

Zainal Mustafidin^{1*}, Muhammad Thoyib²

THE INFLUENCE OF KYAI LEADERSHIP AND INSTITUTIONAL MANAGEMENT ON SANTRI DISCIPLINE: The Mediating Role of Self-Awareness in an Islamic Boarding School Context

^{1,2}UIN Kiai Ageng Muhammad Besari Ponorogo, Indonesia

Email: zeinbinali10@gmail.com^{1*}, thoyib@iainponorogo.ac.id²

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Abstract: *Discipline is a fundamental component of character formation in Islamic boarding schools (pesantren). However, disciplinary violations among santri persist despite the presence of kyai leadership, the implementation of ta'zir (Islamic disciplinary sanctions), and institutional supervision, indicating that external control mechanisms alone may be insufficient to foster sustainable discipline. This study examines the relationships among Kyai Leadership, Educational Management Performance, Ta'zir, Self-Awareness, and Student Discipline using a quantitative design. Self-Awareness is conceptualized as a psychological internalization mechanism grounded in character education and self-regulation theory. Data were collected from 113 santri through purposive sampling and analyzed using Partial Least Squares–Structural Equation Modeling (PLS–SEM). The measurement model met established reliability and validity thresholds. The structural model explains 58.40% of the variance in Student Discipline ($R^2 = 0.584$), indicating substantial explanatory power. The results show that Kyai Leadership does not have a significant direct effect on Student Discipline ($\beta = 0.023$; $T = 0.217$; $p = 0.828$), suggesting that charismatic authority alone may no longer serve as a primary predictor of disciplined behavior. In contrast, Educational Management Performance significantly influences Self-Awareness ($\beta = 0.604$; $T = 4.057$; $p < 0.001$) and Student Discipline ($\beta = 0.318$; $T = 2.689$; $p = 0.007$). Self-Awareness also significantly affects Student Discipline ($\beta = 0.489$; $T = 4.429$; $p < 0.001$) and partially mediates the relationship between management performance and discipline ($\beta = 0.296$; $T = 2.836$; $p = 0.005$). These findings indicate a shift from authority-based discipline toward system-based governance supported by psychological internalization processes and suggest strengthening institutional management alongside students' self-regulatory development.*

Kata kunci: *Islamic Boarding School Leadership; Ta'zir (Islamic Disciplinary Sanction); Educational Management Performance; Self-Awareness; Student Discipline in Pesantren.*

INTRODUCTION

Educational institutions are fundamentally responsible for cultivating students' character, with discipline serving as a core value that underpins effective learning and moral development. Discipline refers to individuals' compliance with institutional rules, policies, and normative standards that regulate behavior within educational environments. However, persistent disciplinary violations among students indicate that disciplinary systems often succeed at formal regulation but fall short in fostering internalized self-regulation (Jordan & Adiyanti, 2023). This condition suggests that discipline should not merely be understood as an external control mechanism, but as a developmental process requiring the integration of structural, normative, and psychological dimensions (Slamet & Pujianti, 2024)

In contemporary educational settings, disciplinary challenges are increasingly shaped by broader socio-institutional transformations. Modernization, institutional accountability, and the growing emphasis on character education reform have reshaped expectations toward educational governance, including within Islamic boarding schools. Pesantren are no longer perceived solely as traditional authority-based institutions, but are increasingly required to demonstrate structured management, transparency, and measurable educational outcomes. This transformation places pressure on disciplinary systems to move beyond charismatic authority and formal sanctioning toward more sustainable models of internal moral development. Consequently, examining discipline in pesantren today requires attention not only to institutional control mechanisms but also to how such mechanisms are psychologically internalized by students (Mauludin et al., 2025)

Within this broader educational landscape, Islamic boarding schools (pesantren) represent a distinctive institutional context where academic instruction, moral education, and daily life supervision are integrated into a continuous educational process. Pesantren have historically functioned as centers for religious transmission, character formation, and social control within Muslim communities (Chotimah et al., 2023). The residential nature of pesantren places santri under constant supervision and moral guidance, primarily shaped by the authority of the kyai, institutional regulations, and administrative structures (Aini & Rijal, 2022). Consequently, student discipline becomes a central institutional concern, as it directly affects order, character development, and the achievement of educational objectives (Ilham Muttaqin, Zulhannan, Umi Hijriyah, 2023).

Despite the existence of well-established disciplinary systems, empirical observations indicate that disciplinary challenges persist in many pesantren contexts. At Al-Islam Islamic Boarding School in Ponorogo, for instance, disciplinary violations such as tardiness in attending classes, leaving the boarding school without permission, and failure to perform scheduled communal duties continue to occur, even though formal regulations, ta'zir (disciplinary sanctions), kyai leadership, and administrative supervision have been implemented. This situation reflects a critical gap between institutional control mechanisms and the actual behavioral outcomes of santri. The persistence of such violations highlights the urgency of examining not only how disciplinary systems are designed, but also how they are internalized by students.

Previous studies on discipline in Islamic boarding schools reveal several dominant research trends. First, a substantial body of research emphasizes leadership-centered models, positioning kyai leadership as the primary determinant of student discipline. These studies consistently report a positive relationship between kyai leadership and santri discipline (Khusnan et al., 2025; Samiya, 2023). However, this approach tends to assume that leadership influence operates directly and uniformly, without sufficiently accounting for students' internal psychological responses to leadership authority.

Ta'zir or punishment is a means of guidance to correct behaviour that is not in accordance with community values and regulations. Punishment catalyses positive change (Rahmatullah, 2021). According to Abdul Qadir and Wahbah Az-Zuhali, the ta'zir conceptually has two main dimensions. The first is preventive, in that ta'zir serves to prevent the perpetrator from repeating their criminal actions. Second, another strand of research focuses on punitive and normative mechanisms, particularly the implementation of ta'zir as a means of enforcing discipline. Ta'zir is commonly conceptualized as an educational sanction designed to deter misconduct and reinforce institutional norms (Agustin et al., 2024; Alhadi et al., 2022). While empirical findings confirm its effectiveness in reducing violations, this line of research often prioritizes behavioral compliance and overlooks whether ta'zir contributes to long-term internalization of disciplinary values.

