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## Analysis of Balanced Scorecard (BSC) on Human Resource Performance: An Empirical Study in Telecommunications Companies

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**Abstract:** This study examines the implementation of Balanced Scorecard (BSC) as a performance measurement tool for human resource management in telecommunications infrastructure companies. The research focuses on the learning and growth perspective as the foundation for organizational success. Using a quantitative descriptive approach with case study methodology, this research surveyed 44 employees at supervisor level and above at PT. Persada Sokka Tama. Data collection employed questionnaires with Likert scale measurements, and validity and reliability tests were conducted using SPSS version 16. The study investigates the influence of employee satisfaction, training programs, employee turnover, and career path development on human resource performance. Results show that learning and growth perspective variables collectively have a significant influence on human resource performance. Variations in job satisfaction, training, turnover, and career path variables account for 86.3% of employee performance, according to the coefficient of determination (Adjusted R Square) of 0.863. Other variables not included in this study account for the remaining 13.7%. Partial analysis reveals that employee job satisfaction and career path significantly impact performance, while training and turnover variables show non-significant effects. Multiple regression analysis using F-test and t-test at 95% confidence level with  $\alpha$  0.05 confirms these findings.

**Keyword:** Balanced Scorecard, Human Resource Performance, Learning and Growth Perspective, Employee Satisfaction, Career Development

## INTRODUCTION

In the increasingly competitive business environment, performance measurement has become a crucial factor for organizational success. Traditional performance measurement focusing solely on financial aspects has proven limited in detecting intangible asset capabilities such as employee competencies, reliable business processes, and dynamic

customer loyalty. The Balanced Scorecard (BSC) idea, created by Robert Kaplan and David Norton, emerged as a more thorough performance monitoring tool as a result of these constraints. The Balanced Scorecard encompasses four main viewpoints: financial, customer, internal company processes, and learning and development. The learning and growth viewpoint as the cornerstone of business success is the subject of this study. This perspective becomes critically important as companies' ability to mobilize and exploit intangible assets becomes more determinant than managing tangible physical assets.

PT. Persada Sokka Tama, as a telecommunications infrastructure company, faces challenges in effectively and efficiently measuring employee performance. With a substantial workforce of 250 employees consisting of 80 permanent and 170 contract employees, the company requires a good and consistent performance measurement system. Previously, the company used the Management by Objective (MBO) method, which was more inclined toward financial factors and departmental targets only, thus paying less attention to development, learning, and continuous improvement aspects. The implementation of Balanced Scorecard is expected to solve discrimination between core and support functions within the company and provide fair assessment for all employees based on their contributions to achieving the company's vision and mission. This research aims to analyze the influence of learning and growth perspective on human resource performance through Balanced Scorecard implementation.

## METHOD

This study employs a quantitative descriptive approach with case study methodology supported by surveys. The research population consists of all PT. Persada Sokka Tama employees at supervisor to director levels, totaling 78 people across Jabodetabek, Java, NTB, and Sumbawa areas. The sampling technique uses the Slovin method with a 10% standard error, resulting in a sample of 44 respondents. Research variables consist of independent variables: employee job satisfaction (X1), training/development (X2), employee turnover (X3), and career path (X4), and the dependent variable: human resource performance (Y). Data collection was conducted through questionnaires using Likert scales, interviews, and documentation studies. Data analysis employed multiple linear regression using SPSS version 16.0 software. Validity and reliability tests were conducted to ensure research instrument quality. Classical assumption tests included data normality tests, multicollinearity tests, and heteroscedasticity tests. Hypothesis testing used F-tests to examine simultaneous effects and t-tests to examine partial effects, with a 95% confidence level and  $\alpha = 0.05$ .

## RESULT AND DISCUSSION

### Respondent Characteristics

Analysis of respondent characteristics shows that the majority of respondents are male (97.73%) with ages ranging from 31-35 years (52.27%). Respondents' education levels are dominated by bachelor's degree holders (52.27%) and diploma holders (45.45%). In terms of tenure, most respondents have worked for 5-10 years (34.09%), with the majority holding supervisor positions (68.18%).

