

What was the performance of PT Timah Tbk's fraud and red flag mechanism?

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ABSTRACT

This research aims to expand learning about Financial Shenanigans and look into the disputed practice of Financial Shenanigans by PT Timah Tbk. The study was conducted on the financial statement and report of PT Timah Tbk on the Indonesia stock exchange (IDX) from the year 2015 until 2022 during the fraud period. The analysis technique used is a combination of qualitative and quantitative methods using ratio analysis techniques. This research also uses historical world tin prices compared with the results of financial reports. The results of this study show that during 2015 until 2022, PT Timah Tbk demonstrated several accounting irregularities that raised concerns about its financial reporting practices. In 2019, a discrepancy between revenue growth and declining tin prices suggests potential fictitious income, while disproportionate revenue increases in 2017 and 2018 indicate possible overstatement. Furthermore, significant revenue spikes in 2018 and 2019, potentially driven by one-off activities. Even though the average tin price has slightly decreased from USD 20,000 in 2017 to USD 19,000 in 2018, In 2021, PT Timah's gross profit increased by 206.61%, despite a drop in revenue. This shows that the company may have postponed some expenses in order to boost profitability.

KEYWORDS - Fraud, Earnings Manipulation Shenanigans, PT Timah Tbk, fraudulent financial reporting

1. INTRODUCTION

Government fraud may adversely affect citizens' trust, the finances of the state, and the extent of public goods provision. In Indonesian companies, there are numerous industries engaging in financial report fraud. Financial statement fraud refers to the manipulation of financial reports to mislead users of the financial statements such as investors and lenders. Financial statement fraud may also be characterized through the following subcategories: a. presenting false documents, or altering, or tampering with important records, invoices, and other paperwork relevant to the transactions b. selective reporting or cover-up, or concealment of certain details, activities, accounts or data that are relevant for preparation of financial statements. c. misuse of accounting policies, systems and practices that are applied to the assessment, recording, reporting and appreciation of economic and commercial activities d. intentionally inadequate or incorrect information regarding accounting policies or principles employed beyond what is justified by the numbers presented in the financial statements that are prepared [1]

Fraudulent financial that takes place in a company may affect the sustainability of the company and can also affect a country's economy. The reason behind this is that the business activities of an organization fuel the economic activities of a country. Fraud is a challenge that is bound to happen, and no single organization is able to eradicate the risk of fraud completely. Fraud, as a matter of definition, is the purposeful, conscious, and precisely designed act of an individual or group of individuals that is within the boundaries of a particular corporation or organization, with the full knowledge that this act has damaging potential for the corporation or organization [2]. The problem of fraud will always recur if there is no detection and prevention action. One way to prevent fraud is to improve corporate governance. Fraud can occur due to poor corporate governance. [3] state that the large number of fraud cases proves that corporate governance is not carried out effectively and results in a lack of supervision of manager behavior.

Based on [4] over 296 cases of occupational fraud reports in various governmental bodies have been analyzed and it was found that the median loss caused by all these cases are \$150,000. Statistics suggested that the average fraud lasted for a period of 12 months. The highest median losses were recorded at the national level of government (\$ 210, 000), followed by state or provincial governments (\$ 100, 000), and lowest was found in local government (\$ 80, 000). The largest median loss was attributed to losses caused by the actions of executives or upper management who were accessing a median loss of \$313,000. The authority of the top executive was there corruption takes place leading to massive loss 50% of the cases turn out to be related to corruption, thus it is the most common type of fraud reported. Corruption is the most pressing concern within the public sector. Moreover, it also notes that fraud can also be perpetrated due to lack of proper oversight internal policies, therefore management must put in place measures to avert the loss and fraud recurrence. In addition to the above, corruption exists in a number of industries and most countries continuously suppressing growth and development through skewed use of resources, embezzlement and destruction of normal institutions to the detriment of economic and social advancement. As experienced by PT Timah, this involved turning its own human resources into predators where within the project (even past directors) engaged in actions that were illegitimate for their own good which hurt the firm and the economy of the country. The case of PT Timah corruption amounted losses reached up to staggering Rp 271 trillion, noted as the highest ever in the corruption eradication cases in Indonesia. This reinforces the point whereby corporate abuse can go beyond just financial losses and affect the ecosystem as well [5].

