

THE INFLUENCE OF MANAGEMENT INFORMATION SYSTEMS, TRANSFORMATIONAL LEADERSHIP, AND SCHOOL-BASED MANAGEMENT ON THE QUALITY OF EDUCATIONAL SERVICES IN ELEMENTARY SCHOOLS IN BOJA DISTRICT

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Submitted: 23/01/2025

Revised: 27/03/2025

Accepted: 24/05/2025

Published: 25/07/2025

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The objectives of this research are to determine the effect of management information systems, transformational leadership, and school-based management on the quality of educational services in elementary schools in Boja District. This research uses a quantitative approach of the ex-post facto type. The population in this study was all elementary school teachers in the Boja District, Kendal Regency, totaling 138 people. The sampling technique used was proportionate random sampling, resulting in a sample of 103 teachers. Data collection was conducted using a questionnaire. Data sources consist of primary data (sourced from questionnaires) and secondary data (sourced from books, journals, and elementary school archives in the Boja District). Data analysis techniques include Partial Correlation Analysis, Multiple Regression Analysis, Hypothesis Testing, Determination Coefficient Test (R²), Structural Test, Effective Contribution, Relative Contribution, and Relative Contribution (SR) and Effective Contribution (SE). The research results show (1) There is an influence of management information systems on the quality of elementary school education services in Boja District of 76.4% with the highest contribution from the management information system dimension of 0.830 (83.0%), while the lowest dimension is system quality of 0.517 (51.7%), (2) There is an influence of transformational leadership on the quality of elementary school education services in Boja District of 76% with the highest contribution from the dimension that influences the highest transformational leadership from the intellectual stimulation dimension, namely 0.718 (71.8%). While the lowest dimension is Individualized influence of 0.474 (47.4%), (3) There is an influence of school-based management on the quality of elementary school education services in Boja District. of 79.3% with the highest contribution from the dimension that influences school-based management is the process dimension, namely 0.820 (82.0%). While the lowest dimension is educational input of 0.539 (53.9%). 4) There is an influence of management information systems, transformational leadership, and school-based management on the quality of elementary school education services in the Boja District of 84.4% with the highest contribution from the school-based management dimension of 79.3% and the lowest from the transformational leadership dimension of 76%.

Keywords

Quality of educational services, management information systems, transformational leadership, and school-based management.



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INTRODUCTION

The quality of educational services is the guidance service in educational institutions aimed at supporting learning activities, such as organizing the teaching and learning process, providing facilities that support learning, and administration related to learning (Jariyah et al, 2023). Educational services can help students in supporting and enhancing learning activities, including learning facilities, classroom learning, assignments from teachers, and independent study, which are academic services provided by schools (Rozak et al, 2021).

One of the efforts to improve the quality of government education services is the issuance of a policy outlined in Permendikbud No. 28 of 2016 concerning the Basic and Secondary Education Quality Assurance System, which aims to control the implementation of education by educational units in basic and secondary education to achieve quality education. Additionally, it aims to ensure the fulfillment of standards in educational units systematically, holistically, and sustainably, thereby fostering and developing a culture of quality in educational units independently.

Based on Permendiknas No. 28 of 2016 concerning the Basic and Secondary Education Quality Assurance System, good educational service quality is educational service quality that includes eight standards of educational service quality, namely (1) graduate competency standards; (2) content standards; (3) process standards; (4) educational assessment standards; (5) educational staff standards; (6) facilities and infrastructure standards; (7) management standards; and (8) financing standards. These eight educational service quality references in educational units are ideal standards that must be implemented by each school to maintain the quality of educational service.

Boja District's educational resource development is a unique endeavor that has the potential to boost and propel the local economy. Quality people can be shaped by education to assist economic, sociocultural, and other areas of development. The local government's focus and assistance are crucial in raising the standard of education in Boja District, particularly in the areas of basic and secondary education. Enhancing and developing the quality of educational services is one way the Regional Government of Kendal Regency (Pemdakab), Boja District, works to raise the standard of education.