### Descriptive Variable Analysis

Table 1. Descriptive Analysis Results of Research Variables

| Variable                   | Indicator                      | Mean | Std. Deviation | Response Level |
|----------------------------|--------------------------------|------|----------------|----------------|
| Employee Satisfaction (X1) | Leadership                     | 4.30 | 0.69           | Very Good      |
|                            | Superior-Subordinate Relations | 4.45 | 0.68           | Very Good      |

| Variable         | Indicator              | Mean | Std. Deviation | Response Level |
|------------------|------------------------|------|----------------|----------------|
| Training (X2)    | Teamwork               | 4.58 | 0.71           | Very Good      |
|                  | Customer Focus         | 4.41 | 0.76           | Very Good      |
|                  | Training Programs      | 2.84 | 0.95           | Moderate       |
|                  | Work Facilities        | 4.41 | 0.89           | Very Good      |
| Turnover (X3)    | Work Environment       | 4.18 | 0.92           | Good           |
|                  | Job Development        | 4.25 | 1.02           | Very Good      |
| Career Path (X4) | Career Development     | 4.14 | 0.88           | Good           |
|                  | Company Strategy       | 4.58 | 0.62           | Very Good      |
| Performance (Y)  | Company Policy         | 4.35 | 0.79           | Very Good      |
|                  | Salary & Welfare       | 4.48 | 0.89           | Very Good      |
|                  | Employee Communication | 4.25 | 0.74           | Very Good      |
|                  |                        |      |                |                |

The descriptive analysis results show that leadership indicators received positive responses with 42.05% of respondents strongly agreeing and 45.45% agreeing. Superior-subordinate relationships were also rated well with 45.45% strongly agreeing and 43.18% agreeing. Teamwork received very positive ratings with 57.95% strongly agreeing and 36.36% agreeing. For training variables, training programs still need improvement as only 13.64% of respondents strongly agreed and 3.03% agreed on training program effectiveness. However, work facilities received good ratings with 52.27% strongly agreeing and 31.82% agreeing.

### Validity and Reliability Tests

Table 2. Validity and Reliability Test Results

| Item | Corrected Item-Total Correlation | Cronbach's Alpha if Item Deleted | Status |
|------|----------------------------------|----------------------------------|--------|
| X1.1 | 0.674                            | 0.949                            | Valid  |
| X1.2 | 0.677                            | 0.949                            | Valid  |
| X1.3 | 0.660                            | 0.949                            | Valid  |
| X1.4 | 0.532                            | 0.949                            | Valid  |
| X2.1 | 0.526                            | 0.950                            | Valid  |
| X2.2 | 0.540                            | 0.949                            | Valid  |
| X3.1 | 0.681                            | 0.948                            | Valid  |
| X3.2 | 0.735                            | 0.948                            | Valid  |
| X4.1 | 0.785                            | 0.947                            | Valid  |
| X4.2 | 0.686                            | 0.948                            | Valid  |
| Y1   | 0.661                            | 0.949                            | Valid  |
| Y2   | 0.627                            | 0.949                            | Valid  |
| Y3   | 0.619                            | 0.949                            | Valid  |

Overall Cronbach's Alpha: 0.950

Validity tests show all questions are valid because  $r\text{-calculated} > r\text{-table}$  (0.361) at 5% significance level. Reliability tests yield an alpha coefficient of  $0.950 > r\text{-table}$  (0.361), indicating the questionnaire is reliable.

## Classical Assumption Tests

Table 3. Classical Assumption Test Results

| Test                           | Result   | Interpretation   |
|--------------------------------|--|--|
| Normality (Kolmogorov-Smirnov) | Sig. = 0.200 > 0.05  | Data normally distributed  |
| Multicollinearity (VIF)        | Employee Satisfaction: 3.279 < 5<br>Training: 2.035 < 5<br>Turnover: 2.088 < 5<br>Career Path: 2.195 < 5 | No multicollinearity<br>No multicollinearity<br>No multicollinearity<br>No multicollinearity |
| Heteroscedasticity             | Random scatter pattern   | No heteroscedasticity  |

Data normality tests using Normal P-P Plot show data is normally distributed as points spread around the diagonal line. Multicollinearity tests show no multicollinearity problems as all VIF values < 5. Heteroscedasticity tests through scatter plots show no heteroscedasticity as points scatter randomly.

