



RESEARCH ARTICLE

The Influence of Leadership Style and Organizational Culture on Teacher Performance at SMA Negeri 2 Binjai

M. Adrian Sahputra¹, Soulthan Saladin Batubara², Ahmad Aswan Waruwu³

^{1,2,3} Universitas Pembangunan Panca Budi Medan

¹ madriansahputra6@gmail.com, ² soulthanbatubara@dosen.pancabudi.ac.id, ³ ahmadaswanwaruwu@dosen.pancabudi.ac.id

* corresponding author

ARTICLE INFO

ABSTRACT

Article history

Received
Revised
Accepted

Keywords

Leadership Style; Organizational Culture; Teacher Performance

Teachers as the spearhead of educational implementation are required to have optimal performance to achieve educational goals. This study aims to analyze the influence of principal leadership style and organizational culture on teacher performance at SMA Negeri 2 Binjai. This research employed a quantitative approach with an associative design. The population consisted of 81 teachers, all of whom were selected as samples using a total sampling technique. Data were collected through questionnaires measured on a Likert scale and analyzed using multiple linear regression with SPSS. The results show that leadership style and organizational culture partially and simultaneously have a positive and significant effect on teacher performance. These findings indicate that effective school leadership and a conducive organizational culture play an important role in improving teacher performance.

This is an open access article under the [CC-BY-SA](https://creativecommons.org/licenses/by-sa/4.0/) license.



Introduction

Improving teacher performance has become a crucial issue in line with the increasing demands for educational quality. Teachers are not only responsible for delivering learning materials but also serve as educators, mentors, and role models for students. Therefore, teacher performance must be managed systematically so that educational objectives can be optimally achieved.

One of the factors influencing teacher performance is the leadership style of the school principal. Effective leadership is capable of providing direction, motivation, and support to teachers in carrying out their professional duties. In addition to leadership, school organizational culture also plays a vital role in shaping teachers' work attitudes and behaviors. A conducive organizational culture creates a harmonious working environment and encourages performance improvement.

Based on these conditions, this study aims to analyze the influence of leadership style and organizational culture on teacher performance at SMA Negeri 2 Binjai.

Method

This study employed an associative approach with a correlational analytical design. Associative research aims to identify relationships and influences between independent variables and dependent variables. The independent variables in this study were leadership style (X_1) and organizational culture (X_2), while the dependent variable was teacher performance (Y).

The research population consisted of all 81 teachers at SMA Negeri 2 Binjai. A total sampling technique was applied, meaning that the entire population was used as the research sample. Data collection was conducted through closed-ended questionnaires using a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree).

The research instruments were tested for validity and reliability. Validity testing was conducted using the Pearson Product Moment correlation technique with the criterion of $r\text{-count} > r\text{-table}$ (0.218) at a 5% significance level. Reliability testing employed Cronbach's Alpha coefficient with the criterion $\alpha > 0.60$.

Data analysis techniques used multiple linear regression with the assistance of SPSS software. The regression equation model applied in this study was:

$$Y = a + b_1X_1 + b_2X_2 + e$$

Keterangan:

Y = Teacher Performance

a = Constant

b_1, b_2 = Regression coefficients

X_1 = Leadership Style

X_2 = Organizational Culture

e = Error

SPSS data analysis stages included classical assumption tests (normality test using Kolmogorov–Smirnov, multicollinearity test using Tolerance and VIF values, and heteroscedasticity test using the Glejser test), t-test (partial), F-test (simultaneous), and coefficient of determination (R^2).

Respondent Profile

The respondent profile aims to provide an overview of respondent characteristics, including gender, age, educational background, and length of service. The total number of respondents in this study was 81 teachers.

Table 1. Respondent Characteristics Based on Gender

Gender	Frequency	Percentage (%)
Male	24	29.63
Female	57	70.37
Total	81	100.0

Based on Table 1, respondents were dominated by female teachers (57 respondents or 70.37%), while male teachers accounted for 24 respondents (29.63%).

Table 2. Respondent Characteristics Based on Educational Level

Education Level	Frequency	Percentage (%)
Diploma (D3)	9	11.1
Bachelor's Degree (S1)	54	66.7
Master's Degree (S2)	18	22.2
Total	81	100.0

The majority of respondents held a Bachelor's degree, indicating adequate educational qualifications.

