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The Effect of the Use of Information Technology on Employee Work Efficiency

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Abstract: The millennial era is an era when technology in the information sector greatly supports performance with various functions and goals. The need for development in its use in agencies that utilize information technology must be reviewed from the work efficiency of employees and the impact of this work efficiency needs to be analyzed through structured measurements. Researchers formulate the problem of the impact of the use of Information Technology (IT) on employees to measure work efficiency in the company. The research method used is quantitative which will draw data from the field and be analyzed as a reference for the impact of Information Technology (IT) on employee work efficiency. The results of this study are the achievement of indicators of success or better levels of performance as evidenced by the indicators namely: individual competency, organizational support, and management support.

Keywords: Efficiency; Information; Technology

Introduction

The millennial era is an era when technology in the information sector supports performance with various functions and objectives (Wahyu Widodo et al., 2021; Indrayani et al., 2023; Szymkowiak et al., 2021). There is a need for development in its use in agencies that utilize information technology which must be viewed from the work efficiency of employees and the impact of this work efficiency needs to be analyzed through structured measurements. Information Technology (IT) has developed rapidly at this time (Dwivedi et al., 2023; Beer & Mulder, 2020; Rachinger et al., 2019; Silva & Lima, 2018; Li, 2022; Davidescu et al., 2020). Information Technology is a technology used to process data, including processing, obtaining, compiling, storing, and manipulating data in various ways to produce quality information, namely information that is relevant, accurate, and timely, can also be used for personal, business, and government which is strategic information for decision making. This information technology uses a set of computers to process data, a network system to connect one computer to another computer according to needs, and telecommunications technology so that data can be distributed and accessed globally.

According to Sonmez Cakir et al. (2020) the Influence of Leadership Style and the Use of Information Technology on the Quality of Village Financial Reports, this research aims to determine the influence of leadership style and use of information technology on the quality of village financial reports. This research was conducted in all villages in the city of Denpasar. The number of villages used was 27 villages and the number of samples used was 180 people. Using the purposive sampling method, respondents were selected who had to know the management of village funds. The analysis technique used is multiple linear regression (Jobson, 1991). Based on the analysis, it was found that leadership style and the use of information technology had a positive effect on the quality of village financial reports. The use of Information Technology has a positive and significant effect on the Quality of Village Financial Reports (Mariani et al., 2023).

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In today's digital era, there has been a shift in values and business in the insurance business world (Kraus et al., 2022). If in the previous era, the concentration of insurance companies was only in the credit insurance business, now various insurance companies are competing to expand their business by reaching non-credit insurance businesses (Abel & Marire, 2021). Of course, this causes increasingly tighter and tougher competition in the insurance sector (Botzen et al., 2010; Farida & Setiawan, 2022). Therefore, every organization operating in the insurance sector is required to further optimize its performance to overcome and win the competition (Handoyo et al., 2023).

Based on the background of the problem above, the researcher formulated a problem on the impact of the use of Information Technology (IT) on employees to measure Work Efficiency in the company. This research aims to determine and analyze the magnitude of the influence of the use of information technology on, how much influence the use of information technology has on employee work efficiency, how much influence the use of information technology has on employee work efficiency.

Method

The research method used is a survey research method. The survey research method as stated by (Busetto et al., 2020) is as follows: Survey method, namely a research method carried out on large or small populations, but the data studied is data from samples taken from that population, so that relative events, distributions and relationships between sociological and psychological variables are found. The type of research used is verification research which is intended to obtain clarity about the relationship between variables in the process of a problem. The author also carried out a hypothesis test to determine the influence between the observed variables X and Y, so that a conclusion can be drawn that has the highest level of validity.

This research is also descriptive, the aim of which is to obtain a systematic, factual, and accurate picture of the situation or painting regarding the facts or nature of the object as well as interpreting the relationship between the phenomena being studied. Descriptive research is a research method carried out to determine the value of independent variables, either one or more variables (independent) without making comparisons, or connecting them with other variables. In this way, the author made a direct observation of the problem that was occurring by observing and collecting data, then carried out an analysis of the problem of the data obtained, with the ato beraw a conclusion. Mean whiconcludeion method is data analysis by comparing existing data according to research needs for in-depth analysis.

The type of data used in this research is data obtained from respondents' responses to the questionnaire given. The data source for this research is primary data, namely data obtained directly from respondents through distributing questionnaires. The collection technique in this research uses a questionnaire. The sample in this research was a sample taken from a population of 24 employees. The sample used in this research is purposive. A purposive sample is a sample that is carefully selected by selecting people or research objects that are selective and have specific characteristics.

