

## Financial Performance Measurement Using the Value Added Method to Determine the Effect on Stock Prices

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### ARTICLE INFO

#### Article history:

Received 08 August 2024

Received in rev. form 07 Sept. 2024

Accepted 08 Sept. 2024

#### Keywords:

Value Added, Stock Prices, Financial Performance

#### JEL Classification:

O15, E41, L4

### ABSTRACT

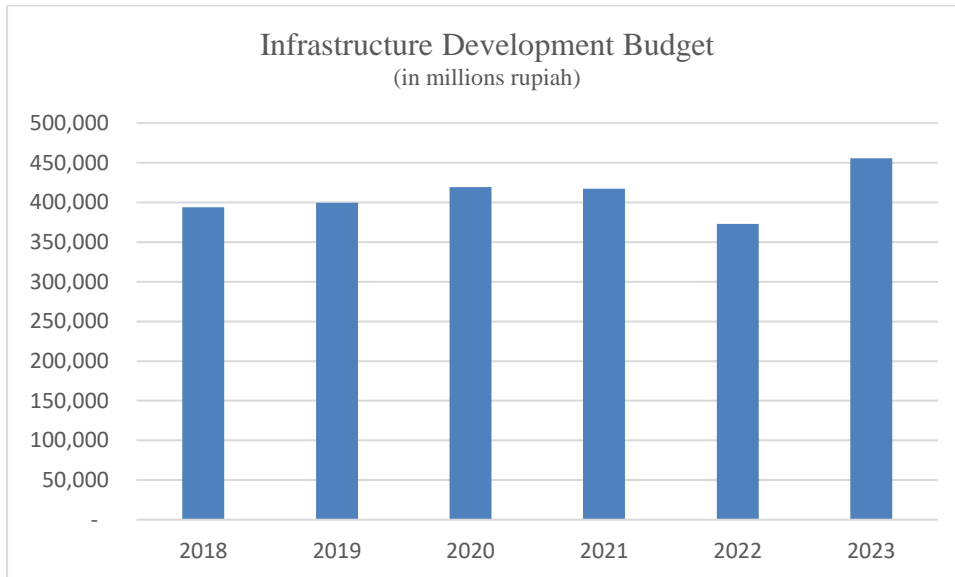
One of the Indonesian government's policies since 2015 has been to increase development through its developed infrastructure, by increasing its budget for this sector from year to year. However, companies listed in the engineering and construction subsector on the Indonesian Stock Exchange, both state-owned enterprises and private companies, experienced losses so it could be said that their financial performance was poor. This study intends to evaluate the financial performance engineering and construction sub-sector companies using the Economic Value Added (EVA), Market Value Added (MVA), Refined Economic Value Added (REVA), Financial Value Added (FVA), and Shareholder Value Added (SVA) in 2018 – 2023 and determine their influence on stock prices. This type of research is quantitative descriptive research using E-Views 12 with a population 26 companies and a sample size 16 companies. Based on the results the calculations and analysis, it stated that EVA, MVA, REVA, FVA, SVA and stock prices engineering and construction companies, both state-owned and private, during the 2018 - 2023 period obtained an average of negative amounts. The research results show that the financial performance variables using value added have an influence on stock prices with influence of 74.57% while the rest is influenced by other variables not examined in this research. Partially only MVA and SVA have an influence on stock prices because based on the probability test using E-Views 12 it appears that only MVA and SVA produce results below the alpha. The suggestion for this research is that company management should pay attention to the company's financial performance, especially the MVA and SVA variables and further researcher can make comparative research between all value-added variables.

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## Introduction

The Indonesian government is trying to improvement the welfare of its people, one of which is by improving the quality of infrastructure through developments carried out in various regions. Since 2015, infrastructure development has been a priority program for the Indonesian government through the diversion of subsidy spending to productive spending.

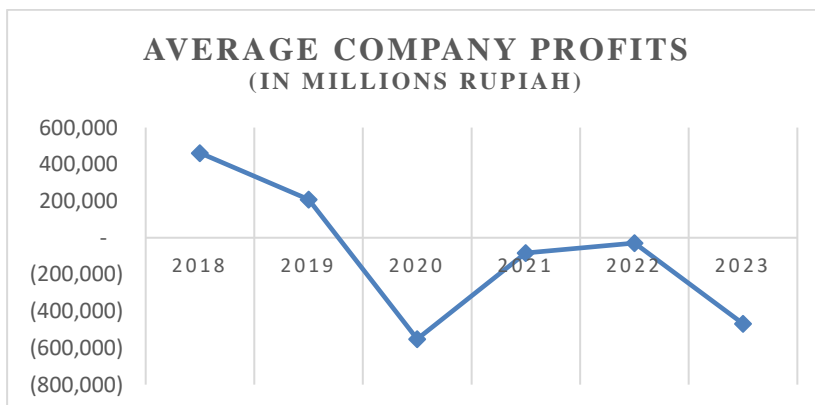
The infrastructure development plan will prioritize three focuses, specifically Infrastructure for Equitable Development, Infrastructure for Economic Development, and Infrastructure for Urban Development. The existence government programs increase development has made industries operating in the engineering and construction sector as supporting industries in infrastructure development experience rapid development. Based on the Draft State Revenue and Expenditure Budget, the government has set an infrastructure budget for 2018 IDR. 394.000 million, in 2019 it increased by 1.45% to IDR. 399.700 million. In 2020, it experienced an increase of up to 4.88% to IDR. 419.200 million. Then, in 2021 the infrastructure budget decreased by 0.48% to IDR. 417.200 million. In 2022, there will be a significant decrease in the infrastructure budget by 10.64% to IDR. 372.800 million. Indonesian government in 2023 increase its budget by spend IDR. 455.800 million or increase 22.26% from 2022 to 2023 for infrastructure sector. An illustration of changes to the determination of the infrastructure budget based on the Draft State Revenue and Expenditure Budget can see in the following graph of the infrastructure development budget.



