

The Influence of Self-Capacity Enhancement, Personality, and Managerial Competence of Madrasah Principals on the Effectiveness of State Islamic Senior High Schools in the Riau Islands Province

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ABSTRAK

Penelitian ini menguji pengaruh Peningkatan Kapasitas Diri, Kepribadian, dan Kompetensi Manajerial Kepala Madrasah terhadap Efektivitas Madrasah Aliyah Negeri di Provinsi Kepulauan Riau, baik secara langsung maupun tidak langsung melalui Kompetensi Manajerial sebagai variabel mediator. Menggunakan pendekatan kuantitatif dengan metode survei, penelitian melibatkan 207 tenaga pendidik dan kependidikan dari tiga Madrasah Aliyah Negeri di provinsi tersebut. Data dikumpulkan melalui kuesioner dan dianalisis menggunakan teknik analisis jalur (*path analysis*). Hasil penelitian menunjukkan bahwa Peningkatan Kapasitas Diri dan Kepribadian masing-masing berpengaruh positif dan signifikan terhadap Kompetensi Manajerial, dengan koefisien jalur 0,379 dan 0,419, serta secara simultan menjelaskan 50,7% variasi Kompetensi Manajerial. Selanjutnya, ketiga variabel tersebut yakni Peningkatan Kapasitas Diri, Kepribadian, dan Kompetensi Manajerial juga berpengaruh positif dan signifikan terhadap Efektivitas Madrasah, dengan koefisien jalur berturut-turut 0,266, 0,150, dan 0,509, serta secara simultan menjelaskan 66,7% variasi Efektivitas Madrasah. Kompetensi Manajerial terbukti memediasi pengaruh Peningkatan Kapasitas Diri (pengaruh tidak langsung 0,193) dan Kepribadian (pengaruh tidak langsung 0,213) terhadap Efektivitas Madrasah. Temuan ini mengindikasikan bahwa Kompetensi Manajerial Kepala Madrasah merupakan faktor dengan pengaruh langsung paling kuat terhadap Efektivitas Madrasah, sekaligus menjadi jembatan penting yang menghubungkan kapasitas diri dan kepribadian kepala madrasah dengan efektivitas lembaga. Oleh karena itu, penelitian ini merekomendasikan pengembangan kapasitas diri, penguatan kepribadian, serta peningkatan kompetensi manajerial kepala madrasah secara berkelanjutan sebagai strategi untuk meningkatkan efektivitas Madrasah Aliyah Negeri di Provinsi Kepulauan Riau.

Kata Kunci: Peningkatan Kapasitas Diri, Kepribadian, Kompetensi Manajerial, Efektivitas Madrasah, Analisis Jalur.



ABSTRACT

This study aims to examine and analyze the effects of Self-Capacity Enhancement, Personality, and Managerial Competence of Madrasah Principals on the Effectiveness of State Islamic Senior High Schools (Madrasah Aliyah Negeri) in the Riau Islands Province, both directly and indirectly through Managerial Competence as a mediating variable. This study employed a quantitative approach using a survey method. The respondents consisted of 207 teaching and educational staff from three State Islamic Senior High Schools in the Riau Islands Province. Data were collected using questionnaires and analyzed using path analysis. The results of the study indicate that: (1) Self-Capacity Enhancement (X_1) has a positive and significant effect on the Managerial Competence of Madrasah Principals (X_3), with a path coefficient of 0.379 and a significance value of 0.000; (2) Personality (X_2) has a positive and significant effect on Managerial Competence (X_3), with a path coefficient of 0.419 and a significance value of 0.000; (3) Self-Capacity Enhancement (X_1) and Personality (X_2) simultaneously have a significant effect on Managerial Competence (X_3), with an R^2 value of 0.507, indicating that 50.7% of the variance in Managerial Competence is explained by these two variables; (4) Self-Capacity Enhancement (X_1) has a positive and significant effect on Madrasah Effectiveness (X_4), with a path coefficient of 0.266 and a significance value of 0.000; (5) Personality (X_2) has a positive and significant effect on Madrasah Effectiveness (X_4), with a path coefficient of 0.150 and a significance value of 0.008; (6) Managerial Competence (X_3) has a positive and significant effect on Madrasah Effectiveness (X_4), with a path coefficient of 0.509 and a significance value of 0.000; (7) Self-Capacity Enhancement, Personality, and Managerial Competence simultaneously have a significant effect on Madrasah Effectiveness, with an R^2 value of 0.667, indicating that 66.7% of the variance in Madrasah Effectiveness is explained by these three variables; (8) Managerial Competence mediates the effect of Self-Capacity Enhancement on Madrasah Effectiveness, with an indirect effect of 0.193; and (9) Managerial Competence mediates the effect of Personality on Madrasah Effectiveness, with an indirect effect of 0.213. The implications of the study indicate that the Managerial Competence of Madrasah Principals is the variable with the strongest direct effect on Madrasah Effectiveness, with a path coefficient of 0.509. Furthermore, Managerial Competence serves as an important mechanism linking the Self-Capacity Enhancement and Personality of Madrasah Principals to Madrasah Effectiveness. Therefore, continuous efforts to develop self-capacity, strengthen personality, and enhance the managerial competence of Madrasah Principals are essential as strategies for improving the effectiveness of State Islamic Senior High Schools in the Riau Islands Province.