Mangkunegara define performance as the results achieved by individuals or groups within an organisation. These results are obtained in accordance with the duties, authorities, and responsibilities of each individual or group and are directed toward achieving the organisation's objectives (Syarweny et al., 2024). Third, institutional and administrative performance has been examined as an operational factor influencing discipline, emphasizing the role of administrators in supervising daily activities and ensuring rule enforcement (Prabowo & Hasanah, 2024). Although these studies demonstrate that effective management supports orderly behavior, they largely treat students as passive recipients of institutional control, offering limited insight into the psychological processes that mediate institutional influence.

Collectively, these research trends reveal a significant limitation: the dominance of external, structural explanations of discipline, accompanied by insufficient attention to internal psychological mechanisms. In response to this gap, recent educational and psychological scholarship highlights self-awareness as a critical factor in transforming external regulation into internal discipline. Self-awareness refers to an individual's capacity to recognize emotions, understand personal behavior, and evaluate the consequences of one's actions (Govanny et al., 2021a). Through self-awareness, students are more likely to comply with rules based on conscious understanding and moral responsibility rather than coercion or fear of punishment. Empirical studies have demonstrated that self-awareness significantly predicts disciplined behavior in educational settings (Yuliana et al., 2023).

The persistence of leadership-centered and sanction-based approaches in prior research also reflects a broader assumption that authority driven discipline remains inherently effective within pesantren contexts. However, contemporary institutional shifts raise an important question: whether traditional authority-based disciplinary paradigms continue to

operate effectively under changing educational expectations (Martaki et al., 2023; Nuraeni et al., 2022). The integration of structural authority, normative sanctioning, and psychological internalization therefore requires empirical re-examination. Rather than presuming the direct effectiveness of kyai leadership or ta'zir, this study critically reassesses their influence through the mediating mechanism of self-awareness, thereby testing whether discipline is sustained through external control, internal regulation, or a combination of both. However, despite its theoretical relevance, self-awareness has rarely been examined as a mediating mechanism linking kyai leadership, ta'zir, and institutional management to student discipline in pesantren contexts. Existing studies predominantly test direct effects, leaving unanswered questions regarding how external institutional forces interact with students' internal psychological processes. This theoretical fragmentation underscores the need for an integrative model that empirically tests self-awareness as a mediating variable rather than treating it as an auxiliary factor.

Therefore, this study aims to examine the influence of kyai leadership, ta'zir, and institutional management performance on santri discipline, with self-awareness serving as a mediating variable, within the context of Al-Islam Islamic Boarding School in Ponorogo. Given the multidimensional structure of the proposed model integrating multiple latent constructs and testing indirect effects through mediation Partial Least Squares Structural Equation Modeling (PLS-SEM) is methodologically appropriate. PLS-SEM is particularly suitable for prediction oriented research involving complex models with hierarchical relationships and mediating pathways, allowing simultaneous estimation of structural and measurement components (Shela et al., 2026). Its application in this study is therefore not merely methodological innovation but a theoretical necessity to rigorously examine the interplay between structural authority, institutional management, normative sanctioning, and psychological internalization.

By employing Partial Least Squares Structural Equation Modeling (PLS-SEM), this study seeks to validate an integrative model that bridges structural, normative, and psychological dimensions of discipline formation. The findings are expected to contribute theoretically by refining models of discipline in Islamic educational institutions and practically by informing leadership strengthening, evaluation of reward–punishment systems, optimization of administrative roles, and integration of self-awareness into pesantren management practices.

RESEARCH METHOD

This study employed a quantitative survey approach with an explanatory and correlational design. Survey research enables the examination of relationships among sociological and psychological variables based on data collected from a sample representing a defined population (Sembiring et al., 2024). The analytical framework utilized Partial Least Squares-Structural Equation Modeling (PLS-SEM), a second-generation multivariate technique suitable for examining predictive and structural relationships among multiple latent constructs within a single model. PLS-SEM is particularly appropriate for research involving complex mediation structures, relatively small sample sizes, and prediction-

oriented objectives. Unlike covariance-based SEM (CB-SEM), PLS-SEM does not require strict normality assumptions and is well suited for exploratory theoretical development in emerging research contexts such as pesantren-based educational studies (Hair et al., 2021).

The research was conducted at Al-Islam Islamic Boarding School in Ponorogo, which was selected due to its distinctive institutional characteristics. Al-Islam integrates the national curriculum, traditional salaf pesantren curriculum, and modern pesantren curriculum, representing a comprehensive and contemporary Islamic boarding school model. In addition, it is one of the leading pesantren in Ponorogo, with MTs and MA educational units accredited A (Excellent) and demonstrated achievements in both academic and non-academic fields. These characteristics make the institution a relevant and information-rich context for examining discipline formation in the pesantren environment.

The research population consisted of 160 fourth-grade santri (70 male and 90 female) residing in the boarding school dormitories during the 2025/2026 academic year. A nonprobability purposive sampling technique was applied using predefined criteria: (1) fourth-grade santri, (2) residing in the pesantren dormitory, and (3) not serving as student administrators. Based on these criteria, 113 santri were selected as respondents. This sample size is considered adequate for PLS-SEM analysis, particularly for models involving mediation and multiple latent constructs (Arunraju Chinnaraju, 2025). The adequacy of the sample size ($n = 113$) was evaluated based on PLS-SEM recommendations. Following the "10-times rule," the minimum sample size should be at least ten times the maximum number of structural paths directed at any construct in the model. In this study, the most complex endogenous construct (Student Discipline) receives three direct paths, indicating a minimum requirement of 30 observations. Therefore, the final sample exceeds this threshold and is considered statistically sufficient for estimating complex mediation models using PLS-SEM.

Data were collected using a self-administered questionnaire measuring five constructs: Islamic Boarding School Leadership (Kyai Leadership) (X1), Ta'zir (Islamic Disciplinary Sanction) (X2), Educational Management Performance (X3), Self-Awareness (Z), and Student Discipline in Pesantren (Y). All items were measured using a five-point Likert scale ranging from strongly disagree (1) to strongly agree (5). To reduce potential common method bias, respondents were assured of anonymity, informed that there were no right or wrong answers, and questionnaire items were grouped according to their respective constructs (Fauzan et al., 2023).

