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The impact of leadership style, motivation, competence, and educational process on the quality of education based on structural equation modeling approach with t-test and critical ratio variables

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ABSTRACT

This study analyzes the impact of leadership style, competence, motivation and educational process on the quality of education both partially and simultaneously. This study uses the quantitative method of causality that influences each other with the analysis tool used SEM. The number of populations in this study was 603 respondents, with sampling using a sample size calculator totaling 235 respondents with a confidence level value of 95% and a margin of error of 5%. The sampling method is based on stratified random sampling proportionally. The results of the study showed that there was no significant influence of leadership style on the quality of education. There was no influence of motivation on improving the quality of education. While simultaneously, leadership style, motivation, competence and the education process did not affect the quality of education. Thus, among the 4 independent variables, only the education process variable affected the quality of education. For the lecturer competency variable, there was no influence on improving the quality of education. However, for the education process variable, there was a significant influence on improving the quality of education. The study's insightful findings would enhance educational standards.

Contribution/Originality: Many studies have explored the leadership style, competence, motivation, educational process and quality of education but none have analyzed the impact of both partially and simultaneously. This paper offers a significant contribution to the importance of each independent variable in constructing the dependent variable can be ascertained through this research. It is envisaged that this thorough study model would yield insightful results that will raise educational standards.

1. INTRODUCTION

1.1. Introduce the Problem

Human resource management is an integral part of general management including planning, organizing, implementing, and controlling to achieve organizational goals. It is necessary to understand that human resources are a key element that determines the course of organizational activities before discussing the concept of human resource management. Human resources are defined as the ability of individuals to work and optimize their potential to produce goods or services. The quality of competitive and qualified human resources is essential for

organizations to develop. Competency-based human resource development increases productivity and work enthusiasm, producing work quality that satisfies consumers. Human resources can be defined as all individuals involved in an organization to achieve certain goals. This concept views human resources as a strength or potential used by an organization for progress through its performance. Well-managed human resources will produce added value, increase the efficiency and effectiveness of the organization. Therefore, the management of human resources positions in the organization becomes crucial. Human resources management becomes a company's effort to manage and organize such resources to achieve goals and objectives effectively and efficiently.

The set of values that a community, organization, or individual instills in its members as standards of knowledge, morality, rules, and attitude that direct conduct based on how others are expected to treat them is known as culture (Robbins, 2006). Three levels of corporate culture were distinguished by Schein (1992): artifacts, underlying presumptions, and declared ideals. Next, Luthans (1998) asserts that the beliefs and norms that direct the behavior of its members make up an organization's culture. On the other hand, Kreitner and Kinicki (2000) define organizational culture as the coexistence of organizational and individual values that significantly affect employee performance and job satisfaction. Long-term organizational performance has been demonstrated to be enhanced by organizational culture (Kotter & Heskett, 1992). A crucial component of general management, human resource management (HR) includes planning, organizing, executing, and controlling to accomplish corporate objectives. Before talking about the idea of HR management, it is important to realize that HR plays a significant role in determining how organizational activities proceed. The ability of a person to labor and maximize their potential to produce goods or services is known as human resources. Human resources that are both competitive and qualified are critical to the development of a firm. Competency-based HRD boosts output and employee satisfaction, resulting in high-quality work that pleases customers (Hartini & Habibi, 2023; Hartini, 2021; Robbins, Judge, & Sanghi, 2019). All people who work for an organization to accomplish specific objectives can be referred to as human resources. According to Hasibuan (2000), this notion sees human resources as an organization's strength or potential that it uses to advance through its performance. Effective human resource management will increase the efficacy and efficiency of the firm by creating additional value. HR management is the company's endeavor to manage and organize HR to accomplish goals and targets efficacy and efficiency (Dessler, 2015). As a result, managing HR's position within the organization becomes essential. Effective human resource management is critical to an organization's or company's success.

HR management is involved to maintain employee happiness and establish a comfortable work environment. The existence of HR management is critical to an organization's growth and survival. This study employs a thorough research model created especially to look at the particular educational situation. In order to examine the impact of leadership style, competency, motivation, and educational procedures on the quality of education holistically, this model integrates theories from several scientific fields. The research tools were created especially to measure the variables under investigation while taking into account the special requirements and features of education. The Structural Equation Modeling (SEM) approach was used to examine the relationship between the variables. SEM enables researchers to examine both direct and indirect correlations between variables and test research hypotheses concurrently. As a result, the importance of each independent variable in constructing the dependent variable can be ascertained through this research. It is envisaged that this thorough study model would yield insightful results that will raise educational standards.