Keywords: *Self-Capacity Enhancement, Personality, Managerial Competence, Madrasah Effectiveness, Path Analysis*

INTRODUCTION

The effectiveness of educational institutions is an important indicator of the success of educational management and implementation. (Hutasuhut et al., 2023) Madrasahs are not only expected to achieve academic objectives but also to establish effective governance, develop a culture of quality, adapt to changing circumstances, and manage resources effectively to achieve educational goals. In this context, the madrasah principal plays a strategic role as a leader who is responsible for directing, managing, and developing all madrasah resources to achieve institutional objectives effectively. (Kalrina et al., 2024)

The effectiveness of a madrasah is closely related to the quality of its principal's leadership. Madrasah principals are expected to develop a culture of quality and innovation, mobilize all members of the madrasah community, manage resources effectively, and respond to various changes and challenges in education. (Efendi et al., 2023) Visionary and transformational leadership is essential to inspire and motivate all members of the madrasah community to remain committed to achieving high standards of quality and continuous improvement. (Gamaliel, 2024)

In carrying out these responsibilities, the self-capacity enhancement of madrasah principals is an important factor. Madrasah principals need to continuously develop

their knowledge, skills, attitudes, and professional abilities to respond to the increasingly complex demands of educational management. (Rahayuningsih & Rijanto, 2022) However, self-capacity enhancement among madrasah principals has not yet been fully implemented in a planned and sustainable manner. This condition may affect their ability to perform leadership and managerial functions effectively.

In addition to self-capacity, personality is an important aspect of effective leadership. A strong personality can serve as a foundation for developing exemplary leadership, integrity, effective communication, and positive working relationships with teachers and educational staff personality is in fact formally recognized as one of the core competencies a school/madrasah principal must possess, alongside managerial, entrepreneurial, supervisory, and social competence. (Permendiknas No. 13/2007, as cited in Jurnal P4I, 2023) Meanwhile, managerial competence is essential for enabling madrasah principals to effectively plan, organize, implement, monitor, and evaluate various madrasah programs. (Imron et al., 2021)

These challenges are particularly relevant in the context of State Islamic Senior High Schools (Madrasah Aliyah Negeri) in the Riau Islands Province. The geographical characteristics of the province, which consists of numerous islands, create particular challenges in the provision of education, particularly in terms of accessibility, infrastructure, and the unequal distribution of educational resources. Furthermore, differences in the quality and effectiveness of madrasahs remain evident, with some institutions demonstrating strong achievements while others continue to face various challenges in meeting the expected quality standards.

