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Kiai Leadership, Institutional Climate, and Santri Learning Motivation: Examining Reciprocal Determinism in Indonesian *Pesantren* Education

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Abstract: Students' learning motivation can be shaped by the quality of the institutional environment and the leadership figures they encounter daily. Empirical studies that integrate Kiai leadership and institutional climate as simultaneous determinants within a single theoretical framework remain insufficient. This study addresses this gap by simultaneously and partially testing the influence of these two variables on students' learning motivation, grounded in Bandura's Social Cognitive Theory, which asserts that external environmental factors systematically shape an individual's motivational orientation. An associative quantitative approach was applied, involving 148 senior-level students at the Al-Madienah Denanyar *pesantren* in Jombang, selected through a proportionate stratified random sampling procedure. Data were collected via a Likert-scale questionnaire validated for reliability and validity, then analyzed using multiple linear regression. The results indicate that both variables simultaneously have a significant effect on students' learning motivation (R^2 = 0.240); however, when analyzed separately, only the institutional climate has a significant effect, while the leadership of the Kiai does not. These findings indicate that the institutional environmental conditions directly experienced by students have stronger predictive power over learning motivation than direct perceptions of the Kiai's leadership figure, thereby reinforcing Bandura's Social Cognitive Theory proposition that external environmental factors act as systematic determinants of individual motivational orientation. It is recommended that *pesantren* administrators prioritize strengthening the institutional climate, specifically in terms of relationships, discipline, engagement, and safety, as a key intervention in policies aimed at enhancing students' learning motivation.

***Abstrak**:* Motivasi belajar santri dapat dibentuk oleh kualitas lingkungan institusional dan figur kepemimpinan yang melingkupinya setiap hari. Beberapa kajian empiris yang mengintegrasikan kepemimpinan kiai dan iklim kelembagaan sebagai determinan simultan dalam satu kerangka teoritis masih belum memadai. Penelitian ini mengisi kesenjangan dengan menguji pengaruh kedua variabel tersebut terhadap motivasi belajar santri secara simultan dan parsial, berlandaskan Social Cognitive Theory Bandura yang menegaskan bahwa faktor lingkungan eksternal bekerja sebagai pembentuk sistematis orientasi motivasional individu. Pendekatan kuantitatif asosiatif diterapkan dengan melibatkan 148 santri tingkat Aliyah di Pondok *Pesantren* Al-Madienah Denanyar Jombang, dipilih melalui proportionate stratified random sampling. Data dikumpulkan melalui angket berskala Likert yang telah teruji validitas dan reliabilitasnya, kemudian dianalisis menggunakan regresi linier berganda. Hasil menunjukkan bahwa kedua variabel secara simultan berpengaruh signifikan terhadap motivasi belajar santri (R^2 = 0,240), namun secara parsial hanya iklim kelembagaan yang berpengaruh signifikan, sedangkan kepemimpinan kiai tidak berpengaruh langsung secara signifikan. Temuan ini mengindikasikan bahwa kondisi lingkungan institusional yang dirasakan langsung oleh santri memiliki daya prediktif lebih kuat terhadap motivasi belajar dibandingkan persepsi atas figur kepemimpinan kiai secara langsung, sekaligus memperkuat proposisi Social Cognitive Theory Bandura bahwa faktor lingkungan eksternal bekerja sebagai determinan sistematis orientasi motivasional individu. Direkomendasi bagi pengelola *pesantren* untuk menjadikan penguatan iklim kelembagaan relasi, kedisiplinan, keterlibatan, dan keamanan sebagai intervensi prioritas dalam kebijakan peningkatan motivasi belajar santri.

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INTRODUCTION

Learning motivation is a key predictor of academic success, yet data from the past decade reveal a concerning trend. Research has identified a decline in learning motivation as one form of learning loss among students during the pandemic, accompanied by reduced cognitive abilities and weaker student engagement in the learning process (Capone & Lepore, 2022; Gajderowicz et al., 2026). This situation is exacerbated by the fact that most Indonesian students are more accustomed to in-person learning, so the transition to online learning directly reduces their desire to learn and triggers demotivation (Iftanti et al., 2023; Kompri et al., 2023).

The Minister of Basic and Secondary Education of the Republic of Indonesia, Abdul Mu'ti, has openly stated that Indonesia is currently experiencing a rather serious learning loss, a condition in which students' motivation, learning abilities, and academic achievements have significantly declined. This condition stems from the ineffectiveness of learning during the pandemic, the impact of which is still being felt today, and has the potential to create learning gaps and prevent students from meeting national competency standards (Universitas Gajah Mada, 2025).

World Bank data indicate that Indonesian students have lost the equivalent of 0.9-1.2 years of learning, accompanied by a 25–35-point drop in literacy scores on the PISA, making this learning motivation crisis a structural issue requiring serious policy responses and scientific research (Kompasiana, 2025). Ideally, learning motivation should be the key to achieving optimal learning outcomes and should be embedded in all learning activities. Therefore, learning motivation can impact learning outcomes (Wahono, 2020), levels of discipline (Hagenauer, 2015), and students' resilience in the educational process (Ibrahim, 2021).

Bandura's Social Cognitive Theory (2001) provides a robust explanatory framework for learning motivation, asserting that human behavior, including learning motivation, is shaped by the interaction between external environmental factors and personal cognitive factors that operate systematically (Scott et al., 2024). In line with this theory, self-efficacy and academic achievement have been shown to influence each other reciprocally, forming a dynamic learning trajectory (Honicke, Broadbent, & Fuller, 2023). Woodcock and Tournaki (2023b) reinforce this argument by asserting that the influence of the environment, including institutional culture and authority figures, on students' personal beliefs is not sufficiently represented in existing measurement instruments; thus, empirical research on how leadership and institutional climate shape students' learning motivation has become a strategic and urgent research agenda.

Looking more broadly at the context of *pesantren's*, the leadership of the Kiai and the institutional climate are external factors that influence students' learning motivation as a behavioral-cognitive response within a continuous system. Research by Yusuf (2022) found that the role of the Kiai and a conducive learning environment influence students' learning motivation in *pesantrens*. These

conditions indicate that Kiai's leadership and the boarding school's climate influence students' personal factors (perceptions of learning, self-efficacy, values, and learning goals), which, in turn, shape their learning motivation. This motivation is then reflected in learning behavior (activity, discipline, and perseverance) and, in turn, provides feedback to the environment; motivated students can encourage the Kiai to maintain or improve their leadership style and build a conducive institutional climate (Kemaputri, 2024; Tang, 2019).