2. METHOD

Field research, which involves completing surveys or visiting the research item firsthand, is the type of study that will be conducted. The author of this study conducted an investigation to determine how competence and leadership style affect educational quality. The type of study that is employed is quantitative causality research. Research organized to investigate the potential for a cause-and-effect relationship between variables is known as a

causation research design (Sanusi, 2014). The researcher can typically predict the cause-and-effect relationship, which allows them to classify the independent and dependent variables because of this design. The research methodology used in this study is a descriptive quantitative analysis approach, which is in line with the goals and focus of the study. The quantitative approach seeks to enable comprehension of the research object's progress by offering a quantitative description and explanation in the form of dimensions, measurable, and understandable numbers. Finding the problem is always the first step in the quantitative approach, which is then developed and refined to become evident to obtain conclusions that are consistent with the objectives of the study. Measurable meaning is continuously extracted from the ongoing interaction of variables throughout the research period. Until it finds solutions to issues that come up, this research keeps making observations, taking measurements, and processing data.

The research tool used in this study is a questionnaire that is used for data collection. The questionnaire underwent validation and reliability tests before being used as a data collection tool. Additionally, following the collection of data, the results of the data processing are processed and analyzed. The results and conclusions are then further examined and interpreted, which truly advances research and technology. A statistical method for examining sample data is inferential data analysis. In the framework of this research, SEM (Structural Equation Modeling) analysis is employed to establish the relationship between leadership style variables (X1), motivation (X2), competence (X3), and educational process (X4) on the educational quality variable (Y) as output. SEM 126 is a multivariate analysis method that enables researchers to examine both recursive and non-recursive relationships among complex variables, thereby providing a comprehensive picture of the model as a whole. According to Bollen in Ghozali (2005), SEM can test together. The originality and novelty presented in this research include the following:

1. This is what is new in writing this dissertation, namely how we analyze the simultaneous relationship between the four main variables in this study, namely; leadership style, competence, motivation and educational process on the education quality through the intervening variables of character, education and facilities and infrastructure.
2. The development of the model used for the analysis tool, namely using the Structural Equation Modeling (SEM) method so as to understand the relationship among variables more comprehensively. For more details, the novelty and originality in this study will be discussed further in the next chapter by making a critical review of previous research by determining the gap or research gap identified as something new that has never been done by previous researchers as novelty and originality of research.
3. Contribution to education policy, emphasizing the importance of holistic restructuring of the education system to improve learning effectiveness, rather than focusing solely on individual capacity development.

The research is divided into two sets of variables: the first group includes leadership and competence, which are exogenous variables; the second group includes intervening variables, which are endogenous variables, such as education quality.

Figure 1 illustrates the relationship between the four main variables; leadership style, competence, motivation and educational process on the education quality.