**Figure 1:** Infrastructure Development Budget  
Source: data.pu.go.id

To achieve successful use of the infrastructure budget, the government is collaborating with private engineering and construction companies in Indonesia. Engineering and construction companies in Indonesia are state-owned enterprises (SOEs) and also private companies. Based on data obtained from the Indonesian Stock Exchange, currently there are 26 engineering and construction companies listed on the Indonesian Stock Exchange, both state-owned and private, of which 9 companies only started their IPO after 2018.

Since the year 2015, advancements within the infrastructure domain have emerged as a principal agenda for the Indonesian government. This initiative is designed to promote a more equitable distribution of development throughout the various regions of Indonesia. An effective strategy to enhance infrastructure development involves augmenting the financial allocations derived from the formulation of the National Budget. These fiscal resources consistently exhibit an upward trajectory year after year. This trend is illustrated in Figure 1, which depicts the persistent increase in government allocations for infrastructure projects. The execution of this infrastructure development is entrusted to both state-owned enterprises and private sector entities. It is anticipated that the escalation of activities within the infrastructure sector will yield enhanced profitability for both state-owned and private corporations in Indonesia; however, contrary to this expectation, there has been a notable decline in the profits of engineering and construction firms, as evidenced in Figure 2. This phenomenon represents a situation that diverges from the anticipations of the corporation, wherein an escalation in infrastructure development correlates inversely with the profitability of engineering and construction firms. One important accomplishment resulting from the effective allocation of the infrastructure budget, as outlined in the Draft State Revenue and Expenditure Budget, is the annual financial gains realized by engineering and construction firms. According to data from the Central Statistics Agency, the engineering and construction sub-sector continues to experience contraction from 2018 to 2023, which can be seen in the graph below the average profit in each company in the engineering and construction sub-sector shows a significant decline in profits in the research period.



**Figure 2:** Average Company Profits in the Engineering and construction Sub Sector  
Source: Data Proceed

The mean revenue in 2018 amounted to IDR 461.757 million, experiencing a reduction in 2019 to IDR 207.973 million. The year 2020 witnessed a substantial downturn, resulting in a net loss of IDR 551.746 million. In 2021, the government will intensify its

focus on infrastructure development, a sector previously impacted by the Covid-19 pandemic. Consequently, it is anticipated that the Indonesian construction industry will gradually return to its usual growth line. As a result, 2021 and 2022 are composed for improvement, although still projecting a net loss of IDR 83.799 million and IDR 28.923 million. By 2023, the company's profits declined to a negative IDR 468.562 million, indicating a deepening financial setback in this sector.

The realm of business, particularly within the field of engineering and construction, is currently undergoing advancement among a progressively complex and unpredictable economic environment. This is combined with escalating levels of business rivalry, underscoring the importance of evaluating the financial landscape within every organization. Every company has financial performance indicators that are different from other companies. Financial performance measurement can be done by comparing a company with other companies as competitors in a similar field. This will be useful for investors to know the condition of certain companies in order to see which ones are better and more profitable with by comparing the companies' financial performance. The higher the company's performance, the higher the operating profit, as well as the greater the profits that investors or shareholders will get and the greater the stock price.

Both internal and external factors can have an impact on changes in stock prices that happen in the capital market. The unfavorable financial circumstances and the company's stock price decline or stagnation indicate the company's failure (Ichsan et al., 2020). Financial performance is an effort made by a company to measure and assess every success achieved in generating profits, the purpose is the company can see prospects, growth and development potential company in the future. In determining the financial performance of a company, it is necessary to fulfill a financial performance analysis, which is a process of critically reviewing financial performance, which includes reviewing financial data, calculations, measurements, interpretations, and providing solutions to the company's financial problems in a certain period (Safira & Usman, 2021). Analyzing financial performance can be done in many ways, for example financial ratio analysis. However, this measurement is not able to provide an overall picture of financial performance (Indra et al., 2022). Financial performance measurement is carried out based on added value which is used as a complement to the limitations of financial performance analysis based on ratios. These limitations include ignoring capital costs, fixed asset contributions, and market capitalization value of company shares (Midfi et al., 2021).