Robbins (2013), in organizational behavior, views individual behavior within an organization as influenced, in part, by the figure of a leader and their leadership style. In line with the *pesantren* tradition in Indonesia, the figure of the Kiai plays a central role as a leader, educator, and mentor to the students (Budiharso et al., 2023; Humaidi, 2024). Several studies indicate that leadership can contribute to character development and foster internal motivation among organizational members (Ballesteros et al., 2023; Hamdanah, 2022). In the context of *pesantren's*, improving students' learning motivation depends on the extent to which the religious leader actualizes his leadership to provide strong internal motivation through strategic steps to optimize the learning process at the boarding school (Aisyah et al., 2022; Jusubaidi et al., 2024).

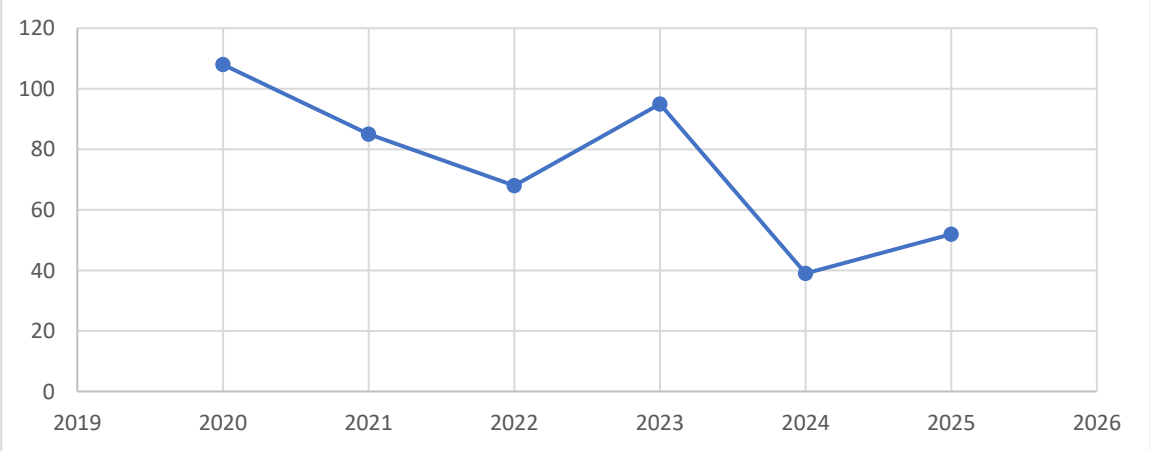


Figure 1. Fluctuations in Student Violations 2020–2025
Source: Al-Madienah *Pesantren* Student Violation Records

Data from a survey we conducted at the Al-Madienah Denanyar Jombang *pesantren*, involving 30 upper-secondary students, revealed that 73% of them exhibited low learning motivation. This situation reflects a fundamental issue regarding student learning motivation within the boarding school environment. Further data indicate that over the past 5 years, the number of student violations at the Al-Madienah Denanyar Jombang *pesantren* has fluctuated.

The data (Figure 1) on student violations at Al-Madienah Denannyar Jombang *Pesantren* shows significant fluctuations. In 2020, the number of violations reached 108, then steadily decreased to 68 by 2022. However, in 2023, there was a resurgence to 95 cases. After that, it dropped drastically in 2024 to 39 cases, and in 2025, there was a slight increase to 52 cases. This situation reflects a boarding school climate that is not yet fully conducive, which can affect students' motivation to learn. The boarding school climate encompasses norms, social relationships,

emotional atmosphere, and moral support within the boarding school environment (Halid et al., 2024; Kurniawan et al., 2023; Saparuddin, 2022).

A conducive environment enhances students' sense of security, comfort, and enthusiasm for learning (Aqil, 2024). If the boarding school atmosphere is not conducive, it can reduce motivation to learn and lead to deviant behavior (Ummah, 2025). Signs that students lack learning motivation can be observed through deviant behavior, such as violations of the boarding school rules (Baihaqi, 2017). The Gestalt psychosocial paradigm (1990) views individual behavior as determined by both internal and external factors. Thus, the continued presence of deviant behavior, such as student violations, indicates an unstable environment that can lead to a decline in students' learning motivation.

Previous research has extensively addressed this topic; a study by Maulana (2024) at the Al-Munawwir *Pesantren* in Bantul found that the paternalistic and charismatic leadership of the Kiai significantly increased student motivation, where the reciprocal relationship between the Kiai and students, based on respect and the hope for divine blessings, fosters the internalization of Islamic character while strengthening the spirit of learning. Zhao et al. (2023), through a survey of 1,417 students, demonstrated that school climate has a significant positive effect on achievement motivation ($c' = 0.177$, $p < 0.001$), with learning adaptability serving as a mediator and teacher support as a moderator that reinforces this effect.

Meanwhile, Collie et al. (2023), in a longitudinal study conducted over one school term involving 401 teachers across Australia, found that the quality of teacher-student relationships, measured through teachers' sense of relatedness with their students, consistently predicted teachers' vitality, engagement, and professional growth over time, which in turn fostered a classroom climate conducive to the development of student learning motivation. Bashori (2019) found, through a literature review on kiai leadership in Islamic educational institutions, that kiai who adopt transformational leadership patterns, encompassing idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration, are demonstrably capable of cultivating students' enthusiasm and commitment to learning.

Several previous studies have left gaps; the majority still overlook the core of Bandura's (2001) Social Cognitive Theory (SCT). This theory asserts that personal cognitive factors, specifically learning motivation, are systematically shaped by interactions with external environmental factors, such as leadership and institutional climate. The absence of a model that tests the simultaneous influence of Kiai leadership and institutional climate on students' learning motivation within an integrated SCT framework makes this research necessary and relevant.

Referring to the theoretical framework above and empirical support from previous studies, this research proposes three hypotheses: first, Kiai leadership has a positive and significant effect on santri learning motivation; second, institutional climate has a positive and significant effect on santri learning motivation; third, Kiai leadership and institutional climate jointly have a positive and significant effect on students' learning motivation. These three hypotheses position Kiai leadership and institutional climate as environmental factors, consistent with the SCT proposition that external determinants shape students' motivational orientation as learners.