According to previous studies, it has been found the types of fraud carried by the fraudsters within the startup firms affiliated to public private companies, ascertain the level of fraud that is practiced in the startup firm, and theorize concerning frauds using the GONE theory and hexagon theory [6].

This research aims to expand learning about Financial Shenanigans and look into the disputed practice of Financial Shenanigans by PT Timah Tbk with a particular focus on this government-contracted company in the mining industry. It has been alleged that the firm released the financial statement with an abusive overstated condition, such that the steps taken by PT Timah Tbk has made the investors feel shortchanged since the firm showed forth some sort of financial performance that did not have the reality of actual situation. The study was conducted on the financial statement and report PT Timah Tbk on the Indonesia stock exchange (IDX) from the year 2015 until 2022 during the fraud period [7]. It is important to state that such a study is important because it aims to understand the reporting patterns that evolved during the fraud period. This research gap by using also historical world tin prices compared with the results of financial reports, in general, and PT TIMAH Tbk, Although Indonesia's total tin production is below China's, Indonesia is one of the main suppliers of tin in the global market. China, a major tin producer, is also a major consumer of tin metal.

Financial statements manipulation is a stakeholder harming act [8]. [9] stated the phenomenon of financial statement fraud prevents capital markets from working effectively, because investors and other stakeholders are no longer able to trust the integrity of the corporation as stated by [10] . Additionally, [11] defines that fraud of financial statements not only led corporations to bankruptcy, and legal problems, the consequences to investors, creditors, employees, suppliers, and all stakeholders are dire. Hence, forensic accounting helps to identify and prevent the risk of fraud within the corporates. The detection stage of fraud can be performed through data mining techniques, data matching, document inspection and statistical software utilization [12]. Both analytical and non-analytical forensic accounting techniques, as noted by [13] used to catch anomalies that have the possibility for fraud. According to [14] based on financial shenanigan we could see into how to catching the tricks to manipulate financial statement. Detection is done by analyzing numbers in every element of financial statements.

2. THEORITICAL FRAMEWORK

Fraud Theory

Fraud is a global threat that can take place in every organization at any point. There are three types of fraud: the loss or misuse of organizational assets, misrepresentation of a company's financial statements, and corruption. [4] defines a fraudulent financial statement as a mechanism employed intentionally to conceal a true and fair view of a company, by way of deception in the statement of amounts or disclosures made in financial statements. This fraud may lead to misinterpretations in the valuation of organization performance, which in the end, greatly affects user decision making [15].

The research conducted by [16] presents the concept known as the fraud triangle. The fraud triangle theory is a concept that examines the factors leading to fraud in business. The fraud triangle explains the three most common factors in situations of fraud: pressure, opportunity, and rationalization. Pressure in fraud is an action taken by someone to force another person to commit fraud for individual gain. Companies that commit fraud are always motivated by which include profit margins, return on investments, market growth, revenue expectations among others ultimately result in panic selling and illegal accounting practices. The opportunity for someone to commit fraud arises when there is a chance to do so, which occurs when there is failure on the parts of control and supervision functions of the company. Rationalization occurs when a fraudster constantly looks for logical explanations for their behavior. The criminal may use this defense if they believe they have a right to receive a larger share of the company's earnings.