These geographical conditions require madrasah principals to possess adaptive and contextual leadership capabilities. Principals need to develop resource management strategies and educational programs that are responsive to the characteristics of an archipelagic region while maintaining national education quality standards. Therefore, self-capacity enhancement and personality development need to be supported by adequate managerial competence in order to contribute effectively to improving madrasah effectiveness. (Izza, 2025, as cited in Universitas Islam Negeri Maulana Malik Ibrahim, 2025)

Previous studies on educational leadership have generally identified managerial competence as an important factor in determining institutional effectiveness. (Kalrina et al., 2024; Hutasuhut et al., 2023) However, the relationships among self-capacity enhancement, personality, managerial competence, and madrasah effectiveness, particularly in the context of State Islamic Senior High Schools in an archipelagic region, require further empirical investigation. Therefore, this study examines the effects of self-capacity enhancement and personality on the managerial competence and effectiveness of madrasahs, both directly and indirectly through managerial competence as a mediating variable.

This study is expected to contribute to the development of Islamic educational management research and provide a basis for developing policies and programs aimed at improving the quality of madrasah leadership. Practically, the findings are expected to provide valuable input for the Ministry of Religious Affairs and madrasah principals in designing programs for capacity development, personality strengthening, managerial competence enhancement, and strategies to improve the effectiveness of State Islamic Senior High Schools in accordance with the characteristics of the Riau Islands Province

METHOD

A. Research Approach

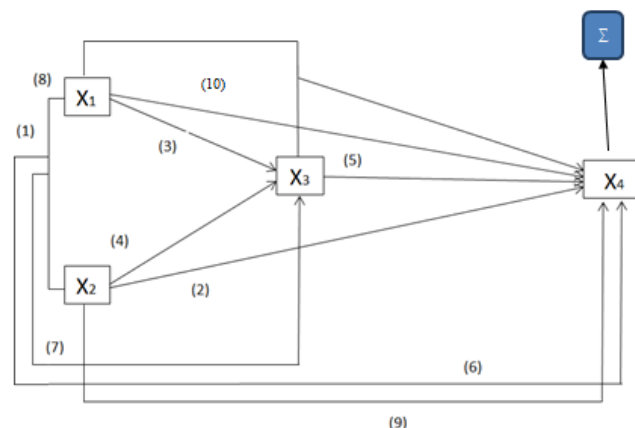
Selecting an appropriate methodology is a fundamental step in scientific research, as it provides a systematic guide for collecting and processing data in line with the research objectives. (Sugiyono, 2019) This study employs a quantitative approach using the survey method to examine causal relationships among variables within a defined population or sample, consistent with quantitative research designs that emphasize objectivity, standardized measurement, and generalizability of findings. (Creswell & Creswell, 2018)

Data were collected through a structured questionnaire developed based on indicators of each research variable. After data collection, prerequisite tests normality, linearity, and homogeneity were conducted to ensure data suitability prior to further analysis using path analysis. Path analysis was selected because it can simultaneously decompose the direct and indirect effects among variables within a single structural model, making it appropriate for this study, which positions Managerial Competence as a mediating variable. (Hair et al., 2019; Kalrina et al., 2024)

The statistical results were then interpreted in relation to relevant theoretical frameworks to assess consistency or divergence between the findings and existing theory, while also exploring their implications for the development of Islamic educational management studies. This approach enables a systematic research process, from data collection to the formulation of scientifically defensible conclusions.

The constellation of relationships among the research variables Self-Capacity Enhancement (X_1), Personality (X_2), and Madrasah Principal's Managerial Competence (X_3) toward Madrasah Effectiveness (X_4) at State Islamic Senior High Schools (Madrasah Aliyah Negeri) in Riau Islands Province is illustrated in Figure 3.1.

Figure 3.1. Research Problem Constellation



Source : Research Analyst (2025)

B. Population and Sample

1. Population

The population refers to the entire set of units or subjects possessing specific characteristics relevant to the research objectives and to which the findings are generalized. Creswell asserts that quantitative research must clearly define the target population and adopt a sampling procedure aligned with the study's purpose and design.¹ [CITATION MAPPING NEEDS VERIFICATION] Sugiyono further explains that a population is a generalization area consisting of objects or subjects with particular

¹ Sugiyono. (2019). *op. cit.*

qualities and characteristics determined by the researcher for study and conclusion-drawing.² [CITATION MAPPING NEEDS VERIFICATION]

Accordingly, this study distinguishes between an institutional population and a respondent population. The institutional population comprises all State Islamic Senior High Schools (MAN) in Riau Islands Province, while the respondent population consists of teachers and education personnel (GTK) at the madrasahs selected as research sites. According to 2025 data from the Ministry of Religious Affairs of Riau Islands Province, there are 8 MAN institutions with a total of 315 GTK.