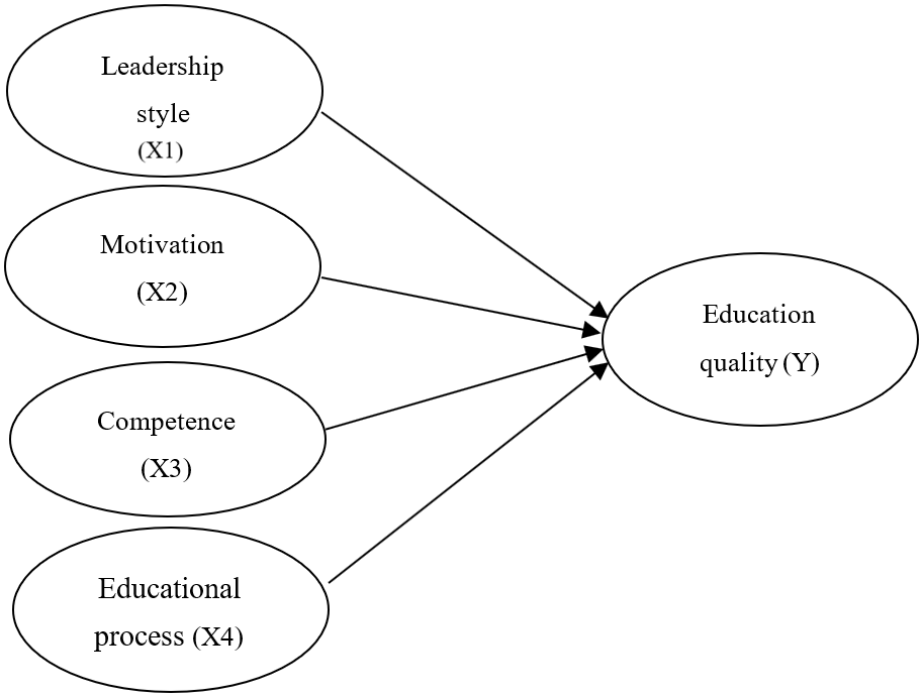

Figure 1. Input and output variables of research

The LISREL 8.8 software for Windows is used to apply this SEM model. The steps in this research can be explained as follows:

a. Development of concept and theory-based models. In SEM, there are two principles, namely (1) analyzing causal relationships between exogenous variables, and (2) testing the validity and reliability of latent variable indicators. The activities in this first step involve developing a hypothetical model, namely creating a model based on a review of literature and theory.

b. Convert path diagrams to structural models. The structural model and measurement model are now explained in greater detail. Path diagrams are a great tool for visualizing the causal relationships between endogenous and exogenous variables. These causal relationships are represented as images, which makes them easier to understand and strengthens attraction.

c. Evaluation of Structural Model Recognition. The technique of estimating parameters in structural model analysis frequently leads to issues. The process of estimating parameters may be hampered if the model is not identified. The degrees of freedom that show up in the LISREL output in goodness- of- fit allow one to observe model identification errors. (n x (n+1))/2 where n is the number of observable variables, is the formula for degrees of freedom which are the difference between the quantity of predicted parameters and the amount of known data.

d. Chooses the matrix input. The input matrix is chosen at this point and added to the computation. A variance-covariance matrix or a correlation matrix may be used as the input matrix. Understanding the patterns of relationships between latent variables is accomplished through the usage of the correlation matrix. Researchers can use this matrix to identify exogenous variables that have a stronger impact on endogenous variables and routes that have causal effects.

e. Goodness- of- fit index assessment. There are four components to examine the goodness- of- fit index: parameter testing, overall model testing, structural model testing, and measurement model testing (validity and reliability). This test looks at the model's validity and reliability, the importance of the structural model's coefficients and the degree of fit between the data and the model.

1) Testing of Parameters. The t-test can be used to test hypotheses for each SEM parameter. Lambda parameters, which measure latent variables based on observed variables (about instrument validity), delta and epsilon parameters, which measure errors in measuring latent variables based on observed variables (about instrument reliability); beta parameters, which show the influence between endogenous variables and gamma parameters which show the influence of exogenous variables on endogenous variables are all part of this test.
2) General Model Examination. The general goal of the model fit test is to assess the goodness-of-fit (GOF), or the degree of fit between the data and the model overall. Absolute suitability, incremental suitability, parsimony suitability, and additional suitability assessments are the three primary metrics that make up the GOF evaluation itself.
3) Testing Structural Models. The coefficient of determination (R2) can be used with the following equation to assess the structural model's accuracy with respect to the predictions that will be made:

$$R^2 = 1 \frac{\Psi}{cov\ (\eta)} \qquad (1)$$

A model is regarded as good if the R^2 value is large (around 1), like in regression analysis, where the value spans from 0 to 1.

4) Assessing the measurement framework. The validity and reliability of the measurement models are evaluated separately for each measurement model, which explains the relationship between latent variables and multiple observed variables/indicators. This allows for the testing of the measurement models' suitability. A variable is deemed valid for the latent variable, according to Wijayanto et al. (2020), if: (1) the standard factor loading (standardized loading) ≥0.50; and (2) the factor loading value is greater than the critical value (≥1.96 or at least ≥2). Additionally, construct reliability calculations can be used to quantify reliability in SEM, where the instrument (all indications) is deemed trustworthy if the α value is above 0.6.

$$Construct\ reliability\ (CR) = \frac{(\sum std\ loading)2}{(\sum std\ loading)2+\sum ej} \qquad (2)$$

Where ej is the measurement error for each indicator or observable variable, and standardized loading (std. loading) is taken straight from the Lisrel software. According to Hair et al. (2006), a construct is considered reliable if its CR value is ≥ 0.70.

f. Interpretation of the model. The goal of model interpretation is to determine the strength and orientation of the connection between latent and observable variables.