Earnings Manipulation Shenanigans

Financial shenanigans are intentional attempts to give misleading information and purposefully hide or misrepresent the financial health or performance of a business [17]. [14] explain that the concept of financial shenanigans can be used to analyze financial statements in order to uncover fraud. Corporate management frequently engages in financial shenanigans, which are deceptive financial reporting techniques, to manipulate cash flows, revenues, earnings, expenses, and other accounts in order to portray a strong financial performance. Fraud detection can be carried out by examining the figures in the company's financial statements and the information in the notes to the financial statements. Financial shenanigans techniques are divided into several groups according to the scope being examined, namely earnings manipulation shenanigans, cash flow shenanigans, key metric shenanigans, and acquisition accounting shenanigans. Financial shenanigans are manipulative actions taken by management to distort the financial performance reported by the company using accrual accounting [18]. Therefore, financial shenanigans can be categorized as financial statement fraud resulting from opportunistic earnings management. Earnings manipulation shenanigans are classified into seven categories. The techniques of Earnings Manipulation Shenanigans (EMS) employed cause continuous misrepresentation of the company's revenue [14] : EMS No. 1: Recording Revenue Too Early Earnings manipulation shenanigan is the technique of recording revenue too early. This conduct is widely practiced. The first scenario entails the premature recognition of revenues, either prior to meeting the completion of the revenue process or before the unconditional exchange as dictated by the agreement. This practice involves abuse of revenue-generating activities that are acceptable to the company. The specific techniques used in this practice include: a. recording revenue ahead of the obligations expected on the contract, b. revenue that has been recorded surpassing the works done under the contract by a large margin, c. revenue recognition that takes place before the buyer accepts the product, and d. revenue recording takes place when the payment from the purchaser is not definite. EMS No. 2: Recording False Revenue Earnings manipulation shenanigan. There are several ways to implement such as creating revenue figures for business activities that are not true or do not exist. EMS No. 3: Increasing Revenue with One-Time Events or Non-Recurring Activities, involves increasing profits using one-time event transactions. In a company, unique and rarely recurring transactions or activities will occur in the company's operations. Companies experiencing losses may use these transactions to commit fraud in financial statements. This is because non-recurring activities have an element of rarity and seldom occur, providing a high opportunity for company management to cover up fraud. There are two actions that company management can take to implement this fraud: increasing revenue using rare activities and increasing revenue by misclassifying accounts in financial statements.

EMS No. 4: Shifting Current Expenses to Future Periods, involves shifting current period expenses to future periods. This concept is an example of financial engineering specifically in the individual level of earnings management called expense recognition devices. There are four ways to implement this fraud: the capitalization of operating expenses, the excessive extension of a fixed asset's useful life, the absence of an impairment of a fixed asset and the nonrecording of bad debt expenses and investments impairment. EMS No. 5: Hiding Expenses or Losses is a technique of manipulating income by hiding losses and expenses from shareholders. This situation relates to not recognizing costs or deliberately postponing costs so that trade liabilities are decreased and therefore profits are higher than the expected analysis. This type of concealing is worse because it provides a more specific imperative to hide specific transactions from the investors. In this, the amount of expenses related to the transactions were not charged accordingly, conservative expenses to the transactions were booked using the aggressive accounting criterions, or expenses actually incurred were less than the amounts charged because provisions created for prior years' expenses were used to offset the incurred expenses. EMS No. 6:

Shifting Current Income to Future Periods, where income earned in the current period is shifted or deferred to future periods. This scenario can be executed by either manipulating the income which will later on channelize into increasing the future income that is based on current income. That's because the company management is doing their best to put a picture of healthy, stable and predictable performance growth in front of shareholders. EMS No. 7: Shifting Future Expenses to Current Periods, involves shifting future period expenses to the current period using special charges. This is typically a gambit played by companies with going-concern problems. Under this fraud, the companies will manipulate to future expenses and recognize them in the current financial year. The reason for this is that in this technique, win-win solutions come out which helps the company. This fiscal year will be marked by increased costs which equal expected reduced costs next year. In this way, the operating profit of the company to which it belongs will not be included in the current year, and that in the following year will remain high. Accomplishing this fraud could involve: (a) improperly writing off capitalized costs / capitalized assets (b) improper disbursement of expense.