METHOD

This study employs a quantitative, associative approach, a statistical method for analyzing relationships between variables using measurable instruments (Froehlich, 2020). This approach is deemed capable of measuring and analyzing the influence of Kiai leadership and the institutional climate on students' learning motivation at the Al-Madienah *Pesantren* in Denanyar, Jombang. The study population consists of all students enrolled in the Aliyah level (equivalent to high school), totaling 235 individuals, selected as the target population because they possess sufficient cognitive maturity to respond accurately to the research instruments. Sampling was conducted using the proportionate stratified random sampling technique to ensure proportional representation from each grade level (10th, 11th, 12th). The sample size was calculated using the Slovin formula with a 5% margin of error, resulting in a sample of 148 students.

$$n = \frac{N}{1+N.e^2} = \frac{235}{1+235.(0{,}05)^2} = \frac{235}{1+235.0{,}0025} = \frac{235}{1+0{,}5875} = \frac{235}{1{,}5875} = 148$$

The sample was then distributed proportionally across each stratum (see Table 1), resulting in 52 students from Grade X (out of a population of 82), 47 students from Grade XI (out of a population of 74), and 49 students from Grade XII (out of a population of 79). Respondents in each stratum were selected using simple random sampling to ensure equal chances of selection for every member within the same stratum.

Table 1. Calculation of Each Stratum

Formula	Grade	Population	Proportion	Sample
$n_i = \frac{N_i}{N} = n$	X	82	82/235 = 0,349	0,349 × 148 = 52 santri
	XI	74	74/235 = 0,315	0,315 × 148 = 47 santri
	XII	79	79/235 = 0,336	0,336 × 148 = 49 santri
	Total	**235**	**1,000**	**148 santri**

Data were collected using a self-report questionnaire distributed directly to respondents. The instrument was measured using a five-point Likert scale (1 = strongly disagree to 5 = strongly agree) to assess respondents' perceptions and attitudes. The research instrument was developed in three stages: (1) a theoretical review to establish indicators for each variable, (2) the formulation of statement items based on the established indicators, and (3) content validity through expert judgment to ensure the alignment of the items with the constructs being measured.

The variable of Kiai leadership was operationalized using an instrument developed based on prophetic leadership theory with four indicators: *siddiq* (honesty), *amanah* (integrity), *tabligh* (communication), and *fathanah* (intelligence) (Irfan et al., 2020). The institutional climate variable was adopted and adapted from the instruments by Saparuddin (2022) and Kemaputri (2024), which include six indicators: teacher-student relations, student-student relations, school-wide student engagement, clarity of expectations, fairness of rules, and school safety. The adaptation process involved adjusting the language and context to the *pesantren*

setting without altering the substance of the original constructs. The variables for students' learning motivation were developed based on the indicators of responsibility, perseverance on task, exerting effort, attention to feedback, time to complete tasks, and setting realistic goals (Affandi et al., 2025; Efendi et al., 2021). The validity and reliability of all instruments were assessed using corrected item-total correlations and Cronbach's alpha in a pilot study conducted before data collection with 30 students outside the research sample.

Table 2. Instrument Validity and Reliability Measurement

Variable	Indicator	Item	Calculated r (0,361)	Cronbach's Alpha	Note
Leadership of Kiai	*siddiq*	1-3	0,575	0,799	Valid and Reliable
	amanah	4-6	0,644		
	tabligh	7- 9	0,595		
	fathanah	10-12	0,550		
Pesantren Climate	*teacher-student relations*	1-2	0,593	0,890	Valid and Reliable
	student-student relations	3-4	0,727		
	student engagement	5-6	0,646		
	school-wide clarity of expectations	7-8	0,709		
	fairness of rules	9-10	0,685		
	school safety	11-12	0,695		
Learning Motivation	*responsibility*	1-2	0,635	0,858	Valid and Reliable
	persevere on task	3-4	0,642		
	have some effort	5–6	0,742		
	attention to feedback	7–8	0,663		
	time to complete task	9–10	0,635		
	set realistic goals	11-12	0,397		

Source: Analysis output (Appendix)

Based on Table 2, all items were identified as valid with calculated r values above the table r of 0.361. Additionally, the study's variables showed Cronbach's Alpha values exceeding 0.7 (Ghozali, 2021). Therefore, it can be concluded that each variable in this research instrument has a good level of reliability and is suitable for data collection.

Data collection was conducted in several structured stages, beginning with the submission of a research permit application, followed by coordination to schedule questionnaire administration times that would not disrupt the students' learning activities, and the direct distribution of paper-based questionnaires to 148 students. The research was conducted in accordance with research ethics principles by providing information regarding the research objectives, voluntary participation, the right to withdraw, and the guarantee of respondent anonymity. Informed consent was obtained from the boarding school administration, and all collected data were used solely for scientific purposes through procedures designed to minimize risks to respondents.

Data analysis involved four sequential stages. First, descriptive statistics were used to describe respondent characteristics and the distribution of responses for each variable. Second, classical assumption tests, including tests for normality, multicollinearity, and heteroscedasticity, were conducted to ensure the data's suitability for regression analysis (Ghozali, 2021). Third, multiple linear regression analysis was performed to test the effects of Kiai leadership and institutional climate on santri learning motivation, both partially and simultaneously. Fourth, hypothesis testing was conducted using the t-test for partial effects and the F-test for simultaneous effects, with $\alpha = 0.05$. The entire data tabulation process utilized Microsoft Excel, and statistical analysis was performed using SPSS version 27.

RESULTS AND DISCUSSION

Identification of Respondent Profile

In this study, 148 respondents were students at the Al-Madienah *Pesantren* in Denanyar, Jombang. By gender, 41% of respondents were male, and 59% were female. This composition indicates that the respondent population was dominated by female students, reflecting the actual conditions at the Al- Madienah boarding school.

Table 3. Characteristics of Respondents

Characteristics	Criteria	Count	Percentage
Gender	Male	60	41%
	Female	88	59%
Age	15 years old	23	16%
	16 years old	60	41%
	17 years old	52	56%
	18 years old	10	7%
Grade	X Aliyah	31	21%
	XI Aliyah	72	49%
	XII Aliyah	43	29%

The respondents in this study were predominantly students aged 17 (56%), followed by those aged 15 (16%), 16 (41%), and 18 (7%). Meanwhile, when classified by Aliyah grade level, 21% of the students were in 10th grade (10 Aliyah), 49% were in 11th grade (11 Aliyah), and 29% were in 12th grade (12 Aliyah).