All constructs in this study were specified as reflective measurement models. This decision was based on theoretical reasoning that the observed indicators are manifestations of underlying latent constructs. Changes in the latent variables (e.g., kyai leadership, self-awareness, or student discipline) are expected to cause corresponding changes in their indicators, and the indicators are assumed to be interchangeable and correlated. Therefore, a reflective specification is conceptually appropriate for representing leadership perceptions, disciplinary attitudes, management performance evaluations, and psychological self-awareness. The measurement instruments were adapted from previously

validated studies relevant to leadership, disciplinary sanctions, management performance, and self-awareness. To ensure contextual suitability within the pesantren environment, items were reviewed and adjusted linguistically without altering their conceptual meaning. A preliminary review was conducted with two experts in Islamic education management to assess content validity and clarity. Minor revisions were made to ensure cultural appropriateness and comprehensibility for santri respondents (Prasetyo, 2025).

Data analysis followed standard PLS-SEM procedures. First, the measurement model (outer model) was evaluated by assessing indicator reliability, convergent validity, discriminant validity, and internal consistency. Indicator loadings above 0.70 and Average Variance Extracted (AVE) values of at least 0.50 were considered acceptable. Construct reliability was assessed using Cronbach’s Alpha, rho_A, and Composite Reliability (CR), with threshold values exceeding 0.70. Discriminant validity was examined using the Heterotrait–Monotrait (HTMT) ratio, with values below 0.85 indicating adequate construct distinctiveness. Multicollinearity among indicators and constructs was assessed using Variance Inflation Factor (VIF), with values below 5 considered acceptable (Daryono et al., 2023).

Second, The structural model (inner model) was evaluated by examining path coefficients, coefficient of determination (R^2), effect size (f^2), and predictive relevance (Q^2). R^2 values were interpreted as indicators of explanatory power, while f^2 values were used to assess the relative impact of exogenous constructs on endogenous variables. Predictive relevance (Q^2) was examined using the blindfolding procedure. Direct and indirect effects were tested using a bootstrapping procedure with a two-tailed significance test at the 5% level. Mediation effects were assessed by examining the significance of indirect paths and their confidence intervals. A mediation effect was considered significant when the bootstrapped confidence interval did not include zero. The type of mediation (partial or full) was determined by comparing the significance of direct and indirect effects simultaneously (Saifudin et al., 2024).

Table 1. *The Construct of the Research Variables*

Variables	Indicators	Construct	Reference
Kyai Leadership (X ₁)	Vision and Articulation	KK1	(Sepmady Hutahaeen, 2021)
	Personal Risk	KK2	
	Sensitivity to the environment	KK3	
	Sensitivity to subordinates' needs	KK4	
	Unconventional behavior	KK5	
Ta'zir (X ₂)	Recommendations and Orders	T1	(Dilia et al., 2022)
	Prohibitions	T2	
	Coercion	T3	

	Notifications	T4	
	Reprimands	T5	
	Warnings	T6	
	Physical punishment	T7	
Educational Management Performance (X ₃)	Work Quality	KPP1	(Telaumbanua et al., 2024)
	Work speed/accuracy	KPP2	
	Initiative at work	KPP3	
	Work ability	KPP4	
	Communication	KPP5	
Self-Awareness (Z)	Recognising Your Own Feelings and Behaviour;	SA1	(Sugiarto & Suhaili, 2022)
	Recognising Your Own Strengths and Weaknesses;	SA2	
	Having an Independent Attitude;	SA3	
	Being Able to Make the Right Decisions	SA4	
	Being Skilled at Expressing Thoughts, Feelings, Opinions, and Beliefs;	SA5	
	Being able to evaluate oneself.	SA6	
Student Discipline (Y)	Arriving at school and leaving school on time;	KS1	(Melati et al., 2021)
	Obedying school rules and regulations;	KS2	
	Completing every assignment given;	KS3	
	Submitting assignments on time, following the rules of proper and correct language;	KS4	
	Wearing the uniform according to the applicable regulations;	KS5	
	Bring learning equipment appropriate to the subject.	KS6	

RESULT AND DISCUSSION

Interpretation of Analysis Results: Evaluation of Measurement Models (Outer Models)

Evaluating the measurement model (outer model) is a critical stage in PLS-SEM analysis to ensure that the indicators adequately represent their respective latent constructs in a valid and reliable manner. Measurement model evaluation primarily focuses on assessing convergent validity, reliability, and discriminant validity to confirm that the constructs are both conceptually and empirically sound (Setiabudhi et al., 2025). By examining the relationships between indicators and their latent variables, researchers can determine whether the measurement instruments appropriately capture the intended theoretical dimensions of Islamic boarding school leadership, institutional management performance, self-awareness, and student discipline (Rahadi, 2023).

Based on the results presented in Table 2, all indicators exhibit factor loading values above the recommended threshold of 0.70, ranging from 0.706 to 0.885. These loading values indicate the strength of the relationship between each indicator and its corresponding latent construct, rather than the proportion of variance explained. When squared (λ^2), the loadings suggest that the indicators explain approximately 49.8% to 78.3% of the variance in their respective constructs, which is considered acceptable in social science research. Furthermore, the Average Variance Extracted (AVE) values for all constructs exceed the minimum criterion of 0.50, ranging from 0.579 for Self-Awareness to 0.637 for Kyai Leadership, indicating satisfactory convergent validity.

With regard to Student Discipline, the indicator Arriving at School and Leaving School on Time (KS1) demonstrates the highest loading value (0.823), indicating a strong alignment with the latent construct. This finding suggests that punctuality constitutes a core behavioral manifestation of discipline among santri within the Islamic boarding school context. However, this loading should be interpreted as reflecting indicator–construct consistency rather than as a direct percentage of discipline explained. In contrast, the indicator Bringing Learning Equipment in Accordance with Subjects (KS6) shows a comparatively lower loading (0.707), placing it near the minimum acceptable threshold. Despite this, the indicator was retained due to its theoretical relevance, as preparedness for learning reflects responsibility and adherence to institutional norms in pesantren education. Indicators with marginally acceptable loadings may also reflect contextual specificity rather than conceptual inadequacy.