3. RESEARCH METHOD

This research uses a qualitative method, which consists of descriptive data to explain the results of observations about an object verbally. The qualitative method is used to investigate, examine, and describe observed phenomena in contextually appropriate conditions [19]. The data source used in the research is secondary data. Secondary data is data obtained from sources such as reports, books, research, scientific journals, and so on. The data collection technique in the research is the library research method. Library research is used to collect data from various trusted and relevant sources that support the research. The library research in this study was conducted by obtaining audited financial statements of PT Timah Tbk 2015-2022 from the official website of the Indonesia Stock Exchange (IDX) at idx.co.id. Financial statement data analysis involves reading, comprehending, and extrapolating inferences from the information gathered. [20] explains that qualitative data analysis is done by examining and comparing the results of data collection based on available theories or analysis. For ratio analysis, one investigates exceptional changes from year to year and compares ratios [21]. This research analyzes data by understanding the financial statements of PT Timah Tbk during the fraud to the concept or theory from the literature study used, namely "Financial Shenanigans: How to Detect Accounting Gimmicks and Fraud in Financial Reports" by [14]

4. RESEARCH METHOD

The objects in this study is Timah Tbk listed on the Indonesia Stock Exchange (IDX) from 2015-2022. During the fraud period, this study addresses a research gap by used historical world tin prices in addition to financial statement data. The objective of this comparison is to ascertain whether variations in tin pricing could be a possible sign of corporate fraud. Analysis uses horizontal analysis investigates how financial statement line items change from one year to the next while vertical analysis is where financial statement line items are expressed as a percentage of total assets in the statement of financial position or as a percentage of turnover in the statement of comprehensive income.

Table 1 income analysis compared to the world tin prices

Year	Average Tin Price (USD/ton)	Sales PT Timah Tbk	Volume Sales
2015	16.000	6,874	27.431
2016	18.000	6,968	23.756
2017	20.000	9,217	30.249
2018	19.000	11,050	33.444
2019	18.000	19,303	76.389
2020	21.000	15,216	45.700
2021	30.207	14,607	26.500
2022	41.256	12,504	19.800

Source: Author's own analyses using publicly available data

Based on the table 1 several potential indications or red flags for PT Timah can be observed:

Inconsistent relationship between tin prices and sales: In general, an increase in tin prices should lead to either higher revenues or stable revenues depending on sales volume. However, PT Timah's sales do not always follow this pattern. For instance: In 2019, despite the tin price falling to \$18,000/ton, sales surged significantly to \$19,303, while volume sales also increased dramatically to 76,389 tons. This jump in sales and volume seems unusual when the tin price was relatively low. Similarly, in 2021 and 2022, tin prices rose substantially to \$30,207 and \$41,256/ton, respectively, but PT Timah's sales decreased from \$14,607 in 2021 to \$12,504 in 2022. This suggests that the company was not able to capitalize on higher tin prices, which could be an operational or market issue.

Drastic fluctuations in volume sales: the volume sales have seen significant fluctuations: In 2019, volume sales jumped to 76,389 tons, more than double compared to the previous year. This sharp increase seems disproportionate given that the tin price had actually declined that year. It could indicate potential issues in inventory management, pricing strategies, or other operational challenges. The subsequent years, especially in 2021 and 2022, saw volume sales drop to 26,500 and 19,800 tons, respectively, despite tin prices being at their highest. A significant drop in production or volume sales while prices are high may indicate inefficiencies or production bottlenecks.

Sales decline despite price peaks: despite a sharp increase in tin prices in 2021 and 2022, PT Timah's sales declined in both years. This is a red flag because the company should ideally benefit from higher prices by either maintaining or increasing sales. The drop in sales suggests possible challenges such as: operational inefficiencies or disruptions, competition or loss of market share, declining production capacity or quality issues, potential regulatory or geopolitical factors affecting the company's output or ability to sell tin

Potential overproduction in 2019: the combination of a low tin price and extremely high volume sales in 2019 may indicate that PT Timah engaged in overproduction or aggressive selling to offset the declining tin prices. While it led to a spike in sales for that year, such a strategy could have negative long-term impacts, such as excess inventory or depressed margins.

