

**ANALYSIS OF COMPUTER-BASED MANAGEMENT INFORMATION SYSTEMS
AND FINGER PRINT PRESENCE SYSTEMS ON EMPLOYEE PERFORMANCE
AT KUALANAMU INTERNATIONAL AIRPORT**

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Abstract.

This study aims to analyze the influence of information-based management systems computers and finger print presence systems on employee performance at Kualanamu International Airport. The study was conducted on 130 employees using the Structural Equation analysis tool. Modeling (SEM) with the help of AMOS version 20.0. The results showed that the management information system and the finger print presence system had a positive and significant effect on employee performance Kualanamu International Airport.

Keywords: Management Information System, Finger Print, Performance.

INTRODUCTION

The rapid development of technology encourages various organizations to streamline employee work. This is done to improve performance and achieve organizational goals. Efforts that can be made by management to streamline work and improve employee work include optimizing the use of computer-based management information systems and the use of finger prints in timely attendance of employees. By doing this, it is expected that employee performance will increase optimally.

Utilization of management information systems in an organization has a high level of urgency in supporting daily management operational activities, including information system resources to assist tactical planning and decision making, to support planning and policy formulation by the management level.

The use of management information systems which are considered to be less than optimal by employees of Kualanamu International Airport can be seen from the sophistication of the computerized system owned by the management of Kualanamu International Airport but not accompanied by the ability of employees to operate the computer system devices. So that the management information system at Kualanamu International Airport is still not optimally utilized.

Likewise with the employee presence recorder at the International Airport Kualanamu, which currently uses a finger print system, where this finger print system is considered more efficient than the conventional presence system. The conventional attendance

system is seen as still requiring a lot of employee intervention in the HR administration section as well as the honesty of employees whose attendance is being recorded. This often provides opportunities for manipulation of attendance data if continuous monitoring of this process is not carried out properly.

Based on the problems that the researchers have described, the researchers feel interested in conducting research with the title "Analysis of Computer-Based Management Information Systems and Finger Print Presence Systems on Employee Performance at Kualanamu International Airport".

LITERATURE REVIEW

a. Management information System

According to Robert G. Murdick and Joel E. Ross in Danang Sunyoto (2014: 5), a management information system is a communication process in which input information (input) is recorded, stored and retrieved (processed) for decisions (output) regarding planning, operation, and supervision. The indicators used to measure management information systems include: relevance to use, reliability of system equipment, speed of data processing, accuracy of information generated, and ease of interaction with users. Based on the results of Sutiyadi's research (2017) found that computer-based management information systems have a significant effect on employee performance at DKI Jakarta Provincial Government Offices

b. Finger Print

Fingerprint comes from English which meaning fingerprint. Fingerprints are the streaks that are found on the tip of the skin of the finger. Fingerprints function to provide greater frictional force so that the fingers can hold tighter (Nugroho,2009). The indicators used to measure the effectiveness of the finger print are: hardware (hardware), database, procedures, operating personnel. Based on the results of research from Kristin (2016) found that finger print presence has a significant effect on teacher performance at SMA Negeri 5 Malang.

c. Performance

According to Torang (2012: 118) "Performance is the quantity or quality of the work of individuals or groups within the organization in carrying out the main tasks and functions that are guided by norms, standard operating procedures, criteria and measures that have been established or that apply in the organization. Indicators used to measure According to Bernardin (2007), employee

performance at Kualanamu International Airport includes: quality, quantity, timeliness, effectiveness, independence, and commitment.

RESEARCH METHOD(S)

a. Types of research

This study uses the type of research quantitative with primary data sources. Data collection techniques using a questionnaire with a Likert scale of 1-5.

b. Population & Sample

All employees of the International Airport Kualanamu is the object of this research. For the determination of the sample in the Structural Equation Modeling (SEM) model, according to Hair et al (2010) the number is between 5-10 of the number of indicators. This study has 15 indicators, based on the number of indicators it can be calculated that the sample ranges from 75-150 respondents. The number of samples is determined by multiplying the number of indicators by 8, so that the total sample is $15 \times 8 = 120$ respondents plus 10 samples in case there are outlier data, so the total sample of this study is 130 respondents. Sample selection was carried out using probability sampling method with purposive sampling technique. With the criteria that only employees who work using management information systems and presence with finger prints can be used as respondents in this study.

c. Data analysis method

Full Model in this study can described as follows:

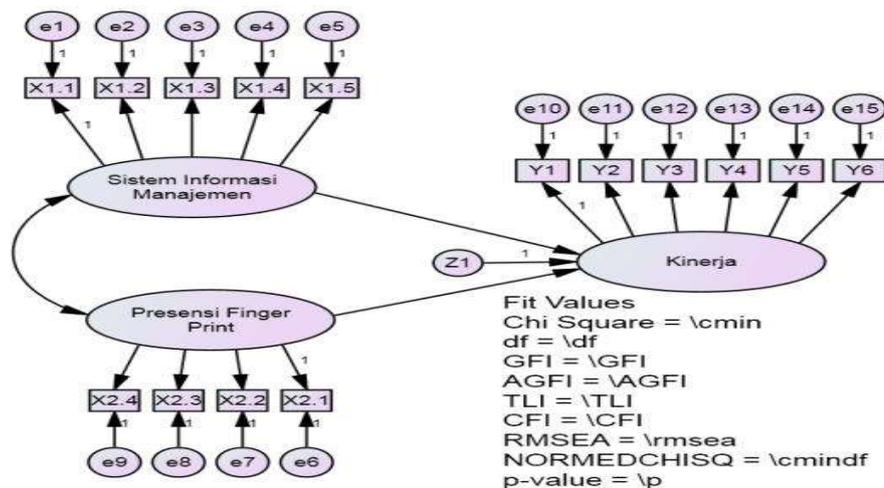


Figure 1 : Full Research Model

Source: Developed in This Research

Based on Figure 1 above, the equations in this study can be formulated as follows:

$$y = b_1X_1 + b_2X_2 + Z_1 \dots\dots\dots 1)$$

Information:

X1 = Management Information System

X2 = Finger Print Presence

X3 = Employee Performance

b1- b2 = Regression Coefficient

Z1-Z2 = Error term

Statistical test is done by observing the level of significance of the relationship between variables is indicated by the value of C.R (Critical Ratio). identical to the t-test in regression and scores probability (P). A significant relationship is indicated by a C.R value that is greater than 2.58 and the P value is less than 0.05 (Ferdinand, 2014). Testing the mediation hypothesis was carried out using the Sobel test procedure (Baron & Kenny, 1986; in Preacher & Hayes, 2010).

FINDINGS AND DUSCUSSION (Level 1 subtitle)

a. Model Fit Test

Model suitability test can be seen in Figure 2 follows:

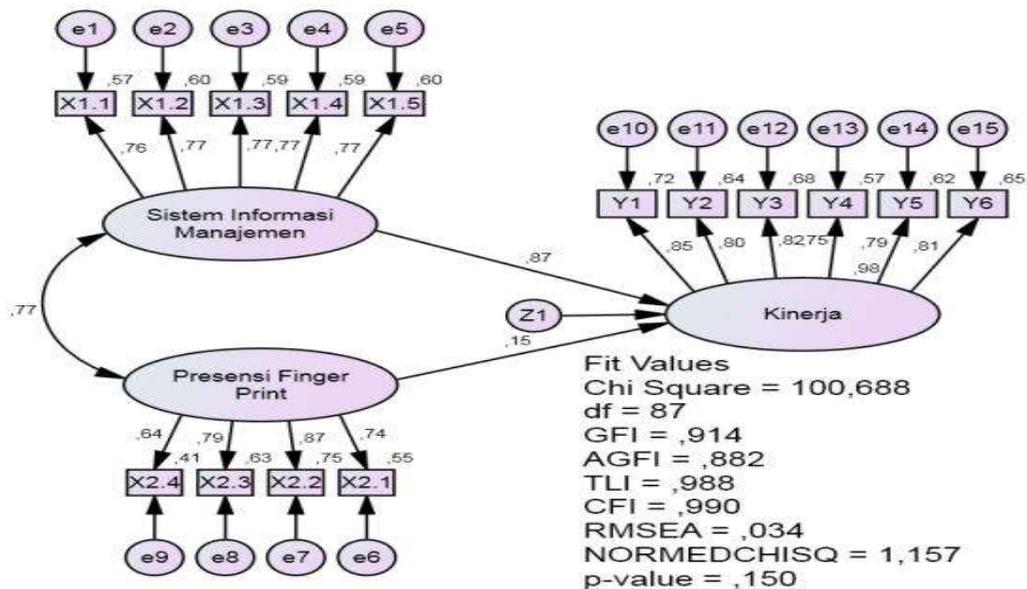


Figure 2. Model Conformity Test

In Figure 2 it can be seen that the Goodness of Fit (GOF) value has met the required criteria, except for the AGFI value which is still marginal (0.882 < 0.90) but is close to good. Thus the research model is not appropriate and has not been able to explain the research model properly and well, so that the model needs to be modified. For more details, it can be seen in Table 1 below:

b) Effect of Finger Print Presence on Performance Standardized regression weight estimate value of 0.151 (15.1%), the critical ratio value is 2.791 which is greater than 2.58 and a probability value of 0.033. It can be concluded that finger print presence has a significant effect on the performance of Kualanamu International Airport employees

c. Discussion

In today's digital era, information systems Management plays an important role in the operationalization of all organizational activities. Likewise with Kualanamu International Airport, Kualanamu International Airport which has an international standard and is the largest airport in Southeast Asia requires that every resource work very effectively and efficiently. The speed and accuracy of the data is also very much needed. The management information system is one of the best solutions to be able to support work speed, data accuracy and data synchronization from all existing databases

The speed and accuracy of the data is also very much needed. The management information system is one of the best solutions to support work speed, data accuracy and data synchronization from all databases at Kualanamu International Airport. Therefore it can be concluded that the management information system greatly influences the optimal performance of Kualanamu International Airport employees. Regarding attendance with a finger print system with all its advantages and disadvantages, a presence system with a finger print is also a solution to support the level of performance achievement of Kualanamu International Airport employees. Punctuality in attendance and return hours is highly demanded because the attendance system with a finger print cannot work will be penalized by the management of Kualanamu International Airport.

Because Kualanamu International Airport employees want to avoid sanctions from the management of Kualanamu International Airport, the punctuality level of attendance and return hours of Kualanamu International Airport employees increases. Employees who attend and go home on time are one measure of employee performance. Therefore it can be concluded that presence with a finger print has a significant effect on the performance of Kualanamu International Airport employees.

CONCLUSION AND RECOMMENDATION

Based on the results of the analysis, the following conclusions are obtained:

1) The management information system has a significant effect on the performance of Kualanamu International Airport employees.

2) Finger print presence has a significant effect on the performance of Kualanamu International Airport employees.

RECOMMENDATION

Finger print is also a solution to support the level of performance achievement of Kualanamu International Airport employees. Punctuality in attendance and departure time is highly demanded because the attendance system with fingerprints is non-negotiable and being a few minutes late is considered undisciplined. This policy must be maintained in order to improve performance.

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