Measuring Company Financial Resilience Using Economic Value Added (EVA) And Financial Value Added (FVA) Methods

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Abstract

This study aims to determine the measurement of the company's financial resilience using EVA and FVA methods. This research is descriptive research using a quantitative approach. The data used is secondary data, namely the consolidated financial statements of PT Pertamina (Persero) for the 2016-2020 period which consists of a statement of financial position and a statement of profit and loss. Based on the results obtained from this study, PT Pertamina (Persero) lacks good financial resilience because it is less able to adapt and utilize its financial information during the Covid 19 outbreak where EVA and FVA values produce negative values so the company is less able to cover the costs incurred.
And in the results of the Mann-Whitney test, it was found that there was no difference in using both the EVA and FVA methods as a means of measuring financial resilience because the two methods on average gave a positive value in 2016-2019 and a negative value in 2020. If the value of EVA and FVA produce a positive value, meaning that the company can create added value, whereas if EVA and FVA are negative, it means that the company is less able to create added value.

Keywords: *Financial Resilience, Economic Value Added (EVA), and Financial Value Added (FVA).*

INTRODUCTION

The existence of the coronavirus disease 2019 (covid 19) pandemic which on March 11, 2020, was designated as a global pandemic by the WHO because of its spread throughout the world, including Indonesia, which is increasingly worrying. The existence of this pandemic has caused the Indonesian government to impose regulations that cause the company's share price to fall, allowing companies to be forced to close their businesses or even lay off.

To overcome these consequences, both private and state-owned companies are required to adapt and demonstrate resilience to investors. The company's resilience does not escape the role of the management who is responsible for managing information and making the right decisions so that the company does not only generate profits for shareholders but also generates value for the company itself. The value of this company is a reflection of wealth for shareholders or investors. The results of its activities are used as a benchmark to assess whether the company has good financial resilience or not which can be

measured using financial statement analysis methods based on financial ratios and based on added value.

PT Pertamina (Persero) is a State – Owned Enterprise in charge of managing oil and gas mining in Indonesia. As long as PT Pertamina (Persero) runs its business, it always makes a big contribution to the Indonesian government's economy. However, when the covid 19 occurred in 2020, PT Pertamina (Persero) experienced a very drastic decrease in profit compared to the last five years, starting in 2016 - 2020 which can be seen in the following figure :
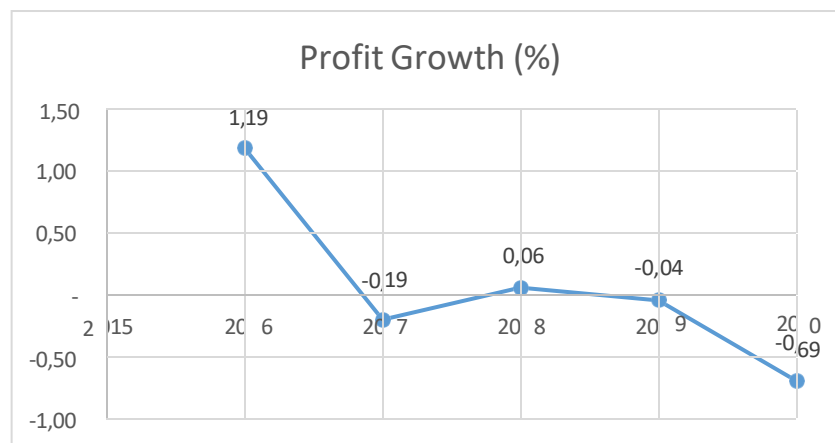

Figure 1. Percentage of profit growth for the period 2016 – 2020
Source: Consolidated Financial Statements of PT Pertamina (Persero) for the 2016-2020 period

Based on Figure 1., it can be seen that the profit of PT Pertamina (Persero) from 2016 to 2020 has increased and decreased. And in 2020, the company's profit experienced a very drastic decline, namely by 0.69% as much as Rp. 822,864 from this five-year period, where these figures show that the company has the lowest profit from the last five years. The decline in profits that occurred in these three years, 2018, 2019, and 2020 showed that the company's financial resilience was not good. The calculation of the profit of PT Pertamina (Persero) for the 2016-2020 period uses the financial statement analysis method based on financial ratios. This method has limitations, namely that it has not been able to fully show the added value generated by the company in a certain period. This happens because the company's profits have not been deducted from all the existing costs of capital in the company. Therefore, it is necessary to measure financial resilience using the method of analysis of financial statements based on value-added, according to Nasution (2009) there are 2 methods of added value, namely the Economic Value Added (EVA) method and the Financial Value Added (FVA) method.

