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Recruitment and Motivation Effects on EMIS Operator Performance in Madrasahs of Tana Toraja and North Toraja

Yusriyani Ningsih[1], Rustan Santaria[2], Hisbullah[3]
[1-3]State Islamic University of Palopo, Indonesia

E-mail: rustan_santaria@iainpalopo.ac.id

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ABSTRACT

This study investigates the influence of recruitment and work motivation on the performance of Education Management Information System (EMIS) operators in madrasahs located in Tana Toraja and North Toraja, Indonesia. Utilizing a quantitative survey design, data were collected through structured questionnaires distributed to all active EMIS operators (n = 7) in the region. The findings reveal that both recruitment and motivation significantly and positively affect operator performance, with regression analysis confirming their individual and combined contributions. Recruitment practices based on objective and competency-oriented criteria were found to enhance data accuracy and operational efficiency, while both intrinsic and extrinsic motivation contributed to greater task commitment and consistency. The study also confirms that the interaction between these two variables generates a synergistic effect, emphasizing their strategic importance in human resource management within Islamic educational institutions. These results suggest that improving recruitment procedures and strengthening motivational support can lead to more effective educational data governance and higher institutional performance. Recommendations are proposed for policy and practice to institutionalize transparent recruitment systems and sustainable motivational frameworks in madrasah education.

Keywords: Recruitment, Work Motivation, Performance, EMIS, Madrasah, Islamic Education, Educational Data Governance.

INTRODUCTION

In the context of improving the quality of national education, the availability of accurate and up-to-date data plays a critical role in effective decision-making. As

mandated by Undang-Undang Nomor 20 Tahun 2003 tentang Sistem Pendidikan Nasional, the development of learners who are intelligent, independent, and have noble character requires strategic efforts, one of which is the integration of information systems in education management.

The Education Management Information System (EMIS) serves as the official data collection tool under the Directorate General of Islamic Education in Indonesia. This system supports educational institutions, particularly madrasahs, in collecting, managing, and updating data necessary for improving the quality of education. However, the system's effectiveness largely depends on the performance of EMIS operators, whose roles are central in ensuring data accuracy and validity.

In reality, several issues have been observed, especially in madrasahs located in Tana Toraja and Toraja Utara. Among the challenges are suboptimal recruitment processes, low motivation among operators, and the lack of professional development opportunities. Research and field observations have found that many EMIS operators lack adequate qualifications and technical skills in managing educational data systems. Moreover, training and continuous evaluation are rarely provided, which affects the accuracy and reliability of the data collected.

The problems identified are not merely administrative but also strategic in nature. Recruitment that does not consider competence and job suitability may lead to poor data management performance. Similarly, low motivation due to lack of incentives, recognition, or training opportunities can lead to decreased operator productivity and accountability. These deficiencies, if not addressed, can severely impact the accuracy of EMIS data and the quality of educational planning and policy.

Furthermore, data from BPS (2023) and other relevant studies have shown that the education sector still pays limited attention to non-teaching staff, particularly EMIS operators, compared to the focus given to teachers and curriculum developers. This imbalance results in systemic weaknesses that hinder data governance in madrasahs.

The Quranic verse from Q.S al-Mujadilah: 11, which emphasizes the elevation of those with knowledge, provides religious encouragement for the continuous development of educational quality, including through technology utilization. This spiritual foundation supports the necessity of empowering EMIS operators through structured recruitment, ongoing motivation, and professional development.

Given the complexity of the issues and the critical role of EMIS in data governance at madrasahs, a comprehensive analysis is needed to examine how recruitment and motivation influence operator performance. Therefore, this study investigates “The Influence of Recruitment and Work Motivation on the Performance of EMIS Operators in Madrasahs in Tana Toraja and Toraja Utara.”