Table 2. *Outer Model: Convergent Validity and Reliability*

Variables	Construct	Convergent Validity		Consistency Reliability		
		FL ≥0.70	AVE ≥0.50	CA ≥0.70	rho_A ≥0.70	CR ≥0.70
Kyai Leadership (X ₁)	KK1	0.775	0.637	0.857	0.874	0.897

	KK2	0.765				
	KK3	0.885				
	KK4	0.846				
	KK5	0.706				
Ta'zir (X ₂)	T1	0.775	0.606	0.892	0.908	0.915
	T2	0.709				
	T3	0.784				
	T4	0.785				
	T5	0.864				
	T6	0.712				
	T7	0.808				
Educational Management Performance (X ₃)	KKP1	0.792	0.613	0.845	0.857	0.888
	KKP2	0.808				
	KKP3	0.857				
	KKP4	0.718				
	KKP5	0.732				
Self Awareness (Z)	SA1	0.734	0.579	0.854	0.857	0.892
	SA1	0.782				
	SA3	0.781				
	SA4	0.756				
	SA5	0.799				
	SA6	0.712				
Student Discipline (Y)	KS1	0.823	0.604	0.869	0.873	0.901
	KS2	0.820				
	KS3	0.780				
	KS4	0.798				
	KS5	0.727				
	KS6	0.707				

Reliability analysis further supports the robustness of the measurement model. As shown in Table 2, all constructs demonstrate Cronbach's Alpha (CA), rho_A, and Composite Reliability (CR) values exceeding the recommended threshold of 0.70. CA

values range from 0.845 to 0.892, rho_A values from 0.857 to 0.908, and CR values from 0.888 to 0.915, indicating strong internal consistency among indicators and confirming that the instruments reliably measure Kyai Leadership, Ta'zir (Islamic disciplinary sanction), Institutional (Educational) Management Performance, Self-Awareness, and Student Discipline.

Table 3. *Discriminat Validity: The Fornell Larcker*

Variables	X ₁	X ₃	Z	Y	X ₂
Kyai Leadership	0.798				
Educational Management Performance	0.672	0.783			
Self Awareness	0.504	0.718	0.761		
Student Discipline	0.482	0.684	0.728	0.777	
Tazir	0.721	0.775	0.617	0.532	0.778

Table 4. *Discriminat Validity: The HTMT*

Variables	X ₁	X ₃	Z	Y	X ₂
Kyai Leadership					
Educational Management Performance	0.757				
Self Awareness	0.571	0.819			
Student Discipline	0.540	0.779	0.844		
Tazir	0.801	0.891	0.684	0.581	

Discriminant validity was assessed using both the Fornell–Larcker criterion and the Heterotrait–Monotrait Ratio (HTMT). As presented in Table 3, the square root of the AVE for each construct exceeds its correlations with other constructs, indicating that each latent variable explains more variance in its own indicators than it shares with others. This pattern is consistently observed across all constructs, confirming adequate discriminant validity. Additionally, the HTMT values reported in Table 4 range from 0.540 to 0.891, all below the recommended threshold of 0.90, further supporting the empirical distinctiveness of the constructs and indicating the absence of problematic multicollinearity. Particular attention should be given to the relatively high HTMT value (0.891) observed between Ta'zir and Institutional Management Performance. Although this value remains below the conservative threshold of 0.90, its proximity to the cut-off suggests strong conceptual proximity between disciplinary enforcement and administrative governance within the

pesantren context. Rather than indicating measurement redundancy, this empirical closeness likely reflects the structural integration of ta'zir practices within institutional management systems, where disciplinary mechanisms are administratively coordinated and supervised. Therefore, the observed correlation may represent authentic organizational interdependence rather than a threat to discriminant validity.

Table 5. *Outer VIF Value*

	VIF		VIF
KK1	1.667	T1	3.311
KK2	1.924	T2	2.958
KK3	2.885	T3	3.029
KK4	3.631	T4	3.876
KK5	2.462	T5	3.994
KPP1	3.285	T6	3.472
KPP2	3.071	T7	4.792
KPP3	2.781	KS1	3.620
KPP4	3.758	KS2	3.444
KPP5	3.037	KS3	3.619
SA1	3.293	KS4	3.405
SA2	4.497	KS5	3.294
SA3	2.521	KS6	2.522
SA4	3.051		
SA5	3.923		
SA6	3.690		

Table 6. *Inner VIF Value*

	Student Discipline	Kyai Leadership	Educational Management Performance	Self Awareness	Ta'zir
Student Discipline					
Kyai Leadership	2.237			2.236	

Educational Management Performance	3.457	2.698
Self Awareness	2.102	
Ta'zir	3.140	3.083

Table 7. *Cross Loading Value*

Konstruk	Student Discipline	Kyai Leadership	Educational Management Performance	Self Awareness	Ta'zir
KK1	0.451	0.775	0.565	0.469	0.648
KK2	0.376	0.765	0.512	0.355	0.577
KK3	0.413	0.885	0.626	0.469	0.629
KK4	0.389	0.846	0.548	0.388	0.566
KK5	0.246	0.706	0.375	0.275	0.396
KPP1	0.589	0.573	0.792	0.690	0.598
KPP2	0.600	0.644	0.808	0.644	0.649
KPP3	0.566	0.529	0.857	0.526	0.587
KPP4	0.437	0.439	0.718	0.405	0.606
KPP5	0.442	0.394	0.732	0.475	0.605
KS1	0.823	0.424	0.599	0.584	0.460
KS2	0.820	0.417	0.605	0.602	0.475
KS3	0.780	0.449	0.559	0.561	0.452
KS4	0.798	0.362	0.519	0.599	410
KS5	0.727	0.282	0.445	0.517	0.332
KS6	0.707	0.296	0.440	0.530	0.333
SA1	0.510	0.350	0.598	0.734	0.484
SA2	0.568	0.398	0.600	0.782	0.509
SA3	0.572	0.459	0.543	0.781	0.516
SA4	0.562	0.330	0.437	0.756	0.406
SA5	0.67	0.416	0.566	0.799	0.503

SA6	0.504	0.336	0.521	0.712	0.387
T1	0.432	0.672	0.658	0.462	0.775
T2	0.286	0.475	0.553	0.324	0.709
T3	0.315	0.542	0.606	0.472	0.784
T4	0.357	0.537	0.546	0.503	0.785
T5	0.560	0.625	0.706	0.613	0.864
T6	0.330	0.426	0.517	0.358	0.712
T7	0.532	0.610	0.617	0.539	0.808

It is important to clarify that HTMT assesses discriminant validity, not multicollinearity. Multicollinearity was examined separately using Variance Inflation Factor (VIF) values, all of which were below the recommended threshold of 5, indicating that collinearity does not distort structural parameter estimates. Additional evidence of discriminant validity was obtained through cross-loading analysis, in which each indicator loaded higher on its assigned construct than on other constructs.