## Multiple Regression Analysis

Table 4. Multiple Regression Analysis Results

| Variable                   | B      | Std. Error | Beta   | t      | Sig.   | Interpretation  |
|----------------------------|--------|------------|--------|--------|--------|-----------------|
| (Constant)                 | -2.431 | 2.091      | -      | -1.163 | 0.252  | -               |
| Employee Satisfaction (X1) | 0.743  | 0.096      | 0.787  | 7.697  | 0.000* | Significant     |
| Training (X2)              | 0.083  | 0.080      | 0.083  | 1.029  | 0.310  | Not Significant |
| Turnover (X3)              | -0.057 | 0.069      | -0.068 | -0.832 | 0.410  | Not Significant |
| Career Path (X4)           | 0.232  | 0.108      | 0.179  | 2.143  | 0.038* | Significant     |

\*Significant at  $\alpha = 0.05$

The regression equation obtained is:  $Y = -2.431 + 0.743 X_1 + 0.083 X_2 - 0.057 X_3 + 0.232 X_4 + e$

Table 5. Model Summary

| Model | R     | R Square | Adjusted Square | R Std. Error Estimate | of F   | Sig.  |
|-------|-------|----------|-----------------|-----------------------|--------|-------|
| 1     | 0.936 | 0.876    | 0.863           | 1.29848               | 68.604 | 0.000 |

Employee happiness, training, turnover, and career path variables can account for 86.3% of performance variation, according to the coefficient of determination (Adjusted R Square) of 0.863, or 86.3%. Other variables not included in the study account for the remaining 13.7%.

## Hypothesis Testing

Table 6. Hypothesis Testing Results

| Test Type                    | Result                | Critical Value  | Decision                       |
|------------------------------|-----------------------|-----------------|--------------------------------|
| F-test (Simultaneous)        | F-calculated = 68.604 | F-table = 2.61  | $H_0$ rejected, $H_1$ accepted |
| t-test Employee Satisfaction | t = 7.697             | t-table = 2.021 | Significant                    |
| t-test Training              | t = 1.029             | t-table = 2.021 | Not Significant                |
| t-test Turnover              | t = -0.832            | t-table = 2.021 | Not Significant                |
| t-test Career Path           | t = 2.143             | t-table = 2.021 | Significant                    |

The F-test results show  $F\text{-calculated} = 68.604 > F\text{-table} = 2.61$  with significance  $0.000 < 0.05$ , thus  $H_0$  is rejected and  $H_1$  is accepted. This indicates that simultaneously, employee satisfaction, training, turnover, and career path variables significantly influence employee performance. Partial t-tests show that employee satisfaction emerges as the most dominant factor influencing employee performance. This aligns with theories stating that satisfied employees will provide optimal contributions to the company. Career path development also shows significant positive influence, indicating that career clarity and development opportunities are important performance drivers. Conversely, training programs show positive but statistically non-significant coefficients, indicating a gap between training content and actual job requirements. Turnover shows negative but non-significant coefficients, suggesting that in the research sample context, turnover has not become a critical issue affecting organizational performance.

## CONCLUSION

According to the study's findings, PT. Persada Sokka Tama's human resource performance is greatly impacted by the learning and growth viewpoint of the Balanced Scorecard. Simultaneously, employee satisfaction, training, turnover, and career path variables provide 86.3% influence on employee performance. Partially, employee job satisfaction and career path significantly influence performance, while training and turnover do not significantly influence performance. Employee job satisfaction emerges as the most dominant factor in improving employee performance. This research provides practical contributions for companies to focus more on improving employee satisfaction and career path development as strategies for enhancing human resource performance through Balanced Scorecard implementation.

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