



A Perspective: Interaction of the “Leading – Lagging” Continuum of Non-financial and Financial Variables in Creating Economic Value Added for The Company

Dwi Sihono Raharjo¹, Marhalinda Marhalinda², Nana Trisnawati³, Ruwaida Ruwaida⁴,
Rinaldi Rinaldi⁵, Kuswanti Kuswanti⁶

^{1,2,3,4,5,6} Universitas Persada Indonesia Y.A.I, Indonesia

Received : February 9, 2024

Revised : March 5, 2024

Accepted : March 9, 2024

Online : March 13, 2024

Abstract

Basically, there are two main goals that the company wants to achieve simultaneously, namely maximizing profits for the welfare of shareholders on the one hand and employee satisfaction on the other hand. However, the facts show that management has long placed non-financial factors in a disproportionate manner compared to the treatment of financial factors. The aim of this research is to present a perspective through analysis of the interaction of a continuum of non-financial and financial variables in creating an economic value added for the company. The population is the largest national construction companies listed on the Indonesia Stock Exchange (IDX) in 2015 - 2019. Using the purposive sampling method, more than 50 percent of the companies became the research sample. Data analysis based on panel data and processed using Eviews, as well as classic statistical tests (t test and F test). The results provide a perspective regarding the influence of training & development, and cost control on revenue, cost of goods sold, and profitability ultimately on EVA. In terms of the coefficient of determination, it suggests a solid impact from both training and development as well as cost control on the bottom line., R² = 93 percent influence on Gross Profit, R² = 82 percent on Net Profit, R² = 91 percent on NOPAT, there is a significant influence of Gross Profit, Net Profit and NOPAT on EVA respectively with t test < 0.05 and F statistic > 1.96. From the interaction process of the continuum of research variables, with some luck, a combination of results obtained through measures and those based on performance indicators will emerge, starting from non-financial elements to financial elements. This finding is the result of an original approach in modeling the relationship between non-financial variables and financial variables. This research is limited to the construction companies and the research variables only select proxies for human capital elements that are linked to financial performance data.

Keywords: *Continuum Interactions, Nonfinancial and Financial Perspectives, Profitability, Economic Value Added*

INTRODUCTION

Modern business organizations strive to develop corporate governance in such a way as to regulate business processes well, transparently and accountably to achieve planned goals. One of the principal objectives that guide the governance of a business is to secure the welfare and growth of its proprietor. Therefore, from a financial management perspective, meeting shareholder needs is a major concern for management. As managers are agents acting on behalf of shareholders, it implies that they must promote the interests of owners by instituting policies which enhance value for them. Therefore, the primary objective of management is to maximize shareholder wealth, i.e., to maximize the firm's common stock price. Businesses do have other objectives too, notably those who actually make decisions about specific firms are interested in their own personal satisfaction, employees' welfare, community, and society (Brigham & Erhardt, 2002). This opinion clearly states that apart from placing shareholder welfare as the main goal, management also places as an important target the realization of employee satisfaction and welfare. According to Peccei (2004), it is said that satisfied employees are more likely to be willing to work hard, thus contributing actively on the side of the organization for higher productivity and effectiveness at the system level. In managing the company, these two goals will be pursued at the same time as their dimensions are looked upon through a non-financial perspective and a financial perspective. However, the facts

Copyright Holder:

© Raharjo et al. (2024)

Corresponding author's email: dwisihono.raharjo@gmail.com

This Article is Licensed Under:



show that in the operationalization of the organization, management has long placed non-financial factors unequally compared to the treatment of financial factors.

Two decades have passed since consultant Dr. David P. Norton and Professor Dr. Robert S. Kaplan of Harvard Business launched the Balanced Scorecard in a Harvard Business Review article, essentially stating that business financial models alone are no longer sufficient as the primary way of managing performance. The Balanced Scorecard is an example of an idea that was, in many respects, at the right place at the right time due to the fact that during the 80s there was a push emphasizing the significance of having non-financial measures balanced alongside financial data. From the results of discussions with business leaders and experts, a way to monitor company performance was obtained through a "company scorecard". This scorecard includes performance measures related to delivery times of goods to consumers, quality, manufacturing cycles, effectiveness of new product development, and also financial measures.