The researcher discovered a number of problems with the educational report card results entered using the EDS Dikdasmen application, which indicate that the quality of educational services in Boja District, Kendal Regency, varies. These problems were based on the primary goals of elementary schools and the main tasks and functions of the Education Office of Kendal Regency,

Boja District. Numerous variables, such as challenges with transformational leadership, school-based administration, and management information system concerns, may be to blame for this.

In primary education, especially at the elementary school level, management information systems (MIS) are crucial for facilitating planning, decision-making, and the execution of academic programs. However, there are still a number of shortcomings in elementary school MIS. One of these is the dearth of thorough research on how SIM might be integrated with the unique requirements of primary schools, including real-time tracking of students' academic achievement, teacher performance-based reporting, and comprehensive student data management. Additionally, a lack of infrastructure, insufficient training for administrators and teachers, and financial limitations also hinder the implementation of technology in SIM. Additionally, little study has been done on how SIM might encourage a kid-friendly classroom and encourage parents to actively support their children's education. Thus, there is a great opportunity to explore affordable, effective, and relevant SIM solutions for primary education, especially in the context of schools with limited resources.

Researchers are now interested in transformational leadership in primary schools because of its potential to raise educational standards through staff and teacher empowerment, creativity, and motivation. However, there are a number of practice gaps in the sector as a result of interviewing principals and instructors. The inability of the principal to encourage and inspire staff and teachers to innovate and accomplish shared objectives is one of the problems that frequently emerge in primary schools in relation to transformational leadership. Instead of promoting change and the growth of a progressive school culture, many principals have a tendency to use traditional administrative strategies that place greater emphasis on daily operations. Initiatives to raise the standard of instruction and school administration are so frequently thwarted. Additionally, school administrators find it challenging to empower teachers and actively engage all stakeholders, including parents and the community, due to a lack of training and assistance in establishing transformational leadership competencies. However, a further obstacle to administrators using a transformational strategy is staff or teacher opposition to change, particularly in organizations with conservative cultures. This problem affects elementary school quality improvement programs' low levels of innovation, teamwork, and sustainability.

School-Based Management (SBM) has long been acknowledged as a successful strategy for raising student achievement by involving all relevant parties. Nonetheless, there are some obstacles that elementary school-level School-Based Management (SBM) must overcome. The inability of principals and teachers to comprehend and successfully use MBS concepts is one of the primary problems. Without giving the school community complete autonomy to make decisions on its own, many schools continue to rely on central policies. Furthermore, funding and resource constraints frequently provide significant challenges to the execution of initiatives that address the comprehensive requirements of children. A lack of open and cooperative communication is another reason why community and parental involvement in decision-making is still low. However, poor school infrastructure—such as a lack of sufficient learning spaces, subpar technology, and an unfriendly atmosphere for children—also has an impact on how well MBS is implemented. This problem is made worse by the fact that teachers and other school employees do not receive continual training to improve their ability to run the school independently and responsibly. Given these problems, SD Negeri Kecamatan Boja's educational services must be improved in quality since elementary education is a prerequisite for students to go to higher levels. Based on these issues, it is necessary to improve the quality of educational services at SD Negeri Kecamatan Boja because primary education is a basic need for students to continue to higher levels of education. This is what underlies the importance of conducting research.

One of the key elements that can raise the standard of educational services is transformational leadership. Rahmawati et al. (2023) define transformational leadership as the process of influencing organizational leaders who motivate their members to be dedicated, have a creative approach to problem-solving, have a vision and goals, and turn individual interests into group interests in order to accomplish the intended goals. In order to improve service performance and foster a positive attitude toward the delivery of high-quality services, transformational leaders can improve service quality by creating suitable guidelines for service quality, sharing them with members, and rewarding members with exceptional service quality offerings (Ridwan, Ermansyah, & Apriyana, 2024). Therefore, it is able to provide ample space for transformational leadership as a leadership style that is suitable and appropriate for improving the work quality of its members in an effort to enhance the quality of educational services.

