

The Effect of Using Decision Support System on Company Benefits at PT Mitra Integrasi Informatika (Case Study on Employees of The IT Deployer Section)

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ABSTRACT

In the era of digitalization, companies are required to operate in tandem with technological developments and are faced with rapid changes in consumption patterns from consumers. One sign of change in the competitive arena is the shift from bureaucratic organizations to organizational forms that are sensitive to vertical, horizontal, and external challenges and opportunities. Companies are currently being helped by the development of management information systems that make it easier to process information into strategic decisions, including the Decision Support System. In organizational benefits, there are three main constructs that may be affected: effective decisions, competitive advantage, and stakeholder satisfaction. Penuli uses the SPSS 23.0 for Windows program in processing data and an analytical framework to evaluate the use of the Decision Support System on company benefits at PT Mitra Integrasi Informatika. Based on the results of the simple linear regression test analysis, the results obtained are the magnitude of the partial relationship of the decision support system. The magnitude of the partial relationship of the decision support system (X) to the benefits of the company (Y) is 5,863 with a p-value of $0.000 < \alpha 0.05$, stating that H_0 is rejected, which means that there is a partial positive influence relationship from the decision support system (X) on company benefits (Y).

Keywords : *Decision Support System, Company Benefits*

INTRODUCTION

In the era of digitalization, companies are required to operate in tandem with technological developments and are faced with rapid changes in consumption patterns from consumers. One sign of change in the competitive arena is the shift from bureaucratic organizations to organizational forms that are sensitive to vertical, horizontal, and external challenges and opportunities. Companies are currently being helped by the development of management information systems that make it easier to process information into strategic decisions, including the Decision Support System (Sundjaja, 2013); (Sundjaja & Veronica, 2016). Decision Support System, which is an information system that is expected to contribute to management in the decision-making process. However, basically, the Decision Support System does not replace the manager's duties but is a means of supporting the manager in carrying out his duties. The Decision Support System itself is a form of implementation of decision-making theories that have been introduced by operation research and management science.

With the existence of information technology, various analyses have been developed in supporting information systems that can increase management effectiveness in order to improve business and organizational performance. So that decision-making for business activities can be carried out quickly, precisely, and efficiently and make a major contribution to fundamental changes in structure, operations, and management in achieving the company's goal of profit. A company can obtain maximum activity if it is supported by fast and accurate information, starting with information on the planning process to the supervision process, especially related to management information in a company or institution (Sari, 2023).

Managers have a role in the planning process up to the supervision process of a company, so they need to access relevant and useful information by considering time and cost factors. Better planning and processing is that which can reduce decision-making time and reduce decision costs positively so as to affect organizational benefits in effective decisions. In organizational benefits, there are three main constructs that may be affected by Decision Support System benefits (Fikry, 2014).

First, effective decisions. A business intelligence system as a set of processes intends to improve business decisions at both the strategic and tactical levels. In fact, this structure changes the role of computer science in the enterprise from a technology for storing data to an enabler for effectively solving strategic decision problems; second, competitive advantage. It is suggested that information technology can be a source of competitive advantage. In such an environment, competitive advantage can be provided through extracting information from various data and immediate response; and third, stakeholder satisfaction. The term stakeholder includes investors, owners, boards of directors, and employees as a whole with different interests and values in a particular company's activities. Therefore, achieving a higher level of satisfaction is an important goal for every company.

In addition, based on Jollyta's research, in making effective decisions, managers should consider three main aspects, which include the time and cost of making decisions and also the processing of knowledge to represent more valuable information for decision makers (Jollyta, 2022). The Decision Support System application consists of 4 subsystems, according to (Turban, 2005) including: (1) data management subsystem The data management subsystem includes a database that contains relevant data for the situation and is managed by software called DBMS; (2) model management subsystem It is a software package that incorporates financial, statistical, management science, or other quantitative models that provide analytical capabilities and proper software management; (3) user interface subsystem. Users communicate with and command the DSS through this subsystem; and (4) knowledge-based management subsystem This subsystem can support all other subsystems or act as one independent component.

Managers must access relevant information for effective planning and supervision in the enterprise. DSS plays an important role in enhancing effective decisions, providing competitive advantage, and increasing stakeholder satisfaction. The effectiveness of decisions is greatly influenced by the management of time, cost, and knowledge. DSS, consisting of subsystems of data management, model management, user interface, and knowledge-based management, provides managers with the tools they need to make better and faster decisions, at a lower cost. By using DSS, companies can optimise the decision-making process and achieve organisational goals more efficiently and effectively.

The benefit of the company's activities is to achieve maximum profit or profit as much as possible. Meanwhile, another opinion states that the benefits of the company are in line with the company's objectives, namely maximizing the company's value, which is reflected in its share price. Based on these opinions, there is actually not much difference substantially. It's just that the emphasis to be achieved is different between one benefit and another. The opinion stating that the benefits of the company are to achieve maximum profit or achieve maximum profit contains the concept that the company must carry out its activities effectively and efficiently. Effective is related to the benefits to be achieved, while efficient is related to the minimum possible cost to achieve a goal (Martono, 2010).

