



THE EFFECT OF FINANCIAL HEALTH LEVELS TO THE INDICATION OF *FINANCIAL STATEMENT FRAUD* IN TRANSPORTATION SECTOR

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ABSTRACT

ARTICLE INFO

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Submitted:

15 – Februari 2021

Revised:

23 – Februari – 2021

Accepted:

23 – Maret 2021



App-based transportation, traditional transportation companies are being abandoned, because, in terms of practicality, they are less accessible to various groups of people. Therefore, conventional transportation companies compete difficultly and have financial pressure. One example of economic pressure is poor financial health. Based on the Fraud Triangle theory, it is said that if a company is under pressure, the possibility of committing fraud will increase. This study is conducted whether to find empirical evidence on whether the level of financial health could affect the likelihood of financial statement fraud. This study is expected to provide investors and potential investors with knowledge on how to use Altman's Z-Score analysis method as a measuring tool for financial health level and the Beneish M-Score as a financial statement fraud red flag measurement tool to avoid fraud in the future. The research method used is the method of causality. The data collected is secondary quantitative data in the form of financial companies' financial statements and the public transportation industry for the period until 2019, descriptive and descriptive analysis will analyze these data. After conducting the analysis, its research concluded that the level of healths a significant effect on financial statement fraud indication, But other factors can explain changes in the likelihood of a company committing financial statement fraud, such as opportunity, rationalization, and various other types, of pressure.

Keywords: Altman's Z-Score, Benesh Index (M-Score), financial distress, financial statement fraud, level of financial health, transportation industry.

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INTRODUCTION

According to the Association of Certified Fraud Examiners (ACFE) (2020), fraud is still a lot going on and has frequently debated in Indonesia. The three types of fraud that are most frequent and most costly in Indonesia are corruption, misuse of state or company assets, and fraud of financial statements. In various industries, especially the construction, transportation, and storage industries, as well as the communication and financial industries, there are still many cases of fraud (Beattie, 2020). In Indonesia, there are many cases of financial report fraud in the transportation industry, such as the financial statement fraud case of PT Garuda Indonesia (in 2018), PT KAI (in 2005), and others.

According to a survey of fraud committed by public accounting firm Pricewaterhouse Coopers (PwC) (2020), manipulation of financial statements or financial statement fraud is a fraud that has been done since 20 years ago. Currently, financial statement fraud is ranked fifth globally (Pricewaterhouse Coopers (PwC), 2020) and is ranked third in Indonesia as the most frequently committed fraud (Association of Certified Fraud Examiners (ACFE), 2020a).

According to the Auditing Standards Board of the American Institute of Certified Public Accountants (AICPA) (2002), the conditions in which the company's financial stability is threatened by competition, the high level of vulnerability to change, decreased demand negative cash flow reflects that the company is under pressure. The pressure is one of the basic elements that cause fraud. The Fraud Triangle is a theory put forward by (Cressey, 1953 in Wahyuni & Budiwitjaksono, 2017) which explains the reasons why someone commits fraud. Fraud can occur because of motivation. This motivation will emerge when the perpetrator feels that there is an opportunity, the pressure to commit, and able to rationalize the fraudulent activity that will be committed.

Fraud cases such as financial statement fraud that often occur in Indonesia raise questions about the causes of this fraud. According to KPMG (2016), when organizations experience economic difficulties, they will usually experience increased external pressure, increasing the risk of fraud involving accounting misstatements. This is evidenced by several financial scandals in Indonesia, such as the PT Garuda Indonesia case (2018,) which occurred due to company losses reaching Rp. 2.9 trillion in 2017 (Fauzie, 2018) and the PT Kereta Api Indonesia case (2005) which occurred. as a result, the company suffered losses of up to Rp. 63 billion in 2005 (Tempo.co, 2006). These phenomena indicate that financial pressure on companies can generate motivation to commit financial statement fraud.

Based on the above phenomena, this study seeks to obtain empirical evidence of the effect of the health of financial statements on the possibility of financial statement fraud. The poor health level of financial statements is a form of the financial pressure that can lead to fraud. Albrecht et al. (2012) stated that 95% of fraud cases were caused by financial pressure. Therefore the relationship between financial stress and indications of financial statement fraud is interesting to study.

This study analyzes companies in the transportation industry listed on the Indonesia Stock Exchange. With the development of technology in this era, many companies from various industries delisted from the Indonesia Stock Exchange in 2017 due to bankruptcy (Mappadang, Ilmi, Handayani, & Indrabudiman, 2019). Of the various companies that delisted from the Indonesia Stock Exchange in 2017, one of them is a company engaged in the transportation service industry, namely PT. Citra Maharlika Nusantara Corpora Tbk (CPGT).