School-based administration is another element that may have an impact on the caliber of educational services. According to Law No. 20 of 2003, Article 51, Paragraph 1 on the National Education System, school-based management (SBM) is a type of educational management autonomy at the level of educational units, where the principal and teachers are supported in managing educational activities by the school committee. The curriculum, different learning resources, instructional time, and the learning process will all be directly impacted and determined by school-based administration (Mulyasa, 2017). According to Pujiastuti (2021), creating the school's vision and goal and including the community in the delegation of authority are the first steps in implementing school-based administration to improve the quality of education. Therefore, in addition to raising the caliber of teachers and creating educational materials, efforts to improve the quality of educational services must start with improving school administration.

Another element that may have an impact on the caliber of educational services is information systems. In order to assist decision-making, coordination, control, and the provision of an overview of operations within an organization, information systems are made up of interconnected components that cooperate to gather, process, store, and distribute information (Laudon, Kenneth & Jane, 2019). The purpose of management information systems is to gather, process, and distribute information to the appropriate individuals within an organization in order to improve educational services. When educational institutions are able to provide information services that satisfy the demands of all parties involved in education—students, instructors, parents, and the community—they are considered successful. Educational institutions must be able to provide information that meets the needs of educational stakeholders, easily accessible, effectively, and efficiently, which will impact the improvement of the quality of educational services.

This study is supported by earlier research by Ramdani (2020), which found that management information systems had a considerable (21.2%) impact on the quality of educational services. According to research by Rahayu et al. (2025), if MBS is implemented properly and consistently, it has been shown to raise educational quality. Kurniawan's research from 2021 supports the idea that school/madrasah-based management has a big impact on MI Negeri 1 Kolaka Utara's educational quality. According to Khoerudin, Nugraha, and Nasrudin's (2024) research, the transformational leadership of the principal has a substantial impact on raising the standard of education (t-statistic 4.242 and p values <0.05). According to Miranti's research from 2023, school-based management enhances educational quality and services, enabling SMAN 1 Paringin to

compete and generate high-caliber graduates in both academic and extracurricular fields. The purpose of this study is to ascertain how transformational leadership, school-based management, and management information systems affect the standard of elementary school instruction in the Boja District.

METHOD

This study employs an ex-post facto quantitative methodology. All 138 elementary school teachers in the Boja District, Kendal Regency, made up the study's population. A sample of 103 teachers was obtained using the proportionate random sampling technique. A closed questionnaire with Likert scale-based alternative responses was used to collect data. The study was conducted between October 2024 and March 2025 at elementary schools in the Boja District. Primary data, which came from questionnaires, and secondary data, which came from books, journals, and the archives of elementary schools in the Boja District, make up the data sources. A questionnaire was employed as the data gathering method in this investigation. 1) The management information system has an impact on the standard of instruction in Boja District elementary schools, according to the research hypothesis. 2) Transformational leadership has an impact on the standard of instruction in the Boja District elementary schools. 3) The standard of instruction in Boja District's elementary schools is impacted by school-based management. Both simple regression and multiple regression are used in this study's data analysis methodology.

FINDINGS AND DISCUSSION

Findings

The Influence of Management Information Systems on the Quality of Elementary Education Services in Boja District

Table 1. The Relationship between Management Information Systems and the Quality of Educational Services

Value	Result
Pearson Correlation	0,874
Sig. (2-tailed)	0,000
N	103

According to Table 1, there is a 0.874 link between the management information system and the caliber of educational services provided by SD Negeri in the Boja District. This coefficient value

belongs to the very strong category, per Sugiyono (2019). This finding indicates that the quality of educational services at SD Negeri in the Boja District is strongly correlated with the management information system.