The concept of financial performance encompasses the evaluation of a corporation's financial outcomes over a specified duration, which includes the processes of financial collection and allocation, assessed through metrics such as capital adequacy, liquidity, solvency, efficiency, leverage, and profitability (Fatihudin et al., 2018). By conducting an analysis of financial performance grounded in value creation, stakeholders can attain a more nuanced understanding of the organization's capacity to manage fiscal resources and realize its objectives, in conjunction with the management's obligation to perpetually enhance corporate value. When emphasizing the maximization of stock price, one may infer that an elevation in stock price correlates with superior financial management performance. Assessing a corporation's overall performance proves significantly more complex than merely scrutinizing its stock price, and appraising the performance of individual managers introduces an additional layer of complexity. A variety of financial ratios are conventionally employed to appraise a corporation's performance. These indicators encompass return on investment, market-to-book ratios (as articulated by Tobin's q), and value added.

The notions of economic profit and market value added are particularly compelling as they furnish performance metrics that align with established financial theories. This phenomenon can be attributed to several factors. Firstly, the determination of economic profit necessitates numerous modifications to accounting figures to eliminate distortions engendered by accounting practices. Secondly, the calculation of economic profit is highly responsive to the estimated cost of capital; minor fluctuations in this cost can lead to significant variations in the computed economic profit. Finally, discrepancies may emerge between economic profit and market value added (Peterson, 1996).

Along with the development of financial management studies, currently there are various concepts of value added with varying formulations as concept developed, namely Economic Value Added (EVA), Market Value Added (MVA), Refined Economic Value Added (REVA), Financial Value Added (FVA) and Shareholder Value Added (SVA). EVA is a financial performance measurement based on the book value of profits to see the excess return on capital invested in funding company assets. MVA is a measurement of financial performance in creating shareholder wealth by comparing market value and book value. REVA is a development of the EVA concept by involving market value. FVA is a measurement of financial performance by considering the contribution of fixed assets and including the element of depreciation. SVA is a financial performance measurement involving shareholders (Irfani, 2020). These five concepts have their own advantages based on the added value focus which is calculated based on various different financial components, so that they can be adapted to the needs of stakeholders and related parties.

One of the company's stakeholders is investors who will monitor the company's condition through share price movements. Stock buying and selling activities in the capital market have an impact on changes in stock prices. Share prices will always fluctuate from time to time, influenced by the forces of supply and demand in the capital market. If the demand for a higher number of shares, then the share price will rise. On the other hand, if the number of shares is higher but demand is lower, the share price will fall. Share price changes in capital market can be influenced by various factors, such as internal factors and external factors. Internal factors are things that influence share prices that originate from conditions within the company and can be controlled, while external factors are things that influence share prices but originate from conditions outside the company and cannot be controlled by the company. The company's financial performance using the value added approach is one of the internal factors determining share prices.

In prior investigations, there existed discrepancies in the findings of the research. Value added, which serves as a quantitative instrument for assessing financial performance, has been observed to yield varying research outcomes contingent upon the chosen temporal frameworks and sectors. An analysis conducted by (Meriyani & Novida, 2023) posits that EVA, MVA, and REVA exert an influence on stock prices as well as stock returns. Conversely, a study by (Nurainun Bangun & Khairina Natsir, 2023) contends

that EVA does not exert any significant impact on stock prices. Similarly, an examination by (Julisty & Utara, 2020) asserted that MVA lacks any substantial effect on stock prices.

Based on the research background stated above, the researcher raised up the research title "Financial Performance Measurement Using the Value Added Method to Determine the Effect on Stock Prices"

In accordance with the preceding background exposition, the primary issue that constitutes the formulation of this research inquiry is the extent to which financial performance, as evaluated through the value-added method, influences stock prices. The value-added metrics employed in this investigation encompass EVA, MVA, REVA, FVA, and SVA.

## **Literature Review**

### **Theoretical and Conceptual Background**

Financial performance pertains to an evaluation that delineates the outcomes or accomplishments attained by corporate management with regards to the financial status of the organization within a specific timeframe. The indication of financial performance serves to ascertain if the company has effectively reached the predetermined objectives in the administration of resources and properties (Kasmir, 2018). The correlation between financial performance and the advancement of the company is notable, as the financial domain can function as a yardstick for the level of prosperity of the organization. The utilization of financial performance scrutiny through value addition aims to address the constraints of financial performance evaluation through financial metrics. An adjunct to the financial performance evaluation through financial ratios is the consideration of capital costs, fixed asset contributions, and the market capitalization value of the company. Within this study, the researcher employs an appraisal grounded on value enhancement encompassing the Economic Value Added (EVA), Market Value Added (MVA), Refined Economic Value Added (REVA), Financial Value Added (FVA), and Shareholder Value Added (SVA) to gauge the financial performance of the corporation.