One of the parties that feel the impact of technological advances is companies engaged in the transportation sector due to the emergence of online-based transportation companies such as Grab, GOJEK, and Uber since around 2015. Not only that, the existence of e-commerce such as Tokopedia, Shopee, and others also make the distance between countries narrower because many things that cannot be achieved directly can be achieved online. These new players can make competition in the transportation industry even tighter and cause some companies to be overwhelmed to survive in the transportation industry. Also, several companies that engaged in the transportation sector, such as PT Garuda Indonesia and PT Kereta Api Indonesia in the last few years, have been caught in financial statement fraud cases because they continue to experience losses. Based on this, the research will focus on the effect of financial health on indications of financial statement fraud carried out in the transportation industry from 2015 to 2019.

LITERATURE REVIEW

Fraud

According to Albrecht et al. (2012), *fraud* is a general term, includes all the various ways that could be created by human ingenuity, which can be used by one individual to benefit from another by misrepresentation. Management fraud, often referred to as financial statement fraud, is distinguished from other types of fraud, both based on the nature of the perpetrator and the method of fraud. In its most common form, management fraud involves top management's fraudulent manipulation of financial statements (Albrecht et al., 2012). In management fraud, companies provide real information; in other words, there is fraud or manipulation in the presentation of these financial statements (Kurnianingsih & Siregar, 2019).

Beneish Index (M-Score)

One way that is often used to detect fraud in financial statements is by looking at the stability of the company's ratio index. This method is called the Beneish Index (M-Scor), which uses some financial data to be measured and compared with the Beneish M-Score parameter to determine whether the company may commit fraud or not. The Beneish M-Score is measured using the following eight ratios (Messod D. Beneish, 1999):

1. Days Sales in Receivables Index (DSRI)

DSRI is the ratio of days sales in receivables in the first year in which the earnings manipulation is found (year t) with the appropriate size in the year before his ($t - 1$). This index measures whether accounts receivable and income are balanced or not in two consecutive years. An increase in the day size of accounts receivable sales can be the result of a change in credit policy to encourage sales in the face of increased competition, but a disproportionate increase in accounts receivable relative to sales can also indicate revenue inflation. The DSRI formula is as follows:

$$DSRI = \frac{Receivables\ t / Sales\ t}{Receivables\ t - 1 / Sales\ t - 1}$$

2. Gross Margin Index (GMI)

GMI is the ratio of gross margin in year $t - 1$ to gross margin in year t . When GMI is greater than 1, gross margin has decreased. Lev & Thiagarajan (1993) stated that the decline in gross margin is a negative signal about the company's prospects. So,

if the company has a bad prospect in the form of a decrease in gross margin ratio, then the company will tend to engage in profit manipulation. The GMI formula is as follows:

$$GMI = \frac{(Sales\ t - 1 - COGS\ t - 1) / Sales\ t - 1}{(Sales\ t - COGS\ t) / Sales\ t}$$

3. Asset Quality Index (AQI)

Asset quality in one year is the ratio of non-current assets other than property, plant, and equipment (Plant, Property and Equipment) to total assets and measures the proportion of total assets whose potential future benefits are less certain. Asset quality index (AQI) is the ratio of asset quality in year t to asset quality in year t - 1. If AQI is above 1, it means that the company has the potential to increase its involvement in deferred costs. The increase in asset realization risk indicates an increasing tendency to exploit and delay costs. The AQI formula is as follows:

$$AQI = \frac{1 - (Current\ Assets\ t + PPE\ t) / Total\ assets\ t}{1 - (Current\ Assets\ t - 1 + PPE\ t - 1) / Total\ assets\ t - 1}$$

4. Sales Growth Index (SGI)

SGI is the ratio of sales in year t to sales in year t - 1. Growth is not just manipulation, but growing companies are seen by professionals as more likely than unstable companies to commit financial statement fraud because their financial position and capital require capital. Thus causing pressure on managers to achieve profits. The SGI formula is as follows:

$$SGI = \frac{Sales\ t}{Sales\ t - 1}$$

5. Depreciation Index (DEPI)

DEPI is the ratio of the depreciation rate in year t - 1 to the corresponding rate in year t. The depreciation rate in the past year is the same as Depreciation or (Depreciation + Plant, Property, and Net Equipment). A DEPI greater than 1 indicates that the depreciation rate of the asset has slowed, increasing the likelihood that the company has revised the estimated useful life of the asset upwards or adopted a new method of increasing revenue. The DEPI formula is as follows:

$$DEPI = \frac{Depreciation\ t - 1 / (Depreciation\ t - 1 + PPE\ t - 1)}{Depreciation\ t / (Depreciation\ t + PPE\ t)}$$

