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DEVELOPMENT OF EMPLOYEE WORK PRODUCTIVITY THROUGH SUPPORT OF WORK FACILITIES AND MANAGEMENT INFORMATION SYSTEMS

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Abstract *- In a continuous effort to develop workers' productivity in accordance with their potential and work abilities, management takes very seriously the determinants that shape employee productivity. In this context, this study has a unique and original objective, which is to investigate and analyze the extent of the influence of work facilities and management information systems on work productivity. This study involved the entire population of employees, totaling 50 people, as the main sample. The data collection method used is through questionnaires. Data analysis includes validity test, reliability test, classical assumption test, and multiple regression analysis. The findings of this study indicate that partially, work facilities have a positive and significant effect on work productivity, as well as management information systems which also have a positive and significant effect partially on work productivity. In addition, simultaneously, work facilities and management information systems also have a significant influence on work productivity.*

Keywords: working conditions, work environment, work facilities, management information systems, work productivity.

INTRODUCTION

Human Resources (HR) play an important role in carrying out organizational activities and achieving predetermined goals. A good organization that has a positive image in the eyes of the community will not ignore the development of the quality of its human resources (Darmawan et al., 2020). To achieve these goals, companies need to have a reliable HR team and be able to provide quality work productivity (Arifin & Sinambela, 2021). Therefore, the importance of HR in a company supports the achievement of work productivity, which in turn will achieve company goals. Work productivity is often measured as a person's success in carrying out tasks (Mardikaningsih & Putra, 2021). Productivity is the relationship between the results produced by the organization and the resources used. Efforts to increase productivity can be done by increasing the output produced with the same level of resources and paying attention to workload (Anjanarko & Jahroni, 2022; Irfan, 2022).

Work productivity basically involves a mental attitude that always encourages a person to seek improvement and improvement. This attitude avoids quick self-satisfaction and always strives to develop themselves and improve work skills. A high level of employee work productivity is highly desired by the company. This is related to efficiency (Sinambela et al., 2022). The higher the productivity of employees, the greater the overall productivity of the company, so that company goals can be achieved effectively and efficiently (Hayaeian et al., 2021). Another factor that affects work productivity is work facilities. Providing adequate work facilities by the company is very important to support employee productivity in completing their tasks.

Work facilities play an important role as the development of facilities and infrastructure that have a significant impact on workplace life in a sustainable manner. The infrastructure developed must be used optimally in the long term. Creating a work environment that encourages employee productivity is a crucial factor in increasing the profitability of an organization, company, or small business. Work facilities include all types of equipment, work equipment, and services that function as the main or supporting tools in carrying out tasks, as well as meeting the social needs of individuals connected to the work organization (Darmawan, 2015). Each company has different forms and types of work facilities, depending on the type of business and the scale of the company. The facilities used vary in form, type, and benefits. The greater the company's activities, the more complete the supporting facilities and facilities needed in carrying out activities to achieve company goals. Therefore, the effective use of work facilities can facilitate the implementation of employee tasks. Conversely, the availability of ineffective work facilities can hinder employee productivity. In addition, another factor that supports work productivity is the management information system.

Furthermore, with the advancement of computerized management information systems, data management can be done quickly and accurately (Darmawan, 2012). This has a significant impact on work productivity in achieving company goals. Management information systems have a very vital role in an organization. Without a healthy flow of information, the organization will die. Management Information System (MIS) is a system that focuses on information and aims to provide support to all managers in an organizational unit (McLeod & George, 2008). Davis (2002) also states that MIS is a combination of humans and machines integrated to provide information to support management operations

and decision-making functions in an organization. The provision of a good MIS will produce valuable information for management and the company (Sinambela, 2011).

The utilization of MIS can increase employee productivity and meet the need for fast and accurate information in data collection in an organization (Laudon & Laudon, 2012). In today's business era, excellence in the field of human resources and services is an important factor in winning the competition. The rapid advancement of science must be balanced with the existence of quality human resources. In this context, the problems and obstacles faced by the company are important to study in order to provide a clear picture of the actual conditions within the company. Therefore, the author is interested in conducting research on the topic of the role of work facilities and management information systems on work productivity.

RESEARCH METHODS

In this study, the approach used is an associative approach. The associative approach aims to analyze the relationship between the variables involved. This research involves three variables, namely two independent variables (X), namely work facilities and management information systems, and one dependent variable (Y), namely work productivity. The research was conducted in one of the companies in Malang City. The population of this study consisted of all company employees totaling 50 people. Because the population in this study is less than 100 employees, a saturated sampling type is used where all populations are sampled. The data collection technique in this study uses primary data through the administration of a questionnaire that uses a Likert scale with a checklist form. Each question in the questionnaire has 5 answer options, namely 5 for strongly agree, 4 for agree, 3 for disagree, 2 for disagree, and 1 for strongly disagree.

