period. The research sample was taken using purposive sampling method and 17 companies were selected. The data analysis method used in this research is panel data regression analysis and uses EViews 12 software. Result showed that the application of xbrl technology, dividend payout ratio, and net profit margin simultaneously affect the manipulation of financial statements. Partially xbrl technology and net profit margin have a negative and significant effect on manipulation of financial statement, while dividend payout ratio has no significant effect on manipulation of financial statement.

Keywords

Beinish M-Score, Dividend Payout Ratio, Manipulation of Financial Statement, Net Profit Margin, XBRL Technology

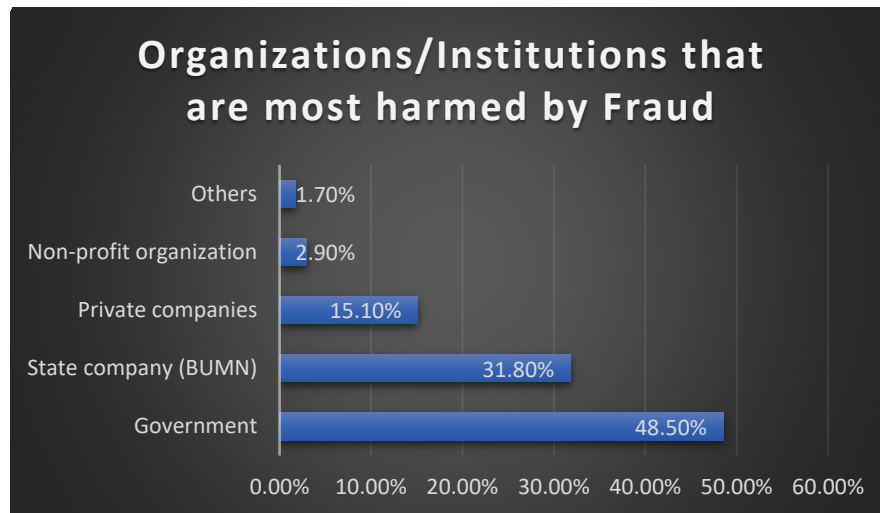
1. Introduction

An entity that is crucial to administering Indonesia's capital market is the Indonesia Stock Exchange. The Indonesian stock exchange plays a significant role in boosting the country's economy. The growing number of businesses listed on the IDX each year is evidence of this. The Indonesia Stock Exchange now has 787 businesses that are openly traded. These businesses include a variety of business models, one of which is a state-owned enterprise (BUMN). State-Owned Enterprises are companies in which the public directly participates and owns all or the majority of the capital, which comes from segregated state assets.

Financial reports, which are intended to update stakeholders on the state and financial performance of the company, are the result of a number of processes for recording and summarizing business transaction data (Hery, 2018). Maximum performance in the company's economy usually leads to the most common crime in the company, namely manipulation of financial statements to make it better (Christy et al., 2015). Based on Omar et al., (2014) manipulation of financial statements can be defined as a misinterpretation or misrepresentation of financial statements by financial market participants, intentionally or unintentionally, by providing false information or manipulative about the

company. Agency theory and financial statement manipulation are two things that can be said to influence each other. C.Jensen & H.Meckling (1976) explain agency theory, namely the existence of a contract between shareholders (principal) and management (agent), management (agent) works for the benefit of shareholders (principal). The two parties' contractual agreement contains a number of common issues, like knowledge asymmetry. This element may give the agent or management strong incentives to manipulate the stated performance in order to further certain interests (Fahmi, 2014).

According to the Association of Certified Fraud Examiners (ACFE) 2019 survey on fraud in Indonesia, state-owned businesses (BUMN) are the second-most common institutions or organizations to suffer losses as a result of fraud, accounting for 31.8% of all losses.