Table 3.1. Population of MAN in Riau Islands Province

Region	Institution	Accreditation	No. of Institutions	No. of GTK
Batam	MAN 1 Batam, MAN 2 Batam, MAN Insan Cendekia	A	3	150
Tanjungpinang	MAN Tanjungpinang	A	1	55
Karimun	MAN 1 Karimun	B	1	43
Bintan	MAN 2 Bintan	B	1	28
Natuna	MAN Ranai & Natuna	B	2	39
Lingga	–	B	0	0
Anambas	–	B	0	0
Total			8	315

Source: Ministry of Religious Affairs of Riau Islands Province Data (2025)

Research sites were determined purposively based on criteria relevant to the study's objectives. Purposive sampling is appropriate for quantitative research provided that the rationale, criteria, and procedures for selection are made explicit. (Memon et al., 2025) Memon et al. emphasize that transparency in selection criteria is essential to ensure methodological accountability and to minimize researcher bias.⁶ [CITATION MAPPING NEEDS VERIFICATION] Adeoye similarly stresses that the choice of sampling technique must align with the context and purpose of educational research to preserve external validity.⁷ [CITATION MAPPING NEEDS VERIFICATION]

Based on these considerations, three research sites were selected: MAN 1 Batam, MAN Tanjungpinang, and MAN Karimun, taking into account regional representation, institutional characteristics, data availability, and relevance to the research focus. GTK were selected as respondents because they interact directly with madrasah principals in leadership implementation, institutional management, and the educational process, enabling them to provide informed assessments of self-capacity, personality, managerial competence, and madrasah effectiveness.

2. Sample

After the three madrasahs were established as research sites, respondents were determined using total sampling (census sampling), whereby all accessible members of the population were included as respondents. (Adeoye, 2023) This technique was chosen because the accessible population (207 GTK) was relatively small and could feasibly be included in its entirety, eliminating the need for sample-size reduction formulas such as the Slovin formula or standard sample-size tables. (Etikan et al., 2016)

² Memon, M. A., Ting, H., Cheah, J.-H., Ramayah, T., Chuah, F., & Cham, T. H. (2023). *Sample Size for Survey Research: Review and Recommendations*. Journal of Applied Structural Equation Modeling.

Table 3.2. Research Sample

Regional Representation	Institution	No. of Institutions	No. of GTK
Batam	MAN 1 Batam	1	109
Tanjungpinang	MAN Tanjungpinang	1	55
Karimun	MAN Karimun	1	43
Total Full Sample			207

Source: Ministry of Religious Affairs of Riau Islands Province Data (2025)

Thus, the sampling procedure in this study was carried out in two stages: (1) purposive selection of madrasahs as research sites based on relevant criteria; and (2) inclusion of all GTK at the three selected madrasahs as respondents through total sampling. This combination of institutional-level purposive sampling and respondent-level total sampling is consistent with common practice in institution-based educational research, where analytical units (institutions) are purposively selected while subjects within those units are surveyed comprehensively to enhance data accuracy and representativeness. (Ramdhan, 2021; Amin et al., 2023)

RESULTS AND DISCUSSIONS

A. Research Results

1. Description of Path Analysis Results

Path analysis was employed to examine the direct and indirect effects of Self-Capacity Enhancement (X_1), Personality (X_2), and Madrasah Principals' Managerial Competence (X_3) on the Effectiveness of State Islamic Senior High Schools (X_4) in Riau Islands Province. Prior to hypothesis testing, the data were confirmed to meet the required analytical prerequisites normality, linearity, and homogeneity establishing the path model as suitable for testing the structural relationships among variables. (Hutasuhut et al., 2023) Testing was conducted on 207 teacher and education-staff (GTK) respondents from three State Islamic Senior High Schools in Riau Islands Province, with results presented in Table 4.1 below.