Result and Discussion

It is known that the Constant (a) value is 17.63, while the Information Technology value (b/regression coefficient) is 0.52, so the regression equation can be written as:

$Y = a + bX$
$Y = 17.634 + 0.522$
$Y = 17.634 + 0.522\ (0)$
$Y = 17.634 + 0.522\ (1)$

This equation can be translated: A constant of 17.63 means that the consistent value of the Performance variable is 17.63. The X regression coefficient of 0.52 states that for every 1 point added to the Information Technology score, the Work Efficiency score increases by 18.156 points. The regression coefficient is positive, so it can be said that the direction of influence of variable X on Y is positive.

Table 1. Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	17.63	15.606		1.130	.271
Information Technology	.522	.190	.505	2.744	.012

a. Dependent Variable: Work Efficiency

The correlation value (R) is 0.505. From this output, a coefficient of determination (R Square) of 0.25 is obtained, which means that the influence of the independent variable (Information Technology) on the dependent variable (Work Efficiency) is 25.

Table 2. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.505[a]	.255	.221	4.90

a. predictors: (Constant), Information Technology

Based on the significance value: from the Coefficients table, a significance value of 0.00 <0.05 is obtained, so it can be concluded that the Information Technology variable (X) affects Work Efficiency (Y). Based on the t value: it is known that the calculated t value is 2.74 > 2.07, so it can be concluded that the Information Technology variable (X) influences the Work Efficiency variable (Y).

Table 3. ANOVA[a]

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	181.49	1	181.49	7.53	.012[b]
Residual	530.12	22	24.09		
Total	711.62	23			

a. Dependent Variable: Work Efficiency
b. Predictors: (Constant), Information Technology

Information Technology Governance (IT Governance) is one of the main pillars of GCG and has been adapted to the Minister of BUMN Regulation No.PER-02/MBU/2013. The goal of IT governance is to align IT planning and activities with the company and realize the expected benefits (Elazhary et al., 2023). The development of a digital platform with full implementation of IT governance is the policy chosen for the strategy to continue the ongoing IT transformation (Mergel et al., 2019; Jöhnk et al., 2022; Cichosz et al., 2020). Development and supported by continued IT transformation, digital platform development has begun to be initiated and is targeted at increasing operational excellence which will change the company's operating model to be better and more competitive (Martínez-Peláez et al., 2023; Kraus et al., 2021). This was chosen in the hope of ensuring the integration of product reporting data and accounting reporting, minimizing human error, and increasing service speed and security.

About business dynamics to achieve the expected performance and service levels, the selected HR transformation strategy is an alignment of the HR investment development that was carried out in the previous year (Cayrat & Boxall, 2023), such as preparing an HR Master Plan, preparing a dictionary and competency model (Dutta et al., 2022; Megahed, 2018), developing a performance management system up to the level of individuals and adjustments to the organizational structure with the proposed renewal of the 2020-2024 RJPP as a revision of the 2016-2020 RJPP. The policy established for the HR transformation strategy is to strengthen HR competencies focused on key account business areas and align company culture, among other things, by establishing a high-performance work culture.

According to Kupriyanova et al. (2018) efficiency is often associated with the performance of an organization because efficiency reflects the comparison between output and input. In various literature, efficiency is also often linked to productivity because they both assess input variables against output. The meaning of productivity is the opposite of the meaning of efficiency. Productivity is calculated by dividing output by input, while efficiency is input divided by output. Based on this understanding, it can be concluded that employee work efficiency is the result of work (output). Both the quality and quantity achieved by human resources over some time in carrying out their work duties are in accobysponsibilities given to them. Therefore, companies need to manage employee work efficiency by formulating goals and establishing good communication relationships with subordinates.

The use of Information Technology (IT) to support the various needs and developments of organizations, individuals, and companies will certainly bring something positive (Roztocki et al., 2019; Dash et al., 2019). However, you need to know that IT can make us more meaningful people by using it for positive things. The positive benefits of Information Technology (IT) will certainly receive a lot of support from various groups

Conclusion

From the results of the research conducted in the previous chapter, the author concludes: The influence of the use of Information Technology on Work Efficiency has gone well, the results of the recapitulation show that the use of Information Technology has reached 80%, located in the agree/good category, while Work Efficiency has reached 86.23%, located in the area very agree/very good. This shows that the use of Information Technology for Work Efficiency is optimal. In this research, every change in the Information Technology variable by one point will affect the change in the Work Efficiency variable by 0.73 points. The influence of the use of Information Technology on Work Efficiency in Companies according to the calculation results is 25.5%.

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Conceptualization, F. N., S. L.; methodology, F. N.; validation, S. L. and F. N.; formal analysis, S. L.; investigation, F. N., and S. L.; resources, F, N. and S. L.; data curation, F. N.: writing—

original draft preparation, S. L. and F. N.; writing—review and editing, S. L.: visualization, and F. N.and S. L. All authors have read and agreed to the published version of the manuscript.

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Conflicts of Interest
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