Profit margin concerns: the mismatch between high tin prices and declining sales in 2021 and 2022 raises concerns about the company's profit margins. PT Timah may have struggled with higher operational costs, or perhaps the higher tin prices did not translate into increased profitability due to external factors or inefficiencies within the company.

Table 2 income analysis from 2019 until 2022

in billion IDR	Growth 2022- 2021	2022	Growth 2021- 2020	2021	Growth 2020- 2019	2020	Growth 2019- 2018	2019
Revenue	-14,40%	12.504	-4,00%	14.607	-21,17%	15.216	74,69%	19.303
Cost of revenue	-10,70%	(9.978)	-20,74%	(11.173)	-22,41%	(14.096)	93,84%	(18.167)
Gross profit	-26,44%	2.526	206,61%	3.434	-1,41%	1.120	-32,30%	1.136
Total Operating Expenses	-6,03%	(1.123)	32,48%	(1.195)	-25,58%	(902)	30,18%	(1.212)
Profit before income tax	-37,34%	1.403	927,06%	2.239	-386,84%	218	-110,17%	(76)
Other Income/Expenses	-100,59%	3	4,93%	(511)	-24,61%	(487)	3330,00%	(646)
Profit before income tax	-18,63%	1.406	-742,38%	1.728	-62,74%	(269)	-194,13%	(722)
Income tax expense	-14,12%	(365)	534,33%	(425)	-158,77%	(67)	-159,38%	114
Profit for the year	-20,11%	1.041	-483,24%	1.303	-44,35%	(340)	-214,85%	(611)

Source: Author's own analyses using publicly available data

Based on table 2, using the seven techniques of financial shenanigans or financial fraud, here's an analysis of the potential red flags and indications of fraud in PT Timah Tbk's profit and loss statement by comparing it to tin prices and volumes sold:

EMS No. 1: Recording Revenue Too Early Earnings manipulation shenanigan by recording sales that do not comply with the applicable PSAK 72, it causes revenue growth to be overstated in the current period. During 2020-2021, the significant increase in tin prices in 2021 of USD 30,207/ton should result in higher revenues, however PT Timah Tbk reported a 4% decline in revenues despite favorable market conditions. This could indicate that some revenues were recorded too early in previous periods in 2020, where volumes were higher but prices were lower, which caused revenues at that time to be presented too high and made too low in 2021.

EMS No. 2: Recording False Revenue Earnings manipulation shenanigan. The corporation may be recording income that does not exist if revenue figures do not match actual tin prices and volumes. Revenue increased by 74.69% in 2019, while the average price of tin only slightly, from \$19,000 to \$18,000 per ton. The substantial increase in revenue may indicate exaggerated or fake income, even though the sales volume increased dramatically to 76,389 tons. This discrepancy could be a warning sign. Tin prices spike to USD 41,256/ton in 2022, but sales volume falls, causing revenue to drop 14.4%. The corporation may be underreporting sales or revenue to smooth future earnings if the price increase isn't completely reflected in revenue.

EMS No. 3: Increasing Revenue with One-Time Events or Non-Recurring Activities, the massive revenue growth rate 74.69% in 2019 according annual report 2019 revenues increased significantly because market share in 2019 increased to 19.74% compared to 2018 of 9.46%. The volume of tin ore production, refined tin production and refined tin sales in 2019 reached 76,389 metric-ton. The large volume increase does justify part of the rise, but the combination of falling tin prices and a dramatic revenue surge suggests non-sustainable revenue sources. Other Income/Expenses, the dramatic change in other income/expenses in 2019 from -646 to -487 billion IDR 2019 there was a significant increase in salaries and allowances as well as business travel and training. The company indicated that there was an increase in costs which was an indication of fraud

EMS No. 4: Shifting Current Expenses to Future Periods, manipulating expenses by delaying or deferring costs can inflate short-term profits. For example, in 2020-2021, there was a 206.61% increase in gross profit in 2021 despite a drop in revenue. This suggests that costs might have been deferred to the next period to artificially boost gross profit. Even though tin prices increased, the drop in sales volume should have led to a proportional increase in costs. However, the company might have shifted costs forward to make 2021 appear more profitable. In 2020, despite a 21.17% drop in revenue, the cost of revenue decreased by 22.41%, nearly matching the revenue drop. This indicates that costs might have been artificially reduced by shifting them to later periods.

