ANALYSIS OF THE INFLUENCE OF LEADERSHIP AND WORK MOTIVATION ON EMPLOYEE PRODUCTIVITY AT PT. X

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Abstract

This study aims to analyze the effect of leadership and work motivation on employee productivity at PT. X. The research method used is quantitative with a verificative approach, employing multiple linear regression analysis. The sample consists of 54 employees selected using random sampling. The results show that leadership does not have a significant effect on employee productivity ($p > 0.05$), while work motivation has a positive but marginal effect ($p < 0.1$). Simultaneously, leadership and work motivation do not significantly affect employee productivity ($p > 0.05$). The coefficient of determination (R^2) value of 0.083 indicates that only 8.3% of the variation in employee productivity can be explained by these two variables. This study suggests that PT. X should improve leadership quality and focus on enhancing work motivation to increase employee productivity.

Keywords— Leadership, Work Motivation, Employee Productivity, Multiple Linear Regression, PT. X.

INTRODUCTION

Human resources (HR) play a crucial role in determining the success of an organization. The quality of HR within a company significantly affects the achievement of goals and the overall success of the organization. In this context, effective leadership and work motivation are key factors in driving employee productivity. According to Baharuddin and Salam (2020), high work motivation can enhance employee performance, which in turn contributes to the overall improvement of company performance. At PT. X, this issue is of primary concern because employee productivity is still affected by suboptimal leadership and a lack of motivation to achieve the company's goals.

Effective leadership is considered one of the main keys to motivating employees to work better. Leaders who are able to provide clear direction and support employee needs will improve both performance and productivity. Research conducted by Muizu et al. (2019) shows that good leadership plays a significant role in enhancing employee performance, especially when leaders can offer sufficient support to boost morale. Weak or inadequate leadership can lead to decreased motivation and lower performance quality among employees, ultimately having a negative impact on the company's productivity (Baharum & Sinaga, 2015).

Work motivation also plays an important role in creating a productive work environment. Motivated employees tend to work harder, take initiative, and have higher commitment to the company's goals. According to Setiawan (2017), work motivation influences employee performance both directly and indirectly, as motivated employees are more likely to work efficiently and produce better output. Furthermore, work motivation is influenced by factors such as company-provided rewards, a conducive work climate, and opportunities for personal development (Risqon & Purwadi, 2012). A study by Farista (2020) found that good motivation significantly improves employee productivity in companies.

Although PT. X has made various efforts to increase employee productivity, there are still issues related to leadership and work motivation. Some employees have expressed that they

do not receive enough attention from their leaders and feel insufficiently motivated to perform at their best. According to research by Inaray (2016), lack of attention from leaders can lower employee morale, thus affecting their productivity. Therefore, this research is important to better understand the impact of leadership and work motivation on employee productivity at PT. X and to find solutions to improve employee performance through improvements in leadership and motivation.

RESEARCH METHODS

The type of research used in this study is quantitative research with a verificative approach. Quantitative research aims to test the relationship or influence between two or more variables. This study aims to examine the influence of leadership and work motivation on employee productivity at PT. X, both partially and simultaneously, using multiple linear regression analysis.

Population and Sample

The population in this study consists of all employees of PT. X, totaling 109 individuals. These employees are distributed across several divisions, including operations, marketing, and finance. Considering the relatively large population size, the researcher employed a simple random sampling method to ensure data representativeness. Based on calculations using the Slovin formula, the number of samples taken for this study is 54 employees.

Table 1. Population and Sample Distribution Based on Division

Division	Number of Employees (Population)	Number of Samples
Operational Division	45	23
Marketing Division	35	17
Finance Division	29	14

Data collection technique

The data collection techniques used in this study consist of several methods, including:

- Questionnaire
  This study uses a questionnaire instrument consisting of a series of questions arranged using a Likert scale to measure respondents' perceptions of leadership variables, work motivation, and employee productivity.
- Interview
  Interviews were conducted to obtain more in-depth information regarding the variables studied, as well as to understand the factors that influence employee productivity.
- Observation
  Direct observation of working conditions and the relationship between employees and leaders was also conducted to support the data obtained through questionnaires and interviews.