METHOD

This study adopts a quantitative research approach using a descriptive-associative survey method. The purpose of this approach is to investigate the influence of recruitment and work motivation on the performance of EMIS (Education Management Information System) operators in Islamic schools (madrasahs) located in Tana Toraja and North Toraja. The quantitative method enables precise measurement and analysis of

relationships between variables using statistical techniques, allowing for generalizable conclusions.

The research was conducted in selected madrasahs across various levels—MI (Madrasah Ibtidaiyah), MTs (Madrasah Tsanawiyah), and MA (Madrasah Aliyah)—in Tana Toraja and North Toraja. The data collection period spanned from January to February 2025, aligning with the even semester of the 2024/2025 academic year. Activities during this period included preparation, early observation, instrument validation, data collection, and final reporting.

The population comprised seven active EMIS operators within the study region. The sampling technique applied was Simple Random Sampling to ensure unbiased representation. Criteria for inclusion included being an active EMIS operator with at least one year of experience and willingness to participate in the research by completing a questionnaire.

Data were collected through observation and structured questionnaires distributed both online (via Google Forms) and in person. The questionnaire was based on a Likert scale ranging from "Strongly Disagree" to "Strongly Agree," designed to measure three key variables: recruitment, work motivation, and performance. In addition to closed-ended questions, the instrument included open-ended items to gather qualitative insights and suggestions from respondents.

Validity and reliability tests were conducted to ensure the quality of the instrument. Validity was assessed using the Pearson Product-Moment correlation, while reliability was measured using Cronbach's Alpha, with a threshold of ≥ 0.60. Quantitative data analysis employed descriptive and inferential statistical methods using SPSS version 26, enabling comprehensive understanding and interpretation of the relationships among the variables studied.

RESULT AND DISCUSSION

Result

This study aimed to examine the influence of recruitment and work motivation on the performance of Education Management Information System (EMIS) operators in madrasahs across Tana Toraja and North Toraja. Data were collected using structured questionnaires distributed both online and offline to a total of seven active EMIS operators, representing the entire population. The findings are presented across five key areas: respondent profiles, validity and reliability tests, descriptive statistics, regression analysis, and hypothesis testing.

1. Respondent Profile

The demographic profile of the respondents provided important context for interpreting the results. Based on gender, 57.14% of the respondents were male and 42.86% were female (Table 1).

Table 1

Respondent Profile by Gender

Gender	Frequency	Percentage
Male	4	57.14%
Female	3	42.86%
Total	**7**	**100%**

Regarding age distribution, two age groups were equally represented: 21–30 years and 31–40 years, each accounting for 42.86% of the respondents, while only one respondent (14.29%) fell within the 41–50 age group (Table 2).

Table 2
Respondent Profile by Age

Age Range (Years)	Frequency	Percentage
21–30	3	42.86%
31–40	3	42.86%
41–50	1	14.29%
Total	**7**	**100%**

All respondents (100%) held a bachelor's degree, indicating a uniformly high level of formal education (Table 3).

Table 3
Respondent Profile by Education

Education Level	Frequency	Percentage
Bachelor (S1)	7	100%

2. Instrument Validity and Reliability

The questionnaire contained 30 items across three main variables: recruitment (X1), motivation (X2), and performance (Y). Validity testing using the Pearson Product-Moment correlation showed all items had correlation coefficients above the minimum threshold of 0.235, ranging from 0.630 to 0.988 (selected sample in Table 4).

Table 4
Sample Validity Test Results

Item	r-value
1	0.917
4	0.988
10	0.940
22	0.954

Reliability analysis using Cronbach's Alpha resulted in values of 0.970 for recruitment, 0.936 for motivation, and 0.958 for performance (Table 5).

Table 5
Reliability Test Results

Variable	Cronbach Alpha	Conclusion
Recruitment	0.970	Reliable
Motivation	0.936	Reliable
Performance	0.958	Reliable

3. Descriptive Statistics

Descriptive statistics revealed that the mean score for recruitment was 32.00, with a standard deviation of 12.111. Motivation had a mean of 30.14 (SD = 10.946), and performance showed the highest mean of 32.43 (SD = 9.846). Detailed output is shown in Table 6.