EMS No. 5: Hiding Expenses or Losses is a technique of manipulating income by hiding losses and expenses from shareholders, companies may capitalize expenses or hide losses through complex transactions to minimize the impact on profitability. In 2019, the 30.18% increase in total operating expenses, despite a massive revenue boost, suggests that the company might have used capitalized costs or delayed recognizing some losses or expenses to enhance apparent profitability. The company's financials show a sharp jump in costs, which may indicate that losses or non-operating expenses were hidden through accounting manipulations. During 2021-2022, a 206.61% increase in gross profit followed by a 26.44% decline in 2022 suggests that the company might have hidden expenses in prior periods to inflate 2021 earnings. When the company could no longer defer these expenses, they likely showed up in the 2022 results, explaining the sharp drop in profitability.

EMS No. 6: Shifting Current Income to Future Periods, which can mislead investors. In 2022, with tin prices significantly increasing to USD 41,256/ton, the 14.4% revenue decline could indicate that income was deferred to future periods. This strategy helps maintain consistent earnings over time. The fact that revenue doesn't fully reflect the tin price hike suggests that the company has shifted some of its current income into later periods.

EMS No. 7: Shifting Future Expenses to Current Periods, sudden changes in non-operating income or expenses can indicate manipulation to improve net income. In 2019, a dramatic change in other income/expenses from -646 billion IDR to -487 billion IDR could suggest that PT Timah Tbk engaged in one-off activities to manage its earnings. There was a significant increase in salaries and allowances as well as business travel and training. The company indicated that there was an increase in costs which was an indication of fraud. Even though revenue increased in 2019, the company recorded a loss of 611

billion

Table 3 income analysis from 2015 until 2018

in billion IDR	Growth 2018- 2017	2018	Growth 2017- 2016	2017	Growth 2016- 2015	2016	2015
Revenue	19,89%	11.050	32,28%	9.217	1,37%	6.968	6.874
Cost of revenue	21,84%	(9.372)	30,97%	(7.692)	-5,09%	(5.873)	(6.188)
Gross profit	9,96%	1.678	39,36%	1.526	59,62%	1.095	686
Total Operating Expenses	17,11%	(931)	33,17%	(795)	-1,32%	(597)	(605)
Profit before income tax	2,19%	747	46,79%	731	514,81%	498	81
Other Income/Expenses	-233,33%	20	-81,93%	(15)	-195,40%	(83)	87
Profit before income tax	7,12%	767	72,53%	716	147,02%	415	168
Income tax expense	-7,25%	(192)	56,82%	(207)	100,00%	(132)	(66)
Profit for the year	5,77%	532	99,60%	503	147,06%	252	102

Source: Author's own analyses using publicly available data

Based on table 3, analyzing the income statement of PT Timah Tbk from 2015 until 2018 using the seven financial shenanigans techniques, identify potential red flags or indications of fraud. These red flags will be compared to changes in tin prices, volumes sold, and the company's reported financials:

EMS No. 1: Recording Revenue Too Early Earnings. manipulation revenue too early recognition involves recording revenue before the sale is fully completed or the service is performed, distorting the true financial picture. The sharp increase in revenue by 19.89% during 2017-2018, despite slightly dropping tin prices. Annual report 2018 stated, he increases in Revenue was driven by an increase in revenues and sales of tin and solder tin. The Company's business revenue channels in 2018 experienced growth in revenue and sales. In 2018, the Company began to sell Nickel products under PT Timah Investasi Mineral, who managed to record a revenue of Rp79.60 billion in 2018. PT Timah Investasi Mineral (TIM) is a subsidiary directly owned by the Company, which is intended to support the development of the Company's non-tin mining business.