Financial Management

Financial management is a science that discusses how financial managers use company resources. Financial management has an important role in the company's defense because it aims to maximize the value of the company,

maintain the company's financial stability in a state that is always under control, and minimize the company's risk in the present and the future (Fahmi, 2015:14).

Financial Resilience

According to Montoro and Rojas-Suarez (2012), Financial resilience is the ability to overcome the impact of a financial shock. According to Maria Yovita et al., (2021) citing the theory of Brian Walker et al., (2004), financial resilience can be measured using several capacity indicators, namely: adaptive, absorptive, and transformative. According to the OECD (2019), Financial resilience shows that a company can control its funding sources and can cover the costs it has incurred.

Financial Statements

According to Machfoedz and Mahmudi (2008: 1.18), financial statements are the final result of an accounting process that starts from the evidence of financial transactions, then recorded in journals, then periodically from journals grouped into ledgers according to the transactions, and the last stage and process accounting is the preparation of financial statements. The types of financial statements, namely: statement of financial position (balance sheet), statement of changes in equity, income statement, cash flow statement, and notes to financial statements (Indonesian Institute of Accountants, 2009:2). Financial statements are used to provide information about the condition of the company's financial position so that it can assist internal parties and external parties in making decisions.

Financial Statement Analysis

According to Hutauruk (2017), the definition of financial statement analysis consists of two words, namely "Analysis" and "Financial Reports". An analysis is a process of breaking or decomposing a unit into various smallest units. While the financial statements are the balance sheet, profit and loss, and cash flow. According to Sujarweni (2017:35), financial statement analysis is carried out to look at a company's financial position in a certain period of assets, liabilities, capital, or other business results that have been achieved for several periods; how the achievement of the company's past, current, and future successes which will later be used as the basis for decision making by interested parties.

Economic Value Added (EVA) Method

EVA method is a measure of the economic added value generated by the company as a result of an activity or management strategy. If a company has a positive EVA value, it can be said that the company's management can create an added value for the company. Meanwhile, if EVA is negative, then the company experiences distracting/destroying value (Endang, 2016:35). According to Simbolon, et al (2014), the EVA model is based on the concept of the cost of capital. The concept of cost of capital reduces net operating profit after tax (NOPAT) to the cost of capital.

Financial Value Added (FVA) Method

Financial Value Added (FVA) is a method that is currently starting to shift its position from the use of the EVA method as a value-added method used to measure the company's financial resilience. Meanwhile, according to Pudjiprokoso (2018: 24), FVA is the difference between operating profit after tax (NOPAT) and equivalent depreciation. The Financial Value Added (FVA) method is a method that measures the company's financial added value by considering the contribution of fixed assets in generating a company's net profit (Sandias, Lopez, and Gonzales, 2022:8).

According to Rr. Iramani and Eri Febrian (2005:7), FVA that has a positive value will indicate that the company can create financial added value because the company's net profit can cover equivalent depreciation. This occurs when the company's net income and depreciation can cover equivalent depreciation $((NOPAT + D) > ED)$.

Theoretical Framework

The variables used were explained as Figure 2 and each relationship of an independent variable with dependent variable represent hypothesis.

Research Hypotheses

The research hypothesis is formulated as follows :
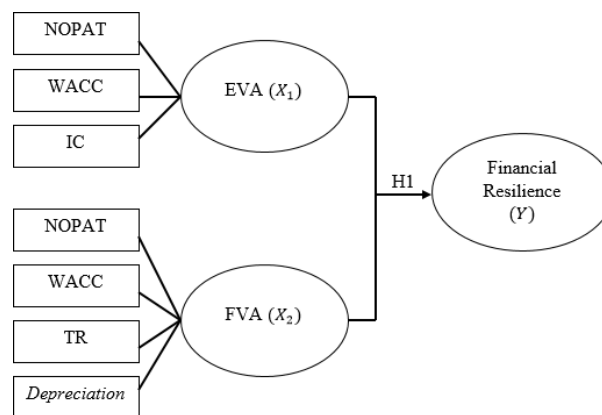H1 : There is a difference in financial resilience by using EVA and FVA.