Table 2. The Influence of Management Information Systems on
The Quality of Educational Services

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std Error	Beta		
(Constant)		27,575	6,429		4,289	,000
Management Information System		,815	,045	,874	18,106	,000

H0 is rejected and Ha is accepted, indicating that the management information system has a significant impact on the quality of educational services at SD Negeri in Boja District. The research results from the above table show that the t-count for the management information system is 18.106, while the t-table is 1.98373 ($18.106 > 1.98373$) with a Sig value of $0.000 < 0.05$.

Table 3. The Contribution of Management Information Systems to
The Quality of Educational Services

R	R Square	Adjusted R Square	Std. Error of the Estimate
,874 ^a	,764	,762	11,929

The R-squared value is 0.764, according to the coefficient of determination test result in the quotes above. According to this finding, the management information system influences the quality of instruction at public elementary schools in the Boja District by 76.4%. The management information system has a significant impact on the caliber of educational services, as indicated by the coefficient of determination value falling into the strong group (Ghozali, 2021). In the meantime, other factors not included in this study have an impact on the remaining 23.6%.

The Influence of Transformational Leadership on the Quality of Elementary Education Services in Boja District

Table 4. The Relationship between Transformational Leadership and
The Quality of Educational Services

Value	Result
Pearson Correlation	0,872
Sig. (2-tailed)	0,000
N	103

It is evident from Table 4 that there is a 0.872 association between transformational leadership and the standard of instruction provided in Boja District's state primary schools. This coefficient value belongs to the very strong category, per Sugiyono (2019). This finding indicates a strong correlation between transformative leadership and the caliber of instruction provided in Boja District's state primary schools.

Table 5. The Influence of Transformational Leadership on
The Quality of Educational Services

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std Error	Beta		
(Constant)	18,386	7,016		2,621	,010
Transformational leadership	,896	,050	,872	17,879	,000

According to the research findings in Table 5, transformational leadership has a significant impact on the quality of educational services at public elementary schools in the Boja District. The t-value for transformational leadership is 17.879, while the t-table value is 1.98373 ($17.879 > 1.98373$) with a Sig value of $0.000 < 0.05$. As a result, H_0 is rejected and H_a is accepted.

Table 6. The Contribution of Transformational Leadership to
The Quality of Educational Services

R	R Square	Adjusted R Square	Std. Error of the Estimate
,872 ^a	,760	,758	12,044

According to Table 6 coefficient of determination test findings, the R-squared value is 0.760. This finding indicates that 76% of the quality of educational services in Boja District's public elementary schools may be attributed to transformational leadership. This coefficient of determination value is in the strong category, suggesting that transformational leadership has a significant impact on the caliber of educational services (Ghozali, 2021). In the meantime, other factors not included in this study have an impact on the remaining 24%.

The Influence of School-Based Management on the Quality of Elementary Education Services in Boja District

Table 7. The Relationship Between School-Based Management
and the Quality of Educational Services

Value	Result
Pearson Correlation	0,890

Sig. (2-tailed)	0,000
N	103

It is evident from Table 7 that there is a 0.890 association between the quality of educational services provided by public elementary schools in the Boja District and school-based management. This coefficient value belongs to the very strong category, per Sugiyono (2019). This finding indicates that the quality of educational services provided in state primary schools in the Boja District is strongly correlated with school-based management.

Table 8. The Influence of School-Based Management
On the Quality of Educational Services

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std Error	Beta		
(Constant)	22,164	6,201		3,574	,001
School-Based Management	,868	,044	,890	19,642	,000

According to the research findings in Table 8, school-based management has a significant impact on the quality of education services at public elementary schools in the Boja District. The t-value for school-based management is 19.642, while the t-table value is 1.98373 ($19.642 > 1.98373$) with a Sig value of $0.000 < 0.05$. As a result, H_0 is rejected and H_a is accepted.