Table 4.1. Summary of Path Analysis Results

Relationship	Path Coefficient	Significance	Description
$X_1 \rightarrow X_3$	0.379	0.000	Positive, significant
$X_2 \rightarrow X_3$	0.419	0.000	Positive, significant
$X_1, X_2 \rightarrow X_3$ (simultaneous)	$R^2 = 0.507$	0.000	50.7% variance explained
$X_1 \rightarrow X_4$	0.266	0.000	Positive, significant
$X_2 \rightarrow X_4$	0.150	0.008	Positive, significant
$X_3 \rightarrow X_4$	0.509	0.000	Positive, significant (strongest)
$X_1, X_2, X_3 \rightarrow X_4$ (simultaneous)	$R^2 = 0.667$	0.000	66.7% variance explained
$X_1 \rightarrow X_3 \rightarrow X_4$ (mediation)	0.193	–	Partial mediation
$X_2 \rightarrow X_3 \rightarrow X_4$ (mediation)	0.213	–	Partial mediation

In summary, all tested paths in the research model were positive and statistically significant at the 0.05 level, whether examining the direct paths toward Managerial Competence or those toward Madrasah Effectiveness. This pattern aligns with current research on educational leadership, which consistently identifies the combination of individual capacity, leader character, and managerial competence as significant predictors of institutional performance and effectiveness. (Tim Pengabdi, 2024) The coefficients of determination (R^2) 0.507 for the first model and 0.667 for the second further indicate that the research model possesses substantial explanatory power,

particularly the second model, which positions Madrasah Effectiveness as the primary dependent variable. (Nuryanti et al., 2022)

The most notable finding from this analysis is the substantial role of Managerial Competence, both as the strongest direct predictor of Madrasah Effectiveness (path coefficient 0.509) and as the mediating variable bridging the effects of Self-Capacity Enhancement and Personality on Madrasah Effectiveness. It can therefore be tentatively concluded that the success of State Islamic Senior High Schools in Riau Islands Province in achieving institutional effectiveness depends heavily on the extent to which principals' self-capacity and personality can be converted into concrete, applicable managerial competence in day-to-day school management. (Permendiknas No. 13/2007; Analisis Kebijakan Pendidikan, 2023) A more detailed discussion of the meaning and implications of each pathway is presented in the following section

B. Discussion

1. Effect of Self-Capacity Enhancement on Managerial Competence

Self-Capacity Enhancement was found to have a positive and significant effect on Madrasah Principals' Managerial Competence (*path coefficient 0.379; sig. 0.000*). This finding is consistent with evidence from structured managerial-competence training programs, which show that systematically improving principals' knowledge and skills positively affects their ability to manage schools and instruction. (Hutasuhut et al., 2023) Continuous self-development enables madrasah principals to keep their managerial competencies current with evolving demands, supporting the view that individual capacity-building is a prerequisite for robust managerial competence. (Rahmani & Wibowo, 2023)

2. Effect of Personality on Managerial Competence

Personality was shown to have a positive and significant effect on Managerial Competence, with a path coefficient of 0.419 (*sig. 0.000*) even larger than the effect of Self-Capacity Enhancement. This finding reinforces the formal standard identifying personality as one of five core competencies required of school/madrasah principals, alongside managerial, entrepreneurial, supervisory, and social competence, (Sudrajat, 2024) since personal maturity underlies the attitudes, integrity, and decision-making quality that shape day-to-day managerial effectiveness.