The proposition of EVA was initially introduced by G. Bennett Stewart & Joel M. Stern. EVA is delineated as a financial metric grounded on the book value of earnings, portraying the surplus return on capital deployed to finance company assets (residual income) (Stern et al., 1996). The anticipation is for EVA to exhibit positivity due to the augmented economic value for the company or the surplus in book value subsequent to fulfilling all commitments to fund owners (shareholders and creditors).

The MVA concept was also articulated by G. Bennett Stewart & Joel M. Stern. The MVA concept, denoted as market added value, functions as a yardstick for evaluating financial performance in enriching shareholder wealth through juxtaposing market value against book value. (Stewart, 2019). The assumption is for MVA to manifest positivity as the management has effectively enhanced market value by escalating the market capitalization of shares or, in essence, the company can vend shares at a premium price in the market.

REVA, or economic added value, represents a refinement of the EVA concept with the objective of enhancing it, as REVA is computed based on market value and is more adaptable to macroeconomic circumstances, markets, and financial hazards on debt. This notion was initially disclosed by Bacidore, Boquist, Milbourn, and Thakor in 1997 who affirmed that the REVA concept surpassed the EVA concept. (Ferguson & Leistikow, 1998). The projection is for MVA to showcase positivity owing to the supplementary economic value for the company or the surplus in market value after fulfilling all obligations to fund owners (shareholders and creditors).

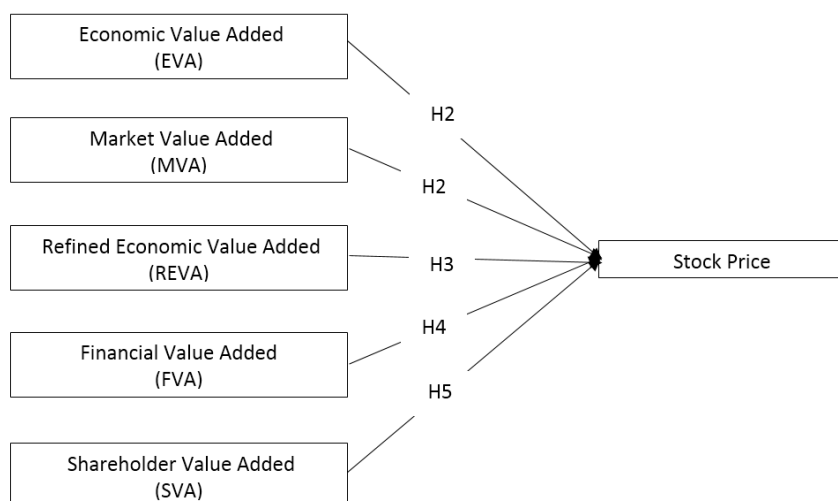
The FVA concept constitutes another advancement of the EVA concept proposed by Rodriguez Sandias, Fernandez A. S. Lopez, and Otero L. Gonzalez in 2002. FVA, or financial added value, is an additional value notion that acknowledges the role of fixed assets in yielding operating profit post-tax by integrating the component of depreciation. (Rodríguez Sandías et al., 2005). The projection is for MVA to reveal positivity as the management has generated added financial value for the company or there exists a surplus value when the company's net profit and depreciation can meet expenses equivalent to depreciation.

The introduction of the SVA concept was initiated by V. Berzakova, V. Bartosova, and E. Kicova in 2015. SVA is characterized as the augmented shareholder value emerging from the surplus disparity between the market value of ordinary shares in the current period and the market value of shares in the preceding period (Berzakova et al., 2015). The expectation is for MVA to denote positivity due to the substantial enhancement in the prosperity of the company's ordinary shareholders from the previous period.

The valuation of a company's performance can be gauged through the observation of its stock price, indicating the effectiveness of its management in generating profits, thereby offering contentment to rational investors. A relatively substantial market value can lead to advantages, such as capital appreciation and an enhanced corporate reputation, facilitating the process of external fundraising for the management. The stock price serves as a metric for evaluating a firm's achievements, influenced by the dynamics of supply and demand in the stock market, reflecting investor expectations towards the company's future trajectory and portraying the outlook of their financial venture. The stock price symbolizes the definitive monetary worth of an individual's or entity's stake or interest in a corporation or a limited liability entity, a concept consistently applied within the financial landscape of the Indonesian capital market (Hertina et al., 2019).