The first independent variable is work facilities, which include the appearance, ability of facilities, and infrastructure provided by the company in the surrounding environment to assist employees in completing their tasks and increasing work productivity. There are three indicators of work facilities, namely: (1) work tool facilities; (2) work equipment facilities; and (3) social facilities (Darmawan, 2015). The second independent variable is the management information system, which is an integrated system that provides management support information, including reports, displays, and responses that have been determined periodically for decision making within the organization. According to Fang et al. (2015), there are six indicators of SIM, namely: (1) input; (2) process or model; (3) output; (4) technology; (5) database; and (6) control. The dependent variable is work productivity, which is a measure of the achievement of work results by comparing the value of balanced results with the time needed to achieve business goals properly, effectively, and efficiently. There are several indicators in measuring work productivity, including: (1) ability; (2) increase in results achieved; (3) work enthusiasm; (4) self-development; (5) quality; and (6) efficiency (Putra et al., 2017).

RESULTS AND DISCUSSIONS

After the data has been described, the next step is to analyze the data using certain statistical assumptions and conduct hypothesis testing to draw conclusions. The validity of the research instruments was also checked to ensure data accuracy. The validity test results show that the instruments in this study are valid. Furthermore, the reliability of the instrument was also evaluated. If the reliability coefficient (Cronbach's Alpha) > 0.6, then the instrument is considered reliable, while if the reliability coefficient < 0.6, then the instrument is considered unreliable. Furthermore, the classical assumption test is carried out because the analysis used is multiple linear regression. Classical assumptions involve testing the normality of the data to see whether the independent variable and the dependent variable in the multiple linear regression model have a normal distribution or not. If the data is spread around the diagonal line and follows the direction of the diagonal line, then the normality assumption in the multiple linear regression model is fulfilled.

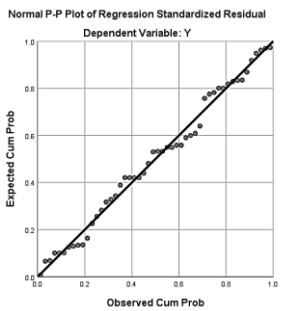

Figure 1. Normality Test
Source: SPSS Output

From Figure 1, it can be concluded that the regression model in this study fulfills the normality assumption, because the data distribution follows the diagonal line. Furthermore, in this study, multicollinearity testing was carried out using tolerance and VIF (variance inflation factor). The criteria used are if the VIF value is close to 1 or has a tolerance close to 1, then there is no multicollinearity problem. In addition, if the coefficient between independent variables is less than 0.10, it indicates multicollinearity. In this study, a tolerance value of 0.603 and VIF of 1.660 were obtained, which indicates that there is no multicollinearity problem. Furthermore, the autocorrelation test is carried out using the Durbin-Watson value. The DW value obtained in this study is 1.438, which is between the values of 2 and -2. This indicates that there is no indication of autocorrelation in the regression model. For the heteroscedasticity test, the pattern of dots on the graph can be seen. If there is a certain regular pattern or the dots spread above and below the number 0 on the Y axis, then heteroscedasticity occurs. However, if there is no clear pattern and the dots are randomly scattered around the number 0, then there is no heteroscedasticity in the multiple linear regression model.

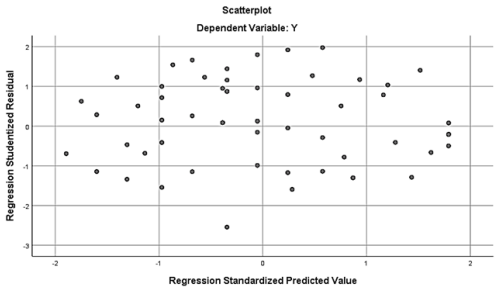

Figure 2. Heteroskedastity Test
Source: SPSS Output

In Figure 2, it can be seen that the dots are scattered randomly without forming a clear or regular pattern. In addition, the dots are also scattered both above and below the number 0 on the Y-axis. This indicates that there is no heteroscedasticity in the multiple linear regression model used in this study.

Next, the multiple linear regression model analysis was carried out. Multiple linear regression models are used to analyze the relationship between independent variables (work facilities and management information systems) and the dependent variable (work productivity). In this analysis, regression coefficients, coefficient significance, and interpretation of regression results will be examined to gain a deeper understanding of the relationship between these variables. In this study, multiple linear regression models were used to examine the effect of work facilities and management information systems on work productivity. The analysis will provide an overview of the extent to which the independent variables affect the dependent variable.