Figure 2. Conceptual Framework

METHOD
Research Design

This research is a descriptive study using a quantitative approach that will present secondary data in the form of consolidated financial statements of PT Pertamina (Persero) which have been audited for the period 2016 to 2020 and can be accessed through the official website of PT Pertamina (Persero). The data will be analyzed using quantitative calculations from the value-added method, namely Economic Value Added (EVA) and Financial Value Added (FVA). The information to be obtained in this study is to measure the financial resilience of PT Pertamina (Persero) using the EVA and FVA methods.

Place and Time of Research

This research was conducted by collecting data in the form of financial reports at PT Pertamina (Persero) from 2016 to 2020 which can be accessed through the official website of PT Pertamina (Persero), namely https://www.pertamina.com. The time of this research began in March 2022 until completion of the research.

Types and Sources of Data

The type of data used in this study is quantitative data in the form of numbers sourced from the financial statements of PT Pertamina (Persero), namely the balance sheet and income statement. The data source can be obtained through the official website of PT Pertamina (Persero), namely https://www.pertamina.com from 2016 to 2020.

Variable Definition and Operational Definition
Variable Definition
1. Independent Variable (X)
  a. Economic Value Added (X_1) is an estimate of the actual economic profit of the business for the year, and is very different from accounting profit in that accounting profit will not be reduced by the cost of equity and while in EVA calculation, the cost will be issued (Brigham & Housten, 2006:69).
  b. Financial Value Added (X_2) is a method that measures the company's financial added value by considering the contribution of fixed assets in generating a company's net profit (Sandias, Lopez and Gonzales, 2002:8).
2. Dependent Variable (Y)

Financial resilience is the ability to cope with the impact of financial shocks (Montoro and Rojas-Suarez, 2012).

Operational Definition
a. Economic Value Added (X_1)

Economic Value Added (EVA) is the operational profit after tax deducted by the cost of capital from the total capital to generate a profit. According to Rudianto (2013: 218), the formula for calculating EVA is as follows:

$$EVA = NOPAT - Capital\ Charges$$
$$EVA = NOPAT - (WACC \times IC)$$

The indicators used in the EVA calculation formula.

  1. NOPAT (*Net Operating Profit After Tax*)

NOPAT is the company's net operating profit after tax which can be obtained from the deduction between profit (loss) before tax and tax.

$$NOPAT = Profit\ (loss)\ before\ tax - Tax$$

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Universitas 17 Agustus 1945 Surabaya-2022

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2. IC (*Invested Capital)*

Invested Capital is the capital invested by a company which can be calculated using the following formula:

$$Invested\ Capital = \text{Total Debt and Equity} - \text{Short Term Liabilities}$$

3. WACC (*Weighted Average Cost of Capital*)

WACC is the sum of the costs of each component of short-term capital, long-term debt, and shareholder equity weighted based on their relative proportions in the company's capital structure at market value. The formula for calculating WACC is as follows:

$$\text{WACC} = \{(D \times Rd)(1 - Tax) + (E \times Re)\}$$

Information:

where:

D W : Capital level of debt
Rd : Short-term debt costs
Tax : Tax Rate
E : Capital and equity level
Re : Capital cost rate

a. Capital Level of Debt (D)

$$D = \frac{\text{Total Amoun of debt}}{\text{Total Debt \& Equity}} \times 100\%$$

b. Short – Term Debt Costs (Rd)

$$Rd = \frac{Interest\ expense}{Total\ Amoun\ of\ debt} \times 100\%$$

c. Capital and Equity Level (E)

$$E = \frac{\text{Total Equity}}{\text{Total Debt \& Equity}} \times 100\%$$

d. Capital Cost Rate (Re)

$$Re = \frac{Net\ profit\ after\ tax}{\text{Total Equity}} \times 100\%$$

e. Tax Rate (Tax)

$$Tax = \frac{\text{Tax expense}}{\text{Net profit before tax}} \times 100\%$$

b. Financial Value Added (*X*₂)

