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Research Paper

Effect of Leadership and Information System Management on Teacher Performance

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Abstract

This study examines the influence of leadership and integrated management information system on the performance of Klaten State Senior High Schoolteachers. To create a good teacher performance is done with the utilization of information technology through integrated management information system as a means to provide services and improve teacher performance. The purpose of this research are: (1) to know the significance of leadership influence on teacher performance in Klaten State Senior High School , (2) to see the impact of the use of integrated management information system on the performance of Klaten State Senior High School teacher, (3) to know the effects of leadership and system combined management information on the performance of Klaten State Senior High School teachers. The number of samples is 95 people with data collection methods through distributing questionnaires, digging from documents and interviews. Data analysis technique in a prerequisite test of data analysis using Parson Product Moment correlation (r). Testing data normality using Chi-Square analysis with 5% significance level, and multiple regression. The results showed that leadership has a positive and significant impact on teacher performance, integrated management information system has a positive and significant effect on the performance of Klaten State Senior High School teachers, leadership and integrated management information system together also have a positive and significant impact on the performance of Klaten State Senior High School. Implications of command and integrated management information systems are vital factors that can affect the performance of Klaten State Senior High School teachers.

Keywords: *Leadership, Integrated Management Information System, Teacher Performance.*

1. Introduction

To create a good performance can be done by the functioning of organizational management planning, organizing, move and supervision is both done in stages and continuously[1]. One of the formal organizations that run modern management is Klaten State Senior High School and therefore attractive to do research. Klaten State Senior High School is one of the schools that have realized the importance of planning, organizing, managing and utilizing information technology in conducting various activities, especially the use of personal computer and management functions that have been running well[2]. Some things that must be known in utilizing information technology is the speed of network access becomes very important in the rapid development of technology to provide all forms of information[3]–[5]. Two things must be considered in the utilization of information technology in improving the performance of teachers are: Need a secure and sustainable infrastructure; Professional human resources[6]–[9]. By using information technology in the world of education, and supported by strong leadership will be able to improve teacher performance, so that will accelerate the process becomes more active, creative, innovative, and competitive[10]. In the management of modern organizations, the progress of information technology is something that cannot be avoided, depending on how the leadership of the organization, in this case, Principal Klaten State Senior High School react[11], [12]. This will be evident from how the administration is implemented and how a leader is committed to applying information technology in improving the performance of his or her teacher[13]. A leader must have the will and ability to develop information technology as outlined in the policy it adopts and is considered to be one of the effective and efficient solutions in the management of modern management[14]. There are three important concepts in this research namely the idea of leadership, management information systems, and teacher performance[15]–[17]. The direction is an ability to influence or influence each other between people to be willing to direct their activities toward a common goal. Leadership is the effectiveness of a leader's success in achieving its goal of leading an institution. The most commonly used measure of the efficacy of administration is the degree to which leaders are successful in carrying out their tasks to achieve their goals[18]. A good leader will be able to provide an excellent working atmosphere by the needs of his teachers and able to motivate teachers to work well and efficiently so that eventually will be able to push towards improving teacher performance[19][20]. In an effort to provide services have been made Integrated Management Information System programs are: (1) Data collection of students online through Sim-Students; (2) Organizing teaching and learning process through Sim-Academic; (3) Encouraging improving teacher performance with personnel administration system through Sim-Peg; (4) In an effort to maintain integrated budgetary transparency through Sim-Finance;

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(5) Inventory collection through Information system management. in its development to the five systems cannot fully support the performance of teachers[1], [21], [22]. Shows various factors relating to teacher performance but the focus of this study is to see or assess the relationship of leadership factors and integrated management information systems to teacher performance[23]. Therefore, in this study formulated the problem clearly so that researchers have guidelines in determining the next steps through specific and systematic ideas. Furthermore, in this research can be expressed issues as follows. How is the influence of leadership on the performance of Klaten State Senior High School teacher? How is the effect of an integrated management information system on Klaten State Senior High Schoolteacher performance? How is the influence of leadership and management information system combined with the production of Klaten State Senior High School teacher?[24]