6. Sales, General, and Administrative Expenses Index (SGAI)

SGAI is the ratio of sales, general, and administrative costs for sales in year t relative to the corresponding size in year t - 1. The use of this index follows Lev & Thiagarajan's (1993) recommendation that analysts interpret a disproportionate increase in sales as a negative signal about prospects. The future of the company. The SGAI formula is as follows:

$$SGAI = \frac{Sales, general, administrative\ expense\ t / Sales\ t}{Sales, general, administrative\ expense\ t - 1 / Sales\ t - 1}$$

7. Leverage Index (LVGI)

LVGI is the ratio of total debt to total assets in year t relative to the corresponding ratio in year t - 1. An LVGI that is greater than 1 indicates an increase in leverage. This index is entered to capture the incentives in debt covenants for revenue

manipulation. Assuming that leverage follows a random walk, LVGI implicitly measures the error in estimating leverage. The LVGI formula is as follows:

$$LVGI = \frac{(LTD\ t + Current\ liabilities\ t) / Total\ assets\ t}{(LTD\ t - 1 + Current\ liabilities\ t - 1) / Total\ assets\ t - 1}$$

8. Total accruals to total assets (TATA)

Total accruals are calculated as changes in working capital accounts other than cashless appreciation. Accrual totals or partitions of total accruals were used in previous work to assess the extent to which managers make discretionary accounting choices to change earnings. The formula used in the research of Hantono (2018), Christy & Stephanus (2018) and Kurnianingsih & Siregar (2019) is the formula proposed by Beneish et al.'s (2012) research (Beneish M-Score Model), namely:

$$TATA = \frac{Laba\ usaha\ (net\ operating\ profit)\ t - Arus\ Kas\ Operasional\ t}{Total\ Aktiva\ t}$$

Beneish M-Score is measured using eight ratios, but Beneish (1999) states that there are only five ratios that have a significant effect on fraud, namely DSRI, GMI, AQI, SGI, and TATA. Several other researchers (Magazzino & Paolone, 2014; Mavengere, 2015) also said that only five models ratio *score* that shows an significant result. In previous research, Roxas (2011) confirmed that the M-Score model, with five ratios, can identify earnings manipulation more accurately than eight ratios (Abbas, 2017).

The Beneish M-Score formula for the five variable models is as follows:

Beneish M-Score Five Variable Model

$$M = -6.065 + 0.823 (DSRI) + 0.906 (GMI) + 0.593 (AQI) + 0.717 (SGI) + 0.107 (TATA)$$

Based on the results of the calculation of the formula, an indication of whether the company committed financial statement fraud can be determined or not. A company is considered to have committed financial statement fraud with the following requirements:

1. If the M-Score shows > -2.22, it means that the related company shows indications of manipulation or fraud.
2. If the M-Score shows ≤ -2.22, it means that the related company shows no indication of manipulation or fraud Nathania (2018).

Fraud Triangle

The Fraud Triangle is a theory put forward by Cressey (1953) in Wahyuni & Budiwitjaksono, (2017) to explain the reasons why someone commits fraud. Fraud can occur because of motivation. This motivation will emerge when the perpetrator feels that there is an opportunity, pressure to commit, and the rationalization of fraud that will be committed. These three elements are called the fraud triangle principle (Albrecht et al., 2012). According to Cressey (1953) in Machado & Gartner (2018), there are three factors cause namely the pressure, opportunity, and rationalization.

Pressure

According to the Statement on Auditing Standards No. 99: Consideration of Fraud published by the Auditing Standards Board of the American Institute of Certified Public Accountants (AICPA) (2002), there are four types of conditions that commonly occur

under pressure that can lead to fraud. The condition is financial stability, external pressure, personal financial need, and meeting financial targets. This study only focuses on the elements of pressure, especially financial stability and meeting financial targets, which can be shown through an indication of *financial distress*, which is measured using the level of financial health. Then, the level of financial health can be proxied using Altman's Z-Score.

1. Financial Stability

Financial stability is a condition that describes a company's financial condition in the stable condition. The financial condition of the company is said to be stable if the company can meet its current routine needs, future needs, even sudden or sudden needs (Wahyuni & Budiwitjaksono, 2017). According to the Auditing Standards Board of the American Institute of Certified Public Accountants (AICPA) (2002), the conditions in which the company's financial stability is threatened due to competition, the high level of vulnerability to change, decreased demand, negative cash flow shows that the company is under pressure

2. Meeting Financial Targets

Financial targets usually be in the form of pressure on management or operating personnel to meet the financial targets such as a sales target or a target profit set by the holder of a higher authority. Evaluating company performance is the main objective in presenting financial statements (Lestari & Sudarno, 2019). One way to evaluate a company's financial performance is to compare the results in the financial statements with the company's financial targets. Therefore, management becomes motivated to manipulate financial reports if the company's financial targets are not achieved.