EMS No. 2: Recording False Revenue Earnings manipulation shenanigan. Revenue that doesn't even exist may be booked by companies, and this practice is well depicted in the discrepancy of actual prices and volumes from revenue growth. For instance, in the years 2017-2018, even though the average tin price has slightly decreased from USD 20,000 in 2017 to USD 19,000 in 2018, PT Timah recorded a 19.89% jump in revenue from IDR 9,217 billion to IDR 11,050 billion, There are 33.444 tons sales volume in the year 2018 compared to 30.249 tons in year 2017. Thus revenue growth appears very impressive, this raises the expectation of possible revenue exaggeration. Revenue growth of 32.28% in 2016-2017 was higher than the level of sales volume which increased from 23,756 tons to 30249. While this can be damage caused by the price hikes, revenue growth significantly higher than revenue can bring us to the conclusion that revenue is certainly fictive EMS No. 3: Increasing Revenue with One-Time Events or Non-Recurring Activities, if a company increases revenue using unsustainable or one-off activities, this can mislead investors regarding long-term profitability. In 2018, the relatively large increase in revenue of 19.89%, coupled with an increase in gross profit of only 9.96%, shows that PT Timah's revenue growth in 2018 may not only come from core operations. The difference between revenue growth and gross profit can be caused by non-operating sources of income. This was supported by an increase in other income/expenses, which increased from IDR -15 billion in 2017 to IDR 20 billion in 2018 which came from gains from revaluation of investment property. In 2016, there was a slight increase in income of 1.37%, while tin prices are increasing, could mean that the company is relying on one-off activities to artificially increase revenue in previous years, and these activities are not sustainable

EMS No. 4: Shifting Current Expenses to Future Periods, companies may shift expenses to future periods to inflate current profitability. In 2017, gross profit grew by 39.36%, yet the cost of revenue increased by 30.97%, which is close to the 32.28% growth in revenue. While the growth in costs seems reasonable, the fact that gross profit rose more sharply suggests that some costs may have been deferred to the next period to show better profitability in 2017. In 2018, gross profit growth of 9.96% was much lower than the 19.89% revenue increase, suggesting that some costs might have been shifted to future periods in 2018, thereby increasing gross profit.

EMS No. 5: Hiding Expenses or Losses is a technique of manipulating income by hiding losses and expenses from shareholders. Hiding losses or expenses involves using aggressive accounting techniques to ensure that these negative impacts on profitability are not immediately visible. In 2017, despite a significant increase in revenue and gross profit, operating expenses increased by 33.17%, which is slightly higher than revenue growth. The sharp rise in operating expenses without a corresponding jump in business activity suggests that some losses or expenses might have been hidden in operating expenses, especially since this increase outpaced revenue growth. In 2018, the increase in operating expenses by 17.11%, despite a smaller increase in gross profit of 9.96%, could indicate that the company was hiding some of its operating losses or expenses through various means, such as capitalizing expenses or shifting them to balance sheet accounts.

EMS No. 6: Shifting Current Income to Future Periods, This technique involves deferring income to future periods to smooth earnings. During 2016-2017, revenue in 2016 increased only slightly by 1.37%, despite a 12.5% increase in the average tin price from USD 16,000/ton to USD 18,000/ton. This suggests that some of the income from 2016 might have been deferred to future periods, making 2017 look more profitable. The sharp revenue increase in 2017 by 32.28%, despite a moderate rise in tin prices, raises a red flag for potential income deferral from 2016 to 2017. During 2018-2019, the revenue growth slowed down in 2018, with a much smaller gross profit increase, indicating that income might have been shifted from 2018 to 2019 to smooth future earnings, especially if management wanted to meet profitability expectations in subsequent periods.