Source: Indonesia Fraud Survey 2019, ACFE Indonesia (data processed by author, 2022)

Figure 1. Organizations/Institutions that are most harmed by Fraud

This proves that fraudulent financial statements, in this case state-owned companies, need to be handled seriously so as not to cause problems for users of financial statements and have an impact on large losses. (Figure 1)

The three independent variables that are the subject of this study are xbrl technology, dividend payout ratio, and net profit margin. The reason the researcher chose the xbrl technology variable is because the reporting system is based on Extensible Business Reporting Language (XBRL), namely digital-based reporting using an authorized reporting language; will make it easier for users to understand financial information more efficiently. Companies that use XBRL technology-based reporting will reduce the incidence of manipulation of financial statement (Wijaya and Suryaningrum, 2020). Researchers use the dividend payout ratio variable because it is one of the measuring tools that can predict whether a company performs manipulation of financial statements (Serly & Veronica, 2021). In addition to therefore, net profit margin is a ratio that shows the company's performance. Companies that make less money often encourage managers to exaggerate revenue or expenses, which can lead to serious accounting errors (Kreutzfeldt and Wallace in Zainudin & Hashim, 2016).

1.1 Objectives

This study aims to determine how the influence of xbrl technology, dividend payout ratio, and net profit margin on the manipulation of financial statements in State-Owned Enterprises listed on the Indonesia Stock Exchange (IDX) for the 2018-2021 period either simultaneously or partially.

2. Literature Review

2.1 Manipulation of Financial Statement

According to ACFE (2020), financial statement fraud or manipulation refers to a purposeful mistake regarding a company's financial situation that is carried out by misstatements or the disclosure of untrue information in order to deceive users of financial statements. In this study, to detect fraudulent financial statements, the benefit m-score model

is used. Through the calculation of eight ratios, the Beinish M-Score makes a distinction between organizations with fraudulent financial statements and those without such an indication (DSRI, GMI, AQI, SGI DEPE, SGAI, LVGI, and TATA).

2.2 Technology XBRL

Extensible Business Reporting Language (XBRL) is a universally used electronic communication language for the transmission and exchange of business information that improves the preparation, analysis, and accuracy for various parties who provide and use business information, according to the Indonesia Stock Exchange (BEI, 2020). Wijaya and Suryaningrum (2020) define XBRL as digital reporting that employs the recognized financial reporting language. Taxonomies of financial databases are contained in the format used by XBRL, which is similar to XML and HTML. In this study, a dummy variable is used to examine the effect of XBRL technology on financial statement manipulation. If the company produces financial statements in XBRL format, the variable will be set to 1; otherwise, it will be set to 0. This is supported by research conducted by (Tohang and Lan, 2017) which states that the application or adoption of the XBRL system can reduce the risk of manipulation in financial reporting.

2.3 Dividend Payout Ratio

According to Jogiyanto (2012) dividend payout ratio (DPR) is a ratio that shows the amount of dividends distributed from the amount of profits earned by the company. Dividend payout ratio is the proportion of net profit per share which is paid in the form of dividends to shareholders. This ratio is important because the larger the DPR can attract more investors. (Belkaoui, 2007) defines Dividend payout ratio is the ratio of dividend payments where dividend per share is divided by earnings per share. The amount of dividend payment is determined from the profit earned. A steady stream of profits can support higher dividends. This is supported by research conducted by (Haini & Andini, 2014) which states that the dividend payout ratio has a significant positive effect on the practice of financial statement manipulation, in this case income smoothing. If there is a fluctuation in earnings, companies that have a high dividend policy will be riskier than those with a low dividend.

2.4 Net Profit Margin

Net profit margin is one of the ratios of profitability that is used to show the company's ability to generate net profits after tax. Companies with lower profits tend to give impetus to management to overestimate income or expenses such as having significant errors in financial reporting (Kreutzfeldt and Wallace in Zainudin & Hashim, 2016).

3. Methods

This study used a quantitative methodology. Sugiyono (2018) described quantitative research methods as positivist-based research techniques that are used to explore certain populations or samples, gather data using research instruments, and analyze that data quantitatively or statistically in order to test established hypotheses. This study uses data analysis techniques in the form of descriptive statistical analysis and classical assumption test that will be used as a condition and process of hypothesis testing. The population in this study are state-owned companies listed on the Indonesia Stock Exchange in 2018-2021. In this study, purposive sampling method was used, which is a sample methodology with certain considerations and then obtained a total of 68 observations with 4 years of research time. Regression analysis with panel data is used in this study. Time series data and cross-sectional data are combined to create panel data.