Table 3. Respondent Characteristics Based on Length of Service

Length of Service	Frequency	Percentage (%)
≤ 5 years	15	18.5
6–10 years	27	33.3
11–15 years	22	27.2
> 15 years	17	21.0
Total	81	100.0

Table 3 shows that the majority of respondents have a work tenure of 6–10 years, totaling 27 people (33.3%), which reflects sufficient work experience within the organization

Results and Discussion

Hypothesis testing in this study was conducted using multiple linear regression analysis through the SPSS program. The data processing results are presented as follows

Table 4. Instrument Validity Test Results

Variable	Item	r Calculated	r Table	Description
Leadership Style	X1.1	0,623	0,218	Valid
	X1.2	0,701	0,218	Valid
Organizational Culture	X2.1	0,672	0,218	Valid
	X2.2	0,739	0,218	Valid
Teacher Performance	Y1	0,741	0,218	Valid
	Y2	0,703	0,218	Valid

Based on the validity test results in Table 4, all statement items for the leadership style, organizational culture, and teacher performance statistics show an r-calculated value greater than the r-table of 0.218. This indicates that each statement item is capable of accurately measuring the intended statistical construct.

Statistical validity is a primary prerequisite in quantitative research because it determines the accuracy of the data obtained. A valid instrument reflects the consistency between theoretical concepts and the empirical statistics measured, so the resulting data can be used for further statistical analysis.

Table 5. Reliability Test Results

Variable	Cronbach Alpha	Description
Gaya Kepemimpinan	0,842	Reliabel
Budaya Organisasi	0,865	Reliabel
Kinerja Guru	0,879	Reliabel

The reliability test results in Table 5 show that the Cronbach's Alpha values for all variables are above the minimum threshold of 0.70. This indicates that the research instrument has a good level of internal consistency. A reliable instrument is capable of providing stable and consistent measurement results when used under the same conditions.

A reliable instrument is capable of providing stable and consistent measurement results when used under the same conditions. Thus, the questionnaire used in this study is feasible to be used as a data collection tool because it is dependable in measuring the variables of leadership style, organizational culture, and teacher performance.

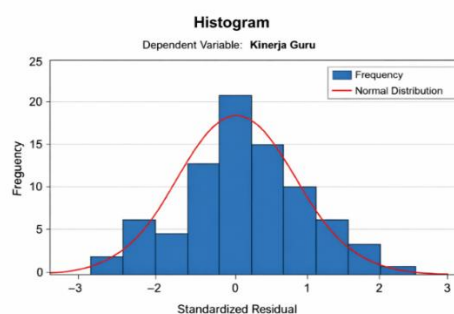


Figure 1. Normality Test

Based on the histogram graph, it can be seen that the data distribution forms a pattern that closely resembles a normal curve (bell-shaped). The data distribution appears symmetrical, with the highest frequency around the median value, and shows no extreme deviation to the left or right.

Thus, it can be concluded that the residual data in this study is normally distributed, so the normality assumption is met. Therefore, the research data is suitable for further statistical analysis, specifically multiple linear regression analysis.

Table 6. Normality Test Results

Sig.	Description
0,200	Data is normally distributed

Based on the Kolmogorov-Smirnov normality test results in Table 6, a significance value of 0.200 was obtained, which is greater than 0.05. This indicates that the residual data is normally distributed.

The fulfillment of the normality assumption indicates that the regression model used meets one of the main requirements of multiple linear regression analysis. A normal distribution of residuals allows for accurate and unbiased statistical conclusions.

Table 7. Multicollinearity Test Results

Variable	Tolerance	VIF	Description
Leadership Style	0,612	1,634	No multicollinearity
Organizational Culture i	0,612	1,634	No multicollinearity

The multicollinearity test results in Table 7 show that the Tolerance value for each independent variable is greater than 0.10 and the Variance Inflation Factor (VIF) value is less than 10. Thus, it can be concluded that there is no multicollinearity between the independent variables.

The absence of multicollinearity indicates that the leadership style and organizational culture variables are not highly correlated with each other, so each variable is able to explain its influence on teacher performance independently.