Research Data Description

In this section, descriptive statistics are used to map the trends in respondents' answers. This study consisted of 148 respondents, with a measurement scale ranging from 5 to 1. This range was then divided by the number of categories on the 5- point scale, resulting in an interval of 1.6. This is evident in the data categorization table.

Table 4. Data Categorization

Result	Category
20% - 36%	Very low
36,1% - 52%	Low
52,1% - 68%	Moderate
68,1 - 84%	High
84,1% - 100%	Very high

The data obtained from the questionnaire were tabulated in Excel, and the accumulated data and their percentages were calculated, then categorized into the 5 predetermined scales.

Table 5. Description of Indicators

Variable	Indicator	Average	Percentage	Category
Leadership of Kiai	*siddiq*	693	93,7%	Very high
	amanah	713	96,4%	Very high
	tabligh	668	90,3%	Very high
	fathanah	700	94,6%	Very high
Institutional Climate	*teacher-student relations*	626	84,6%	Very high
	student-student relations	612	82,7%	Very high
	student engagement school-wide	625	84,4%	Very high
	clarity of expectations	637	86,1%	Very high
	fairness of rules	620	83,8%	High
	school safety	670	90,6%	Very high
Learning Motivation	*responsibility*	560,5	75,8%	High
	persevere on task	646	87,3%	High
	have some effort	586	79,2%	High
	attention to feedback	617,5	83,5%	High
	time to complete the task	576	77,9%	High
	set realistic goals	673,5	91%	Very high

The data in Table 5 show the respondents' average responses to several statements derived from the research indicators. The variable of Kiai leadership was developed into three statements derived from four indicators (*Siddiq, Amanah, Tabligh, Fathanah*); the results indicate a very high average score. The amanah indicator received a score of 96.4%, placing it in the very high category, indicating that the Kiai's leadership is perceived by students as trustworthy and responsible in both teaching and managing the *pesantren*.

The institutional climate variable comprises six indicators, each developed into two statements; overall, they showed a very high trend, except for the "fairness of rules" indicator, which received an average score of 83.8% (high). These data reflect that the institutional climate at Al-Madieanah *Pesantren* generally supports the learning process; however, there is room for improvement in students' perceptions of fairness in the application of rules.

As for the learning motivation variable, the six indicators, each comprising two items, show predominantly high ratings. Except for the "setting realistic goals" indicator, which scored very high (91%), the lowest score was recorded for the "responsibility" indicator with an average of 560.5 (75.8%), indicating that the aspect of responsibility in learning still needs improvement, such as completing assignments on time and independence in learning.

Prerequisite Test

Before performing multiple linear regression analysis, the model assumptions, which serve as prerequisites for the analysis must be met. Testing these prerequisites includes checks for normality, multicollinearity, and heteroscedasticity. Below are the results of the prerequisite tests conducted.

Normality Test

Based on the SPSS 27 analysis summary, the data are normally distributed. This is shown in Figure 2.

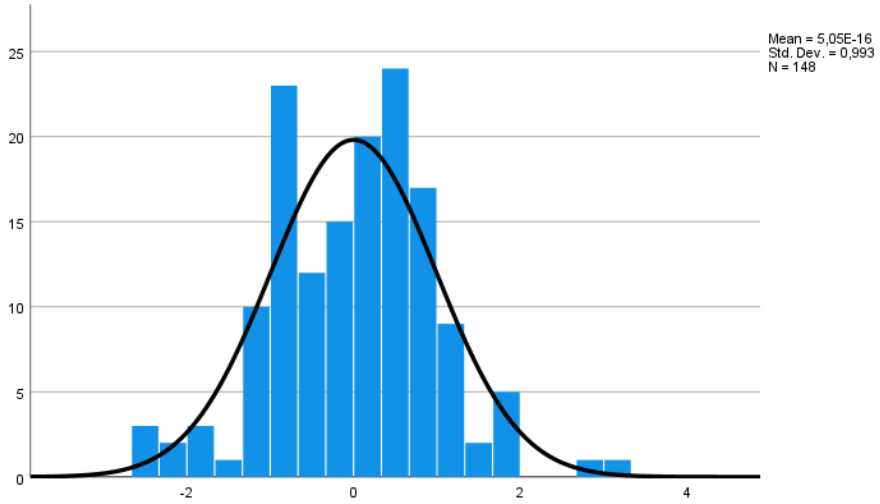


Figure 2. Results of the Normality Test
Source: SPSS Output Data (Appendix)

The normality histogram above shows a symmetrical bell-shaped curve, with a peak around a residual value of 0 and a relatively balanced distribution. The mean residual value of 5.05E-16 and the standard deviation of 0.993 indicate that the residual data distribution falls within reasonable limits. Thus, the regression model used in this study satisfies the assumption of normality of residuals.

Multicollinearity Test

Based on the SPSS version 27 analysis summary, the data showed no multicollinearity, as evidenced by the VIF and Tolerance values. This is shown in Table 6.

Table 6. Results of the Multicollinearity Test

Variable	***Collinearity Statistics***	
	Tolerance	**VIF**
Kiai Leadership	0,791	1,265
Institutional Climate	0,791	1,265

Source: SPSS Output Data (Appendix)

Table 6 shows that the tolerance value is greater than 0.1 and the VIF value is well below the critical value of 10; therefore, based on decision-making guidelines, there is no multicollinearity in the regression model used in this study.

Heteroscedasticity Test

The SPSS version 27 calculations yielded a scatterplot of the independent variables against student learning motivation, as shown in Figure 2.