EMS No. 7: Shifting Future Expenses to Current Periods, large changes in other income/expenses can indicate manipulation, especially if a company tries to improve net income by using non-operating items. In 2018, a large 233.33% increase in other income/expenses from -15 billion IDR in 2017 to 20 billion IDR in 2018 is a significant red flag. This indicates that PT Timah may have used non-operating activities, such as gains from revaluation of investment property or other one-time transactions, to increase profitability. This sudden and drastic change in other income/expenses can disrupt the real financial performance.

5. CONCLUSION

A case of financial fraud that occurs in a company can also be referred to as a failure of the company's financial security system. This aims to mislead investors regarding the company's performance reports. Based on the analysis of the case at PT Timah Tbk, it was found that the company had committed violations. In 2019 the high volume sales during a period of low tin prices could indicate unsustainable business practices, such as overproduction or forced selling. In 2021-2022, despite significant increases in tin prices, sales and volume sales declined. This may reflect operational inefficiencies, market challenges, or reduced production capacity. Inconsistent sales patterns relative to tin prices suggest potential operational, market, or strategic issues within PT Timah during this period. The following conclusions can be drawn during 2015 until 2022 with techniques of financial shenanigans by using also historical world tin prices in addition to financial:

1. EMS No. 1: Recording Revenue Too Early Earnings manipulation shenanigan, particularly in 2020, where higher volumes but lower prices led to overstated revenues. This caused the 2021 revenue to decline by 4% even when there was increased tin volume within the market. This was also the case within the years 2017-2018, where the rate of growth of revenue was above the rate of growth of tin prices indicating possible preemptive revenue recognition.
2. EMS No. 2: Recording False Revenue Earnings manipulation shenanigan. The discrepancy between tin prices and revenue growth suggests potential exaggeration or false revenue. In 2019, revenue increased by 74.69% with only slight price fluctuations, and a similar issue appeared in 2017-2018, where revenue jumped by 19.89% despite falling tin prices. This indicates revenue might have been inflated to present a stronger performance.

3. EMS No. 3: Increasing Revenue with One-Time Events or Non-Recurring Activities, In 2019, revenue increase of 74.69% was likely influenced by one-time events such as market share gains, rather than sustainable operations. The same could be said for 2018, where a 233.33% spike in other income hints at non-recurring activities, such as gains from revaluation of investment properties, as revenue growth far exceeded gross profit growth.
4. EMS No. 4: Shifting Current Expenses to Future Periods, In 2021, PT Timah's gross profit increased by 206.61%, despite a drop in revenue. This shows that the company may have postponed some expenses in order to boost profitability. Similar trends in 2017–2018 reveal that although revenue increased by 19.89%, gross profit only increased by 9.96%, suggesting that expenses may have been postponed until later times.
5. EMS No. 5: Hiding Expenses or Losses is a technique of manipulating income by hiding losses and expenses from shareholders. Despite rising sales in 2019, PT Timah may have hidden costs or losses as operating expenses increased by 30.18%. This is also seen in 2017–2018, when operational costs rose out of proportion to revenue, which may indicate that losses were capitalized or that expense recognition was delayed.
6. EMS No. 6: Shifting Current Income to Future Periods, In 2022, PT Timah may have delayed some income to future periods in order to smooth out results, as evidenced by the 14.4% fall in revenue despite the steep increase in tin prices. This trend is also evident in 2016–2017, when price rise did not correspond with revenue growth, suggesting that income was moved to improve 2017 outcomes.
7. EMS No. 7: Shifting Future Expenses to Current Periods, There is a possibility that expenses were manipulated because of the abrupt shift in other revenue and expenses from -646 billion IDR in 2019 to -487 billion IDR. It's possible that PT Timah concealed its actual performance in 2019 by recording future expenses in an effort to stabilize earnings. The trends observed in 2018 are consistent with this, as a significant rise in other income and expenses indicates a dependence on non-operating gains for profitability.

Limitations of this study:

The analysis of a sole case study is a rather obvious limitation. It is impossible to generalize the results presented here to other companies or financial statement fraud cases

Recommendations for future research:

These trends may warrant further investigation into PT Timah's production strategy, market positioning, and operational efficiency during the 2015-2022 period

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