3. Simultaneous Effect on Managerial Competence

Jointly, Self-Capacity Enhancement and Personality explain 50.7% of the variance in Managerial Competence ($R^2 = 0.507$), while the remaining 49.3% is explained by factors outside the model. This confirms that both factors are important, though not exclusive, determinants of managerial competence consistent with findings that managerial competence is shaped by multiple factors, including work experience, organizational climate, and institutional coaching systems. (Hoerudin et al., 2024)

4. Effect of Self-Capacity Enhancement on Madrasah Effectiveness

Self-Capacity Enhancement also had a direct positive and significant effect on Madrasah Effectiveness (path coefficient 0.266; *sig. 0.000*), consistent with findings that principals' self-development contributes to improved management quality and instruction at the institutional level. This indicates that capacity-building efforts strengthen not only managerial competence but also institutional performance directly.

5. Effect of Personality on Madrasah Effectiveness

Personality had a positive and significant, though comparatively smaller, direct effect on Madrasah Effectiveness (path coefficient 0.150; sig. 0.008). This suggests that personality's influence on institutional effectiveness is transmitted largely indirectly through managerial competence rather than through a strong direct effect a pattern consistent with research showing that principal leadership effectiveness is explained more by concrete managerial behavior than by personality attributes alone.

6. Effect of Managerial Competence on Madrasah Effectiveness

Managerial Competence emerged as the strongest direct predictor of Madrasah Effectiveness (*path coefficient 0.509; sig. 0.000*). This finding reinforces a growing body of recent research consistently affirming the central role of school/madrasah principals' managerial competence in improving quality, work culture, strategic planning, and organizational performance in education. (Setiyanti et al., 2023; Gustian et al., 2024) Strong managerial competence enables principals to plan, organize, direct, and evaluate programs effectively, directly driving institutional effectiveness.

7. Simultaneous Effect on Madrasah Effectiveness

Jointly, the three independent variables explain 66.7% of the variance in Madrasah Effectiveness ($R^2 = 0.667$), indicating strong explanatory power for the research model. This is consistent with recent Islamic-education research positioning the combination of leadership capacity and managerial competence as key predictors of institutional effectiveness.

8 & 9. The Mediating Role of Managerial Competence

Mediation testing confirmed that Managerial Competence mediates the effects of both Self-Capacity Enhancement (*indirect effect 0.193*) and Personality (*indirect effect 0.213*) on Madrasah Effectiveness. This confirms that managerial competence functions not merely as a parallel variable, but as a linking mechanism that converts individual principal capacity and character into tangible institutional performance consistent with the view that managerial competence serves as the conversion pathway from an educational leader's individual capacity and character into organizational effectiveness.

CONCLUSION

Based on the findings and discussion, it can be concluded that Self-Capacity Enhancement and the Personality of Madrasah Principals are important factors in developing Managerial Competence. Both variables have positive and significant effects on Managerial Competence, both partially and simultaneously. Collectively, Self-Capacity Enhancement and Personality explain 50.7% of the variance in the Managerial Competence of Madrasah Principals. Furthermore, Self-Capacity Enhancement, Personality, and Managerial Competence have positive and significant effects on Madrasah Effectiveness. Managerial Competence has the strongest direct effect on Madrasah Effectiveness, with a path coefficient of 0.509. Collectively, the three variables explain 66.7% of the variance in Madrasah Effectiveness. This finding indicates that improving madrasah effectiveness is determined not only by the personal qualities of madrasah principals but, more importantly, by their ability to translate these personal capacities and characteristics into effective managerial practices. Managerial Competence also plays a mediating role in the relationship between Self-Capacity

Enhancement and Personality and Madrasah Effectiveness. The indirect effect of Self-Capacity Enhancement on Madrasah Effectiveness through Managerial Competence is 0.193, while the indirect effect of Personality on Madrasah Effectiveness through Managerial Competence is 0.213. Thus, Managerial Competence serves as an important mechanism through which the personal capacity and characteristics of madrasah principals are translated into more effective institutional performance. The findings imply that improving the effectiveness of State Islamic Senior High Schools in the Riau Islands Province requires an integrated and sustainable strategy for developing madrasah principals. Development programs should not focus solely on improving knowledge and technical skills but should also strengthen personality and managerial capabilities. The simultaneous development of these three dimensions is expected to enhance madrasah principals' ability to plan, organize, direct, control, and evaluate institutional resources effectively, thereby supporting the continuous improvement of madrasah effectiveness.

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