**Empirical Review and Hypothesis Development**

The research hypothesis in this study is as follows:



**Figure 3:** Research Hypothesis

Stock prices in the stock market are subject to various factors, encompassing both quantitative and qualitative aspects, with one of these being the impact of investor behavior. The preference of investors often leans towards firms exhibiting significant stability, as these entities offer a level of assurance regarding consistent returns to their shareholders. Firms demonstrating a pronounced added value are likely to capture heightened interest from investors due to their potential to enhance the overall worth of the organization. The method known as Economic Value Added (EVA) is employed for assessing whether a company has generated additional value, thereby potentially leading to increased wealth for shareholders. It involves determining the economic value added by deducting post-tax operating profit from the yearly total capital cost.

H1: Economic Value Added (EVA) Effects the Stock Prices of the Engineering and construction Sub-Sector Listed on the Indonesian Stock Exchange

Market Value Added (MVA) serves as an indicator of a company's market performance. This particular metric is able to delineate the company's capacity to support the capital provided by investors, as it encompasses share prices as its primary element. The dynamics of stock prices are a reflection of the level of interaction between buyers and sellers. Moreover, the revelation of fresh information pertaining to the company has the potential to instigate alterations in demand and supply, consequently leading to fluctuations in market values. Among the data that can trigger such changes is information concerning the company's performance. This influence on performance is closely tied to the company's operations or activities in terms of revenue generation.

H2: Market Value Added (MVA) Effects Stock Prices in the Engineering and construction Sub-Sector Listed on the Indonesian Stock Exchange

Refined Economic Value Added (REVA) is a technique utilized for evaluating company performance, particularly concerning share prices on the stock market. Enhanced returns from the company will impact share prices positively, as investors tend to favor shares with higher returns, leading to increased investor satisfaction. A rise in the number of investors purchasing these shares will subsequently drive up the company's share price.

H3: Refined Economic Value Added (REVA) Effects Stock Prices in the Engineering and construction Sub-Sector Listed on the Indonesian Stock Exchange

Financial Value Added (FVA) represents the variation between net operating profit after tax (NOPAT) and the adjusted depreciation amount. Positive FVA outcomes suggest that the net profit and depreciation are adequate to cover the adjusted depreciation, enabling the company to enhance the return on invested capital and thereby boost shareholder wealth. This heightened interest from investors should contribute to an increase in share prices.

H4: Financial Value Added (FVA) Effects Stock Prices in the Engineering and construction Sub-Sector Listed on the Indonesian Stock Exchange

Shareholder Value Added (SVA) is a fundamental concept in financial scrutiny and corporate governance that gauges a company's success in generating added value for its shareholders. SVA serves as a tool for evaluating company performance and guiding strategic decision-making. Companies consistently delivering positive added value to shareholders are perceived as more appealing to investors and capable of sustaining long-term growth. Conversely, companies failing to create added value for shareholders may face pressure from both shareholders and the market.

H5: Shareholder Value Added (SVA) Effects the Stock Prices of the Engineering and construction Sub-Sector Listed on the Indonesian Stock Exchange

## Research and Methodology

In this research, the object of research is financial performance using a value added approach, which consists of Economic Value Added (EVA), Market Value Added (MVA), Refined Economic Value Added (REVA), Financial Value Added (FVA), Shareholder Value Added (SVA), and Stock Prices. The subjects of this research are the engineering and construction sub-sectors listed on the Indonesia Stock Exchange starting from 2018 to 2023.

The research population for this study comprised 26 firms. The research sampling was executed utilizing a purposive sampling technique, which involved the selection of samples predicated upon the alignment with specific characteristics and criteria. The criteria or considerations employed in the sampling process include firms operating within the engineering and construction sub-sector that have executed an Initial Public Offering (IPO) subsequent to 2018, along with firms that have consistently disseminated financial reports from 2018 to 2023.

**Table 1:** Sampling Criteria

No	Sampling Criteria	Sample
1	Engineering and Construction sub-sectors Companies listed on the Indonesia Stock Exchange starting from 2018 to 2023	26
2	Engineering and Construction sub-sectors Companies that have not had an IPO (Initial Public Offering) before 2018	(9)
3	Engineering and Construction sub-sectors Companies that do not publish complete financial reports consistently during 2018 – 2023	(1)
Research Sample		16

Based on the sampling criteria, the samples in the research were 16 companies, as follows:

**Table 2:** Research Sample's

No	Company
1	PT. Acset Indonusa, Tbk
2	PT. Adhi Karya (Persero), Tbk
3	PT. Bukaka Teknik Utama, Tbk
4	PT. Nusa Konstruksi Enjiniring, Tbk
5	PT. Indonesia Pondasi Raya, Tbk
6	PT. Jaya Konstruksi ManggalaPratama, Tbk
7	PT. Nusa Raya Cipta, Tbk
8	PT. Paramita Bangun Sarana, Tbk
9	PT. PP Presisi, Tbk
10	PT. PP (Persero), Tbk
11	PT. Surya Semesta Internusa, Tbk
12	PT. Totalindo Eka Persada, Tbk
13	PT. Total Bangun Persada, Tbk
14	PT. Wijaya Karya Bangunan Gedung, Tbk
15	PT. Wijaya Karya (Persero), Tbk
16	PT. Waskita Karya (Persero), Tbk

This research uses two types of variables, independent variables and dependent. The independent variable consists of financial performance ratios using a value added approach comprising of EVA, MVA, REVA, FVA, and SVA. Meanwhile, the dependent variable used in this research is stock price.