4. Data Collection

This study uses secondary data. According to Sekaran & Bougie (2017), secondary data is information that already exists and does not need to be gathered by the researcher. The secondary data collection method used in this study was obtained from the financial statements and annual reports of state-owned enterprises listed on the Indonesia Stock Exchange in 2018-2021, the idx.co.id website or the company's official website, previous research that supports this research, books published support research and articles.

5. Results and Discussion

5.1 Descriptive Statistics

According to Sugiyono (2018) descriptive statistical analysis is statistics used to analyze data by describing the data that has been collected without intending to make generally accepted conclusions or generalizations. This study was conducted to determine the effect of the independent variable, namely the application of XBRL technology, dividend payout ratio, and net profit margin on the dependent variable, namely the manipulation of financial statements as measured by the benefit m-score model. The data source comes from the financial statements and annual reports of state-owned companies listed on the Indonesia Stock Exchange in 2018-2021, there are 68 observational data used with a research period of 4 years. Here are the results of the descriptive statistical tests in Table 1 below:

Table 1. Descriptive Statistics Test Results

	Manipulation F/S	XBRL	DPR	NPM
Mean	-2.402910	0.764706	28.45147	0.082017
Maximum	-1.261739	1.000000	90.00000	0.319189
Minimum	-4.351735	0.000000	0.000000	-0.573659
Std.Dev	0.481602	0.427336	24.52595	0.131396
Observations	68	68	68	68

Table 1 shows that the manipulation of financial statements in state-owned companies listed on the IDX in 2018-2021 as measured using the beneish m-score model has an average value (mean) of -2.402910 with a standard deviation of 0.481602. This means that the data are not grouped or varied because the average value (mean) is smaller than the standard deviation. XBRL technology has an average value (mean) of 0.764706 with a standard deviation of 0.427336. This means that the data is grouped and does not vary because the mean value is greater than the standard deviation. The dividend payout ratio has an average value (mean) of 28,45147 with a standard deviation of 24,52595. This means that the data is grouped and does not vary because the mean value is greater than the standard deviation. The net profit margin has an average value (mean) of 0.082017 with a standard deviation of 0.131396. This means that the data are not grouped or varied because the average value (mean) is smaller than the standard deviation.

5.2 Class Assumption Test

1. Multicollinearity Test

Based on multicollinearity test results show that the value of the correlation coefficient of the three variables namely XBRL technology, dividend payout ratio and net profit margin is not greater than 0.9. So, it can be concluded that the regression model does not have a correlation between the independent variables or there is no multicollinearity.

2. Heteroscedasticity Test

Based on the results of heteroscedasticity testing through the glejser method, the probability value of the three independent variables and the probability value (f-statistics) is greater than 0.05. So it can be concluded that there is no heteroscedasticity problem and the independent variables, namely XBRL technology, dividend payout ratio, net profit margin, are suitable for predicting financial statement manipulation.

5.3 Panel Data Regression Model Selection

1. Chow Test

Table 2. Chow Test on a Panel Data Regression Model Test Results

Effects Test	Statistic	d.f	Prob.
Cross-section F	0.717956	(16,48)	0.7622
Cross-section Chi-square	14.590196	16	0.5548

Based on Table 2, it is known that the statistical value of the Chi-square Cross-section is 14.590196 with a probability value of 0.5548. This shows a value greater than the significance level of 0.05 ($0.5548 > 0.05$) which means accepting H_0 . So that in this Chow test the selected model is the common effect (CEM) model. Furthermore, testing is carried out for the selection of models between the common effect and random effects using the Lagrange Multiplier test.