Table 1. Acceptance criteria for a model

No	Goodness- of -fit index	Cut-off value
Absolut fit measures		
1.	Statistic of chi-square	Assessing the level of agreement between the matrix of sample covariance and the model matrix. The value should be as low as possible.
No	Goodness- of- fit index	Cut-off value
2.	Adjusted goodness- of- fit index (AGFI)	The AGFI value ≥0.90 is in the good category fit while 0.80≤AGFI≤0.90 is marginal fit.
3.	Non-centrality parameter (NCP)	Evaluation by comparison with alternative models. The smaller the value, the more realistic it is.
4.	Root mean square Residual (RMR)	The difference between the estimated outcomes and the observed matrix average (correlation or covariance). RMR≤0.05 is typically a good fit.
5.	Goodness of fit index (GFI)	Higher values are preferable. The values range from 0 to 1. While 0.8 < GFI≤0.90 is a marginal fit, GFI≥0.90 is a strong fit.
6.	Root mean square error of approximation (RMSEA)	The mean variation for every degree of freedom that should be present in the population but is absent from

No	Goodness- of -fit index	Cut-off value
		the sample. RMSEA≤0.05 indicates a close fit, and RMSEA≤0.08 indicates a good fit.
7.	Standardized RMR (SRMR)	SRMR value≤0.05 is included in the good fit category while 0.05≤SRMR≤0.10 is considered acceptable fit and SRMR≥0.10 includes poor fit.
8.	Expected cross-validation index (ECVI)	To evaluate different models. The model's ECVI value is near the saturated ECVI value, indicating a strong fit.
Incremental fit		
9.	Relative fit index (RFI)	An RFI score of 0.80≤RFI≤0.90 includes mediocre fit, while 0.90≥ 0.90 falls into the good fit category.
10.	Tucker-Lewis index or non-normed fit index (TLI or NNFI)	It will be preferable if the value is higher. While 0.80≤TLI≤0.90 is a marginal fit, TLI≥0.90 is a strong fit.
11.	Normed fit index (NFI)	The NFI value of 0.80≤NFI≤0.90 includes marginal fit, whereas 0.80≤NFI≤0.90 falls into the good fit category.
12.	Comparative fit index (CFI)	A CFI score of 0.80≤CFI≤0.90 includes mediocre fit, while a value of 0.90≥CFI falls into the good fit category.
13.	Incremental fit index (IFI)	An IFI score of 0.80≤IFI≤0.90 indicates marginal fit, whereas 0.90≥IFI≥0.90 indicates high category fit.
Parsimonious fit measures		
14.	Akaike information criterion (AIC)	Comparing several models. A modest positive value indicates that the model's ability to match the data is superior to other models.
15.	Parsimony goodness- of- fit index (PGFI)	Greater proficiency in matching data is indicated by a higher PGFI score.
16.	Normed Chi-square	A high PNFI score denotes a better fit than alternative models; the value ranges from 0 to 1.
17.	Parsimony normed fit index (PNFI)	A high value on the PNFI scale, which goes from 0 to 1, denotes a better fit than other models.
18.	Consistent Akaike information criterion (CAIC)	When compared to other models, a smaller CAIC score indicates a greater ability to match the data.

Table 1 presents the acceptance criteria: Goodness- of- fit index and cut-off value for a model. In this study, the research instrument is a questionnaire for the data collection process. Before being used as an instrument for collecting data, validation and reliability tests were carried out on the questionnaire. Furthermore, after the data was collected, the processing and analysis of the data processing results were carried out. Furthermore, in-depth and interpretation of the results and conclusions were carried out which provided a real contribution to the development of science and technology. The sampling method used in this study is probability sampling with a stratified random sampling technique, which aims to ensure that each stratum in the population has a balanced representation in the sample. By using a sample size calculator, the number of samples taken was 235 respondents from the Indonesian Naval Command and Staff College, with a confidence level of 95% and a margin of error of 5%. The results of the Structural Equation Model (SEM) analysis show that leadership style, student motivation, and lecturer competence do not have a significant effect on improving the quality of education, with a p-value greater than 0.05. On the other hand, the education process has a significant effect on the quality of education with a p-value of 0.000 and a Critical Ratio (CR) of 6.341, which indicates a strong relationship among these variables.