Evaluation of Structural Model (Inner Model)

In Partial Least Squares Structural Equation Modeling (PLS-SEM), the evaluation of the structural model (inner model) focuses on assessing the model's explanatory power and predictive relevance for endogenous constructs. This evaluation examines how well the exogenous variables explain variance in the endogenous variables and how accurately the model predicts empirical outcomes. Structural model assessment provides insight into the strength and relevance of hypothesized relationships and supports interpretation of the underlying behavioral and organizational dynamics in the research context (Hair et al., 2022).

Table 8. *Measurement of Structural Model: R², f²*

Variables	Coefficient Determinant (R ²)		Effect Size (F ²)	
	Value	Decision	Value	Decision
	X ₁	-	-	0.001
X ₂	-	-	0.018	Small
X ₃	-	-	0.286	Medium
Z	0.524	Moderate	0.279	Medium
Y	0.584	Moderate	-	-

As presented in Table 8, the R² value for Student Discipline in Pesantren is 0.584, indicating that Islamic Boarding School Leadership (Kyai Leadership), Ta'zir (Islamic Disciplinary Sanction), Educational Management Performance, and Self-Awareness

collectively explain 58.40% of the variance in santri discipline. In educational and behavioral research, an R^2 value above 0.50 is generally considered moderate to substantial, suggesting that the proposed model possesses meaningful explanatory power in capturing factors influencing disciplinary behavior in pesantren settings. The remaining 41.60% of unexplained variance may be attributable to other factors not included in the model, such as peer influence, family background, institutional culture, religiosity, or individual motivation, which may be explored in future studies.

The effect size (f^2) was used to assess the relative contribution of each exogenous construct by examining changes in R^2 when a specific predictor is removed from the model. This approach reflects the unique explanatory power of each variable rather than measurement error. The results indicate that Educational Management Performance has the strongest effect on Student Discipline ($f^2 = 0.286$, medium effect), followed by Self-Awareness ($f^2 = 0.279$, medium effect). In contrast, Ta'zir demonstrates a small effect ($f^2 = 0.018$), while Islamic Boarding School Leadership (Kyai Leadership) exhibits a negligible effect ($f^2 = 0.001$).

The minimal effect of Kyai Leadership is theoretically noteworthy. In the traditional pesantren context, kyai authority is often perceived as the central determinant of student behavior. However, this finding suggests a possible shift toward more institutionalized and system-based governance, where daily discipline is shaped more directly by managerial performance and students' internal self-regulation than by symbolic leadership alone. This result contributes to contemporary discussions on the transformation of leadership roles in modern Islamic boarding schools.

Table 9. Measurement of Structural Model: Q^2

Variables	Construct Cross-Validated (Q^2)				Predictive Power
	Redudancy		Communality		
	SSE	Q^2	SSE	Q^2	
X ₁	565.000	-	303.608	0.463	Strong
X ₂	791.000	-	420.887	0.468	Strong
X ₃	565.000	-	329.115	0.417	Strong
Z	485.366	0.284	402.017	0.407	Strong
Y	457.748	0.325	382.089	0.436	Strong

Predictive relevance was further evaluated using the blindfolding procedure. As shown in Table 9, all Q^2 values are greater than zero, indicating that the model has satisfactory predictive capability. The cross-validated redundancy Q^2 values range from 0.284 to 0.325, while the cross-validated communality Q^2 values range from 0.407 to 0.468. Based on commonly accepted benchmarks (0.02 = small, 0.15 = medium, 0.35 = large), these Q^2 values indicate moderate to approaching strong predictive relevance in explaining and

predicting Student Discipline in Pesantren. This suggests that the model possesses meaningful out-of-sample predictive capability without overstating its predictive strength.

Overall, the structural model evaluation indicates that the proposed framework has adequate explanatory power and strong predictive relevance. The robustness of the inner model, supported by reliable and valid measurement, strengthens confidence in interpreting the mediating role of Self-Awareness and the relative influence of leadership, disciplinary sanctions, and educational management performance in shaping santri discipline within an Islamic boarding school context.

Path Analysis and Hypothesis Testing

Hypothesis testing plays a crucial role in evaluating the proposed structural relationships among the variables in the research model. This stage aims to assess both the significance and the strength of the hypothesized paths, thereby examining the extent to which the empirical findings support the underlying theoretical framework. In addition to testing direct relationships, mediation analysis is conducted to identify the mechanisms through which independent variables influence Student Discipline via Self-Awareness as an intervening construct (Hair et al., 2022).

Based on Table 10, a hypothesis is considered statistically significant when the T-statistic exceeds 1.96 at a 5% significance level ($p \leq 0.05$), while the direction and magnitude of relationships are indicated by the standardized path coefficients (β). The results show that Hypothesis H-DIR1 yields a β value of -0.021 , a T-statistic of 0.222, and a P-value of 0.824, indicating that Kyai Leadership has a negative but statistically insignificant effect on Self-Awareness. Similarly, Hypothesis H-DIR2 reports a β value of 0.023, a T-statistic of 0.217, and a P-value of 0.828, suggesting that Kyai Leadership does not exert a statistically significant direct effect on Student Discipline.