Financial Value Added (FVA) according to Pudjiprokoso (2018:24) is the difference between operating profit after tax (NOPAT) and equivalent depreciation (ED), so the formula calculation is:

$$FVA = NOPAT - (ED - D)$$
$$= NOPAT - ((k \times TR) - D)$$
$$= NOPAT - ((WACC \times TR) - D)$$

There are 4 indicators used in calculating the formula for the FVA method, namely:

1. NOPAT (*Net Operating Profit After Tax*)

NOPAT is the company's net operating profit after tax which can be obtained from the deduction between profit (loss) before tax and tax.

$$NOPAT = Profit\ (loss)\ before\ tax - Tax$$

2. WACC (*Weighted Average Cost of Capital*)

WACC is the sum of the costs of each component of short-term capital, long-term debt, and shareholder equity weighted based on their relative proportions in the company's capital structure at market value. The formula for calculating WACC is as follows:

$$WACC = \{(D \times Rd)(1 - Tax) + (E \times Re)\}$$

Information:
D   : Capital level of debt
Rd   : Short-term debt costs
Tax   : Tax Rate
E   : Capital and equity level
Re   : Capital cost rate

Where :

a. Capital Level of Debt (D)

$$D = \frac{\text{Total Amoun of debt}}{\text{Total Debt \& Equity}} \times 100\%$$

b. Short – Term Debt Costs (Rd)

$$Rd = \frac{Interest\ expense}{Total\ Amoun\ of\ debt} \times 100\%$$

c. Capital and Equity Level (E)

$$E = \frac{\text{Total Equity}}{\text{Total Debt \& Equity}} \times 100\%$$

d. Capital Cost Rate (Re)

$$Re = \frac{Net\ profit\ after\ tax}{\text{Total Equity}} \times 100\%$$

e. Tax Rate (Tax)

$$Tax = \frac{\text{Tax expense}}{\text{Net profit before tax}} \times 100\%$$

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3. TR (*Total Resources*)

TR is the total source of funds (capital) of the company obtained from the calculation between long-term debt and total equity.

$$\boxed{Total\ Resources\ (\text{TR}) = D + E}$$

Information :

D : Long term debt
E : Total equity

4. D (*Depreciation*)

Depreciation is the allocation of the cost of assets systematically and rationally over the useful life of the existing assets.

c. Financial Resilience (Y)

According to Brian Walker et al., 2004, quoted from the journal belonging to Maria Yovita, et al (2021) there are 3 indicators in measuring financial resilience, namely:

1. Adaptive is the capacity of actors in a system to influence resilience (Walker et al. 2004:5);
2. Absorptive capacity refers to the acquisition of external resources to increase innovation and performance within the company (Cohen and Levinthal. 1990);
3. Transformation is the capacity to create fundamentally new systems when ecological, economic, or social structures make the existing system untenable (Walker et al. 2004:5).

Hypothesis Testing Techniques and Data Analysis

In this study, the data analysis technique used is descriptive analysis in which EVA and FVA are calculated. Meanwhile, the hypothesis testing in this study uses the Normality test, Homogeneity test, Independent Sample t-Test test (if the data is normally distributed), and the Mann Whitney u-Test test (if the data is not normally distributed).

RESULTS AND DISCUSSION
Description of Research Results
1. Economic Value Added (EVA)

Based on this research, EVA value can be obtained by calculating the value of NOPAT (Net Operating Profit After Tax) which can be obtained by reducing the profit (loss) before tax and tax. Then calculate the IC (Invested Capital) by reducing the total debt and equity with short-term debt. After calculating the IC value, the WACC (Weighted Average Cost of Capital) value is calculated. Then look for the value of the Capital Charges that can be obtained by multiplying the WACC value with IC. And finally, he did the calculation of the EVA value where the formula was NOPAT minus Capital Charges. The following are the results of the analysis of the calculation of the Economic Value Added (EVA) of PT Pertamina (Persero) in the 2016-2020 period.