3. Personal Financial Need

Some of the shares owned by company executives will influence management policies in disclosing the company's financial performance (Lestari & Sudarno, 2019). Shareholders will be more careful in operating the company so that their financial condition remains good. This will motivate management to manipulate financial statements so that the company's performance looks good.

4. External Pressure

Excessive external pressure on management usually takes the form of pressure to meet the expectations of stakeholders. Stakeholders in question are parties that provide funding for the company's operations. When the company's performance is in poor condition, it will have an impact on the lack of funds flowing into the company. However, when the flow of funds is increasing, the accountability of management will be higher because it must meet stakeholder expectations by producing a good performance.

Altman's Z-Score

Abbas (2017) and Bhavani & Amponsah (2017) say Altman's Z-Score is a measuring tool used to measure the financial stability of an entity. According to research by Bhavani & Amponsah (2017), Altman's Z-Score is an effective measuring tool for detecting fraudulent financial statements through financial stability. Whereas in Mappadang et al.'s (2019) research, Altman's Z-Score is used to project financial distress. The elements to be measured using Altman's Z-Score are as follows:

1. Working Capital/Total Assets
2. Earnings before Interest and Tax/Total Assets
3. Market Value of Equity/Book Value of Total Liabilities
4. Sales/Total Assets

The Z-Score can be obtained by calculating the ratios above and entering the ratio value into the *Z-Score* formula as follows:

$$Z = 1.2X_1 + 1.4X_2 + 3.3X_3 + 0.6X_4 + 1.0X_5$$

Where:

Z = Overall index

X₁ = Working Capital/Total Assets

X₂ = Retained Earnings/Total Assets

X₃ = Earnings before Interest and Tax/Total Assets

X₄ = Market Value of Equity/Book Value of Total Liabilities

X₅ = Sales/Total Assets

The results of using the *Z-Score* are divided into three categories (Abbas, 2017 and Muflifah, 2017):

- a. $Z > 2.99$ means the company is in a safe zone
- b. $1.81 \leq Z \leq 2.99$ means that the company is in the gray zone
- c. $Z < 1.81$ means the company is in a distress zone

When a company is in a safe zone, it means that the company's financial stability is considered safe, while in the gray zone, the company's financial stability can be considered quite stable, and in the distress zone, it means that the company is heading for bankruptcy.

Transportation Sector

According to DetikFinance (2014), the transportation industry is one of the most corrupt industries in the world. Besides, there are many *fraud* cases conducted by companies in the transportation sector in Indonesia that have become a big scandal, such as the financial statement fraud cases of PT Garuda Indonesia (in 2018) and PT KAI (in 2005). With the rapid growth of technology, there are more new companies that use technology as a competitive advantage. Therefore, many old players in the transportation industry were pressured by the competitive advantage this new company had. This is especially true of land transportation companies for humans such as public transportation service providers in the form of taxis, buses, car rental, and others due to the emergence of application-based transportation companies such as Gojek, Grab, Uber, and others. Also, the emergence of technology has led to the growth of the e-commerce business in Indonesia. The existence of e-commerce products that were previously difficult to reach has become easy to reach and obtain *online* without the need to visit the seller to the place first. Also, companies such as Pegipegi, Mtiket, Traveloka, and others make it easier for consumers to get flight tickets, train tickets, and vehicle tickets other than cars. Therefore, land transportation companies for humans have become very depressed because competition in the transportation industry, in general, is getting tighter.

The intense competition put financial pressure on these companies. Financial pressure can motivate these companies to manipulate reports financial in the hardest times. Therefore, this study aimed to seek empirical evidence about the theory of financial health and want to find out the effect of the financial pressures on the level of financial health as an indications of financial statement fraud in the transport industry, especially ground transportation for humans.