In contrast, Hypothesis H-DIR3 demonstrates that Educational Management Performance has a positive and statistically significant effect on Self-Awareness ($\beta = 0.604$; $T = 4.057$; $p = 0.000$). This finding indicates that effective institutional management contributes substantially to enhancing santri's self-awareness. Likewise, Hypothesis H-DIR4 shows that Educational Management Performance positively and significantly influences Student Discipline ($\beta = 0.318$; $T = 2.689$; $p = 0.007$), suggesting that well-organized and consistently implemented institutional management practices support disciplined behavior among santri.

Furthermore, Hypothesis H-DIR5 confirms that Self-Awareness has a positive and statistically significant effect on Student Discipline ($\beta = 0.489$; $T = 4.429$; $p = 0.000$). This result highlights the importance of internal psychological mechanisms in shaping disciplined behavior. Conversely, Hypothesis H-DIR6 indicates that Ta'zir (Islamic Disciplinary Sanction) has a positive but statistically insignificant effect on Self-Awareness ($\beta = 0.164$; $T = 1.202$; $p = 0.230$), suggesting that disciplinary sanctions alone do not significantly foster internal awareness among santri.

Table 10. Results of Path Coefficient: Direct Effects

Hypothesis	Path Analysis	β - Values (+/-)	SDV	T- statistic (>1.96)	P- values (≤ 0.05)	Decision
H-DIR ₁	KK->SA	-0.021	0.093	0.222	0.824	Rejected
H-DIR ₂	KK->KS	0.023	0.104	0.217	0.828	Rejected
H-DIR ₃	KPP->SA	0.604	0.149	4.057	0.000	Accepted
H-DIR ₄	KPP->KS	0.318	0.118	2.689	0.007	Accepted
H-DIR ₅	SA->KS	0.489	0.110	4.429	0.000	Accepted
H-DIR ₆	T->SA	0.164	0.137	1.202	0.230	Rejected

Mediation analysis was conducted to examine the indirect effects of Kyai Leadership, Educational Management Performance, and Ta'zir on Student Discipline through Self-Awareness. As presented in Table 11, Hypothesis H-IND1 shows a negative but statistically insignificant indirect effect of Kyai Leadership on Student Discipline via Self-Awareness ($\beta = -0.010$; $T = 0.215$; $p = 0.830$). This result indicates that Self-Awareness does not mediate the relationship between Kyai Leadership and Student Discipline. In contrast, Hypothesis H-IND2 reveals a positive and statistically significant indirect effect of Educational Management Performance on Student Discipline through Self-Awareness ($\beta = 0.296$; $T = 2.836$; $p = 0.005$). This finding confirms that Self-Awareness serves as a meaningful mediating mechanism through which institutional management performance influences santri discipline. Given that both the direct and indirect effects are significant, this mediation can be classified as partial mediation. Finally, Hypothesis H-IND3 demonstrates that the indirect effect of Ta'zir on Student Discipline through Self-Awareness is not statistically significant ($\beta = 0.080$; $T = 1.105$; $p = 0.270$). This suggests that Ta'zir does not indirectly influence disciplined behavior through the internalization of self-awareness.

Table 11. Results of Path Coefficient: Indirect Effects

Hypothesis	Path Analysis	β - Values (+/-)	SDV	T- statistic (>1.96)	P- values (≤ 0.00)	Decision
H-IND ₁	KK->SA->KS	-0.010	0.047	0.215	0.830	Rejected
H-IND ₂	KPP->SA->KS	0.296	0.104	2.836	0.005	Accepted

H-IND ₃	T->SA- >KS	0.080	0.073	1.105	0.270	Rejected
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In addition to T-statistics and p-values, bootstrapped bias-corrected confidence intervals were examined. Significant paths were confirmed when the confidence intervals did not include zero, thereby strengthening the robustness of the mediation conclusions. In Partial Least Squares Structural Equation Modelling (PLS-SEM) analysis, the significance of a causal relationship is assessed based on the 95% Confidence Interval (CI) range. The main criterion in this method is that if the range of values between 2.5% and 97.5% does not cross zero (0), then the hypothesis is declared statistically significant. Based on the results of structural model estimation using the bootstrapping method, significance analysis was performed by evaluating the 95% Confidence Interval (CI) range on bias-corrected. The findings of the study show a clear dichotomy between pathways that have a substantial influence and pathways that do not reach the threshold of statistical significance.

First, this study identified three main pathways that have strong statistical significance, where the entire CI range is entirely in the positive domain and does not cross zero. Educational Management Performance (X3) was found to have a stable positive effect on student discipline in pesantren (Y), with a CI range of 0.095; 0.633. Furthermore, the most dominant influence in this model was found in the relationship between Educational Management Performance (X3) and Self-Awareness (Z), which recorded an interval range of 0.333; 0.845. This finding empirically confirms the crucial role of administrators in constructing students' self-awareness. In addition, Self-Awareness (Z) consistently has a positive impact on Student Discipline in Pesantren (Y) with an interval of 0.260; 0.698, which validates the theoretical position of variable Z as a significant predictor of the dependent variable.

Conversely, data analysis revealed four paths that were declared insignificant because the CI range included zero (crossing the negative to positive boundary), indicating instability in the direction of influence. The Kyai Leadership variable (X1) shows no statistically measurable direct impact on either Santri Discipline in Pesantren (CI: -0.144; 0.243) or Self Awareness (CI: -0.211; 0.166). This suggests that in the context of this sample, the Kyai leadership figure does not transmit its influence linearly and directly to the endogenous variables studied. A similar phenomenon was found in the Ta'zir variable (X2), where its effect on Discipline (CI: -0.370; 0.153) and Self-Awareness (CI: -0.066; 0.440) failed to reach significance. Scientifically, these findings provide critical insights that the application of sanctions or punishments in the pesantren environment has not been able to consistently intervene in significant changes in disciplinary behaviour or increased self-awareness of the subjects.