Table 1. EVA Calculation Results

EVA Components	Year				
	2016	**2017**	**2018**	**2019**	**2020**
NOPAT	3.162.654	2.552.619	2.716.395	2.618.386	822.863
IC	39.126.050	41.796.581	50.745.570	54.923.060	58.451.398
WACC	0,07	0,05	0,04	0,04	0,02
CC	2.694.328	2.209.711	2.255.619	2.285.011	926.663
EVA	468.326	342.908	460.775	333.375	- 103.800

Source: Consolidated Financial Statements of PT Pertamina (Persero), data processed (2022)

It can be seen in Table 2. where each component used in the EVA calculation has fluctuated increased and decreased every year. The increase and decrease of each component will affect the value of EVA in 2020 the value of EVA decreased drastically compared to the previous year resulting in a negative result. This is because the decreased value of NOPAT is smaller than the value of capital charges (CC).

2. Financial Value Added (FVA)

In this study, the FVA value can be obtained by calculating the NOPAT value minus the result of the reduction between equivalent depreciation and depreciation. Where the NOPAT value can be obtained by reducing profit (loss) before tax and tax. Then do the calculation of WACC and total resources which value can be obtained through the sum of long-term debt with total equity. The next step is to calculate equivalent depreciation, namely by multiplying the WACC with total resources. Then the depreciation value is calculated. And the following are the results of the analysis of the calculation of the FVA value which can be seen in table 3.

Table 2. FVA Calculation Results

FVA Components	Year				
	2016	**2017**	**2018**	**2019**	**2020**
NOPAT	3.162.654	2.552.619	2.716.394	2.618.386	822.864
WACC	0,07	0,05	0,04	0,04	0,02
TR	39.126.050	41.796.581	50.745.570	54.923.060	58.451.398
ED	2.694.327,77	2.209.710,54	2.255.619,46	2.285.010,92	926.663,07
D	- 26.983	- 28.159	- 28.345	- 30.805	- 26.346
FVA	441.343	314.749	432.430	302.570	- 130.145

Source: Consolidated Financial Statements of PT Pertamina (Persero), data processed (2022)

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Based on table 2. shows that the results of the analysis of FVA calculations in each year have increased and decreased for each of its components. Where the values of NOPAT, WACC, equivalent depreciation (ED), and depreciation (D) fluctuated increase, and decrease. Meanwhile, the value of total resources has increased every year. This will influence the FVA value, namely, in 2020 the FVA value will give a negative value compared to previous years.

Data analysis
Descriptive Analysis of EVA and FVA

After doing the calculations and getting the results from the EVA and FVA methods, then the next analysis will be between EVA and FVA by comparing each value presented in a comparison table to make it easier for researchers to analyze the data. Table 3. and Figure 3. will show the value of the calculation results of the two methods at PT Pertamina (Persero) in 2016 – 2020.

Table 3. Comparison of EVA and FVA at PT Pertamina (Persero) in 2016 – 2020 (in Rupiah)

Year	EVA	FVA
2016	468,326	441,343
2017	342,908	314,749
2018	460,775	432,430
332019	333,375	302,570
2020	- 103,799	- 130,145

Source: Consolidated Financial Statements of PT Pertamina (Persero), data processed (2022)

Comparison of EVA and FVA

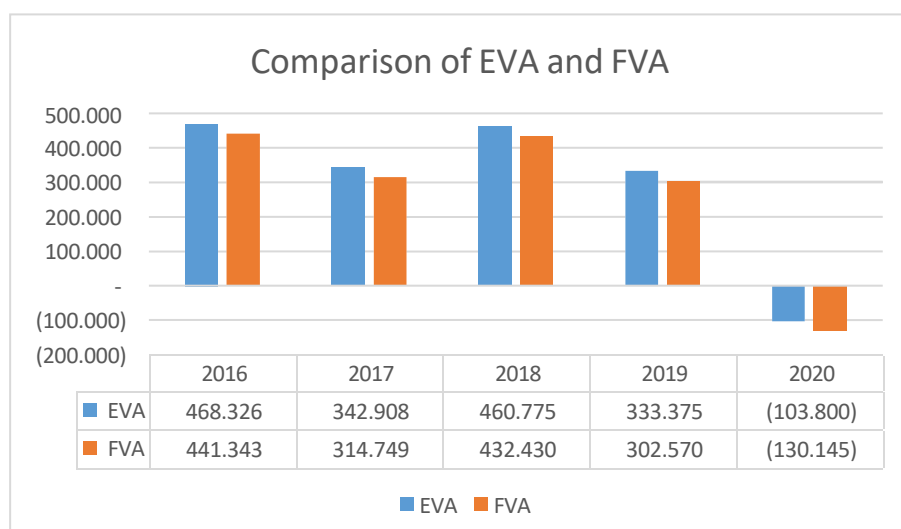|	2016	2017	2018	2019	2020
■ EVA	468.326	342.908	460.775	333.375	(103.800)
■ FVA	441.343	314.749	432.430	302.570	(130.145)