2. Lagrange Multiplier Test

Table 3. Lagrange Multiplier Test on a Panel Data Regression Model Test Results

	Test Hypothesis		
	Cross-section	Time	Both
Breusch-Pagan	1.479790 (0.2238)	2.006341 (0.1566)	3.486130 (0.0619)
Honda	-1.216466 (0.8881)	1.416454 (0.0783)	0.141413 (0.4438)
King-Wu	-1.216466 (0.8881)	1.416454 (0.0783)	0.816452 (0.2071)
Standardized Honda	-0.997649 (0.8407)	2.910637 (0.0018)	-3.195767 (0.9993)
Standardized King-Wu	-0.997649 (0.8407)	2.910637 (0.0018)	-1.538752 (0.9381)
Gourieroux, et al.	--	--	2.006341 (0.1700)

Based on the Table 3, the probability value for Breusch Pagan is 0.0619 which means it is greater than the significance level of 0.05 ($0.0619 > 0.05$) which means that it accepts H_0 . Therefore, in the Lagrange Multiplier test, the most appropriate model to use is the common effect model (CEM). So, it can be concluded that the most appropriate panel data regression model used in this study is the common effect model (CEM). Here are the results of the Common effect model tests in Table 4 below:

Table 4. Common Effect Model Test Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.681514	0.321479	-5.230553	0.0000
X1	-0.426548	0.253629	-1.681781	0.0975
X2	0.003263	0.022259	0.146605	0.8838
X3	-0.844161	0.300223	-2.811779	0.0065
R-squared	0.145864	Mean dependent var		-2.402910
Adjusted R-Squared	0.105826	S.D dependent var		0.481602
S.E. of regression	0.455406	Akaike info criterion		1.321770
Sum squared resid	13.27328	Schwarz criterion		1.452329
Log likelihood	-40.94017	Hannan-Quinn criter		1.373501
F-statistic	3.643165	Durbin-Watson stat		2.665154
Prob (F-statistic)	0.017192			

Based on Table 4, the panel data regression equation in this study can be arranged as follows:

$$Y = -1.681514 - 0.426548 X1 + 0.003263 X2 - 0.844161 X3 + e$$

Information:

Y = Manipulation of Financial Statements, X1 = XBRL Technology, X2 = Dividend Payout Ratio, X3 = Net Profit Margin, e = residual error

Based on Table 4. it is known that the probability value (F-Statistic) is 0.017192. This shows that the value is smaller than the significance level (< 0.10). So, H_a is accepted, and H_o is rejected. So XBRL technology, dividend payout ratio, and net profit margin simultaneously have a significant effect on financial statement manipulation.

Based on Table 4. the results of the partial test (t test) it can be concluded that:

1. The effect of XBRL technology (X1) on the manipulation of financial statement shows a probability value of 0.0975 which is smaller than the 0.10 significance level, so it can be said that XBRL technology has a significant and negative effect on financial statement manipulation in BUMN companies listed on the IDX in 2018-2021
2. The effect of the dividend payout ratio (X2) on the manipulation of financial statements shows a probability value of 0.8839 which is greater than the significance level of 0.10, so it can be said that the dividend payout ratio does not partially affect the manipulation of financial statements in state-owned companies listed on the Indonesia Stock Exchange in 2018-2021.
3. The effect of net profit margin (X3) on the manipulation of financial statements shows a probability value of 0.0065 which is smaller than the significance level of 0.10, so it can be said that the net profit margin has a significant effect in a negative direction on the manipulation of financial statements in state-owned companies listed on the Indonesia Stock Exchange in 2018 -2021.

Based on Table 4. the Adjusted R-Squared value of this study is 0.105826 or 10.59%. Thus, the independent variables consisting of XBRL technology, dividend payout ratio, and net profit margin can explain the dependent variable, namely the manipulation of financial statements by 0.105826 or 10.59% while the remaining 89.41% is explained by other variables outside of this study.

5.4 Validation

1. The Effect of XBRL Technology on Manipulation of Financial Statement

Based on the partial test results (t test) show the coefficient value -0.426548 with a probability value of 0.0975 which is smaller than the significance level of 0.1 (10%), it can be concluded that H_o is rejected, so that XBRL technology partially has a significant effect in a negative direction on manipulation. financial reports on state-owned companies listed on the Indonesia Stock Exchange in 2018-2021. This means that companies that apply XBRL technology in their financial reporting systems do not manipulate financial statements.