Table 9. The Contribution of School-Based Management
to the Quality of Educational Services

R	R Square	Adjusted R Square	Std. Error of the Estimate
,890 ^a	,793	,790	11,196

According to the above table's coefficient of determination test findings, the R-squared value is 0.793. According to this finding, school-based administration contributes 79.3% to the standard of instruction provided in Boja District's public elementary schools. This coefficient of determination value is in the strong category, suggesting that school-based management has a significant impact on the caliber of educational services (Ghozali, 2021). In the meantime, other factors not included in this study have an impact on the remaining 20.7%.

The Influence of Management Information Systems, Transformational Leadership, and School-Based Management on the Quality of Elementary Education Services in Boja District

Table 10. The Relationship between Management Information Systems, Transformational Leadership, and School-Based Management with the Quality of Educational Services

Value	Result
Pearson Correlation	0,919
Sig. (2-tailed)	0,000
N	103

According to Table 10, there is a 0.919 association between the quality of educational services at public elementary schools in the Boja District and management information systems, transformational leadership, and school-based management. This coefficient value belongs to the very strong category, per Sugiyono (2019). This finding indicates that the quality of educational services at public elementary schools in the Boja District is strongly correlated with transformational leadership, school-based management, and management information systems.

Table 11. The Influence of Management Information Systems, Transformational Leadership, and School-Based Management on the Quality of Educational Services

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	51500,526	3	17166,842	178,531	,000 ^b
Residual	9519,436	99	96,156		
Total	61019,961	102			

H0 is rejected and Ha is accepted, indicating that management information systems, transformational leadership, and school-based management all significantly impact the quality of educational services at public elementary schools in the Boja District at the same time. The research results from the above table show that the f-count for these three factors is 178.531, while the f-table is 2.70 ($178.531 > 2.70$) with a Sig value of $0.000 < 0.05$.

Table 12. The Contribution of Management Information Systems, Transformational Leadership, and School-Based Management to the Quality of Educational Services

R	R Square	Adjusted R Square	Std. Error of the Estimate
,919 ^a	,844	,839	9,806

According to Table 12 coefficient of determination test findings, the R-squared value is 0.844. According to this finding, school-based management, transformational leadership, and management information systems all work together to provide 84.4% of the high caliber of education services provided by public primary schools in the Boja District. This coefficient of determination value, which falls into the very strong category, suggests that school-based management, transformational leadership, and management information systems all have a significant impact on the quality of education services at the same time (Ghozali, 2021). Other factors that were not looked at in this study, however, have an impact on the remaining 15.6%.

Table 13. Regression Coefficients of Management Information Systems, Transformational Leadership, and School-Based Management on the Quality of Educational Services

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std Error	Beta		
(Constant)	12,130	5,783		2,09	,039
Management Information System	,338	,078	,363	7	,000
Leadership	,281	,101	,274	4,36	,006
School-Based Management	,315	,109	,323	4	,005
				2,78	
				2	
				2,90	
				3	

The findings show that transformational leadership, school-based management, and the management information system all have an impact on the caliber of instruction provided in public primary schools in the Boja District. The quality of educational services at public elementary schools in the Boja District increases with the effectiveness of the management information system, transformational leadership, and school-based management.

Discussion

The study according to these findings, the management information system influences the quality of instruction at public elementary schools in the Boja District by 76.4%. The correlation coefficient, on the other hand, is 0.874, falling into the category of very strong. This finding indicates a high correlation between the quality of educational services provided by public elementary schools in the Boja District and the management information system.

The findings of this study are consistent with those of Yuzerizal, Edward, and Indrawijaya's (2022) study, which demonstrates that service quality is positively impacted by the management information system for educational staff services (0.002). According to Hoerunnisa, Lestari, and

Abdurohim's (2024) research, the quality of administrative services is influenced by the educational management information system (0.000).