Table 6
Descriptive Statistics Summary

Variable	Mean	Std. Deviation	Min	Max
Recruitment	32.00	12.111	17	46
Motivation	30.14	10.946	18	45
Performance	32.43	9.846	21	42

Further breakdown of scores shows a variation in respondent evaluations. For example, some operators rated recruitment as highly effective (score = 46), while others viewed it less positively (score = 17).

4. Normality and Multicollinearity Testing

The Kolmogorov-Smirnov test yielded a p-value of 0.200, confirming that the data distribution was normal. Tolerance and Variance Inflation Factor (VIF) values for recruitment and motivation were both within acceptable limits (Tolerance = 0.106; VIF = 9.429), indicating no multicollinearity.

5. Regression Analysis

Multiple linear regression analysis produced the following model: **Y = 7.**402 **+ 0.632X1 + 0.388X2** Where Y is performance, X1 is recruitment, and X2 is motivation. Table 7 presents the coefficient results.

Table 7

Regression Coefficients

Variable	B	t	Sig.
Recruitment	0.632	2.943	0.027
Motivation	0.388	3.481	0.015

6. Hypothesis Testing

The t-test confirmed that both recruitment ($t = 2.943$, $p = 0.027$) and motivation ($t = 3.481$, $p = 0.015$) significantly affect performance. The F-test also supported a significant joint effect, with $F = 22.053$ and $p = 0.004$ (Table 8).

Table 8
ANOVA (F-test)

Source	F	Sig.
Regression	22.053	0.004

These results confirm that effective recruitment and high work motivation both significantly enhance EMIS operator performance in the sampled madrasahs.

DISCUSSION

1. Recruitment Process of EMIS Operators in Tana Toraja and North Toraja

Recruitment is a fundamental component of human resource management aimed at attracting qualified applicants to fulfill organizational needs. More than filling vacancies, recruitment determines the suitability of candidates with organizational culture and their potential contributions. As such, a structured and competency-based recruitment process ensures optimal placement, productivity, and efficiency. In the context of EMIS operators in Tana Toraja and North Toraja, the recruitment process was rated by most respondents as effective to very effective, suggesting that the selection mechanisms were well executed.

Nevertheless, some respondents indicated that the recruitment process was suboptimal. These responses may stem from limited access to recruitment information, inadequate socialization, or a lack of transparency in the selection process. Therefore, continuous evaluation and enhancement of recruitment procedures are recommended. The high validity ($r > 0.6$) and reliability (Cronbach Alpha = 0.970) of the recruitment measurement instrument underscore the credibility of the data and the necessity to further refine this process.

This finding aligns with previous studies such as those by Sahrul Abas and Sarah Talya Tamin, which established that recruitment significantly impacts employee performance. The literature supports the idea that selective recruitment contributes substantially to performance outcomes, reinforcing the need for standardized and transparent processes. The inconsistency in perceived effectiveness among respondents

highlights the importance of equalizing standards and providing comprehensive post-recruitment training.

2. Work Motivation and EMIS Operator Performance

Motivation serves as a driving force behind employee performance. Defined as an internal condition that stimulates action, motivation can be intrinsic—stemming from personal goals and satisfaction—or extrinsic, such as financial incentives and recognition. The majority of EMIS operators in the study reported high motivation levels, with both intrinsic and extrinsic factors contributing to performance. This finding demonstrates that a balanced approach to motivation management yields better outcomes.

Reliability testing of the motivation instrument showed a high Cronbach Alpha value of 0.936, indicating consistent measurement. Operators with higher motivation levels consistently performed better, a trend supported by descriptive statistics and regression analyses. However, some respondents reported low motivation, highlighting the need for improved support systems, rewards, and career development opportunities. These findings are corroborated by similar studies in various sectors, including education and finance, emphasizing motivation's central role in enhancing performance.