Previous Research

Previous studies have discussed the effect of the elements of the fraud triangle or fraud diamond on financial statement fraud. Several of them also focused on the pressure component of the fraud triangle. In previous studies, the method of measuring

financial statement fraud indications using the Beneish M-Score has been used. The results of previous studies are as follows:

1. According to Abbas (2017), the element of financial stability pressure, which is proxied through Altman's Z-Score, has an influence on the manipulation of income in the financial statements proxied by the Beneish M-Score.
2. According to Aprilia et al. (2017), financial stability as measured using the difference in total assets from year to year has a positive influence on the financial statement fraud proxied using Beneish M-Score.
3. According to Wahyuni & Budiwitjaksono (2017), element pressure in the form of financial stability, as measured by the change in total assets from year to year as well as financial targets s measured by ROA, does not have a significant effect on the financial statement fraud proxied using Beneish M-Score.
4. According to Mappadang et al. (2019), companies in the transportation sector in 2013-2017 are in areas prone to financial distress.
5. According to Hantono (2018), all indices in the Beneish M-Score do not have a significant effect in detecting financial statement fraud.
6. According to Siddiq & Suseno (2019), several elements of pressure, namely financial stability and financial targets, affect detecting financial statement fraud affect in the Jakarta Islamic Index (JII) sharia stocks. Other pressure elements in the form of external pressure and personal financial need, the opportunity factor, and the rationalization factor do not affect detecting financial statement fraud.
7. According to MacCarthy (2017), an indication of financial statement fraud cannot be identified only using Altman's Z-Score, which predicts liquidation. However, indications of financial statement fraud can be identified using Altman's Z-Score and the Beneish M-Score.
8. According to Thai et al. (2014), the ratios in Altman's Z-Score can analyze discriminants with a predictive accuracy of 76.7% can to the prediction of financial difficulties.
9. According to Machado & Gartner (2018), the factors of pressure, opportunity, and rationalization in the fraud triangle can identify indications of fraud in Brazilian financial institutions.
10. According to Bhavani & Amponsah (2017), Beneish M-Score was unable to detect financial statement fraud by Toshiba Corporation effectively, but Z-Score was able to effectively identify indications of financial statement fraud (in the form of possible liquidation).
11. According to Mavengere (2015), the M-Score and Z-Score models can be used by stakeholders to predict liquidation and financial statement fraud (in the form of earnings manipulation) for manufacturing companies in Zimbabwe.
12. According to Ofori (2016), the Beneish M-Score and Altman's Z-Score, which are used to measure the indicators of financial statement fraud by Enron Corporation, can show indications of earnings manipulation by the company.

RESEARCH METHOD

Types of research

The research method used is the causality method which tests whether the independent variable will affect changes in the dependent variable. This study concludes by testing the hypothesis. The hypothesis testing method (hypothetico-deductive) is a series of logical and systematic steps to find a solution to a problem (Sekaran & Bougie,

2016). According to Sekaran & Bougie (2016), research steps that use the hypothesis testing or hypothetico-deductive method are as follows:

1. Identify problem areas broadly
2. Defining the problem statement specifically
3. Developing a hypothesis
4. Determine the measurement or operationalization of variables
5. Collecting data
6. Perform data analysis
7. Interpret data to draw conclusions

Operationalization of Variables

Causality research was conducted to determine the effect of independent variables on the dependent variable. The independent variable in this study is the level of financial health, while the dependent variable is an indication of financial statement fraud. These two variables are abstract and subjective. Therefore it is necessary to operationalize the variables to measure an abstract and subjective concept (Sekaran & Bougie, 2016).

Table 1. Variable Operationalization

Variable	Variable Definitions	Indicator	Measurement
Financial Health Level (independent variable)	A standard is used to measure the level of a company's financial performance to determine whether the company is financially healthy or not.	Financial distress zone based on Altman's Z-Score	Z-Score
Indication of financial statement fraud (independent variable)	Deliberate errors that exist in the financial condition of the company are achieved through misstatement and omissions of numerical values that should exist on financial statements to deceive users of these financial statements.	Beneish M-Score (Five Variable Model)	M-Score

Source: Association of Certified Fraud Examiners (ACFE) (2020) and Bhavani & Amponsah (2017), Inayah (2012) and Bhavani & Amponsah (2017), reprocessed.

Population, Sample, and Data Collection Techniques

The population in this study are companies originating from the service industry with the transportation sector listed on the Indonesia Stock Exchange (BEI). This study uses a *purposive sampling* technique, namely, the sampling technique that is determined or determined by predetermined criteria. Companies can be selected as samples if they meet all the specified criteria. The company does not meet only one criterion. It is considered invalid. The criteria used for sampling in this study are as follows:

1. The company is a transportation company for humans, not a cargo or transportation company for special purposes such as military purposes.
2. The transportation company in question only applies to land transportation companies.

3. Companies must have an IPO date before 2015.
4. Companies must have company financial data from 2014 to 2019 in the form of audited annual financial reports or 2015 to 2019 annual reports on the capital market online site or the company's online site.