2. Research Method

According to its level, this research uses an associative method to know the relationship between two or more variables. Associative analysis has the highest level when compared with descriptive study and comparative research. The research plan is conducted using quantitative research method, because it aims to analyze the relationship between leadership variables, integrated management information system with the performance of Klaten State Senior High School teachers by making an observational approach in collecting and analyzing data that leads to the process and results that become valid, objective, efficient, effective [25]. Quantitative research is intended to use data in the form of numbers or numbers that can be processed or analyzed using mathematical or statistical calculation techniques using Microsoft office Excel 2016 for Windows and SPSS. In addition to using quantitative research methods, it also uses qualitative research methods based on descriptions supporting this research, to explaining and supporting quantitative research methods so that it is easier to understand[26]. The population in this study were all teachers of Klaten State Senior High School which amounted to 95 people by using sampling technique by Simple Random Sampling so that the number of samples is 95 people and Purposive Sampling technique by interviewing teachers who are considered able to explain. Scale measurements were taken using Slovin formula with 5-point Likert scale measured from the highest level 5 (strongly agree) and the lowest 1 (strongly disagree) through the distribution of questionnaires, digging documentation and interviews. With the testing instrument with grain test/normality test, normality test, and reliability test[27].

3. Result and discussion

Validity test is performed to determine the validity level of the instrument (questionnaire) used in data collection. The number of samples for this test is 95 people, whether the items presented in the survey can reveal precisely what is being studied. This validation test was obtained by correlating compared with the critical value at a significant level of 0.05. An instrument if it is said to be valid if it can measure what is desired and the high degree of validation of the apparatus indicating the extent to which the data collected does not deviate from the description of the variable in question. The questionnaire item is valid if the value of r count > r table. Validation test can be seen in the following table:

Table.1: Validate

No	Variable / Indicator	r calculate	r every factor	Description
1	Leadership (X1)			
A	The ability of leaders to emphasize the use of information technology to improve the performance of its teachers			
i	Leadership ability to emphasize the use of information technology to improve the performance of its teacher	1	0.29	valid
ii	There is a program or plan of the leadership program to improve the teacher's human resources	0.31073	0.29	valid
ii	There is a leadership policy to implement most of the IT-based teacher work	0.295468	0.29	valid
B	Have program and planning in developing information technology as stated in its policy			
i	The institution has internet facilities with adequate bandwidth and good internet access.	0.340563	0.29	valid
ii	Institutions have software development plans (applications) to support performance regarding time, efficiency, effectiveness, and accuracy	0.3092	0.29	valid
iii	Institutions have adequate IT hardware to support teacher performance	0.2958	0.29	valid
C	Able to produce effective and efficient policies towards the management of modern management			
i	Leaders have planning to improve teacher's human resources towards modern management through nondegree and degree education	0.331391	0.29	valid
ii	Leaders have plans to organize training, short course, workshops or workshops to lead to the management of modern management	0.3907	0.29	valid
iii	Leaders can condition a conducive working climate towards the direction of the management of modern management	0.3131	0.29	valid
2	Integrated Management Information System (X2)			
A	The intensity of the use of management information systems in supporting performance.			
i	The intensity of use of Management Information System in supporting performance	0.2957	0.29	valid
ii	utilizing the Management Information System in completing its work	0.33243	0.29	valid
B	Teacher motivation uses Integrated Management Information System in improving teacher performance			
i	teachers and education personnel understand the function and utilization of management information systems	0.34887	0.29	valid
ii	teachers and education personnel feel the management information system is conducive to completing the work	0.470346	0.29	valid
C	The effectiveness of Use of Management Information System			
i	Management information systems help teachers speed up the completion of work	0.30197	0.29	valid
ii	Management information systems help teachers complete jobs with high accuracy.	0.2958	0.29	valid
iii	Management information systems help teachers get the job done efficiently.	0.3634	0.29	valid
3	Performance			

A	Achievement is a systematic improvement of teacher performance.			
i	Teachers complete every job with a reasonable and low error rate	0.31	0.29	valid
ii	The teacher can develop initiative in every task that is his responsibility	0.341	0.29	valid
B	Responsibility is teachers to the quality of work.			
i	The teacher tries to achieve the results according to the standard set	0.2958	0.29	valid
ii	Master is trying to improve	0.3317	0.29	valid
C	Cooperation is a willingness to cooperate with others			
i	Can maintain effective working relationships	0.3726	0.29	valid
ii	Can provide help and support to others	0.2348	0.29	Drop
iii	Knowing your own mistakes and being able to learn from them.	0.339	0.29	valid