This is in accordance with the previous theoretical explanation, namely problems in distributing data using different formats for each need, causing different perceptions in interpreting information in financial statements (Sari and Setiawan, 2021). So the Extensible Business Reporting Language (XBRL) system is a system created to solve these problems (Wijanarko and Moedjiono in Sari & Setiawan, 2021). This is in line with research conducted by Tohang and Lan (2017) which states that the application or adoption of the XBRL system can reduce the risk of manipulation in financial reporting.

2. The Effect of Dividend Payout Ratio on Manipulation of Financial Statement

Based on the results of the partial test (t test) show the coefficient value of 0.003263 with a probability value of 0.8839 which is greater than the significance level of 0.1 (10%), it can be concluded that H_o is accepted, so that the dividend payout ratio partially does not significantly affect the manipulation of financial statements. in state-owned companies listed on the IDX in 2018-2021.

So, this is not in accordance with the theory that has been described previously, that the accrual-based investment ratio, as a result of financial statement analysis, has a contribution to the determination of accounting manipulation in the company's financial statements. The dividend payout ratio has a significant positive effect on the practice of financial statement manipulation, in this case income smoothing. If there is a fluctuation in earnings, companies that have a high dividend policy will be riskier than those with a low dividend. This is in line with research conducted by Abelingga et al., (2021) which states that the dividend payout ratio has no effect on financial statement manipulation.

3. The Effect of Dividend Payout Ratio on Manipulation of Financial Statement

Based on the partial test results (t test) show the coefficient value -0.844161 with a probability value of 0.0065 which is smaller than the significance level of 0.1 (10%), it can be concluded that H_0 is rejected, so that the net profit margin partially has a significant negative effect on manipulation of financial statements in state-owned companies listed on the Indonesia Stock Exchange in 2018-2021. That is, when the company's net profit margin is high, the level of manipulation is low or does not manipulate financial statements.

Net profit margin is one of the ratios of profitability that is used to show the company's ability to generate net profits after tax. Companies with lower profits tend to give impetus to management to overestimate income or expenses such as having significant errors in financial reporting (Kreutzfeldt and Wallace in Zainudin & Hashim, 2016).

6. Conclusion

This study aims to analyze the effect of XBRL technology, dividend payout ratio, and net profit margin on the manipulation of financial statements in state-owned companies listed on the Indonesia Stock Exchange for the period 2018-2021. The sample in this study were 17 companies with a research period of 4 years and the total data processed were 68 companies. In processing the data, this research was assisted by using Excel and EViews 12 software. Based on the results of the tests that have been carried out, several conclusions were obtained as follows:

1. Based on the descriptive analysis, it can be concluded that:
 - a. The XBRL technology variable in BUMN companies listed on the IDX for the 2018-2021 period, there are 52 companies that report financial statements in XBRL format, equivalent to 76.47%, while 16 companies do not report financial statements in XBRL format, equivalent to 23.53%.
 - b. The dividend payout ratio variable in state-owned companies listed on the Indonesia Stock Exchange for the 2018-2021 period has an average value that varies in the number of increases and decreases in each study period.
 - c. The net profit margin variable for state-owned companies listed on the Indonesia Stock Exchange for the 2018-2021 period has an average value that varies in the number of increases and decreases in each study period.
2. Simultaneously, the XBRL technology variables, dividend payout ratio and net profit margin have a significant influence on the manipulation of financial statements in state-owned companies listed on the Indonesia Stock Exchange for the 2018-2021 period. Based on the results of testing the coefficient of determination obtained a value of 0.105826, meaning that the independent variable consisting of XBRL technology, dividend payout ratio, and net profit margin can explain the dependent variable, namely financial statement manipulation by 10.59% while the remaining 89.41% is explained by other variables outside of the study.
3. Partially, the influence of each independent variable is as follows:
 - a. XBRL technology has a significant and negative effect on the manipulation of financial statements in state-owned companies listed on the Indonesia Stock Exchange in 2018-2021.
 - b. The dividend payout ratio has no significant effect on the manipulation of financial statements in state-owned companies listed on the Indonesia Stock Exchange in 2018-2021.
 - c. The net profit margin has a significant and negative effect on the manipulation of financial statements in state-owned companies listed on the Indonesia Stock Exchange in 2018-2021.