The type of data used is quantitative data, namely data in the form of numbers or numeric. These data can be obtained through secondary data sources of time series and cross-section types, or often referred to as panel data types. The data collection techniques used were literature study and observation.

Data Collection and Analysis Techniques

The method used to analyze and interpret the data is a descriptive statistical analysis method. While the methods used to test the hypothesis are the verification method using the test and the test of determination R^2 . Based on the outline of the research, the following research models were produced:

Figure 1
Research Model



The nature of the effect of financial health on indications of financial statement fraud can be determined through regression equations. In the type of panel data, it is necessary to select the correct regression model (CEM, FEM, or REM). According to Basuki & Prawoto (2016) and Prawoto in Nurgianti (2017), there are three methods to determine which model is the best between CEM, FEM, and REM, namely by conducting the Chow test, Hausman test, and the Lagrange Multiplier test. After choosing the right regression model, it is necessary to test classical assumptions to ensure that the regression model used meets the BLUE (Best, Linear, Unepang, and Estimator) rules. The classical assumption tests performed were the heteroscedasticity test (Glejser test) and autocorrelation test (Durbin Watson test). Having obtained a good regression model, we can test the hypothesis using the test and determination R^2 .

RESULT AND DISCUSSION

Descriptive Statistical Analysis

The following is a descriptive statistical result for the variable level of financial health measured using the Z-Score and an indication of financial statement fraud measured using the M-Score for all observed data:

Table 2.
Descriptive Analysis for 5 Years

Variable	Minimum	Maximum	Mean	Std. Deviation	Observation
Financial health level (Z-Score: Variable X)	-116.86	8.30	-8.00	27.31	35
Indication of financial statement fraud (M-Score: Variable Y)	-5.93	21.22	-1.52	5,22	35

Source: Processed with the Microsoft Excel application (2020).

Based on Table 2, the descriptive statistics show that the level of financial health as measured by the Z-Score has an average of -8.00. This means that the industry during the observation period (2015-2019) is generally in a distress zone because the Z-Score value is smaller than 1.81. The highest Z-Score value of 8.30 was owned by PT Blue Bird Tbk in 2017. Conversely, the lowest Z-Score of -116.86 was owned by PT Steady Safe in 2016. The standard deviation for the Z-Score was 27.31, where this value is large enough to reflect the Z-Score data of the transportation companies studied varies widely.

Meanwhile, the indication of financial statement fraud as measured using the M-Score has an average of -1.52. This means that the industry during the observation period (2015-2019) generally shows indications of financial statement fraud because the M-Score value is greater than -2.22. The highest M-Score value of 21.22 was owned by PT Eka Sari Lorena Transport Tbk in 2017. Conversely, the lowest M-Score of -5.93 was owned by PT Steady Safe Tbk in 2018. The standard deviation for M-Score is equal to 5.2,2, where this value is smaller than the standard deviation value of the Z-Score, which reflects that the M-Score understudy does not vary.

The descriptive analysis results show that companies have varied reactions to the emergence of application-based transportation companies and e-commerce companies. Some companies can adapt to the environment and develop their business some companies are sure, not able to adapt, so it is no longer able to compete in the industry and experiencing financial pressure to motivate financial statement fraud.

Panel Data Regression Model Selection

Following are the results of the process of selecting a panel data regression model using the Chow Test, Hausman Test, and Lagrange Test:

Table 3.

The Result of Panel Data Regression Model Selection with *Eviews*

Testing	Probability Cross Section Value
Chow test	Chi Square Cross-section Probability : 0.1183
Hausman Test	Probability Cross-section Random : 0.2238
Lagrange Multiplier Test (Breusch-Pagan)	Breusch-Pagan Cross-section Probability : 0.7703

Source: Processed with the EViews application (2020).

Based on the results of the Chow, Hausman, and Lagrange Multiplier tests, the Common Effect Model (CEM) is the best model to use in this study. The following is the result of regression using the CEM model using the EViews application :

Table 4.
Regression Results with the Common Effect Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-2.145941	0.851503	-2.520181	0.0167
ZSCORE	-0.078500	0.030324	-2.588729	0.0142
Root MSE	4.688649	R-squared		0.168798
Mean dependent var	-1.517714	Adjusted R-squared		0.143610
S.D. dependent var	5.217817	S.E. of regression		4.828639
Akaike info criterion	6.042452	Sum squared resid		769.4199
Schwarz criterion	6.131329	Log likelihood		-103.7429
Hannan-Quinn criter.	6.073132	F-statistic		6.701517
Durbin-Watson stat	2.220471	Prob(F-statistic)		0.014219

Source: Processed with the EViews application (2020)

Thus the regression model is found as follows:

$$M\ SCORE\ it = -2,145941 - 0,078500\ Z\ SCORE\ it$$

The figure in the panel data regression equation above is obtained from the coefficient value of the variable. This constant value of -2.145941 explains that if it is assumed that the value of the independent variable is 0, then the M-Score value will, however, be -2.145941. The Z-Score coefficient is -0.078500, which means that every 1 unit increase in the Z-Score variable will decrease the M-Score value by 0.078500.