This study employs a parametric statistical testing methodology utilizing panel data. The collected data is subsequently processed and analyzed with the aid of E-Views 12 software. The statistical evaluation in this study encompasses the examination of classical assumptions, including normality, multicollinearity, heteroscedasticity, and autocorrelation. Following this, the selection of an appropriate panel data estimation model is conducted, which includes the common effect/ordinary least squares model, fixed effect model, and random effect model. The determination of the most suitable model for the research objectives can be assessed through three analytical tools: the F-test (Chow Test), Hausman Test, and Langrange Multiplier (LM) Test. Once the most appropriate model

is identified, the subsequent phase involves conducting a model coefficient test (F test), regression coefficient test (t test), and the coefficient of determination test.

**Table 3:** Summary of Literature Review

<b>Author (Date)</b>	<b>Subject</b>	<b>Variables</b>	<b>Methods</b>	<b>Findings</b>
(Nurainun Bangun & Khairina Natsir, 2023)	The Effect Of EVA, Leverage, And Liquidity On The Stock Price	EVA, Leverage, Liquidity	Multi model regression	Leverage (DAR) and liquidity (CR) had effect on stock prices, economic-value-added (EVA) had no significant effect on stock prices.
(Handayani, 2023)	Financial Performance EVA, MVA, FVA, SVA method on Stock Price	EVA, MVA, FVA, SVA	Multi model regression	MVA and FVA have effect on Stock Price, EVA and SVA have no effect on Stock Price
(Meriyani & Novida, 2023)	The Effect of EVA, MVA, REVA on Stock Price and Stock Return in Manufacturing Companies	EVA, MVA, REVA	Partial Least Square Path Modeling (PLS-SEM)	EVA, MVA, and REVA have effect on Stock Price and Stock Return
(Susilo et al., 2023)	Stock Return of Manufacturing Companies in Indonesia: Influence Business Strategy, Eva, Managerial ownership and Size	Business Strategy, EVA, Managerial Ownership, Size	Multi model regression	Business strategy and management ownership had impact on stock returns, EVA and size do not affect stock returns.
(Udiyana et al., 2022)	EVA and MVA Implications on Stock Returns	MVA, EVA	Multi model regression	MVA has effect on the stock return, EVA has no on stock returns.
(Angelina & Salim, 2021)	The Effect EVA, Firm Size, DPR, Dan PBV on Stock Price Manufacturing Companies	EVA, Firm Size, DPR, and PBV	Multi model regression	EVA has effect on Stock Price, Firm Size, DPR, and PBV have no effect on Stock Price
(Dian Ratnasari Yahya, 2021)	The Effect EVA and MVA on Stock Price	EVA and MVA	Multi model regression	EVA and MVA have effect on Stock Return
(Ikbal, 2019)	The Effect ROA and EVA on Stock Price Manufacturing Companies	ROA and EVA	Multi model regression	ROA and EVA have no effect on Stock Price
(Utami & Darmawan, 2019)	Effect of DER, ROA, ROE, EPS and MVA on stock prices in Sharia Indonesian stock index	DER, ROA, ROE, EPS and MVA	Multi model regression	EPS and MVA have effect on Stock Price, DER, ROA and ROE have no significant effect on Stock Price
(Agnatia & Amalia, 2018)	EVA and Profitability Ratio on Stock Price	ROA, ROI, NPM, ROE, EVA	Multi model regression	ROA and ROI have effect on stock price, EVA, ROE and NPM have no effect on stock price.
(Julistyoy & Utara, 2020)	The Effect MVA on Stock Price Manufacturing Companies	MVA	Multi model regression	MVA has no effect on stock Price
(Putra & Sibarani, 2020)	The Effect MVA on Stock Price Retail Companies	EVA and MVA	Multi model regression	MVA has effect on the stock price, EVA has no on stock price.

Source: Authors

## Findings and Discussions

### Findings

Table 4: Results

Dependent Variable: STOCK\_PRICE  
 Method: Panel Least Squares  
 Date: 08/06/24 Time: 08:00  
 Sample: 2018 2023  
 Periods included: 6  
 Cross-sections included: 16  
 Total panel (balanced) observations: 96

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	173.2713	61.44602	2.819894	0.0061
EVA	-2.932031	0.000275	-0.106492	0.9155
MVA	1.393465	2.170447	6.420178	0.0000
REVA	-2.645882	8.122923	-0.325730	0.7455
FVA	-1.263461	1.223778	-1.032426	0.3052
SVA	-5.302963	1.790745	-2.961316	0.0041