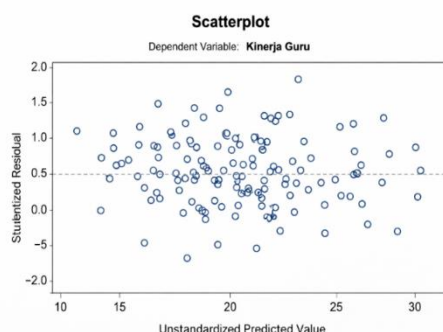


Figure 2. Heteroscedasticity Test

The heteroscedasticity test aims to determine whether there is an inequality of residual variance from one observation to another in the regression model. In this study, the heteroscedasticity test was conducted using a scatterplot graph, specifically by plotting the residual values against the predicted values.

Based on the scatterplot graph, it can be seen that the data points are spread randomly above and below the zero line on the Y-axis and do not form a specific pattern, such as a wave, funnel, or clear clustering. The distribution of the points is also relatively even along the X-axis.

Thus, it can be concluded that there is no indication of heteroscedasticity in the regression model used. Therefore, the regression model is declared to meet the heteroscedasticity assumption and is suitable for further statistical analysis, namely multiple linear regression analysis.

Table 8. Heteroscedasticity Test Results

Variable	Sig.	Description
Leadership Style	0,418	No heteroscedasticity
Budaya Organisasi	0,367	No heteroscedasticity

Based on the results of the heteroscedasticity test using the Glejser method in Table 8, the significance values for the leadership style and organizational culture variables are each greater than 0.05. This indicates that heteroscedasticity does not occur in the regression model.

The condition of homoscedasticity signifies that the residual variance is constant across all levels of the independent variables. With this assumption met, the regression model used is considered feasible for hypothesis testing.

Table 9. Multiple Linear Regression Results

Variable	B	Std. Error
Constant	12,347	2,118
Leadership Style	0,356	0,092
rganizational Culture	0,421	0,088

The results of the multiple linear regression analysis in Table 9 show that the leadership style and organizational culture variables have positive regression coefficients. This indicates that an improvement in leadership style and organizational culture will be followed by an increase in teacher performance.

The resulting regression equation indicates that organizational culture has a more dominant influence compared to leadership style, as evidenced by its larger regression coefficient value. This finding demonstrates the importance of establishing a conducive work culture to improve teacher performance within the school environment.

Based on the data processing results using the SPSS program, the multiple linear regression equation obtained is as follows:

$$Y = 12,347 + 0,356 X_1 + 0,421 X_2$$

A constant value of 12.347 indicates that if the leadership style (X_1) and organizational culture (X_2) variables are zero, then teacher performance (Y) has a value of 12.347.

The regression coefficient for the leadership style variable (X_1) of 0.356 indicates that every one-unit increase in leadership style will increase teacher performance by 0.356, assuming other variables are held constant.

The regression coefficient for the organizational culture variable (X_2) of 0.421 indicates that every one-unit increase in organizational culture will increase teacher performance by 0.421, assuming other variables are held constant. These results show that organizational culture has a more dominant influence on teacher performance compared to leadership style.

Thus, it can be concluded that the leadership style and organizational culture variables have a positive relationship with teacher performance.

Table 10. t-Test Results (Partial)

Variable	t-Calculated	Sig.	Description
Leadership Style	3,870	0,000	Significant
Organizational Culture	4,784	0,000	Significant

Based on the t-test results in Table 10, the leadership style and organizational culture variables each have a significance value of 0.000, which is smaller than 0.05. This indicates that both variables have a significant effect on teacher performance partially.

These results indicate that an effective principal's leadership style is capable of increasing teacher motivation and performance. Furthermore, a positive organizational culture contributes to the creation of a work environment that supports teacher professionalism.

Table 11. F-Test Results (Simultaneous)

F-Calculated	Sig.	Description
42,613	0,000	Significant

The F-test results in Table 10 show a significance value of 0.000, which is smaller than 0.05. This indicates that the leadership style and organizational culture variables simultaneously have a significant effect on teacher performance.

This finding strengthens the view that improving teacher performance cannot be done partially; instead, it requires synergy between effective leadership and a strong organizational culture.

Table 12. Coefficient of Determination

R	R Square	Adjusted R Square
0,725	0,526	0,513

The value of 0.513 (51.3%) provides a more accurate representation of the model's explanatory power by adjusting for the number of predictors. This means that approximately 51.3% of teacher performance is influenced by leadership style and organizational culture, while the remaining 48.7% is influenced by other factors not examined in this study, such as work motivation, teacher competence, or work environment.

