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# The Future of Valuation: Combining ESG impact with EVA Methodology for Corporate's Value

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***Abstract :*** The evolution of ESG as a key practice in corporate investment and management can be integrated into the EVA methodology to support corporate valuation over the long-term. This integration is necessary because the debate about ESG flaws is endless and its measurement is difficult. Spending resources searching for the truth about rankings and ESG is unwise. On the other hand, companies that implement ESG tend to have a good reputation and solid long-term performance. Transparency and social responsibility make the integration of ESG and EVA even more relevant. This article does not intend to simplify the complicated issues related to ESG and its effect on company value, but rather to show that synergies between non-economic and economic factors are inevitable. Modifying the EVA methodology with ESG factors can reduce capital costs, increase efficiency, and strengthen non-operating asset management so it is very important to measure the value of the company holistically.

***Keywords: Financial performance, Economic value added, ESG, Corporate value***

## INTRODUCTION

Edmans wrote about the end of ESG (Environmental, Social, and Governance); not in the context of death but evolution. "ESG evolution" refers to the change in the perception and application of Environmental, Social, and Governance (ESG) factors from being something considered a specialized subfield to becoming a mainstream practice in the world of investment and corporate management. This evolution highlights that ESG factors are now considered critical in the long-term value for companies, so all executives and investors are expected to take them seriously, not just those who have sustainability in their roles [1]. Thus, the evolution of ESG emphasizes that considering long-term factors when assessing the value of a corporate is no longer about ESG investing, but rather an integral part of the investment process itself.

In light of this evolution, ESG should be integrated into the EVA methodology to determine corporate value. Several reasons underlie this: first, the debate about ESG drawbacks can be endless. Quantifying ESG aspects is not an easy task. If implemented, some indicators will have significant limitations [2] which leads to differences in ESG ratings among assessment agencies even quantitative ESG disclosures exacerbate ratings disagreements among them [3]. Therefore, such debates should end. We can trust ESG values to trusted independent institutions. Second, companies that implement ESG aspects find themselves to have a good reputation and achieve long-term performance [4] and in the end this drives the creation of corporate value. ESG scores resulted in an increase in economic value added (EVA compared to income) [5]. Third, it uses EVA valuation to determine the value of the company. Measuring a company's value based on EVA valuation has been done by companies selling motorcycle parts in Slovakia [2].

Economic value added (EVA) is the best financial metric for maximizing corporate value and measuring shareholders' value added [9], [10], [11]. EVA even had a positive effect on shareholder value creation both before and during the COVID-19 crisis in Indonesia [12]. Although non-financial aspects are required to evaluate overall sustainability performance, EVA should be calculated first because it is the backbone of corporate value. By calculating EVA, companies have already gone halfway through the process of evaluating corporate sustainability performance [2]. The objective of this paper is to introduce the integration of ESG in the economic value added (EVA) methodology for analyzing corporate's value and to determine its long-term value. The EVA methodology is perfect because this method combines two fundamental components to measure corporate value; Economic perspective: the amount of money invested by shareholders and creditors and non-economics ESG to assure them that the corporate also pays attention to the sustainability of the investment in the long term.

### EVA Calculation

EVA is calculated as a difference between the net operating profit after taxes (NOPAT) and the capital charges (Invested Capital x WACC). Generally accepted accounting principles (GAAP) for the EVA's calculation:

$$EVA = NOPAT - (Invested\ Capital \times WACC)$$

Where, NOPAT: net operating profit after taxes; Invested capital: long-term debt + shareholders' equity; capital invested: total capital invested through equity or debt in a given corporate; WACC: weighted average cost of capital.

*Calculation of Invested Capital:*

Invested capital refers to the total amount of capital that a corporate has invested in its operations, which may include both equity and debt financing. Invested capital is calculated by net operating assets where non-operating assets removed from total assets.

*Calculation of Net Operating Profit After Tax (NOPAT)*

Net Operating Profit After Tax (NOPAT) represents a corporate's performance in its fundamental operations, taking into account taxes. Essentially, it is the profit amount generated by a corporate's operations after taxes, disregarding interest payments.

The formula of NOPAT:

$$NOPAT = operating\ profit * (1 - T)$$

Operating profit refers to EBIT (earnings before interest and taxes). The formula of EBIT:

$$EBIT = Revenue - Operating\ Expenses$$

Where, Revenue = Total sales revenue generated by the corporate; Operating Expenses = Total operating expenses incurred by the corporate, including cost of goods sold, selling and administrative expenses, and depreciation and amortization expenses.

*Calculation of Weighted Average Cost of Capital (WACC)*

The cost of capital includes both the cost of debt and the cost of equity and represents the minimum return that investors require to finance a corporate's operations. The formula of WACC:

$$WACC = (rd(1-T) \times D/V) + (re \times E/V)$$

Where, E represents the market value of the corporate's equity, D represents the market value of the corporate's debt, V represents the total value of the corporate (E + D), re represents the cost of equity, rd represents the cost of debt. T represents the corporate's income tax rate.

re represents the cost of equity:

$$re = rf + \beta * (E(rm) - r\_f)$$

where, rf (Risk-Free Rate) rate of return on a risk-free investment – using coupon SUN (*Surat Utang Negara*) Indonesia, β = beta investment (A measure of the volatility of a corporate's stock relative to the overall market), E(rm) − rf = Market Risk Premium (The additional return investors require for investing in the overall market as opposed to a risk-free investment).