3. Performance of EMIS Operators in Tana Toraja and North Toraja

Performance, measured in terms of quality and quantity of work output, varied significantly among EMIS operators. Most respondents evaluated operator performance as effective to moderately effective, reflecting a good level of competency in EMIS tasks. The performance instrument yielded a Cronbach Alpha of 0.958, indicating high reliability. These results validate that operator performance assessments accurately represent actual conditions.

Despite generally positive evaluations, several operators were perceived as underperforming. This may result from inadequate facilities, limited technical training, or insufficient managerial support. Addressing these challenges requires targeted capacity-building programs, including ongoing training and performance evaluations. Improving these areas is crucial to ensuring the continuous enhancement of data management quality, which in turn supports effective educational planning.

4. Effect of Recruitment on EMIS Operator Performance (Based on T-Test)

The t-test analysis revealed a significant influence of recruitment on operator performance, with a t-value of 2.943 and a significance level of 0.027. These results support the hypothesis that effective recruitment contributes to improved performance. Selective recruitment practices are linked to higher task precision and data accuracy among operators. This underscores the importance of implementing standardized, transparent, and competency-based recruitment frameworks.

As shown in related studies by Roidah Lina and Sarah Talya Tamin, effective recruitment strategies correlate positively with employee performance. For madrasahs,

maintaining a rigorous selection process that considers experience, technical skills, and integrity is essential. Future recruitment efforts should integrate competency evaluations and structured interviews to optimize personnel outcomes.

5. Effect of Work Motivation on EMIS Operator Performance (Based on T-Test)

The study also found that motivation significantly affects performance, with a t-value of 3.481 and a significance level of 0.015. High motivation levels—both intrinsic and extrinsic—resulted in better task execution, discipline, and data accuracy. This relationship highlights the importance of fostering an environment that supports employee aspirations and recognizes achievements.

Motivational frameworks like Herzberg's two-factor theory and Maslow's hierarchy of needs provide theoretical support for this finding. Operators who feel appreciated and are given opportunities for growth demonstrate greater commitment and output. Hence, madrasah management should prioritize motivational strategies such as recognition programs, career progression opportunities, and conducive working conditions.

6. Combined Effect of Recruitment and Motivation on Performance (Based on F-Test)

The F-test analysis showed that recruitment and motivation jointly influence performance, with an F-value of 22.053 and a significance level of 0.004. This finding emphasizes that both factors must be managed together to achieve optimal results. Good recruitment ensures the right personnel are hired, while proper motivation sustains high performance.

Integrating these two strategies in human resource policies is essential for long-term organizational success. Institutions should adopt a holistic approach that begins with selective recruitment and continues with ongoing motivational initiatives. These include incentive programs, feedback systems, and professional development. By aligning recruitment with motivation, madrasahs can enhance EMIS operator performance, ultimately contributing to more efficient educational data management and improved service delivery

CONCLUSION

This study concludes that both recruitment and work motivation significantly influence the performance of EMIS operators in madrasahs across Tana Toraja and North Toraja. Effective recruitment, characterized by objective and competency-based selection, ensures that operators possess the necessary qualifications to manage educational data with precision and accountability. Likewise, high levels of work motivation—whether intrinsic or extrinsic—are closely associated with improved task performance, discipline, and job satisfaction. The combined influence of recruitment and motivation demonstrates a synergistic effect, wherein both factors contribute substantially and simultaneously to enhancing operator performance. Statistical analysis confirmed the significance of this relationship, providing empirical evidence that human

resource practices are critical to sustaining data quality and institutional efficiency in Islamic educational settings. These findings emphasize the need for educational institutions to institutionalize standardized recruitment systems and foster a supportive work environment that enhances motivation. Future policies should focus on integrating these two dimensions as strategic levers for improving data governance and the overall effectiveness of madrasah education systems.

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