#### Effects Specification

##### Cross-section fixed (dummy variables)

R-squared	0.799285	Mean dependent var	555.8542
Adjusted R-squared	0.745761	S.D. dependent var	514.9465
S.E. of regression	259.6472	Akaike info criterion	14.14716
Sum squared resid	5056249.	Schwarz criterion	14.70812
Log likelihood	-658.0639	Hannan-Quinn criter.	14.37391
F-statistic	14.93317	Durbin-Watson stat	0.920356
Prob(F-statistic)	0.000000		

Source: E-Views 12 data proceed

The F-test or model feasibility test is to identify the regression model that is formed, whether the independent variables have an influence on the dependent variable, or in other words to find out whether the dependent variable, which is stock price, has a linear effect on the variables EVA (X1), MVA (X2), REVA (X3), FVA (X4), AND SVA (X5). Based on table above, the F statistical probability value is 0.000002, indicating it is smaller than alpha ( $\alpha$ ) 0.05 or 5%, thus it can be concluded that the independent variables have a linear relationship with the dependent variable, namely stock prices. In other words, the selected model is suitable for interpreting the influence of EVA (X1), MVA (X2), REVA (X3), FVA (X4), and SVA (X5) on share prices (Y) with a large influence of 74.57% while the rest is influenced by other variables not examined in this research or model research is accepted.

The t-test or hypothesis test aims to test whether the regression coefficients/parameters are significant or in other words whether the independent variable has an effect on the dependent variable. By using the results of the output table above, the following panel data regression model is obtained:

$$Y = 173.2713 - 2.932031X1 + 1.393465X2 - 2.645882X3 - 1.263461X4 - 5.302963X5 + e$$

Where:

- Y = Stock Price
- X1 = EVA
- X2 = MVA
- X3 = REVA
- X4 = FVA
- X5 = SVA

1. The value of 173.2713 can be interpreted as if all independent variables have a value of 0, then the share price will be worth 173.2713

2. Probability X2, and X5 has a value <0.05 so that H0 is rejected and Ha is accepted or it can be said that these two variables have a significant influence on changes in stock prices. Where MVA have a positive influence on stock prices, which means that increasing



this variable will increase share prices, conversely SVA has a negative influence on share prices, meaning that increasing SVA will reduce share prices.

3. Meanwhile, X1, X3 and X4 has a value  $> 0.05$  so that  $H_0$  is accepted and  $H_a$  is rejected, which means that these three variables have an insignificant effect (often said it has no significant effect) on stock prices. So changes in EVA, REVA and FVA values will not have an influence on changes in share prices.

## **Discussion**

### **The Effect of EVA on Stock Prices**

Economic Value Added (EVA) is a financial performance measurement based on the book value of profits, which reflects the excess return on capital invested to fund company assets (residual income). The research results show that EVA has no effect on share prices, because based on table 4, it shows that the probability test shows a result of 0.9155 which is greater than the alpha set that is 0.05. This results happens because companies in the engineering and construction sub-sector experience an increase or decrease in the value of profit before tax (EBIT) but it has no direct impact on the value of the company's operating profit after tax (NOPAT). This shows that the added economic value for the company will have no impact on share prices. The results of this study are according to the results of (Agnatia & Amalia, 2018; Handayani, 2023; Ikbal, 2019; Nurainun Bangun & Khairina Natsir, 2023; Putra & Sibarani, 2020; Susilo et al., 2023; Udiyana et al., 2022) research and are not according to the results of research from (Angelina & Salim, 2021; Dian Ratnasari Yahya, 2021; Meriyani & Novida, 2023).

### **The Effect of MVA on Stock Prices**

Market Value Added (MVA) is a tool for measuring financial performance in creating shareholder wealth by comparing market value with book value. According to the data presented in Table 4, the probability test yields a result of 0.0000, which is less than the established alpha level of 0.05. The correlation between market value added (MVA) and share prices is positively correlated, indicating that an increase in the MVA variable will correspondingly lead to an increase in share prices. This is because market perceptions, namely investors, regarding the management capabilities of engineering and construction sub-sector companies experience differences. This MVA value is an indication of management's ability to optimize the assets invested by investors. The MVA value is also caused by the company's market value, which is reflected in the share price and number of outstanding shares, which increase and decrease every year. Financial performance, which is reflected through fluctuations in the MVA value, shows that not all companies in the engineering and construction sub-sector are able to create wealth for their shareholders which will have an influence on the company's share price. Furthermore, an enhancement in the company's market value will concomitantly elevate shareholder wealth. Consequently, for investors, a company operating within the engineering and construction subsector is likely to augment the wealth of its shareholders. If the primary objective of corporate management is to enhance shareholder wealth, it is imperative that management effectively increases the company's overall value. The results of this study are consistent with the results of research (Dian Ratnasari Yahya, 2021; Handayani, 2023; Meriyani & Novida, 2023; Putra & Sibarani, 2020; Utami & Darmawan, 2019) but this result are not consistent with the results of research from (Julistyoyo & Utara, 2020).