Research Variables

This study uses three main variables, namely:
- Leadership (X_1)
  Measured based on the leadership style applied by managers or leaders at PT. X.

- Work Motivation (X_2)
  Measured based on the level of employee motivation to achieve optimal work results, which are influenced by factors such as rewards and work environment.
- Employee Productivity (Y)
  Measured based on employee work results in terms of quality, quantity, punctuality, and attendance.

Data Analysis Techniques

The collected data will be analyzed using multiple linear regression analysis to determine the simultaneous and partial effects between the variables studied. This analysis was carried out using the SPSS (Statistical Product and Service Solutions) statistical program to test the proposed hypothesis. The multiple linear regression analysis technique was chosen because this study involved more than one independent variable that influenced the dependent variable.

Hypothesis Testing

- Partial Test (t-test)
  Used to test the influence of each independent variable (leadership and work motivation) partially on the dependent variable (employee productivity).
- Simultaneous Test (F-test)
  Used to test whether the independent variables together have a significant effect on the dependent variable.
- Coefficient of Determination (R^2)
  Used to measure how much the independent variables contribute to explaining variations in the dependent variable.

RESULTS AND DISCUSSION

Multiple Linear Regression Analysis Test Results
In this study, multiple linear regression was used to test the simultaneous and partial influence between the variables of Leadership (X_1) and Work Motivation (X_2) on Employee Productivity (Y) at PT. X. The multiple linear regression model used in this study is as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \varepsilon$$

Where:
- Y = Employee Productivity
- X_1 = Leadership
- X_2 = Work motivation
- β_0 = Intercept
- β_1, β_2 = Regression coefficient for each independent variable
- ε = error

1. Regression Model Results
Based on calculations using SPSS software, the following are the results of the regression analysis obtained:

- Intercept Coefficient (β_0) = 2.7544
- Leadership Coefficient (β_1) = -0.1196
- Work Motivation Coefficient (β_2) = 0.2471

Thus, the resulting regression equation is:
$Y = 2.7544 - 0.1196 X_1 + 0.2471 X_2$

Explanation of coefficients:
- Intercept = 2.7544: If the values of both variables X_1 and X_2 are zero, then employee productivity is predicted to be 2.7544.
- Leadership (β_1) = -0.1196: Every one unit increase in the leadership variable will decrease employee productivity by 0.1196, but this effect is not statistically significant ($p > 0.05$).
- Work Motivation (β_2) = 0.2471: Every one unit increase in the work motivation variable will increase employee productivity by 0.2471.

2. Partial Significance Test (t-Test)
        The following is a table of t-test results for each independent variable (Leadership and Work Motivation)

Table 2. Results of Partial Significance Test (t-Test)

Variables	Coefficient	Std. Error	t-statistic	P-value	Significance
Constant	2.7544	0.683	4.035	0.000	Significant
Leadership	-0.1196	0.146	-0.818	0.417	Not Significant
Work motivation	0.2471	0.134	1.843	0.071	Marginal ($p < 0.1$)

3. Simultaneous Test (F-Test)
        To test whether the two independent variables have a simultaneous effect on employee productivity, an F-test was conducted. The results of the F-test are as follows:

- F-statistic: 2.305
- Prob (F-statistic): 0.110

        The p-value for the F test is 0.110, which is greater than 0.05, so it can be concluded that simultaneously, the leadership and work motivation variables do not have a significant effect on employee productivity at the 5% level.

4. Coefficient of Determination (R^2)
        The R^2 value obtained is 0.083, which indicates that only 8.3% of the variation in employee productivity can be explained by leadership and work motivation variables. This indicates that this regression model has limited predictive ability, and there are other factors that influence employee productivity that are not represented in this model.