In this regard, this research aims to describe the chain of causal relationships between non-financial variables and financial variables in the leading-lagging continuum interactions towards achieving economic added value for the company.

LITERATURE REVIEW

Internal business processes for managing and developing human resources can make a real contribution to company performance. The size of the contribution can be documented through a system developed to be used as a database. The results of work are recorded properly to find out how much costs are charged for it, up to how many goods and services can be sold to generate profits for the company. This profitability results from a series of organizational unit activities regarding the use and management of company resources, including HR management. Resource management that is able to improve individual employee performance is directed at providing a collective positive impact on the achievement of the company's "financial performance".

Efficiency-oriented companies will strive to reduce unit costs in particular, so that higher profitability ratios and returns on investment can be generated through managing competitive cost levels, increasing operating margins, and controlling the amount of spending on indirect costs and other supporting costs. Another strategy to assess the advantages of investment could be tracking return on capital employed (ROCE) and economic value added (EVA). According to [Singh and Yadav \(2013\)](#), ROCE reflects returns from capital used as a measure of effectiveness and profitability of corporate resource allocation. Young & O'Byrne (2001) define EVA in terms of economic profit, assuming the organization generates wealth if it covers operating and capital costs.

According to [Kosomowidjoyo \(2017\)](#), employee competency has a very important role in keeping the organization changing, growing and developing so that the organization will carry out measurements related to employee competency. However, the employee satisfaction level is not the only important factor in evaluating the competencies of an organization. It also covers two other important factors for organizational development and learning, such as how much training an organization gives to its employees and how productive they are., namely: 1) Commitment to financing employee training and development. The larger and increasing number of employees who are given training will increase the number of employees who have skills according to the organization's expectations. Thus, it can be assumed that the greater the costs incurred by a company or organization in developing human resources, it has the potential to increase the number of employees who become increasingly skilled at work. 2) Employee productivity. Employee productivity is expected to encourage organizational growth and development.

[Meredith and Mantel, JR \(2006\)](#) stated that human resource management requires controlling and maintaining people. The quality management method as a project control tool refers to the philosophy of TQM and continuous improvement. According to [Husen \(2011\)](#), control

is considered a continuous and conscious effort to establish standards by planning goals, objectives, designing information systems, comparing implementations with standards, analyzing potential deviations, and then taking any action as needed.

Financial performance is a picture of a company's finances in a certain period, including business operations with transactions that result in inflow of funds (inflow) and distribution of funds (outflow), usually assessed using financial ratios which are grouped into several categories. According to [Gitman & Zutter \(2015\)](#), some of these categories include liquidity, activity, debt, profitability, and market ratios.

Liquidity ratios, activity ratios, and debt ratios mainly focus on risk, while profitability ratios deal with returns. Market ratios represent both risk and return. Related to this, [Raharjo and Limakrisna \(2023\)](#) stated that in assessing the health and financial performance of a company, profitability is a very important factor. Two ratios can be applied for the assessment of profitability, which are classified as sales margin ratio and return on investment or assets turnover ratio.

RESEARCH METHOD

Respondent

Group of construction companies listed on the Indonesia Stock Exchange (IDX) 2015 – 2019

Sampling

Purposive sampling, the largest scale national companies owned by the government and privately owned, each above 50% of the number of operating companies.

Data collection

Obtain primary data using questionnaires and obtain secondary data through the IDX, Financial Services Authority (OJK), Bank Indonesia, Central Statistics Agency, Scientific Journals.

Data Analysis

The research is descriptive and quantitative, data was analyzed with panel data using Eviews9 with Classic Statistical Test, Significance test and interpretation of results.

FINDINGS AND DISCUSSION

There is an Effect of Training & Development, and Cost Control together on Probability (Gross Profit)

The determination coefficient of 92.58 percent reveals a strong relationship between training and development and cost control with gross profit, meaning that most of the dependent variable can be predicted by using the independent variables. Other than the factors which have not been studied at all, 7.42 percent of profits can be affected or accounted for by other variables. The F-test results, based on a probability value of <0.000 and an F-statistic of $150.7274 > 1.96$ in Figure 7.2, support that there is a significant effect from training and development and cost control on gross profit.