The reliability index analysis of the questionnaire used Alpha Cronbach's to obtain a result of 0.854. From these results, it can be said the reliability of the survey is of very high security (excellent) because it is in the range 0.80-1.00. With these qualifications stated that the test is worthy of use in research. The data obtained in this research will be analyzed and hypothesis testing. A hypothesis test is done by Pearson Product Moment Correlation (r). Prerequisites before using Pearson Product Moment Correlation analysis (r) is data must generally be distributed. For that done prerequisite test data analysis in the form of normality test that is as follows. The data normality test is done by using Chi-Square analysis with test criteria at a significance level of 5%, and the data stated normal distribution if $X\ 2_{count} < X\ 2_{table}$ with degrees of freedom = (k-1). Based on the results of the analysis on (Appendix 3) Chi-square results of the leadership questionnaire obtained a chi-squared count of 10.82, while the chi-square value of the table at the level of significance of 5% with (degrees of freedom = k- 1) = 6-1 that is 11,070. thus X 2 counts <X 2tables ie 10.82 <11.070. These results can be concluded that leadership data scores are derived from normally distributed populations. Chi-Square analysis of integrated management information system data obtained a chi-squared count of 4.60, while the chi-square value of the table at the level of significance of 5% with (degrees of freedom = k-1) = 6-1, i.e., 11.070. thus $X\ 2_{count} < X\ 2_{table}$ is 4.60 <11.070. These results can be concluded that the scores of integrated management information system data come from normally distributed populations. A Chi-Square Analysis of teacher performance data obtained a chi-squared count of 5.74, while chi-square value of table at 5% significance level with (degrees of freedom = k-1) = 6-1, i.e., 11.070. thus X 2 count $<X_{2tabel}$ is 5.74 <11.070. These results can be concluded that teacher performance data scores come from normally distributed populations. Thus all distributed data distributions are normal so that they are eligible for further tests. Hypothesis testing is done by using Pearson Product Moment Correlation test (r). The result of correlation coefficient then tested its significance by comparing with r table price with r table for n = 46 and error 5% then r table = 0.291.

a. Interpretation of the results of hypothesis analysis between the relationship of leadership and performance of Klaten State Senior High School showed that $r_{count} > r_{table}$ that is equal to 1.043> 0.291. So, in conclusion, the hypothesis stating "there is a positive relationship between leadership variables with teacher performance variable Klaten State Senior High School accepted.
b. Interpretation of the results of hypothesis analysis between the relationship management information system integrated with the performance of headquarters Klaten State Senior High School showed that $r > r_{table} > 1.446> 0.291$. So, in conclusion, the hypothesis that states. There is a positive and significant relationship between integrated management information system with the performance of Klaten State Senior High School teachers accepted.
c. Interpretation of hypothesis analysis result between leadership relationship and integrated management information system together with the performance of Klaten State Senior High Schoolteacher showed that there is a positive and significant relationship between leadership and integrated management information system along with high school teacher performance Klaten State Senior High School for 1,467 this relationship can be declared Perfect.

4. Conclusion

Based on the results of hypothesis testing and discussion conducted earlier can be concluded, among others: Leadership has a positive and significant effect on the performance of Klaten State Senior High School teachers, meaning that leadership skills applied in Klaten State Senior High School can improve teacher performance. It is shown from path coefficient between leadership quality to performance equal to 1,043 with the result of the analysis that r count> r table that is equal to 1,043> 0291. The results of this test prove that the hypothesis, which states that the implementation of leadership has a positive and significant effect on the performance of Klaten State Senior High School teachers can be accepted. Integrated management information system has a positive and significant impact on teacher performance, meaning that the use of integrated management information system can affect the performance of Klaten State Senior High School teachers. This is shown from the coefficient of the path between the quality of integrated management information system on the performance of teachers amounted to 1444 with the results of the analysis that r arithmetic> r table that is equal to 1.446> 0.291. The results of this test prove that the hypothesis, which states that the integrated management information system has a positive and significant effect on teacher performance is acceptable. Leadership and integrated management information system have a positive and significant influence on high school teacher performance Klaten State Senior High School. It is shown from path coefficient between leadership application and quality of integrated management information system to teacher performance with analysis result that r count > r table that is equal to 1.467 > 0.291 so it can be concluded that the leadership and integrated management information system has a positive and significant influence on the performance of Klaten State Senior High School teachers, meaning that the command applied and the use of integrated management information system in Klaten State Senior High School able to improve teacher performance. The results of this test prove that the hypothesis that the implementation of leadership and the use of integrated management information system has a positive and significant impact on teacher performance is acceptable

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