rd represents the cost of debt, equation:

$$Cost\ of\ Debt = Interest\ Expense / Long\text{-}term\ Debt$$

**Using EVA Methodology to calculate corporate's value**

To calculate corporate's value, we employee EVA valuation which takes into account the total amount of capital invested in the business and the cost of capital used to fund its operations. EVA valuation can provide a useful framework for understanding a corporate's financial performance and value creation. It takes into account both the amount of capital invested in the business and the cost of financing its operations, providing a more comprehensive picture of the corporate's value compared to other financial metrics. Calculation of the corporate's value through the economic value added methodology uses formula below [2], [11].

$$\text{Corporate value} = NOA_0 + \sum_{t=1}^{T} \left( \frac{EVA_t}{(1+WACC)^t} + \frac{EVA_{t+1}}{WACC*(1+WACC)^T} \right) - D_0 + A_0$$

Where, $NOA_0$ = net operating assets at the assessment date; EVA = Economic value added in the year "t"; WACC = weighted average cost of capital; $D_0$ = value of total debt at the valuation date; $A_0$ = non-operative assets at the valuation date; t = number of years explicitly planned EVA.

Corporate value is calculated by adding net operating assets (NOA) at the valuation date, discounted annual economic value added, and non-operating assets, then subtracting total debt at the valuation date. $NOA_0$ reflects the initial investment in operating assets, while EVAt measures the value added of the economy each year, discounted using a weighted average cost of capital (WACC) to account for the time value of money and risk. The value of EVA terminals after the explicit planning period is also calculated and discounted. Total debt ($D_0$) is deducted because it is an obligation to be repaid, while non-operating assets ($A_0$) are added because they have value but are not used in core operations. The use of EVA as an indicator of economic performance provides a more accurate picture of value creation than traditional accounting profits because it takes into account the cost of capital. The WACC itself reflects the overall cost of a company's equity and debt capital, making this calculation more realistic. Taking into account all these elements, this equation provides a comprehensive and structured approach to holistically assessing a company's total value.

**Modification Methodology of EVA**

Here are some aspects where ESG factors can affect EVA:

1. Cost of capital (WACC)
   Implementation of good ESG practices can improve WACC. Companies with strong ESG policies have lower risk and can result in low cost of capital. Investors and creditors see socially and environmentally responsible companies as safer investments for the long term. The ESG risk reduction adjusted WACC is written as follows:
   $WACC_{ESG}$ = WACC x (1 – ESG_impact_WACC)
   Dimana: ESG_impact. WACC is the percentage reduction in the cost of capital due to good ESG policies.
2. Operating profit
   Effective ESG policies can improve operational efficiency and reduce costs such as energy and water costs, maintenance costs, employee health, or litigation costs related to environmental and social violations. This has the potential to increase net operating profit after taxes (NOPAT). Thus, ESG affecting NOPAT is modified as follows::
   $NOPAT_{ESG}$ = NOPAT x (1 + ESG_impact_NOPAT)
   Where: ESG_impact_NOPAT is the percentage increase in NOPAT due to the implementation of ESG policies.

3. Non-operating asset management
   The value of non-operating assets that meet sustainability standards has good prospects in the market. Therefore, investments in green technologies or social projects can be considered as strategic assets that can increase the value of the company.
   $A_{0\_ESG}$ = $A_0$ x (1 + ESG_impact_$A_0$)

Based on the information above, the EVA methodology modification formula is as follows:

$$\text{Corporate value}_{ESG} = \text{NOA}_0 + \sum_{t=1}^{T} \left( \frac{EVA_{t\_ESG}}{(1+WACC_{ESG})^t} + \frac{EVA_{t+1\_ESG}}{WACC_{ESG}*(1+WACC_{ESG})^T} \right) - \text{D}_0 + (\text{A}_{0\_ESG})$$

The integration of ESG into financial performance can be shown in the figure below.


The value of ESG_impact can be gained through in-depth analysis and research on how environmental, social and corporate governance policies and practices affect overall financial performance. This modification of the EVA methodology by integrating ESG into it can increase the value of the company. Some of the reasons underlying this argument:

1. Improve corporate reputation and investor confidence
   Corporate with good ESG practices have a better reputation in the eyes of stakeholders. This can increase investor and customer confidence which in turn can increase the value of the company. Investors are increasingly paying attention to ESG factors in investment decisions. Therefore, companies that are committed to sustainability are easier to attract long-term investors.
2. Reduce risk and cost of capital
   Good ESG implementation can also reduce risk and capital costs. If the Company follows the applicable rules and maintains the environmental sustainability of its business activities, the Company can enjoy lower capital costs. This certainly brings a sense of security for investors who do not want to take risks on things that can actually be done by the company.
3. Improve operational efficiency and profitability
   The interesting thing about implementing ESG is the increase in the company's operational efficiency. Example: the use of hydropower, solar, wind in producing energy can certainly reduce the company's operational costs. This further affects the increase in operating profit after tax (NOPAT) which is an important component in the calculation of EVA.
4. Support the Sustainable Growth
   Companies that are able to implement ESG have strong resilience to external shocks such as regulatory changes and environmental crises that play an important role in the long run. Good ESG practices underpin sustainable growth by ensuring companies are focused on long-term goals.
5. Increased regulation and capital market demands
   Transparency and social responsibility demand make the integration of ESG into EVA methodology even more relevant. Companies that proactively implement ESG policies can outperform their competitors. This can be a natural selection for global business competition.

## CONCLUSIONS

The evolution of ESG on the one hand can create better financial performance and corporate reputation as well as well-managed risks. On the other hand, the evolution of ESG can open up space for the evaluation of financial performance in terms of economic value due to the complexity of quantifying ESG values. In addition, companies that implement ESG well can convince shareholders so that they have the opportunity to have good financial performance as well. Therefore, combining ESG impact with EVA methodology in measuring corporate's value is inevitable.

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