Classic Assumption Test

1. Heteroscedasticity Test

The probability value shown by the Abs_RES residual regression model is 0.2003. The basis for decision making in the heteroscedasticity test using the Glejser test is as follows (Hidayat, 2017 and Muhson, 2012):

Hypothesis:

H₀= There is no heteroscedasticity in the regression model.

H₁= There is heteroscedasticity in the regression model.

The steps for testing the hypothesis are as follows:

1. If the regression probability value Abs_RES $\geq \alpha$ (5%), then H₀ is accepted, and H₁ is rejected.
2. Conversely, if the regression probability Abs_RES $< \alpha$ (5%), then H₀ is rejected, and H₁ is accepted.

Therefore, the probability value of Abs_RES regression of 0.2003 is a value greater than the value of α (5% or 0.05) will reject H₁ and accept H₀. This means that the regression model does not contain heteroscedasticity problems.

2. Autocorrelation Test

Durbin Watson test with the terms or basis for decision making as follows:

Hypothesis:

H₀= There is no autocorrelation in the regression model.

H_1 = There is autocorrelation in the regression model.

The hypothesis testing criteria are as follows:

1. If d (Durbin Watson) $< d_L$ or $d > (4 - d_L)$, then H_0 is rejected, and H_1 is accepted.
2. If d (Durbin Watson) lies between d_U and $(4 - d_U)$, then H_0 is accepted, and H_1 is rejected.
3. If d (Durbin Watson) lies between d_L and d_U or between $(4 - d_L)$ and $(4 - d_U)$, it will not produce definite conclusions.

The Durbin Watson value (d) is compared with the Durbin Watson table value with K_1 , which means one variable is independent, $N = 35$, which means the number of samples is 35 samples, and the α value used in this study is 5% or 0.05. Since the Durbin Watson value generated by the regression model is 2.220471, this value is between the d_U value of 1.5191 and the $4 - d_U$ value of 2.4809. Thus it can be concluded that H_0 can be accepted and H_1 is rejected. That is, this regression model does not have an autocorrelation problem.

Hypothesis Testing

1. Determination Test R^2

The R-Square value of the regression model is 0.168798. This shows that the independent variable, namely the level of financial health, which is proxied by using Altman's Z-Score, can only have an effect of 16% on the dependent variable, namely the indication of financial statement fraud which is proxied using the Beneish M-Score. The increase or decrease in the M-Score value is affected by 16% by the increase or decrease in the Z-Score value. In addition, this also indicates that there are 84% of factors outside the model to influence the indication of financial statement fraud (M-Score).

2. The Test t

The significance value of the regression model probability is 0.0142. This value means that it is smaller than the α value (5% or 0.05). This indicates that the independent variable level of financial health proxied by the Z-Score has a significant effect on the dependent variable on the indication of financial statement fraud as proxied by the M-Score.

Discussion of Research Results

In general, the transportation industry, especially land transportation for humans, is in a *distress* zone during the observation period. This is evidenced by the low level of the financial health of the majority of companies during the observation period. The industry experienced a decline in financial performance in 2016 and 2017 because that year, application-based transportation companies and e-commerce companies began to appear. Conventional land transportation companies have difficulty competing because app-based transportation companies have cheaper rates and a more practical ordering process. However, in 2018 and 2019, conventional land transportation companies began to adapt efforts to industrial conditions so that companies could remain competitive.

In general, the transportation industry shows indications of financial statement fraud from 2015 to 2017, and from 2018 to 2019, the company shows no indication of financial statement fraud. This means that the majority of companies in the conventional land transportation industry felt financially depressed in 2015, 2016, and 2017, so that they were motivated to commit financial statement fraud. However, based on the data collected by the majority of companies in the conventional land transportation industry, they do not show any indication of financial statement fraud even though they are under pressure. The high industry average M-Score was caused by a small proportion of

companies that had very high M-Score values. This happens for several reasons, namely such companies have different perceptions about the financial pressures that are going on, the company might not see an opportunity to commit fraud, and the company has a moral and ethical code that worked well, so in a depressed state and there is a chance though companies are not able to rationalize bad deeds such as fraud.