Data processing is the process of processing collected data. Data processing involves several steps, such as editing, coding, and data analysis. This process aims to find information from data and identify hypothesis tests. In this study, the data processing technique uses the SPSS version 25 and Structural Equation Modeling (SEM) devices contained in the device using AMOS. Researchers choose SEM because it is considered more accurate, not only in understanding the causal relationship between variables or constructs, but also in knowing the magnitude and components that form the variables or constructs. Structural Equation Modeling (SEM) is the methodology employed in this research. One of the statistical models created to investigate a collection of connections between one or more continuous and discrete variables' construct independence and construct dependency is the structural

equation model (SEM). SEM is a statistical technique for studying causal relationships between latent variables (unobservable variables) which are currently widely used in various fields. Latent variables are variables that are formed or explained by indicators (observable variables). A factor or construct variable is another term for a latent variable. Indicator variables, measurement variables, and manifest variables are alternate terms for observable variables. The SEM method in theory combines regression, factor analysis, and path analysis. In this study, the method used is second order Structural Equation Modeling (SEM), which is an SEM modeling analysis method where the construct/latent variable used is measured using another latent variable. The difference with first order Structural Equation Modeling (SEM) is in the variables used as the measure. In the first order, latent variables are measured using indicators, while in the second order, latent variables are measured using other latent variables, and only the second latent variable is measured using indicators.

3. RESULTS AND DISCUSSION

With a significance level of alpha of 5%, the t-test and critical ratio (t-count) comparison are employed in the hypothesis testing of this research model. The null hypothesis is accepted if the probability (p) value is higher than 0.05, suggesting that the inter-construct lane has little effect. The alternative hypothesis is accepted if p is less than 0.05. The inter-construct affects the study in two ways: directly and indirectly. Analyses on the inter-construct direct effect, indirect effect and overall impact of the model may be compared to evaluate the contribution of each construct to the direct impact or the coefficient of all coefficient lines by one-tailed arrow. Conversely, the influence of many interactions is represented by the overall impact and the indirect effect through an intervening variable (Ferdinand, 2002). Since the purpose of this study was to determine and investigate the relationship between competence and leadership and educational quality, the direct effect of the model was investigated. If a lane's direct influence value equals its overall influence, no intervening variable has been found. The results of the hypothesis test for the direct, indirect, and the overall implications are displayed in the accompanying table by contrasting the t-count value—also referred to as the critical ratio—with the t-table value. If the t-count value is higher than the t-table, then the variable is considered significant. The study's final model has a degree of freedom of three and a t-table value of 1.96 ($\alpha = 0.05$). The study's conclusions are consistent with the facts and realities regarding the impact of competence and leadership.

The findings show that work leadership has a positive and significant impact on teachers' job happiness. As previously said, leadership styles that promote career advancement, allocate duties, recognize accomplishment, and allow for further advancement are among those that have an effect on employee satisfaction. This kind of leadership may be considered to attain teacher work satisfaction. This is supported by Herzberg's (Saukani, Ismail, & Sahlan, 2002) and Brahmasari and Suprayetno's (2008) theories, which also found that job happiness is influenced by work leadership. In line with this study and earlier findings by Alkhalifah (2002) and Said, Haskas, and Semana (2013) provides a similar conclusion that work leadership enhances instructor job satisfaction. This study offers more proof that job happiness is significantly impacted by job leadership. The findings show that leadership has a modestly beneficial effect on teacher performance. It illustrates how managers at schools seldom recognize professional achievement, offer chances for development and restrict teachers' capacity for greater responsibility and creativity. However, this finding runs counter to Haderston's theory of behavioral reinforcement (see (De-Madaria et al., 2013)) which maintains that everyone would be inspired to perform better and meet their unique behavioral goals. Alkhalifah's (2002) study found that performance is impacted by work leadership.

The findings show that teachers' performance is positively and strongly impacted by competency. It suggests that teachers may perform better as a result of increased competency. The findings support Borgutee's reputation thesis (De-Madaria et al., 2013) which maintains that human resource development through competency determines reputation (performance).. According to a De-Madaria et al. (2013), human resource development through competency improvement has a favorable and significant impact on employee performance. Waluyo (2013) found

that teacher effectiveness is significantly impacted by teacher competency in relation to pedagogy, personality, social skills, and professionalism. The findings make it clear that competency positively affects teachers' job satisfaction, albeit only somewhat. The findings run counter to Fletcher's (in De-Madaria et al. (2013)) claim that human development serves as a tool for assessing how important personal skill is to attaining job satisfaction. According to comparable findings by Waluyo (2013), Devi (2007), Labbai (2008) and Waluyo (2013), job satisfaction is positively and significantly impacted by competence improvement through human resource development. Although competence has a positive effect on job satisfaction, this study discovered no statistically significant relationship between the two.