■ EVA   ■ FVA

Figure 3. Comparison Graph of PT Pertamina (Persero) EVA and FVA 2016 – 2020

In Table 3. and Figure 3. it can be seen that the results of EVA and FVA of PT Pertamina (Persero) from 2016 to 2020 have fluctuated increases and decreases with the percentage of increase and decrease comparison that is not much different from each year. As seen in Figure 4.1, it can also be seen that the value of EVA in 2016 – 2017 has decreased. And in 2017 – 2018 there was an increase. However, from 2018 - 2020 it continued to decline. The decrease in EVA in 2016-2017 was 26.78% or from Rp. 468,326 to Rp. 342,908, which was due to a decrease in the value of NOPAT and Capital Charges. And in 2018 the EVA value increased by 34.37% or Rp. 460.775. This is because the NOPAT and CC values are both increasing. In 2019, the EVA value again decreased by 27.65%, or Rp. 333,375. This decrease occurred because the NOPAT value decreased by 3.61% and the CC value increased by 1.30%. Furthermore, in 2020, the EVA value continues to experience a drastic decline where the value is negative or less than zero (EVA < 0) which is 131.14% or (Rp 103,800) which is caused by the NOPAT value which is decreasing by 68.57% and CC also experienced a drastic decrease of 59.45%. This means that in 2020 the NOPAT value cannot cover the CC value because the CC value is greater than the NOPAT value.

As for the FVA value itself, PT Pertamina (Persero) experienced a fluctuating increase and decrease during the 2016-2020 period. The values generated during the five periods are positive, except in 2020 which produces negative values. It can be seen from Figure 4.1 and Table 4.3 that in 2016 the FVA value was IDR 441,343 and decreased in 2017 by 28.68% or IDR 314,749. This was due to a decrease in the value of NOPAT, depreciation, and equivalent depreciation. Then in 2018, the FVA value increased by 37.39%, or Rp. 432,430 which occurred because the value of the FVA components, namely NOPAT, D, and ED, increased. However, in 2019 the company's FVA again decreased by 30.03%, or Rp. 302,570. This is influenced by the decreasing value of NOPAT and ED, while the depreciation value has increased. And in 2020 the FVA value again experienced a significant decline, which was 143.01% or (Rp 130,145). This decrease is supported by the NOPAT value which has decreased every year, followed by the ED and D values which have also decreased. Although from 2016-2019 the FVA value fluctuated up and down, the resulting value was always positive where the value was always greater than zero (FVA > 0) which means the company can create financial added value because the NOPAT value is added to the depreciation value in it. able to cover the value of the ED. Whereas in 2020 the FVA value is negative (FVA < 0) which means the company has not been able to generate financial added value because the value of NOPAT and depreciation have not been able to cover the ED value.

Hypothesis Test
Normality Test

The normality test was conducted to see if the samples used in this study were normally distributed or not. The results of the normality data test can be seen in Table 4. below:

Table 4. Normality Test of EVA and FVA

Tests of Normality

	Y	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
X	EVA	.356	5	.037	.767	5	.043
	FVA	.352	5	.042	.772	5	.047

a. Lilliefors Significance Correction

Source: SPSS 21 output results, data processed (2022)

Table 4. shows that the normality test using either the Kolmogorov-Smirnova method or the Shapiro-Wilk method produces the above significance value is less than $\alpha = 0,05$ or $< 0,05$. This value can be interpreted that the research data that is processed has results that are not normally distributed. The results seen in each of the Sig values (p-value) on EVA and FVA show the appropriate thing, namely both produce significant values $< 0,05$. So with the results of the data that is not normally distributed, the hypothesis test can be continued by using the Mann-Whitney test.