An organization's operations, management, and decision-making processes are supported by the information presented by a management information system (MIS) (Kadir, 2019). SIMDIK (Educational Management Information System) is the term used to describe the use of management information systems in the field of education. The advantages of the Educational Information System (SIM Pendidikan) extend beyond academic services and administration; they also include better information access, more efficient operations, and higher-quality madrasahs (Hoerunnisa, Lestari & Abdurohim, 2024). Madrasahs' educational information systems are especially made to satisfy the demands of computerized administration, which includes managing administrative and academic tasks combined into a unified network. By offering rapid, precise access and integrated data management, this seeks to improve the efficacy and efficiency of administrative services (Fadul, 2019). In primary education, especially at the elementary school level, management information systems (MIS) are crucial for facilitating planning, decision-making, and the execution of academic programs.

Administrative tasks, including student registration, fee payments, and inventory management, can be automated with the use of management information systems (Izza and Pusvyta, 2019). This increases operational effectiveness and efficiency by lowering the manual workload and reducing the possibility of errors. From classroom management to school policy-making, management information systems facilitate more efficient decision-making processes by offering precise and up-to-date data and information. Grades, accomplishments, and student performance can all be tracked via management information systems. This can assist educators in delivering more individualized and successful tasks, resources, and feedback (Loilatu, 2020).

Services for teachers, parents, and children improve when SIM is present. This can improve the learning environment and boost user satisfaction. Thus, from increased operational efficiency to better learning quality and user happiness, the successful deployment of SIM can have a substantial positive impact on the quality of educational services. The quality of instruction in state primary schools in the Boja District increases with the effectiveness of the management information system.

The study's findings demonstrate that transformational leadership significantly affects the caliber of instruction in Boja District public elementary schools, as indicated by a t-statistic value of

17.879 and a t-table value of 1.98373 ($17.879 > 1.98373$) with a Sig value of $0.000 < 0.05$. based on the 0.760 R-squared value. According to this finding, transformational leadership influences the quality of educational services in public elementary schools in the Boja District by 76%. In the meantime, the correlation coefficient value, which is 0.872, is classified as extremely strong. According to this finding, transformational leadership and the standard of instruction provided in Boja District's public primary schools are strongly correlated.

This research finding supports that of Rahmawati, Lestari, and Hasanah's (2024) study, which demonstrates that transformational leadership has a beneficial impact on academic service quality. The quality of academic services is positively impacted by transformational leadership, according to Arista's (2024) study. According to Armiyanti et al.'s research from 2023, transformative leadership can enhance the effectiveness of educational services.

The process of influencing organizational leaders who motivate their followers to be dedicated, have a creative approach to problem-solving, have a vision and goals, and convert individual interests into group interests in order to accomplish the intended goals is known as transformational leadership (Fahrurrobi, 2020). In order to improve service quality and foster a positive attitude toward service quality provision, transformational leaders can accomplish this by creating suitable guidelines for service quality, sharing them with their members, and rewarding them with exceptional service quality offerings (Su, Cheng, & Wen, 2019). The contentment of school service customers will be influenced by the caliber of efficient academic services provided in schools.

Teachers can be inspired and motivated by this transformational leadership style to meet greater standards in their instruction and offer pupils high-quality services. According to research by Armiyanti et al. (2023), transformational leadership can effectively communicate the organization's goals and values, establish a clear vision, and cultivate strong relationships with educational staff—all of which actively contribute to raising the standard of educational services. Enhancing transformational leadership is one way to improve service quality, according to research by Ruffiah and Muhsin (2018).

The quality of learning can be raised by motivating teachers to offer students better services through the use of transformational leadership (Rahmawati, Lestari, dan Hasanah, 2024). Innovative teaching methods, fresh approaches to student engagement, and improved learning environments are all encouraged by transformational leaders. In order to improve knowledge and increase participation, transformational leaders establish good communication with all

stakeholders, including students (Arista, 2024).