The results of construct reliability (CR) obtained 0.87 and average variance extracted (AVE) of 0.79. According to Hair, Black, Babin, and Anderson (2006), CR obtained is classified as high, namely above 0.75. While the AVE obtained is moderate because it is above 0.5. Based on the fit index in Table 2 as follows:

Table 2. Goodness- of- fit index of leadership style variables

Fit index	Fit criteria	Result	Resume
P- value	≥ 0.05	0.001	Fit
RMSEA	≤ 0.08	0.080	Fit
GFI	≥ 0.90	0.960	Fit
AGFI	≥ 0.90	0.920	Fit
CFI	≥ 0.90	0.988	Fit
TLI	≥ 0.90	0.983	Fit

The loading factor value of all aspects of the research variables above is 0.75. This indicates that all measuring instruments have a loading factor that meets the requirements in the hybrid model. The results of the leadership style construct reliability (CR) are 0.87 and the average variance extracted (AVE) is 0.79. Both results are categorized as high for both CR and AVE. The results of the motivation construct reliability (CR) are 0.86 and the average variance extracted (AVE) is 0.75 both are categorized as high for both CR and AVE. The results of the competence construct reliability (CR) are 0.83 and the average variance extracted (AVE) is 0.77, so both CR and AVE are categorized as high. The results of the education process construct reliability (CR) are 0.86 and the average variance extracted (AVE) is 0.86, so both CR and AVE are categorized as high. The results of the education quality construct reliability (CR) are 0.86 and the average variance extracted (AVE) is 0.81, so both CR and AVE are categorized as high. The study's findings showed that fit with empirical data through the major hypothesis testing in this study simultaneously proves that the influence of leadership style, motivation, competence and educational process on the quality of education has a significant effect with R. square obtained leadership style, motivation, competence and educational process on the quality of education significance value 0.000 <0.05 with the determination coefficient (R^2) 0.852 or 85.2% (high). Leadership, motivation, competence, and educational process have a significant effect on the quality of education. If the F-count value> F-table and p-value <0.05, then there is a significant simultaneous effect. The results of the analysis show F. Count are greater than F table so that simultaneously has a significant effect. It shows how much the independent variables (leadership, motivation, competence, and educational process) can explain variations in the quality of education. The higher the R^2 value, the greater the contribution of these factors in improving the education quality.

It can be inferred from the findings of the study that has been done that quantitatively, the results of the Structural Equation Model (SEM) analysis show that leadership style, student motivation, and lecturer competence do not have a significant effect on improving the quality of education. The results of the hypothesis test revealed that the p-value for the three variables was greater than 0.05, which indicates that the relationship among these variables and the quality of education is not significant. On the other hand, the education process has a significant effect on the quality of education, with a p-value of 0.000 and a critical ratio (CR) of 6.341 indicating a strong relationship between these two variables. Furthermore, simultaneously, leadership style, motivation, competence

and the education process on the quality of education were obtained with a significance value of 0.000 <0.05 with a correlation relationship of 0.852 or 85.2% (high). Qualitatively, the findings of this study highlight that the effectiveness of education is more determined by learning system factors than by aspects of leadership, motivation, or competence of the teaching staff.

4. CONCLUSION

This study shows that in the context of education, the success of education does not depend on leadership factors, student motivation, or individual lecturer competence but rather is more influenced by the learning system implemented. Therefore, the main recommendation of this study is the need for improvements in learning methods that are more adaptive, technology-based, and in accordance with strategic demands to ensure that education remains relevant and to produce quality students who are ready to face future dynamics. Competency and leadership had a positive effect on the quality of education since educational competence, social competence, personality, and professionalism had not been adequately applied. It was having a favorable and significant impact on the quality of education. Furthermore, competency has a positive and noteworthy influence on the quality of education due to program updates and competence enhancement. Lastly, satisfaction positively and significantly affects the quality of education. Performance can be improved by developing leadership and expertise through graduation.