Table 12. Confident Interval

Path	Original	CI	CI
Analysis	Sample	2.5%	97.5%
X1->Y	0.055	-0.144	0.243
X1->Z	-0.021	-0.211	0.166
X3->Y	0.358	0.095	0.633
X3->Z	0.605	0.333	0.845
Z->Y	0.499	0.260	0.698
X2->Y	-0.089	-0.370	0.153
X2->Z	0.163	-0.066	0.440

The results of hypothesis testing through the bootstrapping procedure show that the predictive power of this model is dominated by the variables of Educational Management Performance (X3) and Self-Awareness (Z). Specifically, Self-Awareness proved to be a strong predictor of Student Discipline (B-value = 0.499). On the other hand, an interesting phenomenon was found in the variables of Kyai Leadership (X1) and Ta'zir (X2), where both failed to reach the significance threshold because the 95% CI value exceeded zero. This implies the need to re-evaluate the operational mechanisms of leadership and the sanction system so that they have a more targeted psychological impact on student behaviour.

The path analysis results demonstrate that Kyai Leadership does not exert a significant direct or indirect effect on either Self-Awareness or Student Discipline. Although kyai authority has traditionally been central within the pesantren system, this finding suggests a possible shift in leadership dynamics in contemporary Islamic boarding schools. The increasing formalization of institutional management, the delegation of daily supervisory roles to administrative structures, and generational changes in students' perceptions of authority may reduce the direct behavioral influence of kyai leadership. In this context, the kyai's role may remain symbolically important but function less as an operational determinant of daily disciplinary practices.

Prior studies in educational leadership suggest that leadership does not always exert a direct influence on followers' behavioral discipline. Transformational and moral leadership often shape values and norms indirectly through psychological mechanisms rather than immediate behavioral compliance. In religious educational settings, leadership authority may function more as symbolic guidance than as a direct behavioral control mechanism. Similarly, Ta'zir does not significantly influence Self-Awareness or Student Discipline, either directly or indirectly. This result challenges conventional assumptions that disciplinary sanctions automatically strengthen discipline. From a behavioral perspective, ta'zir may function primarily as an external control mechanism, shaping compliance through coercion rather than fostering internalized discipline. Without reflective engagement or supportive pedagogical framing, disciplinary sanctions may fail to enhance

students' self-awareness, which is essential for sustained behavioral regulation. From a self-regulation perspective, disciplinary mechanisms based solely on external sanctions tend to produce short-term compliance rather than sustained behavioral change. Without internalized self-awareness, individuals may comply only under supervision, leading to weak or inconsistent disciplinary outcomes.

In contrast, Institutional Management Performance shows a strong and significant effect on both Self-Awareness ($\beta = 0.604$) and Student Discipline ($\beta = 0.318$). These findings indicate that well-structured administrative systems, consistent rule enforcement, and effective supervision create an environment conducive to both behavioral regulation and psychological internalization. The larger coefficient for the path toward Self-Awareness suggests that management performance primarily strengthens discipline indirectly, by cultivating students' internal capacity for self-regulation.

Furthermore, Self-Awareness has a significant positive effect on Student Discipline ($\beta = 0.489$), confirming its central role as a psychological mechanism linking institutional structures to student behavior. The mediation analysis reveals that Self-Awareness partially mediates the relationship between Institutional Management Performance and Student Discipline, as both the direct and indirect paths remain significant. This indicates that management performance influences discipline through dual mechanisms: direct institutional control and indirect internalization via self-awareness. Comparatively, the indirect effect of management performance through Self-Awareness ($\beta = 0.296$) is nearly equivalent to its direct effect on discipline ($\beta = 0.318$), highlighting the substantive importance of psychological internalization alongside structural regulation. This finding aligns with educational leadership and behavioral internalization theories, which emphasize that sustainable discipline emerges not merely from external enforcement but from students' internal understanding, acceptance, and self-regulation.

These path findings are consistent with the broader structural model evaluation. The substantial R^2 value (0.584) indicates that the combined structural relationships explain a meaningful proportion of variance in Student Discipline. The medium effect sizes (f^2) for Educational Management Performance and Self-Awareness confirm their substantive contribution, while the moderate Q^2 values demonstrate that these relationships possess predictive relevance beyond mere statistical association. Together, these indicators reinforce the robustness of the structural model. Overall, the findings underscore a critical shift in pesantren disciplinary dynamics: effective institutional management and self-awareness development now play a more decisive role than charismatic or sanction-based authority alone. This contributes to broader discussions on Islamic educational leadership by demonstrating the growing importance of organizational effectiveness and psychological internalization in shaping student discipline.

Discussion

The findings indicate that Kyai Leadership has a positive but statistically insignificant effect on Student Discipline in Pesantren. This result differs from previous studies that emphasize the central role of kyai leadership in shaping santri discipline (Aryani, 2023; Hamidiyah, 2020; Samiya, 2023). Traditionally, kyai are regarded as spiritual leaders, moral

exemplars, and authoritative figures whose guidance strongly influences santri behavior. However, the insignificant effect observed in this study may reflect structural and institutional changes in contemporary Islamic boarding schools. In modern pesantren, disciplinary practices are increasingly regulated through formal administrative systems, written rules, and delegated authority to boarding school administrators. Consequently, kyai leadership may function more as a symbolic and normative reference rather than as a direct determinant of daily disciplinary behavior. This institutional shift helps explain why kyai leadership does not emerge as a statistically significant predictor of student discipline in this context, despite its acknowledged importance in earlier studies.

In contrast, Educational Management Performance shows a positive and statistically significant effect on student discipline. This finding is consistent with previous research highlighting the importance of managerial effectiveness in shaping student behavior (Azizah et al., 2024; Maesaroh et al., 2024). Effective management practices such as consistent supervision, clear rule enforcement, systematic evaluation, and adequate facilities appear to exert a more immediate and operational influence on discipline than charismatic leadership alone. Rather than contradicting prior leadership-centered studies, this result suggests a transformation in pesantren governance, where organizational systems increasingly complement or even replace personal authority. Differences in methodological approaches, sample characteristics, and institutional contexts may also contribute to variations between this study and earlier findings.

The results further demonstrate that Self-Awareness has a positive and statistically significant effect on student discipline. This supports the view that discipline is not merely the result of external control, but is closely related to internal psychological regulation (Govanny et al., 2021b; Yao et al., 2022). Students with higher self-awareness are better able to regulate their behavior, understand the consequences of their actions, and consistently comply with institutional rules. These findings align with previous studies that emphasize self-awareness as a key factor in strengthening discipline and responsibility among students (Risma & Hamidah, 2023). In the pesantren context, self-awareness enables santri to internalize norms and values, thereby sustaining disciplined behavior beyond external supervision.