The is an Effect of Revenue and Cost of Revenue together on Probability (Gross Profit)

A determinant of 100.00 percent shows that there is a perfect effect of revenue and cost of revenue together on gross profit. There is no room for influence for other variables. This fits with the formula that gross profit is revenue minus the cost of revenue. According to the F Test, a p-value of $0.000 < 0.05$ and an F Statistics value of $6.825E+29 > 1.96$ indicate that there is a joint effect between income and cost of revenue on profit.

There is an Effect of Revenue and Cost of Revenue together on Probability (Net Profit)

Based on the determined coefficient of 89.66%, it can be established that revenue and cost of revenue significantly affect the net profit of the company. Other variables contribute to only about 10.34% of its influence. The results obtained from the F Test show a probability value of $0.000 < 0.05$, while an F Statistics value exceeding 1.96 implies that the impact of income and cost of revenue jointly on net profit is also statistically significant.

There is an Effect of Training & Development, and Cost Control together on Probability (Net Profit)

The R-squared value of 81.74% signifies that the contribution of training and development and cost control to gross profit is relatively strong. On the other hand, some part of 18.26% cannot be attributed to these variables because it was not considered in our model. The coefficient value shows the significant impact of this factor as well with a probability value < 0.05 and F statistics = 54.72597, which can infer that there is a direct effect of training and development and cost control on the net profits. In the previous chapter, we also mentioned that simultaneously the two factors had an impact on gross profit.

There is an Effect of Revenue on Probability (Net Operating Profit After Tax or NOPAT)

According to the t-test results indicating a probability value of $0.000 < 0.05$ and a t-value of $18.31136 > 1.96$, revenue is one of the determinants of NOPAT., thus it is stated that there is a significant effect of revenue on NOPAT. If EBIT is profit before deducting interest & tax charges on income, while NOPAT is net operating profit after tax obligations, by [Brigham and Daves \(2002\)](#) it is defined: $NOPAT = EBIT (1 - \text{Tax rate})$. So, the difference between NOPAT and EBIT is only a matter of NOPAT having been charged for tax but not taking interest into account, while EBIT has not been charged with interest and tax.

There is an Effect of Cost of Revenue on Probability (NOPAT)

According to the results of the t-test, which indicate a probability value of $0.000 < 0.05$ and a t-value of $16.58566 > 1.96$, it can be concluded that the cost of revenue does have an impact on NOPAT. Since NOPAT is closely linked to net profit, it is logical to assume that the cost of revenue also plays a role in determining its value. Furthermore, based on the statistical tests conducted above, it can be inferred that the cost of revenue influences NOPAT given these findings.

There is an Effect of Revenue and Cost of Revenue together on Probability (NOPAT)

With a determination coefficient of 92.83 percent, it demonstrates that net profit is affected in a large part by the combination of revenue and cost of revenue. According to the F Test results, there is a probability value of 0.000 which is less than 0.05, and the F Statistics is 156.4764 which is greater than 1.96. Therefore, we can conclude that there is a significant influence of income and cost of revenue together on NOPAT. The results of the previous discussion state that income has an effect on NOPAT and it is also stated that cost of revenue has an effect on NOPAT, so it can be concluded based on these statements and on the results of the statistical tests above, that there is an effect of revenue and cost of revenue together on NOPAT.

There is an Effect of Training & Development, and Cost Control together on Probability (NOPAT)

The strong relationship between training and development, and cost control and NOPAT is indicated by the high value of the coefficient of determination, which is 90.43 percent. This

influence is found to be significant by the F Test results with a probability value of $0.000 < 0.05$ and an F Statistics value of $144.4387 > 1.96$, indicating that there is an influence of training and development and cost control together on NOPAT. That $\text{NOPAT} = \text{EBIT} (1 - \text{tax rate})$ or $\text{Net profit} + \text{interest} (1 - \text{tax rate})$. Mathematically, net profit is the main determinant of NOPAT.

There is an Effect of Gross Profit on Economic Value Added (EVA)

From the findings of the t-test, we can observe the influence of gross profit on EVA. The probability value is found to be 0.000, which is smaller than 0.05; in addition, the t-value was 5.418721, greater than 1.96, indicating that there is a significant relationship between gross profit and EVA. As [Brigham and Ehrhardt \(2002\)](#) stated, EVA refers to a reliable measure to gauge the actual profitability level for an organization. When determining net income, accountants subtract interest expense—cost of debt capital— but do not subtract anything related to equity finance (a cost of using stockholders' equity).