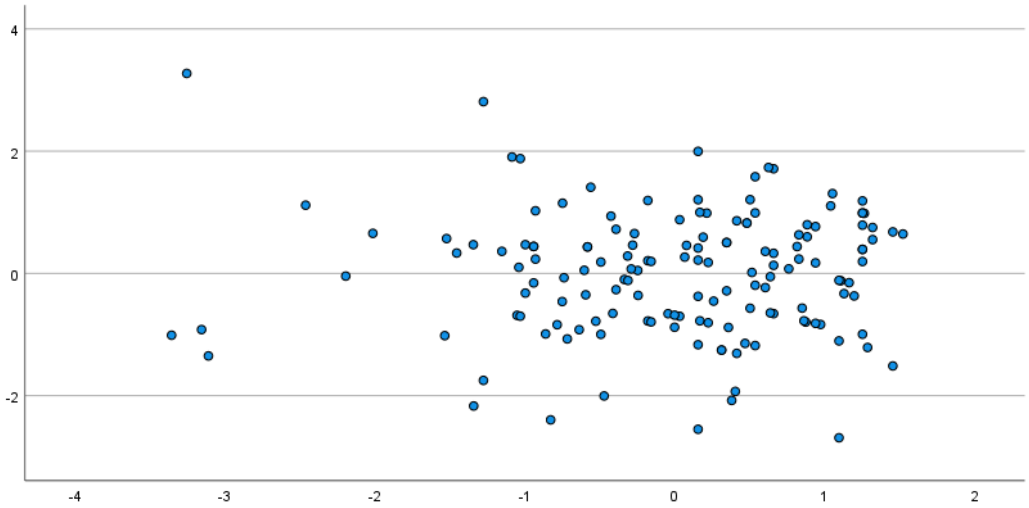


Figure 3. Heteroscedasticity Test Results
Source: SPSS Output Data (Appendix)

Based on Figure 2, the data points are randomly distributed above and below the Y-axis zero line. This indicates that the regression model used does not suffer from heteroscedasticity, thus fulfilling the assumption of constant error variance.

Multiple Linear Regression Analysis

Based on the regression analysis conducted using SPSS version 27, the following results were obtained.

Table 7. Result Multiple Linear Regression

Variable	B	Stdr. Error	t value	t table	P-value	Description
(Constant)	32,039					
Kiai Leadership	-0,096	0,119	-0,809	1.655	0,420	Negative but not significant
Institutional Climate	0,445	0,070	6,349	1.655	0,000	Positive Significant

Source: SPSS Output Data (Appendix)

Based on the summary of the multiple linear regression results in Table 7, the regression equation for this model is:

$$Y=32,039-0,096X_1+0,445X_2$$

The constant value indicates that if the variables of Kiai leadership and institutional climate are considered nonexistent (zero), the initial value of santri learning motivation is predicted to be 32.039. The coefficient for Kiai Leadership indicates that a 1-unit increase in perception of Kiai Leadership reduces students' learning motivation by 0.096; however, this is not significant ($p > 0.05$), so it has no statistically significant effect. Meanwhile, the institutional climate coefficient indicates that a one-unit increase in institutional climate increases students' learning motivation by 0.445, and this effect is statistically significant (< 0.05). Only the institutional climate variable has a positive and significant effect on students' learning motivation, whereas the Kiai's leadership does not. In other words,

students' learning motivation at the Al-Madienah Denanyar Jombang *Pesantren* is more determined by the quality of the boarding school's institutional environment than by the figure of the leader.

Hypothesis Testing

The next step is to test the hypotheses by interpreting the results of the linear regression analysis. The results are considered partially significant if the value (t-calculated > t-table), which means the alternative hypothesis (Ha) is accepted, and the null hypothesis (H0) is rejected. Conversely, if (t-calculated ≤ t-table), then (Ha) is rejected and (H0) is accepted. The results of the hypothesis testing are presented as follows.

Table 8. Summary of Hypothesis Testing Results

Hypothesis	Count	P-value	Description	Adjusted R Square
H1	t-value -0.809 > 1.655	0,420	Negative, not significant	
H2	t-value 6.349 > 1.655	0,000	Significant Positive	0,240
H3	F-value 22.931 > 3.06	0,000	Significantly Positive	

Source: SPSS Output Data (Appendix)

Referring to the data in Table 7, it is noted that the Kiai leadership variable obtained a calculated t-value of -0.809, which is smaller than the critical t-value of 1.655, and a p-value of 0.420 > 0.05. These results indicate that Kiai leadership has a negative but insignificant effect. In other words, Ha1 is rejected, and H01 is accepted, indicating that Kiai leadership has no significant effect on students' learning motivation. Furthermore, the institutional climate variable yields a calculated t-value of 6.349, which is greater than the critical t-value of 1.655, and a p- value of 0.000 ($p < 0.05$). These results indicate that the institutional climate has a positive and significant effect. In other words, Ha2 is accepted, and H02 is rejected, indicating a significant effect of the boarding school's institutional climate on students' learning motivation.

The test of the third hypothesis showed that the calculated F-value of 22.931 was greater than the critical F-value of 3.06 at a significance level of 0.05, yielding a p-value of 0.000, which is smaller than the critical value. Therefore, Ha3is accepted, and H03is rejected. Thus, it can be concluded that Kiai leadership and institutional climate have a simultaneous, positive, and significant effect on students' learning motivation at the Al-Madienah *Pesantren* Denanyar Jombang. Further analysis shows that the coefficient of determination in the partial model is 0.240, or 24%. This indicates that students' learning motivation is influenced by Kiai leadership and institutional climate by 24%, while the remaining 76% is influenced by other variables not examined in this study.

Discussion

The fact that this study found the Kiai's leadership to be insignificant regarding students' learning motivation does not mean the Kiai's role is irrelevant; rather, it indicates that its influence operates through more complex and indirect pathways, within the framework of Bandura's triadic reciprocal

determinism(1978), individual behavior is not solely influenced by a single factor but is the product of dynamic interactions among personal factors (cognition, beliefs, self-efficacy), the environment, and the behavior itself. In this discourse, the Kiai's role is better understood as a determinant of the institutional environment rather than as a direct stimulus to students' motivation.

This finding aligns with Alzoraiki et al. (2024) who found that transformational leadership indirectly influences students' academic achievement through school culture as a mediator. This means that a leader, no matter how charismatic, does not automatically transfer their energy to students' learning motivation without the mediation of internalized environmental conditions. The Kiai plays a central role as a moral, spiritual, and social leader, while the quality of institutional services reflects the institution's ability to meet stakeholder expectations (Hamdanah et al., 2025; Humaidi et al., 2024). Confirms that the Kiai's leadership functions more as an architect of the institutional climate rather than as a direct operator of students' motivation.

Kiai leadership within *pesantren* culture is characterized by adherence to prevailing cultural and religious values, where the Kiai leads with a charismatic style imbued with authority and responsibility (Wajdi et al., 2022). This charismatic authority, however, creates a certain psychological distance between the Kiai and the students. Functionally, students place the figure of the Kiai in a sacred position that inspires obedience more than it explicitly encourages a drive to learn (Aisyah et al., 2022). Research in school contexts indicates that for individuals with high learning enthusiasm and a strong spirit of exploration, the leadership role in stimulating motivation through the meaning of work may become insignificant; a similar phenomenon occurs among santri whose motivation is driven more by their daily environment than by the figure of the highest leader (Bao, 2024).