Homogeneity Test

Homogeneity test is conducted to determine whether a data variance from two or more groups is homogeneous (same) or heterogeneous (not the same). Because the data are not normally distributed, the homogeneity test in this study was carried out using the Levene's test or Levene's Test. The following can be seen in Table 5. the results of the homogeneity test.

Table 5. Homogeneity Test of EVA and FVA

Test of Homogeneity of Variances

X

Levene Statistic	df1	df2	Sig.
.000	1	8	.994

Source: SPSS 21 output results, data processed (2022)

From Table 5. it can be seen that the homogeneity test results show that the significance value is $0,994 > 0,05$. This shows that $p > 0,05$, so it can be interpreted that the data from the EVA and FVA calculations tested have a homogeneous variance. If the test results are homogeneous, then the second step, namely the homogeneity test of the data has been met and the analysis of the Mann-Whitney test can be continued.

Mann Whitney Test

The Mann-Whitney test (U-Test) was used to analyze whether or not there was a difference between EVA and FVA as a means of measuring financial resilience. The results obtained from conducting these tests can be seen in Table 6:

Table 6. Mann-Whitney Test Statistics
Test Statistics[a]

	X
Mann-Whitney U	8.000
Wilcoxon W	23.000
Z	-.940
Asymp. Sig. (2-tailed)	.347
Exact Sig. [2*(1-tailed Sig.)]	.421[b]

a. Grouping Variable: Y
b. Not corrected for ties.

Source: SPSS 21 output results, data processed (2022)

In Table 6. it can be seen that the U value obtained is 8 and the W value is 23. When converted to a Z value, the value is -.940. And for the value of Sig atau P *Value* of 0,347. This means that the value of Sig. or P *value* (2-*tailed*) which is 0.347 greater than 0.05 or (0,347 > 0,05) so it can be concluded that H0 is accepted and H1 is rejected where the content of H0 is that there is no difference in financial resilience using EVA and FVA.

Discussion of Research Findings
Calculation of Financial Resilience Using EVA and FVA Methods

Based on the results of research at PT Pertamina (Persero), namely the EVA method during 2016-2019, it shows that although the EVA value increases and decreases, the resulting EVA value is positive, where the EVA value is greater than zero (EVA > 0). This means that the company can create economic added value because the profits owned by the company can cover the capital costs incurred. And in 2020 PT Pertamina (Persero) produced a negative EVA value, which means the company has not been able to fulfill the wishes of the funders (shareholders and investors) in creating economic added value because operating profit after tax (NOPAT) has not been able to cover the cost of capital. issued by the company. The decrease from NOPAT was due to a decrease in operating profit before taxes and taxes. From the results of the EVA calculation, it is known that there is an increase in Invested Capital every year and WACC has increased and decreased, this must be considered by the company because if the IC and WACC values are getting bigger it will affect the EVA value which makes its value decrease, and if the IC value is getting bigger, it will affect the EVA value which makes its value decrease, and if the IC value is and the WACC is small, the EVA value will increase.

Meanwhile, by applying the FVA method, PT Pertamina (Persero) also experienced an increase and decrease the same as the EVA value. Where in 2016-2019 the FVA value produces a positive value or greater than zero (FVA > 0). This is indicated by the value of net cash flow (NOPAT + *Depreciation*) resulting in a value greater than the value of Equivalent Depreciation so that it can be said that the company can create financial added value because the company's net profit can cover the value (ED - D) as a contribution to the company's fixed assets and financing the consequences. However, in 2020 the company is not able to

create added financial value because the resulting FVA value is negative or smaller than zero (FVA < 0). This is because (NOPAT + D) is unable to cover the value of (ED – D).

From the discussion above, it can be concluded that the company lacks good financial resilience because in 2020 the company is less able to adapt to the Covid-19 situation. It is proven that in 2020, the company's EVA and FVA values gave a negative value compared to previous years, namely in 2016-2019 before the Covid-19 outbreak occurred. This means that in that year, the company was less able to adjust and adapt to the covid-19 outbreak that occurred so the company's profits from its income and wealth were less able to cover the costs incurred. And also in that year, companies were less able to have absorptive power, namely utilizing financial information and managing funding sources to cover costs incurred and generate profits from the capital invested by the funders. Because the company is less adaptable and absorptive, the company is also less able to transform the financial shocks that occurred that year. Therefore, companies need to be wiser in managing their financial resources and funding, especially on the cost of capital and the use of assets. Because according to the OECD (2019), companies that have good financial resilience are companies that can control funding sources and can cover the costs incurred.