Furthermore, transformational leadership places a strong emphasis on inspiring others, empowering them, and helping them reach their full potential within the company. When a principal or leader uses this approach, they serve as an inspiration, inspiring staff and instructors to devote themselves more fully to the school's objectives and concentrate on raising the standard of instruction (Rahmawati, Lestari, dan Hasanah, 2024). Teachers and staff are strongly directed and motivated by a clear vision and long-term objectives, which inspire them to work more enthusiastically and concentrate on reaching shared objectives (Arista, 2024). This demonstrates that the quality of academic services provided by the school increases with the strength of transformative leadership. Therefore, to improve the quality of academic services, it is hoped that more attention will be given to the transformational leadership of the principal in order to enhance the quality of academic services.

A t-statistic value of 19.642 and a t-table value of 1.98373 ($19.642 > 1.98373$) both indicate that school-based management has a significant impact on the quality of education services in public elementary schools in the Boja District, with a Sig value of $0.000 < 0.05$. based on a 0.793 R-squared value. According to these findings, 79.3% of the quality of educational services in Boja District's public elementary schools may be attributed to school-based management. At the same time, the correlation coefficient is 0.890, falling into the category of very strong. This finding indicates that the quality of educational services provided by public elementary schools in the Boja District is strongly correlated with school-based management.

At the educational unit level, school-based management (SBM) is a type of educational management autonomy in which the school committee supports the principal and teachers in overseeing operations. The curriculum, different learning resources, instructional time, and the learning process will all be directly impacted and determined by school-based administration (Mulyasa, 2017). By defining the school's vision and mission and dispersing authority through community involvement, school-based administration is implemented to improve the quality of education (Pujiastuti, 2021). Therefore, in addition to raising the caliber of teachers and creating learning materials, efforts to improve the quality of educational services must start with improving school administration.

The efficiency, caliber, and equity of education can all be enhanced by the successful application of MBS. This is accomplished by improved teacher quality through professional

development and training, greater community involvement, and school autonomy in management (Lestariningsyias & Miyono, 2024). Mulyasa (2017) raised a similar issue, stating that the objective of school-based management (SBM) is to raise educational equity, quality, and efficiency. Improvements in student learning outcomes, higher levels of parental and student satisfaction, and a more favorable school climate are all indicators of this.

Because of the high levels of ownership, participation, and decision-making involvement, MBS gives teachers and school principals the chance to manage educational units more successfully (Kurniawati, Arafat & Puspita, 2020). As a result, they feel more invested in the school, which encourages them to use the resources at their disposal to improve the caliber of the learning process and results. As a result, MBS modifies the management and decision-making process to include all relevant parties at every educational institution. It is anticipated that each school will be able to attain autonomy and make ongoing quality improvements, which will increase accountability (Fauziyah, 2022).

Furthermore, MBS gives schools choice in how they manage their staff and financial resources, which boosts productivity (Lestari et al., 2025). MBS enhances educational fairness by enabling schools to better respond to the many needs of pupils, especially those with special needs. All pupils have equitable access to high-quality education as a result of the general improvement in educational quality. Schools can improve the general caliber of educational services by putting into practice efficient MBS (Syahwalan et al., 2024). School autonomy, community involvement, and the development of teacher competency underpinned by effective school management lead to improvements in educational efficiency, quality, and equity (Anwar, 2021). Thus, the better the school-based management, the better the quality of education services at public elementary schools in the Boja District.

An F-calculated value of 178.531 and an F-table value of 2.70 ($178.531 > 2.70$) with a Sig value of $0.000 < 0.05$ demonstrate that management information systems, transformational leadership, and school-based management all significantly affect the quality of education services at public elementary schools in the Boja District. According to the above table's coefficient of determination test findings, the R-squared value is 0.844. According to this finding, the quality of educational services at public elementary schools in the Boja District is influenced by the management information system, transformational leadership, and school-based management, all at the same time, to the tune of 84.4%. There is a very good link ($r = 0.919$) between the quality of educational

services at public elementary schools in the Boja District and the management information system, transformational leadership, and school-based management. This finding suggests that the quality of educational services at public elementary schools in the Boja District is strongly correlated with transformational leadership, school-based management, and the management information system.