Table 3. Results of Multiple Linear Regression Analysis

Variables	Coefficient	Std. Error	t-statistic	P-value	Significance
Constant	2.7544	0.683	4.035	0.000	Significant
Leadership	-0.1196	0.146	-0.818	0.417	Not Significant
Work motivation	0.2471	0.134	1.843	0.071	Marginal ($p < 0.1$)

Discussion
        The results of the multiple linear regression analysis conducted in this study indicate that the variables of Leadership and Work Motivation have an influence on Employee Productivity at PT. X. Based on the results of the analysis that has been carried out, here are some important points that can be discussed:

1. The Influence of Leadership on Employee Productivity

The results of the regression test show that Leadership has a negative coefficient (-0.1196), indicating that an increase in the leadership variable is related to a decrease in employee productivity. However, the p-value for leadership is 0.417, which is greater than 0.05, indicating that the influence of leadership on employee productivity is not statistically significant.

This phenomenon may be caused by several factors, such as the lack of ability of leaders to provide adequate support or direction, or leaders who tend to apply a leadership style that is not in accordance with employee needs. For example, if the leadership applied is more authoritarian or does not empower employees, this can actually reduce their work enthusiasm and productivity. This study is in line with research by Baharum & Sinaga (2015), which states that a less effective leadership style has a negative effect on employee performance.

2. The Effect of Work Motivation on Employee Productivity

On the other hand, Work Motivation shows a positive effect on employee productivity, with a coefficient of 0.2471. This result indicates that every increase in work motivation will increase employee productivity by 0.2471 units. The p-value for work motivation is 0.071, which is smaller than 0.1, so the effect of work motivation on employee productivity is significant at the 90% confidence level, although not significant at the 95% confidence level.

This finding indicates that work motivation is a more important factor than leadership in influencing productivity at PT. X. This is in line with Herzberg's (1959) theory of work motivation, which states that effective motivational factors, such as rewards and recognition for performance, can encourage employees to improve the quality and quantity of their work. Therefore, companies need to focus more on providing the right motivation to employees to improve their performance.

3. The Simultaneous Influence of Leadership and Work Motivation on Employee Productivity

The results of the F-test show that, simultaneously, the variables of Leadership and Work Motivation do not have a significant effect on Employee Productivity ($p > 0.05$). The obtained F-statistic value is 2.305 with a p-value of 0.110, which is greater than 0.05. This indicates that, although there may be individual effects from each variable, the combination of the two variables does not significantly explain the variation in employee productivity.

This phenomenon may suggest that other factors—such as training, workplace facilities, or broader working conditions—also play a significant role in influencing employee productivity. Risqon & Purwadi (2012) stated that in addition to leadership and motivation, other factors such as compensation and interpersonal relationships can also contribute to employee performance.

4. Determination Coefficient (R^2)

The R^2 value obtained is 0.083, which means that only 8.3% of the variation in employee productivity can be explained by the Leadership and Work Motivation variables. This shows that the regression model used cannot fully explain the variability in employee productivity, and there are still many other factors that affect employee performance that are not represented in this model. Therefore, it is recommended to include other variables in further research, such as training, skills development, and work environment conditions, which can also affect employee performance.

CONCLUSION

Based on the results of this study, it can be concluded that leadership at PT. X does not have a significant effect on employee productivity, although there is a tendency that the

leadership style applied tends to be related to decreased productivity. This may be due to the incompatibility of leadership style with employee needs. On the other hand, work motivation has a positive effect on productivity, although it is only significant at the 90% confidence level. This shows that work motivation plays a bigger role in driving employee performance than leadership. However, simultaneous tests show that both variables do not have a significant effect together on employee productivity, indicating that other factors not represented in this study may also play a major role. In addition, the low coefficient of determination (R^2) value indicates that there are still many other variables that affect employee productivity that need to be considered in further research. Therefore, PT. X is advised to pay more attention to strengthening work motivation and improving leadership style in order to improve overall employee performance.

