

The Effect of Information Technology on Community Health Center Performance through Engagement Management as an Intervening Variable

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ABSTRACT

Objective: The aim of this research is to analyze the effect of information technology on engagement management, analyze the effect of information technology on organizational performance, analyze the effect of engagement management on organizational performance, and analyze the effect of information technology on organizational performance through engagement management as an intervention. **Method:** This research uses descriptive and quantitative research methods. The population was all BLUD Health Centers in Jember Regency, totaling 50 Community Health Centers. The sample was the Head and the Person in Charge of Personnel at the BLUD Community Health Center in Jember Regency and was taken by total sampling, so that the total sample in this study was 100 respondents. Data processing in this research uses Variance-based SEM or Partial Least Square (SEM-PLS) with the Warp-PLS 7.0 SEM PLS program. **Results:** Research findings state that there is a positive and significant effect of information technology on engagement management. There is a positive and significant effect of information technology on organizational performance. There is a positive and significant effect of engagement management on organizational performance. There is a positive and significant effect of information technology on organizational performance through engagement management as an intervening variable. **Novelty:** This research uses a model of factors that effect organizational performance by involving information technology and engagement management (as an intervening).

INTRODUCTION

Health transformation refers to systematic and holistic changes in the health system to achieve the goal of better health. This involves significant changes in various aspects, including the use of technology and improving the quality of Human Resources (HR). The application of information and communication technology aims to increase the efficiency, effectiveness and quality of health services, while improving the quality of human resources aims to increase the competence and professionalism of health workers to face increasingly complex health challenges [1]. The health sector, which is one of the important sectors that is receiving great attention from the government, is one of the development sectors that has great potential to be integrated with the presence of information technology [2].

Along with the rapid progress of science and technology, organizations are required to adopt new methods in optimizing product and service development [3]. The positive impacts of implementing this technology include increasing productivity, saving operational costs, increasing company competitiveness, and accelerating product and service innovation. However, challenges such as implementation costs, lack of technical skills, and resistance to change were also found to be major barriers that need to be

overcome. The implementation of information technology for organizations is still faced with several obstacles, as revealed in research by [4].

Human resources are individuals who contribute to the achievement of organizational goals [5]. Management's task is to increase employee engagement. Engaged employees want their organization to succeed, because they feel that they are connected emotionally, socially and even spiritually, sharing its mission and goals. The engagement management function at the Community Health Center refers to the role and objectives of actively involving the management team in the operations and goals of the Community Health Center. Management involvement in Community Health Centers is about creating a virtuous cycle where an engaged management team leads to more motivated staff, better resource utilization, stronger community ties, and ultimately, higher quality health services [6].

Performance is a broad term, and its definition can vary depending on the context. However, in general, performance refers to the results or achievements achieved by an individual, group, organization, or system within a certain period of time. Community Health Center performance includes various aspects that reflect how effectively the Community Health Center fulfills its role in providing health services and promoting community health [7]. Initial observation results at the Community Health Center show inequality in work where SOPs are difficult to implement, supervision is not too strict so employees often violate workplace rules and regulations. This can be seen from the delay in performance reporting which is also part of the lack of supervision and sanctions that have not been given firmly.

The research gap found was in research [8] with research results stating that there was no positive and significant influence between the use of information technology on employee performance variables; and the results of research by [9] which shows that the use of information technology does not affect the quality of Puskesmas financial reports, while the results of research by [10] found that the implementation of information technology can increase the efficiency of organizations and companies. Other research by [11] shows that information technology has a significant negative effect on work efficiency. Research [12] shows that standard operating procedures have no effect on employee performance, while other research proves that the implementation of SOPs has a significant effect on employee performance which will ultimately improve organizational performance [13].

Based on the general description of the problems that have been discussed, the phenomenon in this research is how to increase the realization of the performance of BLUD health centers in Jember Regency. So the researchers tried to highlight several variables that were assumed to be important in optimizing the performance improvement of community health centers which were influenced by information technology and engagement management variables. The aim of this research is to analyze the effect of information technology on engagement management, analyze the effect of information technology on organizational performance, analyze the effect of engagement management on organizational performance, and analyze the effect of information

technology on organizational performance through engagement management as an intervention.