The quality of administrative services can be improved by using management information systems to increase the efficacy and efficiency of data and information management (Fadul, 2019). The administration of student, teacher, financial, and other school-related data can be aided by SIM. SIM facilitates information access and decision-making by making the administrative process more accountable, transparent, and structured (Fauziyah, 2022). By facilitating cooperation between different stakeholders within the school, SIM implementation also improves coordination and communication. Effective and efficient management of educational data and information is made possible by management information systems, which help students, parents, and other stakeholders make better decisions and receive higher-quality services (Ramadani, 2024).

School principals who exhibit transformational leadership have the ability to spur innovation and ongoing development, which will ultimately raise the standard of the institution (Waraningtyas, Yuliejantiningasih, & Sudana, 2023). Principals of transformational schools are able to promote innovation, a healthy work atmosphere, and ongoing development. This can raise student motivation, improve the caliber of instructor services, and eventually raise the standard of the school as a whole (Artanto, 2022). Therefore, in an attempt to raise the caliber of academic services, transformational leadership is a relevant and appropriate leadership style to improve members' work quality. By developing a clear vision, inspiring involvement, fostering creativity, enhancing capacity, and fostering a collaborative learning environment, transformational leadership can enhance educational services in schools (Armiyanti et al., 2023). A clear vision and solid relationships with educational staff can be established via transformational leadership. The principle can push the required adjustments, enable team members to actively participate in raising the standard of educational services, and effectively convey the organization's aims and values (Rahmawati, Lestari, dan Hasanah, 2024). Because it has the power to encourage people, inspire positive change, and raise the standard of education generally, transformational leadership is essential in educational institutions. In order to improve the quality of educational services, transformational leaders prioritize fostering innovation, maximizing individual potential, and fostering a collaborative atmosphere (Sugiono & Rachmawati, 2019). Innovation in teaching and

learning results from transformational leaders' encouragement of intellectual stimulation, creativity, and problem-solving, all of which have an effect on the quality of schools (Taufiq, 2019).

If properly executed, school-based administration can raise educational standards and equity (Anwar, 2021). MBS gives schools the autonomy to decide on their own how to handle their resources and curricula. Schools can use MBS to customize their curricula and instructional activities to meet the requirements of the community and students (Jansa, Fitria & Wahidy, 2021). The total quality of education, including facilities, services, and student learning outcomes, can be improved by an efficient MBS (Syahwalan et al., 2024). Through the creation of curricula that better suit the needs of students and the educational setting, as well as the increase of teacher competencies, MBS promotes the improvement of learning quality (Mansur, 2023). Through active participation, efficient resource management, and the improvement of learning quality, MBS will ultimately enhance the overall quality of educational services.

A strategic approach to education administration, school-based management (SBM) gives schools more freedom to oversee and raise the caliber of their own instruction. SBM incorporates stakeholders and the entire school community in the design, execution, and decision-making of educational initiatives. Making schools more effective, efficient, and receptive to community and student needs is the aim (Zaid and Nurdin, N., 2022). Based on the ideas of decentralization and school autonomy, school-based management gives schools the power to oversee curriculum, learning programs, and resources in accordance with the needs and potential of their communities. In SBM, schools actively promote reform to raise educational standards in addition to implementing policies (Verbo, Fernando, & Cabrera, 2023). By providing autonomy and empowering schools, school-based management is expected to create a learning environment that is of higher quality and relevant to students' needs (Ulfatin et al., 2022)

CONCLUSION

The following conclusions can be drawn from the research findings and comments based on data analysis: 1) The management information system has a 76.4% impact on the standard of elementary school education services in the Boja District. 2) In the Boja District, transformational leadership has a 76% impact on the standard of primary school instruction. 3) The Boja District's primary school education services are influenced by school-based management to the tune of 79.3%. 4) The Boja District's primary school education services are influenced by the management

information system, transformational leadership, and school-based management at a rate of 84.4%.

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