Discussion

Based on the results of the data analysis and discussion conducted, several key findings describe the relationship between leadership style, organizational culture, and teacher performance at SMA Negeri 2 Binjai.

First, the principal's leadership style is proven to have a positive and significant influence on teacher performance. This finding indicates that effective leadership—characterized by the ability to provide direction, motivation, good communication, and firmness in decision-making—is able to improve teacher performance in carrying out professional duties. Teachers tend to show more optimal performance when led by a principal who can serve as a role model and provide continuous work support.

Second, organizational culture has a positive and significant influence on teacher performance, with an even more dominant level of influence compared to leadership style. This indicates that the values, norms, and work habits developed within the school environment play a vital role in shaping teacher work behavior. A conducive organizational culture encourages discipline, cooperation, and teacher commitment to improving the quality of learning.

Third, simultaneously, leadership style and organizational culture have a significant effect on teacher performance. This result confirms that improving teacher performance cannot be done in isolation but requires synergy between effective school principal leadership and a strong organizational culture. Leadership acts as a director and driver, while organizational culture functions as a reinforcer and maintainer of consistency in teacher work behavior.

Fourth, the value of the coefficient of determination shows that most of the variation in teacher performance can be explained by leadership style and organizational culture, while the rest is influenced by other factors outside of this study. This finding suggests that although these two variables are very important, there are additional factors such as work motivation, teacher competence, and the work environment that have the potential to affect teacher performance.

Overall, the results of the discussion confirm that teacher performance at SMA Negeri 2 Binjai is strongly influenced by the quality of the principal's leadership and the strength of the school's organizational culture. Therefore, efforts to improve teacher performance should focus on strengthening effective leadership and developing a positive and sustainable organizational culture.

Research Limitations

This study has several limitations that should be considered when interpreting the results. First, the scope of this research is limited to one educational unit, namely SMA Negeri 2 Binjai. Therefore, the results cannot yet be widely generalized to other schools that have different organizational characteristics, work cultures, and leadership styles.

Second, the variables examined in this study only include leadership style and organizational culture as factors affecting teacher performance. Meanwhile, there are other factors that potentially influence teacher performance, such as work motivation, professional competence, workload, job satisfaction, as well as physical and non-physical work environments that were not included in this research model.

Third, the data collection method using closed questionnaires with a Likert scale allows for respondent subjectivity bias. Respondents might provide socially desirable answers or responses that do not fully reflect the actual conditions, which can affect the accuracy level of the data obtained.

Fourth, the quantitative research design using a cross-sectional approach only describes the conditions at one specific time. Therefore, this study has not been able to capture changes in behavior, leadership style, organizational culture, and teacher performance dynamically over the long term.

With these limitations, the results of this study are expected to serve as an initial reference for future research that can expand the research object, add other relevant variables, and use more diverse methodological approaches to obtain a more comprehensive understanding of the factors affecting teacher performance

Conclusions and Recommendations

Based on the results of the data analysis and discussion regarding the influence of leadership style and organizational culture on teacher performance at SMA Negeri 2 Binjai, several comprehensive conclusions can be drawn as follows:

Leadership style of the principal is proven to have a positive and significant influence on teacher performance. This shows that a principal who is able to implement an effective leadership style—characterized by clear direction, open communication, motivation, and a fair yet firm attitude—can significantly improve teacher performance.

Organizational culture is proven to have a positive and significant influence on teacher performance, even more dominant than leadership style. This indicates that the values, norms, and habits within the school play a strategic role in shaping work behavior and creating a harmonious climate.

Simultaneously, leadership style and organizational culture have a positive and significant effect on teacher performance. This confirms that improvement requires synergy where leadership acts as the driver and culture acts as the value system that maintains consistency.

The coefficient of determination shows that leadership style and organizational culture explain more than half of the variation in teacher performance, while the rest is influenced by factors not studied here, such as professional competence and workload.

In conclusion, improving teacher performance at SMA Negeri 2 Binjai is highly dependent on effective leadership and a strong, positive organizational culture..