Another interpretation worth considering is the phenomenon of cultural embeddedness in Kiai leadership. *Pesantren* have undergone gradual transformations in leadership, pedagogy, and institutional forms, while maintaining the Kiai lineage as the basis of traditional legitimacy (Muttaqin, 2025). This implies that the Kiai's authority has become an inseparable part of the institution's identity, so that its influence no longer stands as a separate variable but has become integrated into the overall institutional climate. This condition explains why, to some extent, Kiai leadership appears to have no significant impact on learning motivation.

Furthermore, the significance of the institutional climate as a predictor of students' learning motivation is supported by several studies. From Bandura's perspective, if teachers or leaders modify the environment through warm feedback and predictable routines, students are more likely to attempt and persist in the face of academic challenges (Lazarides et al., 2020; Scott et al., 2024; Woodcock et al., 2023a). The institutional climate is the concrete manifestation of the environment that students experience every day, not just occasionally through meetings with the Kiai, but through daily interactions with rules and regulations, teachers, facilities, and fellow students.

A healthy organizational culture in *Pesantren's* contributes to the creation of a productive and harmonious work and learning environment; therefore,

understanding how organizational culture influences motivation is crucial in efforts to improve the quality of education in *Pesantren's* (Hammons, 2023; Lacks et al., 2018; Salle et al., 2015). A conducive climate provides a psychological scaffold that enables students to build self-efficacy (a key element in Bandura's SCT), thereby allowing intrinsic motivation to grow organically (Bandura, 2001).

The reciprocal relationship between self-efficacy and academic achievement has been well documented, in which self-efficacy influences academic achievement and vice versa, creating a feedback loop in which each element reinforces the other (Honicke et al., 2023). The finding of a significant simultaneous influence of Kiai leadership and institutional climate collectively reinforce the argument that these two variables operate within a single interconnected ecosystem rather than as entirely independent forces.

A coefficient of determination of 24% indicates that there is still ample room for other variables, such as students' self-efficacy, family support, quality of learning, and future orientation, to explain learning motivation. Recent research indicates that eco-pedagogical transformation in *pesantren*, led by Kiai, can strategically foster strong learning motivation and institutional identity by internalizing values through habituation and exemplary behavior (Aminah et al., 2026). This signals that *Pesantren's* need to diversify the sources of student motivation, shifting from reliance on the figure of the Kiai to a more structured, measurable institutional climate.

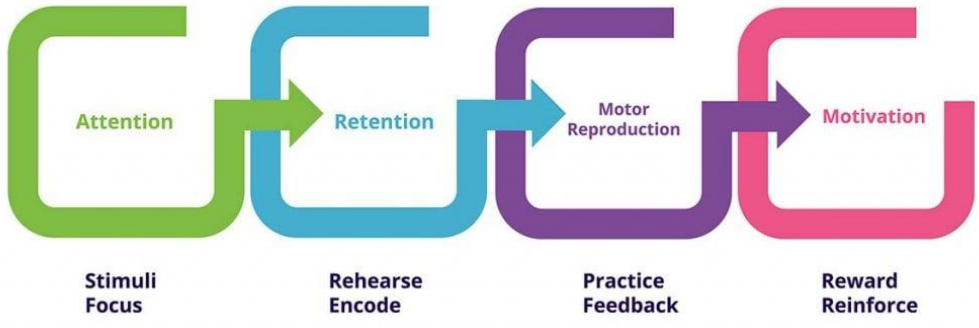


Figure 4. Social Learning Theory
Source: (SimplyPsychology, 2025)
https://www.simplypsychology.org/bandura.html

When linked to Bandura's Social Learning Theory, as shown in Figure 4, motivation is the final stage of a series of social learning processes that begins with attention, followed by information retention, behavioral reproduction, and reinforcement (motivation/ reinforcement). The lack of significance of Kiai leadership in learning motivation indicates that the figure of the Kiai does not necessarily interact directly at the motivation stage but rather operates more in the early stages of the social learning process, as reflected in the *pesantren's* institutional climate. Research by Kılınç et al. (2025) shows that transformational leadership is more effective in schools with a performance-oriented motivational climate, suggesting that leadership effectiveness is contextual and highly dependent on the quality of the established climate.

The significance of the institutional climate indicates that the *pesantren* environment serves as the primary medium for students to consistently gain learning experiences, feedback, role modeling, and social reinforcement. These findings align with the assumptions of Social Learning Theory, which holds that individual behavior and motivation develop more easily when supported by an environment that provides learning experiences and a continuous system of reinforcement (Bandura, 1977, 2001). For *pesantren's* administrators, these findings point to a clear policy direction: invest in the institutional climate by improving governance, enhancing teacher quality, upgrading facilities, and creating meaningful academic routines. These represent the most direct and measurable interventions to boost students' learning motivation.

CONCLUSION

This study concludes that the leadership of the Kiai and the institutional climate simultaneously have a significant effect on students' learning motivation at the Al-Madienah Denanyar *pesantren* in Jombang, contribution for 24% of the variance (R^2 = 0.240). In comparison, the remaining 76% is influenced by other variables outside the model. Only the institutional climate was found to have a significant effect, whereas Kiai's leadership did not. These findings indicate that the institutional environmental conditions directly experienced by students, including the quality of relationships, clarity of rules, and the safety of the boarding school, have stronger predictive power over learning motivation than direct perceptions of the Kiai's leadership figure. This also reinforces Bandura's Social Cognitive Theory, which posits that external environmental factors act as systematic determinants of an individual's motivational orientation.

These findings have direct practical implications for *pesantren* management. Strengthening the institutional climate, particularly regarding the quality of teacher-student relationships, the enforcement of fair rules, and the maintenance of a safe environment, should be made a strategic priority in efforts to enhance students' learning motivation. Although the Kiai's leadership was not found to have a significant direct effect, the Kiai still plays a central role in shaping a conducive institutional climate through policies, exemplary behavior, and the institutional culture they foster; thus, the effectiveness of the Kiai's leadership likely operates indirectly through the formation of the quality of the institutional environment.