RESEARCH METHOD

The research design is the overall planning design of a research that will be carried out and will be used as a guideline in conducting research [14]. This research uses descriptive and quantitative research methods. This research was conducted at 50 Community Health Centers in Jember Regency. The sample was the Head and the Person in Charge of Personnel at the BLUD Community Health Center in Jember Regency and was taken by total sampling, so that the total sample in this study was 100 respondents. Data processing in this research uses Variance-based SEM or Partial Least Square (SEM-PLS) with the Warp-PLS 7.0 SEM PLS program.

Table 1. Identification and measurement research variables.

No	Variables	Indicators
1	Information technology (X)	a. Makes work easier b. Improved communication and collaboration c. Increase productivity d. Increase effectiveness e. Develop job performance [15]
2	Engagement management (Z)	a. Communication and collaboration b. Recognition and rewards c. Empowerment/engagement [16]
3	Organizational performance (Y)	a. Punctuality b. Completeness [17]

This research was conducted using a Structural Equation Model (SEM) approach based on Partial Least Square (PLS). PLS is a multivariate statistical technique that can handle many response variables and explanatory variables at once. The PLS-SEM technique was used because it has good predictive power, besides that it was chosen to analyze the data and propose hypotheses using WarpPLS software [18].

RESULTS AND DISCUSSION

Result

Structural Equation Modeling (PLS-SEM) Analysis Results

The SEM-PLS model test results can be presented in the following Figure. 1

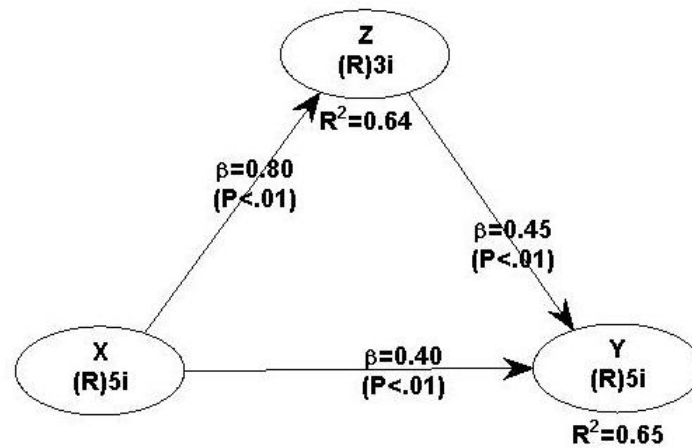


Figure 1. SEM-PLS Model Test Result

Direct Effect Test Results

The test results obtained a fit model, then each path coefficient can then be interpreted which represents the direct effect. Detailed direct effect testing is presented in the following Table 2.

Table 2. Direct effect test result.

	Effect		Estimate	S.E.	P	Result
Information technology	→	Engagement management	0,800	0,080	<0,001	H1 accepted
Information technology	→	Organizational performance	0,396	0,090	<0,001	H2 accepted
Engagement management	→	Organizational performance	0,450	0,088	<0,001	H3 accepted

Source: Data processed

The results of direct effect testing show that information technology has a significant effect on engagement management. Information technology has a significant effect on organizational performance. And, engagement management has a significant effect on organizational performance.

Indirect Effect Test Results

An indirect relationship occurs between the exogenous latent variable information technology (X) and the endogenous latent variable tied to organizational performance (Y) and the endogenous intervening variable engagement management (Z). A summary of the indirect influence of these variables can be seen in the following Table 3.

Table 3. Indirect effect test result.

Effect	Estimate	S.E.	P	Result
Information technology → Engagement management → Organizational performance	0,360	0,064	<0,001	H4 accepted

Source: Data processed

The results of direct effect testing show that information technology has a significant effect on engagement management. Information technology has a significant effect on organizational performance. And, engagement management has a significant effect on organizational performance.

R Square Results

Testing at this stage is by looking at the R-square value. In this case, the R-square value describes the variation in changes in exogenous variables that can be explained by endogenous variables. The test results related to the R-square value can be seen in the following Table 4.