References

- Abelingga, D., Mudiastuty, P. P., Suranta, E., & Indriani, R. Deteksi fraudulent financial reporting: Suatu pendekatan menggunakan accrual based investment ratio dan cash based investment ratio (Fraudulent financial reporting Detection: an approach using accrual-based investment ratio and cash-based investment ratio. *Jurnal Akuntansi, Keuangan, Dan Manajemen (Jakman)*. (2021).
- ACFE. *Report To The Nations Global Study on Occupational Fraud and Abuse*. (2020).
- BEI. XBRL. www.idx.co.id. (2020). <https://www.idx.co.id/perusahaan-tercatat/xbrl/>
- Belkaoui, A. R. *Teori Akuntansi*. Salemba Empat. (2007).
- C.Jensen, M., & H.Meckling, W. Theory of the firm: Managerial behavior, agency costs and ownership structure.

- Journal of Financial Economics*, 3(4). (1976). [https://doi.org/https://doi.org/10.1016/0304-405X\(76\)90026-X](https://doi.org/https://doi.org/10.1016/0304-405X(76)90026-X)
- Christy, I. M., Sugito, & Hoyyi, A. Penerapan Formula Beneish M-Score dan Analisis Diskriminan Linier untuk Klasifikasi Perusahaan Manipulator dan Non-Manipulator. *Jurnal Gaussian*, 4. (2015).
- Fahmi, I. *Etika Bisnis : Teori, Kasus, dan Solusi*. Alfabeta. (2014).
- Haini, S. N., & Andini, P. Pengaruh return on asset, dividend payout ratio, debt to equity ratio, dan kepemilikan institusional terhadap praktik perataan laba. *Jurnal Akuntansi Dan Keuangan*, 3(1). (2014).
- Hery. *Analisis Laporan Keuangan* (Cetakan 3). Grasindo. (2018).
- Jogiyanto. *Teori Portofolio dan Analisis Investasi*. BPFE-Yogyakarta. (2012).
- Omar, N., Koya, R. K., Sanusi, Z. M., & Shafie, N. A. Financial Statement Fraud: A Case Examination Using Beneish Model and Ratio Analysis. *International Journal of Trade, Economics and Finance*, 5(2), 184–186. (2014). <https://doi.org/10.7763/ijtef.2014.v5.367>
- Sari, D. P., & Setiawan, ; Mia Anggelina. Pengaruh pengadopsian XBRL terhadap asimetri informasi dengan pemoderasi corporate governance. *Jurnal Eksplorasi Akuntansi*, 3(2), 302–315. (2021).
- Sekaran, U., & Bougie, R. *Metode Penelitian untuk Bisnis*. Salemba Empat. (2017).
- Serly, & Veronica. Pengujian Investment Ratio Dalam Mendeteksi Laporan Keuangan yang Dimanipulasi (Studi Empiris pada Perusahaan Terdaftar di Bursa Efek Indonesia). *Indonesian Journal of Accounting and Governance*, 5(2). (2021). <https://doi.org/10.36766/ijag.v5i2.222>
- Sugiyono. *Metode Penelitian Kuantitatif, Kualitatif dan R&D*. Alfabeta. (2018).
- Wijaya, D. P., & Suryaningrum, D. H. *The Extensible Business Reporting Language and Fraudulent Financial Statement in Indonesia*. (2020).
- Zainudin, E. F., & Hashim, H. A.. Detecting fraudulent financial reporting using financial ratio. *Journal of Financial Reporting and Accounting*, 14(2), 266–278. (2016) <https://doi.org/10.1108/jfra-05-2015-0053>

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