This study has several limitations that must be acknowledged: the cross-sectional design limits causal inferences; the scope of a single *pesantren* limits generalizability; and the relatively low R^2 value suggests the need to explore other variables such as self-efficacy, family support, and learning quality. Further research is recommended to test the role of institutional climate as a mediator of the relationship between Kiai leadership and learning motivation, to expand the model with the variable of santri self-efficacy, and to use a comparative design across *pesantren* or a mixed-methods approach to produce a more comprehensive understanding and stronger causal inferences.

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REFERENCES

Affandi, G. R., Hadi, C., Fardana, N. A., & Rahman, M. N. B. A. (2025). Adaptation and validation of the Achievement Emotions Questionnaire academic boredom subscale in Indonesian Islamic boarding schools. *Islamic Guidance and Counseling Journal, 8*(2). https://doi.org/10.25217/0020258654400

Aisyah, S., et al. (2022). Kiai leadership concept in the scope of pesantren organizational culture. *Tafkir: Interdisciplinary Journal of Islamic Education, 3*(1), 40–59. https://doi.org/10.31538/tijie.v3i1.106

Alzoraiki, M., et al. (2024). The role of transformational leadership in enhancing school culture and teaching performance in Yemeni public schools. *Frontiers in Education, 9*, Article 1413607. https://doi.org/10.3389/feduc.2024.1413607

Aminah, S., & Prayogo, M. S. (2026). Transforming Islamic education through eco-pedagogy: Strategic leadership of kiai in pesantren. *Mumtaz: Jurnal Pendidikan Agama Islam, 5*(4), 1117–1147. https://doi.org/10.69552/mumtaz.v5i4.3621

Aqil Juniardi, M., et al. (2024). Meta analisis pengaruh iklim kelas terhadap motivasi belajar siswa. *Dirasah: Jurnal Studi Ilmu dan Manajemen Pendidikan Islam, 7*(2), 466–476. https://doi.org/10.58401/dirasah.v7i2.1114

Baihaqi, M. (2017). Motif santri dalam melakukan pelanggaran di Pondok Pesantren Modern Darul Ulum Peterongan Jombang. *Kajian Moral dan Kewarganegaraan, 5*(3). https://doi.org/10.26740/kmkn.v5n03

Ballesteros, L. A. A., et al. (2023). Motivation and leadership in higher education. *Revista Caribeña de Ciencias Sociales, 12*(5), 2021–2034. https://doi.org/10.55905/rcssv12n5-002

Bandura, A. (1977). *Social learning theory*. Prentice-Hall.

Bandura, A. (1978). The self system in reciprocal determinism. *American Psychologist, 33*(4), 344–358.

Bandura, A. (2001). Social cognitive theory: An agentic perspective. *Annual Review of Psychology, 52*(1), 1–26. https://doi.org/10.1146/annurev.psych.52.1.1

Bao, Y. (2024). The effect of principal transformational leadership on teacher innovative behavior: The moderator role of uncertainty avoidance and the mediated role of the sense of meaning at work. *Frontiers in Education, 9*, Article 1378615. https://doi.org/10.3389/feduc.2024.1378615

Bashori, B. (2019). Kepemimpinan transformasional kyai pada lembaga pendidikan Islam. *Al-Tanzim: Jurnal Manajemen Pendidikan Islam, 3*(2), 73–84. https://doi.org/10.33650/al-tanzim.v3i2.535

Budiharso, T., Bakri, S., & Sujito, S. (2023). Transformation of education system of the pesantren in Indonesia from the Dutch colony to democratic era. *Journal of Social Studies Education Research, 14*(4), 179–206.

Capone, R., & Lepore, M. (2022). From distance learning to integrated digital learning: A fuzzy cognitive analysis focused on engagement, motivation, and participation during the COVID-19 pandemic. *Technology, Knowledge and Learning, 27*(4), 1259–1289. https://doi.org/10.1007/s10758-021-09571-w

Collie, R. J., & Martin, A. J. (2023). Teacher well-being and sense of relatedness with students: Examining associations over one school term. *Teaching and Teacher Education, 132*, Article 104233. https://doi.org/10.1016/j.tate.2023.104233

Efendi, M., & Norhabibi. (2021). Faktor yang mempengaruhi motivasi belajar santri di Pondok Pesantren Darul Ilmi. *Vidya Karya, 36*(2), 92–102. https://doi.org/10.20527/jvk.v36i2.10295

Froehlich, D. E., et al. (2020). Linking quantitative and qualitative network approaches: A review of mixed methods social network analysis in education research. *Review of Research in Education, 44*(1), 244–268. https://doi.org/10.3102/0091732X20903311

Gajderowicz, T., et al. (2026). The learning crisis: Three years after COVID-19. *Learning and Instruction, 104*, Article 102373. https://doi.org/10.1016/j.learninstruc.2026.102373

Ghozali, I. (2021). *Aplikasi analisis multivariate dengan program IBM SPSS* (9th ed.). Badan Penerbit Universitas Diponegoro.

Hagenauer, G., et al. (2015). Teacher emotions in the classroom: Associations with students' engagement, classroom discipline and the interpersonal teacher–student relationship. *European Journal of Psychology of Education, 30*(4), 385–403. https://doi.org/10.1007/s10212-015-0250-0

Halid, A., et al. (2024). Transforming the quality of santri based on pesantren culture. *Edukasia Islamika, 9*(1), 79–96. https://doi.org/10.28918/jei.v9i1.7237

Hamdanah, H. (2022). Pengaruh kepemimpinan pesantren terhadap kualitas santri. *Aksioma Ad-Diniyah, 10*(1). https://doi.org/10.55171/jad.v10i1.652

Hamdanah, H., et al. (2025). Perceptions of the kiai figure and service quality towards sustainable reputation improvement in pesantren. *Munaddhomah: Jurnal Manajemen Pendidikan Islam, 6*(4), 695–709. https://doi.org/10.31538/munaddhomah.v6i4.1785

Hammons, J. (2023). School climate and teachers' instructional quality: A cross-sectional study. *Journal of Teacher Education, 10*(3), 45–58.