There is an Effect of Net Profit on EVA

The impact of net profit on EVA was observed in the t-test outcomes, as revealed by the probability value, which is $0.000 < 0.05$. This is reinforced by the t-value being greater than 1.96, or about 6.14. Therefore, it can be declared that there is a significant effect between net profit and EVA. Similarly, given the fact that gross profit affects EVA, one would also say that net profit contributes significantly to influencing EVA. For this, an identical process to that stated above is followed, with all other costs deducted from gross profit and EBIT to give the net profit. This is done according to the formula: $\text{NOPAT} = \text{Net Profit} + \{(1 - \text{Tax rate})\}$. The outcome of such calculation can be used to derive EVA following the next formula: $\text{EVA} = \text{NOPAT} - \{\text{Capital Employed}\}$.

There is an Effect of NOPAT on EVA

From the t-test result analysis, we can observe that NOPAT has an impact on EVA, and this is statistically supported by the p-value of 0.003, which is less than 0.05. This is also accompanied by a t- value of 4.834355, which exceeds 1.96, explaining a significant influence of NOPAT on EVA. The EVA formula is simply derived from mathematical logic, considering three main components to get the result value of EVA: NOPAT, Capital Employed, and WACC in order. Logically speaking, an evaluation result can only be determined if all these factors are involved in it.

CONCLUSIONS

By marrying training and development with cost control, this positive synergy unlocks performance improvements of great consequence. At the same time, training and development, as well as cost control, exercise a significant effect on gross profit, net profit, NOPAT, and EVA. Profitability as a lagging factor is realized due to the encouragement of non-financial factors. In the interactive leading-lagging chain, the next stage is that profitability becomes the leading factor driving the creation of added economic value for the company. Non-financial perspective measurements can be adjusted to the priorities of each organization to make the continuum relationship between leading & lagging factors more realistic. EVA allows it to be used as a constructive tool as a basis for determining bonuses and incentives for managers and at the same time as a stimulant for investors to invest their capital.

LIMITATION & FURTHER RESEARCH

This research was conducted with an original approach in modeling the relationship between non-financial variables and financial variables. So, it is important for corporations to balance non-financial performance information with financial data. Non-financial performance, which is the

initial variable, is a value driver for the series of dependent variables (lagging factors) that it influences, which must be identified become the leading factors. Then this variable will drive the value of the next dependent variable, thus forming a cause and effect chain that has an impact on organizational performance.

REFERENCES

- Brigham, E. F. & Ehrhardt, M. C. (2002). *Financial Management. Theory and Practice*. 10th Edition. South-Western: Thomson Learning.
- Gitman, L. J. and Zutter, C. J. (2015). *Principle of Managerial Finance*. Fourteenth Edition. England: Pearson Education Limited.
- Husen, A. (2011). *Manajemen Proyek*. Yogyakarta: Andi.
- Kosomowidjoyo, S. R.M. (2017). *Balance Scorecard. Model Pengukuran Kinerja Organisasi Dengan Empat Perspektif*. Jakarta: Raih Asa Sukses.
- McKinsey. (2006). *Organizing for successful change management. An executive take on the top business trends. A McKinsey Quarterly Global Survey of Business Executives*.
- Meredith, J. R. and Mantel, Jr. S. J. (2006), *Project Management. A Managerial Approach*. Sixth Edition. Asia: John Wiley & Sons, Inc.
- Peccei, R. (2004). *Human Resource Management and the Search for the Happy Workplace*. Rotterdam: Erasmus University Rotterdam.
- Raharjo, D. S. & Limakrisna, N. (2023). LQ45 Company Profitability on the IDX for the 2021 Period Through the Effect of the Current Ratio and Receivable Turnover. *International Journal of Professional Business Review* 8(7):e02931.
- Singh, J. & Yadav, P. (2013). Return on Capital Employed-A Tool for Analyzing Profitability of Companies. *International Journal of Techno-Management Research*, Vol. 01, Issue 01, June 2013 ISSN: 2321-3744.