Table 1
Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	29.033	3.118		9.310	.000		
	X.1	3.469	.547	.645	6.340	.000	.603	1.660
	X.2	1.618	.611	.269	2.650	.011	.603	1.660

Source: SPSS Output

The t test in Table 1 is used to determine the significance of work facility variables (X.1) and management information systems (X.2) on work productivity variables (Y) individually. This test aims to show the extent of the influence of each independent variable in explaining the dependent variable.

Based on the partial test results, the t-count is 6,340 for the work facility variable and the t-count is 2,650 for the management information system variable. Both values have a significance value (p-value) of 0.000 and 0.011, respectively, which is smaller than the specified significance value (0.05). This shows that there is a positive and significant influence between work facilities and management information systems on work productivity.

Furthermore, the multiple linear regression results show the following equation: Y = 29.033 + 3.469 X.1 + 1.618 X.2. This equation describes the relationship between work facility variables (X.1) and management information systems (X.2) to work productivity variables (Y). The regression coefficient of each shows the magnitude of the influence of each independent variable on the dependent variable.

Furthermore, the F test was conducted to determine the significant relationship between work facility variables (X.1) and management information systems (X.2) together on work productivity variables (Y). The results of the F test can

be seen in Table 2 to see the significance of the influence of the two independent variables on the dependent variable simultaneously.

Table 2
ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1494.122	2	747.061	56.760	.000[b]
	Residual	618.598	47	13.162		
	Total	2112.720	49			

Source: SPSS Output

Based on the F-test results in Table 2, the F-count value is 56,760. Then, looking at the significance probability value of 0.000 which is smaller than the specified significance value (0.05), it can be concluded that work facilities and management information systems simultaneously have a significant influence on work productivity.

Furthermore, the coefficient of determination (R-Square) is used to measure how much the relationship between the independent variable and the dependent variable is. The coefficient of determination indicates how much percentage of variation in the dependent variable (work productivity) can be explained by the independent variable (work facilities and management information systems). The greater the coefficient of determination, the closer the relationship between variables, and vice versa. The results of the coefficient of determination (R-Square) test in this study will be shown in Table 3, which will provide information on how much variability in work productivity can be explained by work facilities and management information systems.

Table 3.
Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.841[a]	.707	.695	3.628	1.438

Source: SPSS Output

Based on Table 3 above, the overall regression analysis results show an R-Square value of 0.707. This indicates that the work facility and management information system variables can explain about 70.7% of the variability in work productivity variables. In other words, about 70.7% of the variation in work productivity can be explained by the work facilities and management information systems examined in this study. The remaining 29.3% may be influenced by other factors not examined in this study.

Work facilities have a positive and significant influence on work productivity. This result is consistent with previous research conducted by Haynes (2008) and Leblebici (2012). This shows that the facilities provided in the office are adequate and in accordance with the needs of employees so that employees can optimize their work productivity. More broadly, the work environment can also determine work productivity (Djazilan & Arifin, 2022; Mardikaningsih et al., 2022; Munir & Arifin, 2022). Total quality management is expected to be realized from conditions in the workplace that are effectively planned to support the work process (Putra, 2022).

Management information systems also have a positive and significant effect on work productivity. These results are in line with research conducted by Fang et al. (2015) and Liu et al. (2022). This means that the existence of a good management information system within the company can provide effective support in increasing employee productivity.

There is a simultaneous influence between work facilities and management information systems on work productivity. These results are also in line with research conducted by Anam & Rahardja (2017). In other words, the existence of adequate work facilities and a good management information system together contribute to increasing employee work productivity. However, supervision and coordination are needed to ensure productivity can be realized as expected by the organization (Putra et al., 2017). In addition, human resource development is needed to ensure productivity will continue to grow (Irfan & Mataputun, 2021). Thus, it can be concluded that work facilities and management information systems have an important role in achieving company goals through increasing employee productivity.

CONCLUSIONS

This study concludes that partially, work facilities have a positive and significant influence on work productivity. Partially, management information systems also have a positive and significant influence on work productivity. Simultaneously, work facilities and management information systems play a role in shaping work productivity. Therefore, company leaders need to pay attention to the work facilities provided to employees in order to create a comfortable work environment and increase their productivity. In addition, it is also important to develop and improve management information systems in order to provide effective support in decision-making.

It is important for company leaders to understand that while good management information systems are important, the use of these systems by leaders in decision-making is also an important factor. Efforts to increase work productivity can be made by improving the quality of work facilities and management information systems so that company goals can be achieved.

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