Honicke, T., et al. (2023). The self-efficacy and academic performance reciprocal relationship: The influence of task difficulty and baseline achievement on learner trajectory. *Higher Education Research & Development, 42*(8), 1936–1953. https://doi.org/10.1080/07294360.2023.2197194

Humaidi, A., et al. (2024). The centrality of kyai in establishing moderate understandings in salafiyyah pesantren. *Nazhruna: Jurnal Pendidikan Islam, 7*(3), 554–569. https://doi.org/10.31538/nzh.v7i3.3

Ibrahim, W. S., et al. (2021). Dukungan sosial terhadap resiliensi pada santri di Makassar. *Jurnal Psikologi Karakter, 1*(1), 26–31. https://doi.org/10.56326/jpk.v1i1.1095

Iftanti, E., Imelda, I., & Yunita, W. (2023). Uncovering EFL learners' demotivation towards English online learning during the COVID-19 pandemic in Indonesia. *Studies in English Language and Education, 10*(1), 96–119. https://doi.org/10.24815/siele.v10i1.25401

Irfan, B., et al. (2020). The role of prophetic leadership on workplace spirituality at sufism-based Islamic boarding school. *Journal of Business and Behavioural Entrepreneurship, 4*(1), 122–129. https://doi.org/10.21009/JOBBE.004.1.09

Jusubaidi, J., Lindgren, T., Mujahidin, A., & Rofiq, A. C. (2024). A model of transformative religious education: Teaching and learning Islam in Pondok Modern Darussalam Gontor, Indonesia. *Millah: Journal of Religious Studies, 23*(1), 171–212. https://doi.org/10.20885/millah.vol23.iss1.art6

Kemaputri, S. D. (2024). *Pengaruh iklim sekolah dan resiliensi terhadap kesejahteraan subjektif santri* (Undergraduate thesis). UIN Syarif Hidayatullah Jakarta.

Kılınç, A. Ç., et al. (2025). Linking transformational leadership to teacher commitment and alienation: Do motivational climate profiles moderate? *Educational Management Administration & Leadership, 53*(3), 536–560. https://doi.org/10.1177/17411432231184602

Kompasiana. (2025). *Learning loss ancam generasi emas Indonesia, apa solusinya?* https://www.kompasiana.com/aidhilpratama7463/67e185b7c925c433c902f032/learning-loss-ancam-generasi-emas-indonesia-apa-solusinya

Kompri, N. A. H. S., & Novitri, A. (2023). Pengaruh pembelajaran tatap muka pasca pandemi COVID-19 terhadap minat belajar siswa MI/SD. *Madrasatuna, 3*(2).

Kurniawan, F., et al. (2023). The influence of students' environment on students' learning motivation. *Journal of Digital Learning and Distance Education, 1*(8), 297–305. https://doi.org/10.56778/jdlde.v1i8.58

Lacks, P., & Watson, S. B. (2018). The relationship between school climate and teacher self-efficacy in a rural Virginia school system. *School Leadership Review, 13*(1), 48–58.

Lazarides, R., & Warner, L. M. (2020). Teacher self-efficacy. *Oxford Research Encyclopedia of Education*. https://doi.org/10.1093/acrefore/9780190264093.013.890

Maulana, F. J., & Ernawati, F. (2024). Kepemimpinan kyai sebagai kunci motivasi santri kalong di pesantren: Sebuah studi kasus. *Nusantara: Jurnal Pendidikan Indonesia, 4*(2), 607–620. https://doi.org/10.14421/njpi.2024.v4i2-20

Muttaqin, A. I. (2025). Institutional adaptation of Islamic boarding schools in Indonesia: Balancing tradition and modern education. *Al-Tanzim: Jurnal*

Manajemen Pendidikan Islam, 9(3), 1016–1029. https://doi.org/10.33650/al-tanzim.v9i3.11585

Robbins, S. P., & Judge, T. A. (2013). *Organizational behavior* (15th ed.; D. Angelica, Trans.). Salemba Empat.

Rock, I., & Palmer, S. (1990). The legacy of Gestalt psychology. *Scientific American, 263*(6), 84–91.

Salle, T. P. La, et al. (2015). A cultural-ecological model of school climate. *International Journal of School & Educational Psychology, 3*(3), 157–166.

Saparuddin, S., & Ismail, M. I. (2022). Pengaruh kurikulum dan iklim pesantren terhadap akhlak santri pada Pondok Pesantren DDI Kaballangang. *Al-Musannif, 3*(2), 101–112. https://doi.org/10.56324/al-musannif.v3i2.48

Scott, W. D., et al. (2024). The social-cognitive clinician: On the implications of social cognitive theory for psychotherapy and assessment. *International Journal of Psychology, 59*(5), 616–623. https://doi.org/10.1002/ijop.13125

SimplyPsychology. (2025). *Albert Bandura's social learning theory*. https://www.simplypsychology.org/bandura.html

Tang, M., et al. (2019). Transformative-prophetic leadership pattern in management of education institutions (Muhammad SAW leadership study). *International Journal on Advanced Science, Education, and Religion, 2*(2), 34–52. https://doi.org/10.33648/ijoaser.v2i2.34

Ummah, N., et al. (2025). The role of Islamic boarding schools in shaping the character of santri. *International Journal on Advanced Science, Education, and Religion, 8*(2), 256–264. https://doi.org/10.33648/ijoaser.v8i2.912

Universitas Gadjah Mada. (2025). *Mendikdasmen: Pelajar Indonesia mengalami learning loss*. https://ugm.ac.id/id/berita/mendikdasmen-pelajar-indonesia-mengalami-learning-loss/

Wahono, B., et al. (2020). Evidence of STEM enactment effectiveness in Asian student learning outcomes. *International Journal of STEM Education, 7*(1), Article 36. https://doi.org/10.1186/s40594-020-00236-1

Wajdi, F., et al. (2022). The pattern of leadership of kiai in managing learning pesantren. *Nidhomul Haq: Jurnal Manajemen Pendidikan Islam, 7*(1). https://doi.org/10.31538/ndh.v7i1.1832

Woodcock, S., & Tournaki, N. (2023). Bandura's triadic reciprocal determinism model and teacher self-efficacy scales: A revisit. *Teacher Development, 27*(1), 75–91. https://doi.org/10.1080/13664530.2022.2150285

Yusuf, M. (2022). The effect of prophetic leadership on employee work motivation at the Islamic higher education. *Al-Tanzim: Jurnal Manajemen Pendidikan Islam, 6*(1), 195–206. https://doi.org/10.33650/al-tanzim.v6i1.3326

Zhao, K., et al. (2023). School climate and left-behind children's achievement motivation: The mediating role of learning adaptability and the moderating role of teacher support. *Frontiers in Psychology, 14*, Article 1040214. https://doi.org/10.3389/fpsyg.2023.1040214