SUGGESTION

For future research, several suggestions that can be considered are:
1. Including other factors such as training, compensation, and employee well-being.
2. Involving more companies or branches to obtain more representative results.
3. Conducting a longitudinal study to observe changes in the influence of leadership and motivation on productivity over time.

BIBLIOGRAPHY

1. Baharuddin, A., & Salam, R. (2020). Pengaruh Kepemimpinan Dan Motivasi Terhadap Kinerja Karyawan Pada PT. Niaga Bangun Persada Di Jakarta. JENIUS (Jurnal Ilmiah Manajemen Sumber Daya Manusia), 4(1), 1-11.
2. Baharum, S. P., & Sinaga, I. W. (2015). Pengaruh Kepemimpinan dan Motivasi Kerja Terhadap Kinerja Pegawai (Studi Pada Pegawai Lembaga Dewan Kawasan Perdagangan Bebas Pelabuhan Bebas Batam Bintan Karimun). Jurnal Akuntansi, Ekonomi dan Manajemen Bisnis, 3(2), 135-141.
3. Farista, G. (2020). Kinerja Karyawan pada PT. Bussan Auto Finance di Kota Palu. Katalogis, 5(4).
4. Inaray, J. C. (2016). Pengaruh Kepemimpinan Dan Motivasi Kerja. Volume 16 No. 02 Tahun 2016, 459-470.
5. Muizu, W. O. Z., Kaltum, U., & Sule, E. T. (2019). Pengaruh kepemimpinan terhadap kinerja karyawan. PERWIRA-Jurnal Pendidikan Kewirausahaan Indonesia, 2(1), 70-78.
6. Risqon, M., & Purwadi, D. (2012). Pengaruh Kepemimpinan, Kompensasi dan Kemampuan Kerja Terhadap Kinerja Karyawan. Jurnal Manajemen Indonesia, 13(2), 101-118.
7. Setiawan, A. (2017). Pengaruh Gaya Kepemimpinan Partisipatif Terhadap Kinerja Karyawan Melalui Motivasi Kerja Dan Kepuasan Kerja PT. Asri Motor Cabang Jenggolo. Agora, 5(2).
8. Siagian, S. P. (2001). Manajemen Sumber Daya Manusia. Jakarta: Bumi Aksara.
9. Wibowo, E. (2010). Manajemen Kinerja. Jakarta: Rajawali Press.
10. Sutrisno, H., & Hidayat, R. (2020). Pengaruh Gaya Kepemimpinan dan Motivasi Terhadap Kinerja Karyawan Pada PT. XYZ. Jurnal Manajemen dan Kewirausahaan, 8(2), 101–110.
11. Arifin, Z. (2019). Pengaruh Kepemimpinan Transformasional dan Motivasi Kerja Terhadap Produktivitas Karyawan. Jurnal Ilmiah Manajemen dan Bisnis, 20(1), 65–74.
12. Lestari, D., & Firmansyah, R. (2021). Pengaruh Kepemimpinan, Motivasi, dan Lingkungan Kerja Terhadap Kinerja Karyawan. Jurnal Ekonomi dan Bisnis, 5(1), 45–53.
13. Haryanto, A., & Sari, M. (2020). Hubungan Antara Kepemimpinan dan Motivasi dengan Produktivitas Karyawan pada Perusahaan Manufaktur. Jurnal Ekonomi Manajemen Sumber Daya, 4(3), 213–222.

14. Nugroho, R. A., & Putri, S. (2018). Analisis Pengaruh Gaya Kepemimpinan dan Motivasi Terhadap Kinerja Karyawan. Jurnal Riset Manajemen dan Bisnis, 13(1), 59–68.
15. Widodo, S., & Pramudyo, A. (2022). Pengaruh Kepemimpinan, Kompensasi, dan Motivasi terhadap Kinerja Karyawan. Jurnal Bisnis dan Manajemen, 14(2), 77–85.