Based on the results of data analysis that has been carried out, it can be concluded that H_0 can be accepted and H_1 can be rejected. This means that the level of the company's financial health influences the indication of financial statement fraud. This has been proven by the results of hypothesis influences been done. Where the test results indicate that the independent variable, namely the level of financial soundness, has a significant effect on the dependent variable on the indication of financial statement fraud. In this study, the level of financial health was proxied by the Z-Score, and financial statement fraud was proxied by the M-Score. These two variables have an unequal relationship. This can be proven by the regression equation that has been generated as follows:

$$M\ SCORE\ it = -2,145941 - 0,078500\ Z\ SCORE\ it$$

The regression equation above explains that each *Z-Score* has an increase, then the M-Score will experience a decrease in value. If the Z-Score increases, it indicates the better the level of the company's financial health. Conversely, if the M-Score has decreased, it means that the indication of fraud in the company is reduced. So, the conclusion of the regression model above is that if the level of the company's financial health improves (increases), it will also be followed by a decrease in the indication of fraud being committed. A poor level of financial health is one form of pressure that the company experiences. This pressure is in the form of financial pressure that can be a driving factor for financial statement fraud.

However, based on test results of determination R^2 , factors such as the health of financial pressure affect as high as 16% of the indicative financial statement fraud. This shows that other factors could affect the occurrence of financial statement fraud, such as other pressure factors, opportunity other factors contractors. According to Machado & Gartner (2018), the elements in the fraud triangle, namely pressure, opportunity, and rationalization, can identify indications of fraud. The same thing also expressed by Mariati & Indrayani (2020), the study said that not only the pressure element (financial stability, meeting financial targets, and external pressure), which gives effect to the possibility of financial statement fraud but the factor of chance (which is created through the lack of effective monitoring function) and rationalization factors could also influence the possibility of financial statement fraud.

CONCLUSION

Based on the research results, it can be concluded that:

1. Companies in the transportation sector, particularly land transportation for humans, have a generally poor level of financial health, especially in 2016 and 2017.
2. Companies in the transportation sector, especially land transportation for humans, show indications of financial statement fraud from 2015 to 2017, then in 2018 and 2019, companies do not show indications of financial statement fraud.
3. Financial pressure has a significant effect on indications of financial statement fraud. This can be proven by the results of the test, which shows a probability value of 0.0142, which is smaller than the α value (5% or 0.05). The value of financial health

(Z-Score) also has a bad effect to the indication of financial statement fraud (M-Score). This means that the higher the level of financial health the lower the indication of financial statement fraud is shown.

Several suggestions can be given to several parties, namely:

1. For Investors and Prospective Investors: We recommend that before deciding on investment several data need to be checked in addition to company financial reports such as annual reports, news related to companies that will be invested, notes on financial reports, and other non-financial information regarding company management. With this supporting data, it is hoped that investors and potential investors will be able to interpret financial reports better. Investors and potential investors should also be sensitive to issues concerning the company and be more critical of indications of financial statement manipulation that may arise.
2. For Companies: It is recommended that company management prevent financial statement fraud as much as possible by conducting training to increase employee awareness of fraud, strengthening policies and internal controls regarding fraud, and providing a whistleblowing system for anyone who wants to report suspicious actions that refer to fraud.
3. For Auditors: Auditors should raise awareness of the prevalence of fraud in this era. Besides, auditors are expected to be more sensitive to the conditions of the company's industry and critical in analyzing the company's financial statements to be able to detect financial statement fraud and be able to provide the right opinion for the company's financial statements.

This study has the limitation of examining one of the factors of the Fraud Triangle, namely pressure, with a special emphasis on financial stress. Committing fraud will be easier if all elements of the Fraud Triangle are fulfilled. Therefore, this study has not been able to provide a comprehensive picture of what factor of Fraud Triangle that can influence the occurrence of financial statement fraud the most. This study focuses on how the influence of financial pressure factors, especially low levels of financial health, on financial statement fraud. This study also only uses a limited scope, namely only companies in the land public transportation sector for humans only. This sector is being studied because of the consideration that the transportation sector is experiencing a decline due to the inability to compete in the transportation industry in the digitalization era so that it can show a poor level of financial health. This study only applies to human land public transportation sector companies. Therefore, the next research should find out the effect of other elements in the Fraud Triangle, such as the opportunity element, rationalization, and other elements of pressure in a complete manner on financial statement fraud. Also, in further research, it is expected that research can be carried out in a larger scope so that the research results can be more generalized.

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