Differences between EVA and FVA as a Measuring Tool for Financial Resilience

It can be seen that the results of measuring financial resilience using the EVA and FVA methods experienced a relatively similar increase and decrease, namely, in 2016 and 2018 the values of the two methods both increased, while in 2017, 2019, and 2020 the values of EVA and FVA has decreased where the results are still positive except in 2020 the resulting value is negative. The high FVA value occurs because of the profit from fixed assets which is a factor in adding assets to the depreciation category, meaning that the higher the company's depreciation will cause the FVA value to also increase. While the EVA calculation does not include the value of fixed assets, because EVA only measures the value of net operating profit after tax for additional capital and covers the capital that has been used. Therefore, companies can use EVA and FVA as a means of measuring the company's financial resilience because based on the results of the Mann-Whitney test (U-Test) in Table 4.6, it has a significant value of 0.347 greater than 0.05. This shows that all independent variables, namely Economic Value Added (EVA) and Financial Value Added (FVA) do not have a joint effect on financial resilience. So it can be interpreted that both the EVA and FVA methods can be applied at PT Pertamina (Persero) as a measuring tool for assessing financial resilience.

CONCLUSION

The findings in this study have theoretical implications that EVA and FVA values at PT Pertamina (Persero) for the 2016-2019 period produce positive values (EVA, FVA > 0), so it can be said that during that period the company was able to create economic and financial added value. While for the 2020 period,

EVA and FVA both provide negative values (EVA, FVA < 0) which means the company has not been able to create added value for the company and its funders. This is because there is no significant difference between EVA and FVA as a measure of financial resilience. In the absence of differences between the two methods, the company can use one of the two methods or both. Because if the higher the acquisition value of EVA and FVA, the better the company will maintain its finances so that the company can increase the trust of funders in investing their capital by increasing their profits and covering the costs incurred. Based on the analysis of the data that has been obtained, the researchers made the following decisions:

1. The measurement of the financial resilience of PT Pertamina (Persero) in 2016-2020 using the EVA method is on average in good condition. This is evidenced where in 2016-2019 the EVA value is positive even though it fluctuates every year, meaning that the company can create economic added value because NOPAT can cover the cost of capital. However, in 2020, EVA is negative, meaning that the company is not able to create added economic value because the NOPAT value cannot cover the company's cost of capital.

2. The results of the FVA of PT Pertamina (Persero) in 2016-2020 on average can be said that the company has good financial resilience because it can create financial added value for the company. This is supported by the last four years, 2016-2019, where the FVA value is positive, which means that the company can create added financial value because even though the NOPAT and depreciation values have fluctuated, they can still cover the value of equivalent depreciation (ED). And in 2020 the negative FVA value means that the company has not been able to create added financial value for the company and funders because the value of depreciation and NOPAT has not been able to cover the ED value.

3. PT Pertamina (Persero) lacks good financial resilience because in 2020 when the Covid-19 outbreak occurred, the company was less able to adapt. It is proven that in 2020 the company's EVA and FVA are negative compared to previous years. And also companies are less able to utilize financial information and manage their funding sources to cover the costs incurred and generate profits from the capital invested by the financiers. Therefore, the company is also said to be less able to transform towards the financial shocks that occurred that year.

4. From the Mann-Whitney test (U-Test) conducted, it is concluded that there is no significant difference between the results of the EVA and FVA comparison analysis as a measuring tool for assessing financial resilience at PT Pertamina (Persero) for the 2016-2020 period. This can be seen from the results of the Mann-Whitney test (U-Test) where the Sig or P-Value is greater than the probability value.

The advice that can be given to investors is to first look at the measurement of the company's financial resilience using EVA and FVA before investing in a company so that the use of funds that have been invested can provide benefits.

It is recommended for companies to implement financial resilience measurements using EVA and FVA methods so that companies can maintain their finances while still paying attention and doing a good management of the NOPAT value and the

existence of company assets which can later create an increase in income and wealth for the company itself. For further research, it is recommended to use research objects from more than one company and can add other value-added methods to compare the financial resilience of these companies and get better results than this study.

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