### **The Effect of REVA on Stock Prices**

Refined Economic Value Added (REVA) is a development of the EVA concept with the aim of perfecting it, because REVA is calculated based on market value. The findings of the research indicate that there exists no significant correlation between REVA and stock prices, as evidenced by the data presented in Table 4, which indicates that the probability test yielded a result of 0.7455, exceeding the established alpha threshold of 0.05. Even though REVA is a development of EVA, in this research the results provide differences in that EVA has an effect on stock prices while REVA has no effect on stock prices. In REVA, a market value is added which is expected to be more adaptive to macroeconomic conditions, markets and financial risks on debt. However, it turns out that REVA, which added market value to its calculations, was unable to have an influence on share prices. The absence of influence between financial performance using the REVA method shows that companies in the engineering and construction sub-sector are unable to create added economic value for their companies and ultimately have an influence on share prices. The results of this study are along the lines of (Meriyani & Novida, 2023).

### **The Effect of FVA on Stock Prices**

Financial Value Added (FVA) is an added value concept that considers the contribution of fixed assets in generating operating profit after tax by including the element of depreciation. Based on the findings of the research, it was determined that the FVA outcomes exerted no influence on stock prices, as evidenced by Table 4, which indicates that the probability test yielded a result of 0.3052, surpassing the alpha level established at 0.05. Based on the results of the Kruskal-Wallis test, it shows that there is no difference in financial performance between engineering and construction sub-sector companies using the FVA method. This happens because state-owned enterprises in the engineering and construction sub-sector experience negative depreciation values every year which is caused by increases or decreases in the value of profit before tax (EBIT) and has a direct impact on the value of the company's operating profit after tax (NOPAT). Apart from that, it is also influenced by the Depreciation and Equivalent Depreciation values. Equivalent Depreciation is reflected in the value of the weighted average cost of capital and the value of the cost of capital invested fluctuates every year. The hampered business movement in the engineering and construction sector, which is dominated by fixed assets, apparently has no influence on the company's share price. Therefore, there will be no influence of the FVA value on share prices, indicating that companies in the engineering and construction sub-sector do not create added financial value for their companies and have no impact on share prices. The results of this study are not in line with research (Handayani, 2023)

### **The Effect of SVA on Stock Prices**

Shareholder Value Added (SVA) is additional value for shareholders whose source comes from the difference in value added from the market price of ordinary shares. The empirical findings indicate that there exists a significant correlation between Shareholder

Value Added (SVA) and stock prices, as evidenced by the data presented in Table 4, which reveals a probability value of 0.0041, a figure lower than the predetermined alpha level of 0.05. The nature of the association between SVA and stock prices is contrary; thus, it can be deduced that an elevation in the SVA variable correlates with a reduction in the stock price. Corporate governance endeavors to enhance shareholder value through a return on equity that surpasses the associated maintenance costs. The expenditures related to the maintenance of this equity are classified as funding costs. An escalation in these funding costs precipitates a decline in the company's stock price. This means that adding value for shareholders has an impact on the company's share price. This is because shareholders will pay attention to share price movements, which will determine whether the shares owned by investors will be sold or retained. The results of this study are not in line with the results of the (Handayani, 2023) research.

## Conclusions

The research results show that EVA, MVA, REVA, FVA and SVA have an influence on the share prices of the engineering and construction sectors listed on the Indonesia Stock Exchange for the 2018-2023 period with a large influence of 74.57%. Partially, only the MVA and SVA variables have an influence on share prices, while EVA, REVA and FVA have no influence on stock prices. The suggestion for this research is that prospective investors when investing in engineering and construction companies pay attention to the company's MVA and SVA because this has an influence on share prices. The suggestion for companies is that management maintains its financial performance, which consists of MVA and SVA. The recommendation for policy makers is to reevaluate the circumstances prevalent in engineering and construction enterprises, as despite the augmentation of budgets, the fiscal returns of these companies have, in fact, diminished. Suggestions for other researchers are to add other variables that have an influence on share prices, both company ratios that are internal company factors and Indonesian macroeconomics which are company external factors and further researcher can make comparative research between all value-added variables.

## Acknowledgement

**Author Contributions:** Conceptualization, S.I., L.N.P., D.S.; Methodology, S.I., L.N.P.; Data Collection, S.I., L.N.P.; Formal Analysis, S.I., L.N.P.; Writing—Original Draft Preparation, S.I.; Writing—Review and Editing, S.I., L.N.P., D.S. All authors have read and agreed to the published final version of the manuscript.

**Institutional Review Board Statement:** Ethical review and approval were waived for this study, due to that the research does not deal with vulnerable groups or sensitive issues.

**Data Availability Statement:** The data presented in this study are available on request from the corresponding author. The data are not publicly available due to privacy.

**Conflicts of Interest:** The authors declare no conflict of interest.

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