Table 4. R-Square value.

Variables	Variables Name	R-square
Z	Engagement management	0,640
Y	Organizational performance	0,655

Source: Data processed

Based on Table 4, the R-square value of the engagement management construct is 0.640 and the R-square value of the organizational performance construct is 0.655. An R-square of 0.640 can be interpreted as meaning that 64.0% of the variability in changes in engagement management can be explained by information technology variables. An R-square of 0.655 can be interpreted as meaning that 65.5% of the variability in changes in organizational performance can be explained by information technology and engagement management variables.

Summary of Research Hypothesis Testing Results

After analyzing the data using SEM-PLS, the following is a summary of the results of research hypothesis testing.

Table 5. Summary of Hypothesis Testing Results

No	Research Hypothesis	Conclusions
1	There is a positive and significant effect of information technology on engagement management	H ₁ accepted
2	There is a positive and significant effect of information technology on organizational performance	H ₂ accepted
3	There is a positive and significant effect engagement management on organizational performance	H ₃ accepted
4	There is a positive and significant effect of information technology on organizational performance through engagement management as an intervening variable	H ₄ accepted

Source: Data processed

Discussion

The influence of information technology on engagement management

The research results show that information technology has a positive and significant influence on engagement management. This means that if information technology gets better, engagement management will improve. Research results [19] prove that technology can be used to improve communication, collaboration, and recognition, which will contribute to increased employee engagement.

The influence of information technology on organizational performance

The research results show that information technology has a positive and significant influence on organizational performance. This means that the better the implementation and effective use of information technology has an impact on better organizational performance. Research [20], which found that using information technology to perform diverse jobs leads to improved performance. Performance improvement combines efficiency, effectiveness, productivity, and quality improvement. As a result, the more individuals use information technology support, the better their employee performance will ultimately improve organizational performance.

The influence of engagement management on organizational performance

The research results show that engagement management has a positive and significant influence on organizational performance. This means that if engagement management gets better, it will cause better organizational performance. In running an organization/company, management support plays a very important role. Management support can take the form of commitment and provision of all the resources needed to carry out various activities in the company. This support is considered vital because it can ensure the smooth running of various processes within the company. Management needs to show high commitment and provide adequate resources to ensure the success of the organization [4]. Overall, engagement management plays an important role in creating an environment that supports high performance, which ultimately increases productivity, profitability and organizational sustainability. Research [21] and [22] shows that there is a positive influence of management involvement on employee performance.

The influence of information technology on organizational performance with engagement management mediation

The research results show that information technology has a positive and significant influence on organizational performance mediated by engagement management. Referring to these results, it can be stated that engagement management plays a role as an intervening variable in the relationship between information technology and organizational performance. This means that the better information technology will be followed by better engagement management and ultimately will increase organizational performance.

Research [23] shows that IT standardization influences employee engagement through job satisfaction. When technology is standardized, employees experience increased job satisfaction due to ease of use, increased productivity, and reduced stress. This job satisfaction then leads to increased employee engagement [24].

CONCLUSION

Fundamental Finding : Based on the descriptions that have been expressed in the discussion, several conclusions can be drawn, namely that information technology has a positive and significant effect on engagement management. Information technology has a positive and significant effect on organizational performance. Engagement management has a positive and significant effect on organizational performance. Information technology has a positive and significant effect on organizational performance through engagement management. **Implication :** These findings highlight the importance of leveraging information technology to enhance engagement management and organizational performance. Organizations, particularly those in the public sector, should consider integrating digital tools to optimize engagement strategies and improve overall performance outcomes. **Limitation :** The research object is only limited to honorary employees at the Community Health Centers in Jember Regency, so that generalization of the results has not been achieved. The next limitation relates to this research only examining the influence of information technology on engagement management and organizational performance. **Future Research :** Further research can be carried out with broader objects (regional or national). Future research should formulate and develop models related to factors that influence engagement management and organizational performance. Future research can test other variables and use different approaches to obtain better findings.

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