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Transparency: The authors state that the manuscript is honest, truthful, and transparent, that no key aspects of the investigation have been omitted, and that any differences from the study as planned have been clarified. This study followed all writing ethics.
Competing Interests: The authors declare that they have no competing interests.
Authors' Contributions: All authors contributed equally to the conception and design of the study. All authors have read and agreed to the published version of the manuscript.

REFERENCES

Alkhalifah, T. (2002). Traveltime computation with the linearized eikonal equation for anisotropic media. *Geophysical Prospecting, 50*(4), 373-382.

Brahmasari, I. A., & Suprayetno, A. (2008). The influence of work motivation, leadership and organizational culture on employee job satisfaction and its impact on company performance (Case study at PT. Pei Hai International Wiratama Indonesia). *Jurnal Manajemen dan kewirausahaan, 10*(2), 124-135.

De-Madaria, E., Abad-González, A., Aparicio, J., Aparisi, L., Boadas, J., Boix, E., . . . Fernández-Cruz, L. (2013). The Spanish Pancreatic Club's recommendations for the diagnosis and treatment of chronic pancreatitis: part 2 (treatment). *Pancreatology, 13*(1), 18-28.

Dessler, G. (2015). *Human resource management* (14th ed.). Upper Saddle River, NJ: Pearson Education.

Devi, U. (2007). *A study on the job satisfaction among secondary school teachers.* Unpublished Master's Thesis. University of Madras, Chennai, India.

Ferdinand, P. (2002). Xinjiang: Relations with China and abroad. In *China Deconstructs* (pp. 271-285). London: Routledge.

Ghozali, I. (2005). *Structural equation modeling: An alternative method with partial least squares.* Semarang: Universitas Diponegoro.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2006). *Multivariate data analysis* (6th ed.). Upper Saddle River, NJ: Pearson Education.

Hartini, H., & Habibi, D. (2023). Performance management based on the balanced scorecar. *Indo-Fintech Intellectuals: Journal of Economics and Business, 3*(2), 198-209.

Hartini, S. (2021). Analysis of factors affecting audit delay in manufacturing companies in the oil and gas subsector listed on the Indonesia stock exchange for the 2016-2020 period. *Juripol (Jurnal Institusi Politeknik Ganesha Medan), 4*(2), 96-103.

Hasibuan, M. S. P. (2000). *Human resource management*. Jakarta: Bumi Aksara.

Kotter, J. P., & Heskett, J. L. (1992). *Corporate culture and performance*. New York: Free Press.

Kreitner, R., & Kinicki, A. (2000). *Organizational behavior* (5th ed.). Boston: Irwin McGraw-Hill.

Labbai, H. A. (2008). *Teacher competency and job satisfaction among high school teachers*. Doctoral Dissertation, Aligarh Muslim University. Aligarh, India.

Luthans, F. (1998). Organizational behavior. In (8th ed.). Boston: Irwin McGraw-Hill.

Robbins, S. P. (2006). *Organizational behavior* (11th ed.). Upper Saddle River, NJ: Pearson/Prentice Hall.

Robbins, S. P., Judge, T. A., & Sanghi, S. (2019). *Organizational behavior* (13th ed.). Upper Saddle River, NJ: Pearson Education.

Said, S., Haskas, Y., & Semana, A. (2013). Factors influencing the occurrence of decubitus ulcers in patients treated in the ICU room of Labuang Baji Hospital, Makassar. *Jurnal Ilmiah Kesehatan Diagnosis*, *2*(1), 7-12.

Sanusi, S. M. (2014). Profitability of small-scale maize production in Niger State of Nigeria. *Indian Journal of Economics and Development*, *10*(3), 205-210.

Saukani, M. N., Ismail, A. G., & Sahlan, R. (2002). A test of endogenous growth theories in Malaysia. *Economic Journal of Emerging Markets*, *7*(1), 45-58.

Schein, E. H. (1992). *Organizational culture and leadership* (2nd ed.). San Francisco: Jossey-Bass.

Waluyo, W. (2013). The influence of religious understanding, motivation to gain profit and level of education on halal certification awareness for food producers in Sleman and Bantul Regencies. *INFERENSI: Jurnal Penelitian Sosial Keagamaan*, *7*(1), 75-98.

Wijayanto, E., da Costa Tavares, O. C., & dos Santos, A. (2020). The Web-Based Usability Heuristic Survey Supports User Satisfaction. Indonesian Journal of Information Systems, *3*(1), 75–81. https://doi.org/10.24002/ijis.v3i1.3579