Self-awareness plays a critical mediating role between leadership and behavioral discipline by enabling individuals to internalize values and regulate their own actions. Leadership influence becomes effective when it fosters internal self-regulation rather than relying on external enforcement alone (Zakki et al., 2024). The mediation analysis indicates that Kyai Leadership does not have a significant indirect effect on student discipline through self-awareness. This finding is inconsistent with studies that emphasize the role of kyai leadership in shaping students' disciplinary character through internal value formation (Aini & Rijal, 2022; Nuraeni et al., 2022). One possible explanation is that in highly structured and administratively organized pesantren, santri interact more frequently with boarding school administrators than directly with the kyai. As a result, the kyai's influence may be more pronounced at the ideological or moral level, while its impact on students' internal psychological processes, such as self-awareness, becomes less direct. Although

charismatic leadership remains symbolically important (Engelbert et al., 2025), its behavioral influence may be mediated or diluted by institutional mechanisms.

Conversely, Educational Management Performance demonstrates a positive and statistically significant indirect effect on student discipline through self-awareness. This indicates that self-awareness partially mediates the relationship between management performance and discipline. Effective management not only enforces discipline externally but also facilitates the internalization of disciplinary norms by fostering structured routines, consistent guidance, and clear expectations (Mujahid, 2023). As students become more aware of their responsibilities and behavioral standards, discipline is strengthened internally. This finding supports the argument that sustainable discipline is achieved through the interaction between institutional systems and individual psychological development (Fadilah & Utami, 2024). Notably, the indirect effect of Educational Management Performance through Self-Awareness ($\beta = 0.296$) is nearly equivalent to its direct effect on discipline ($\beta = 0.318$). This comparable magnitude indicates complementary partial mediation, suggesting that discipline is strengthened through both structural regulation and psychological internalization processes operating simultaneously.

Regarding Ta'zir (Islamic Disciplinary Sanction), the results show that it does not have a statistically significant effect on student discipline, either directly or indirectly through self-awareness. This finding contrasts with studies suggesting that ta'zir positively influences discipline (Qonita et al., 2022; Rambe et al., 2024). A theoretical interpretation of this result is that ta'zir primarily functions as an external control mechanism, encouraging compliance through deterrence rather than fostering internalized discipline. While punishment may temporarily reduce violations, it does not necessarily promote reflective self-regulation or self-awareness. Previous studies also caution that punitive approaches, if not applied wisely, may generate negative emotional responses such as resentment or diminished self-esteem, thereby limiting their effectiveness in developing internal discipline (Martaki et al., 2023). This distinction between external enforcement and internal discipline helps explain why ta'zir does not significantly contribute to self-awareness-mediated discipline in this study. It is important to interpret statistically insignificant findings cautiously. Given the moderate sample size ($n = 113$), limited statistical power may reduce sensitivity in detecting small effects. Therefore, non-significant relationships should not be interpreted as the complete absence of contextual influence.

These interpretations are reinforced by the overall structural model indicators. The substantial explanatory power ($R^2 = 0.584$) indicates that institutional and psychological variables collectively account for a meaningful proportion of variance in student discipline. Medium effect sizes (f^2) for Educational Management Performance and Self-Awareness further confirm their substantive contribution, while the moderate predictive relevance (Q^2) demonstrates that the model possesses meaningful out-of-sample predictive capability. Together, these structural indicators strengthen confidence in the robustness of the proposed framework.

From a practical perspective, these findings imply that pesantren reform efforts may benefit from strengthening administrative capacity, managerial training, and systematic rule implementation. While kyai leadership remains symbolically central, operational discipline appears increasingly dependent on structured governance systems. This suggests a paradigm shift from authority-based discipline toward system-based institutional management. Leadership development programs may therefore integrate strategic management competencies alongside moral and spiritual guidance to sustain disciplined educational environments. Overall, these findings suggest that discipline in contemporary Islamic boarding schools is structurally associated more strongly with institutional management quality and internal psychological mechanisms than with traditional authority figures or punitive sanctions alone. By integrating leadership theory, educational management perspectives, and behavioral internalization frameworks, this study provides a more nuanced understanding of student discipline in modern pesantren settings.

CONCLUSION

This study examines the relationships between Kyai Leadership, Institutional Management Performance, Ta'zir (Islamic Disciplinary Sanction), Self-Awareness, and Student Discipline within an Islamic boarding school context. The findings indicate that Kyai Leadership is positively but not significantly associated with Student Discipline, suggesting that charismatic leadership alone no longer serves as a primary predictor of disciplined behavior in contemporary pesantren. This result points to a theoretical shift from authority-based discipline toward system-based institutional governance.

Institutional Management Performance shows a significant positive association with Student Discipline, both directly and indirectly through Self-Awareness. The mediation analysis confirms that Self-Awareness plays a partial mediating role, indicating that discipline is shaped by a combination of structural management mechanisms and students' psychological internalization. In contrast, Ta'zir does not demonstrate a significant direct or indirect association with Student Discipline through Self-Awareness, implying that disciplinary sanctions function mainly as external control rather than as a means of fostering internal self-regulation.

Overall, the proposed model explains 58.40% of the variance in Student Discipline. These findings contribute theoretically by highlighting an institutional transformation in pesantren discipline management and practically by emphasizing the importance of strengthening administrative performance and cultivating students' self-awareness to support sustainable disciplinary outcomes. While the model accounts for 58.40% of the variance in Student Discipline, the remaining 41.60% may be influenced by other factors not examined in this study. Future research may explore additional explanatory variables such as peer influence, parental background, religious commitment, institutional culture, or socio-emotional climate to provide a more comprehensive understanding of discipline formation in pesantren settings.

Several limitations should be acknowledged. This study was conducted in a single pesantren using purposive sampling, which may limit the generalizability of the findings to other Islamic boarding school contexts. In addition, the cross-sectional design restricts causal inference; therefore, the identified relationships should be interpreted as associative rather than deterministic. Future multi-site comparative studies or longitudinal designs would strengthen external validity and provide deeper insights into institutional transformation over time.

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