References

- Bass, B. M. 1990. *Bass & Stogdill's Handbook of Leadership: Theory, Research, and Managerial Applications*. New York: Free Press.
- Batubara, S. S., & Rambe, M. J. (2025). Peran Disiplin Kinerja dalam Meningkatkan Kinerja Pegawai pada Organisasi Publik. *Maneggio: Jurnal Ilmiah Magister Manajemen*, 8(2), 104-108.
- Batubara, S. S., Wulandari, N., & Satria, B. (2024). Kajian Empiris Kinerja ASN Ditinjau dari Perspektif Kepemimpinan, Budaya Organisasi dan Lingkungan Kerja. *EKOMA: Jurnal Ekonomi, Manajemen, Akuntansi*, 4(1), 1234-1244.
- Sihombing, K., & Waruwu, A. A. (2024). Analisis Motivasi Pengembangan Sdm Dan Kepuasan Kerja Terhadap Kinerja Karyawan Pada Pt. Roda Mas Auto Prima. *Nusantara: Jurnal Ilmu Pengetahuan Sosial*, 11(11), 4435–4442.
- Waruwu, A. A., & Litani, F. (2023). Analisis Stres Kerja, Motivasi Kerja Dan Lingkungan Kerja terhadap Kepuasan Kerja Karyawan PT Indo Teknik Tjandra Utama. *Innovative: Journal Of Social Science Research*, 3(4), 5648–5664.
- Waruwu, A. A., & SE, M. S. M. (2018). Pengaruh Kepemimpinan. Stres Kerja Dan Konflik Kerja.
- Waruwu, A. A., & Simanullang, L. (2022). Analisis Motivasi Kerja, Disiplin Kerja dan Insentif Terhadap Kinerja Karyawan. *ARBITRASE: Journal of Economics and Accounting*, 3(2), 447–454.

- Ahmad Aswan Waruwu. (2018). The Influence of Leadership, Work Stress and Work Conflict on Job Satisfaction and Its Impact on the Performance of Employees of the North Sumatra Provincial DPRD Secretariat. *Journal of Management Tools*. 10(2)
- Hersey, P. & Blanchard, K. H. 2017. *Management of Organizational Behavior: Leading Human Resources*. Pearson Education.
- Luthans, F. 2018. *Organizational Behavior: An Evidence-Based Approach*. New York: McGraw-Hill Education.
- Mangkunegara, A. P. 2017. *Manajemen Sumber Daya Manusia Perusahaan*. Bandung: PT Remaja Rosdakarya.
- Mulyasa, E. 2018. *Standar Kompetensi dan Sertifikasi Guru*. Bandung: Remaja Rosdakarya.
- Putri, D. A. 2022. Pengaruh Gaya Kepemimpinan dan Budaya Organisasi terhadap Kinerja Guru SMP Negeri di Medan. Skripsi. Universitas Negeri Medan.
- Rini, S. 2022. Pengaruh Budaya Organisasi terhadap Kinerja Guru di SMK Negeri 3 Medan. Skripsi. Universitas Negeri Medan.
- Rivai, V. 2018. *Kepemimpinan dan Perilaku Organisasi*. Jakarta: Rajawali Pers.
- Robbins, S. P. & Coulter, M. 2019. *Management*. Pearson Education.
- Robbins, S. P. & Judge, T. A. 2019. *Organizational Behavior*. Pearson Education.
- Sari, N. 2021. Pengaruh Gaya Kepemimpinan dan Budaya Organisasi terhadap Kinerja Pegawai Dinas Pendidikan Kota Medan. Skripsi. Universitas Sumatera Utara.
- Schein, E. H. 2017. *Organizational Culture and Leadership*. Wiley.
- Sembiring, R. 2023. Pengaruh Gaya Kepemimpinan Transformasional dan Budaya Organisasi terhadap Kinerja Guru di MAN 1 Langkat. Skripsi. Universitas Negeri Medan.
- Stogdill, R. M. 2018. *Handbook of Leadership: A Survey of Theory and Research*. Free Press.
- Undang-Undang Republik Indonesia Nomor 14 Tahun 2005 tentang Guru dan Dosen.
- Peraturan Menteri Pendayagunaan Aparatur Negara dan Reformasi Birokrasi Republik Indonesia Nomor 16 Tahun 2009 tentang Jabatan Fungsional Guru dan Angka Kreditnya