So that the Decision Support System can be one of the systems that can be implemented in offering ICT Managed Services at PT Mitra Integrasi Informatika. In offering ICT Managed Services at PT Mitra Integrasi Informatika, it has been carried out optimally, but periodic evaluation of the application of the Decision Support System has not been carried out. Based on this background, the authors are interested in conducting research on the effect of using a decision support system on company benefits.

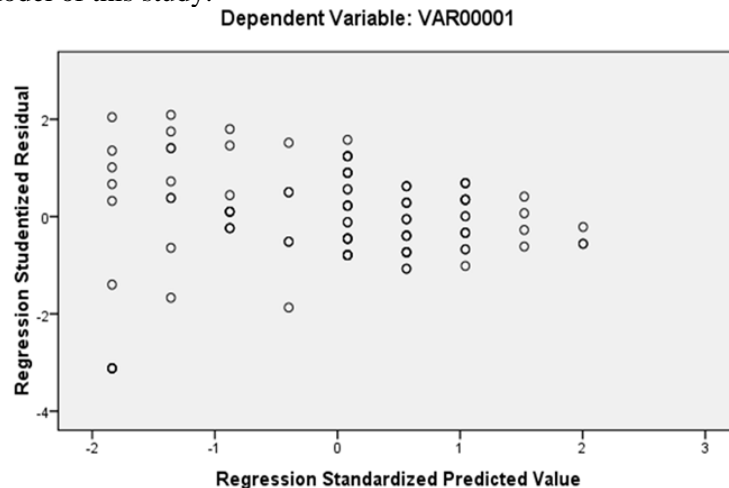
METHODS

This research uses a quantitative approach, where data is collected and analyzed numerically. The research design used is a causal design, aiming to test the cause-and-effect relationship between the variables studied. Data is collected from samples using research instruments and analyzed quantitatively to test the hypothesis that has been set. The main purpose of this design is to understand the relationship between the influencing variable (independent variable) and the influenced variable (dependent variable). The stages of this research include problem formulation, theory study, hypothesis formulation, data collection, data processing, and conclusion drawing (Sugiyono, 2018). This study involves one independent variable (decision support system) and one dependent variable (company benefits). The research subjects were employees of PT Mitra Integrasi Informatika, while the research objects were decision support systems and company benefits. The research population is all employees of PT Mitra Integrasi Informatika who have certain qualities and characteristics determined by the researcher. This study involved a population of all employees of PT Mitra Integrasi Informatika, totaling

105 people. Data were collected through three methods: interviews, document recording, and questionnaires. Data analysis was carried out by multiple simple regression analyses using the SPSS 23.0 for Windows program.

RESULT

Normality Test Based on the results of the normality test in this study, it is known that the significance value is $1,218 > 0.05$, it can be concluded that the residual value has a normal distribution. Multicollinearity Test Based on the multicollinearity test results, the tolerance value of the Decision Support System variable is greater than 10 ($1.0 > 0.1$) and the VIF value is less than 10 ($1.00 < 10$). Based on this data, it can be concluded that there are no symptoms of multicollinearity in the simple regression model of this study.



Source: processed data

Figure 1
Regression Analysis

The results of the heteroscedasticity test show that the data points are randomly distributed above and below the zero line on the Y-axis. This indicates the absence of heteroscedasticity in the simple regression model. In other words, the assumption of heteroscedasticity is fulfilled, so the regression model can proceed to the next stage of testing. Hypothesis Test The effect of the decision support system (X) partially on company benefits (Y) The results of the simple linear regression test obtained the results, namely the magnitude of the partial relationship of the decision support system. The magnitude of the partial relationship of the decision support system (X) to company benefits (Y) is 5,863 with a p-value of $0.000 < \alpha 0.05$, stating that H_0 is rejected, which means that there is a partial positive influence relationship from the decision support system (X) on company benefits (Y). This finding implies that the cost of the decision support system (X) will have an impact on decreasing company benefits (Y) with an influence relationship of 50.0% and the rest of the external influence of 50.0%. Based on the results of the research that has been done, it shows that there is a simultaneous positive and significant effect on the decision support system (X) on company benefits (Y). This is in line with the theory put forward by (Desi Ratna Juwita Sari, 2023) that work effectiveness in an organisation is influenced by organisational characteristics. This can be interpreted as how the organisational structure is formed and how the benefits of the company interact in it. This organisational structure is what determines the work patterns and behaviour of employees in achieving common goals.

CONCLUSION

The focus of this research is how the use of a Decision Support System (DSS) impacts the provision of supervised ICT services at PT Mitra Integrasi Informatika. This is the case even though the DSS has been optimally utilized. Consequently, this study examines the impact of using DSS on the company's profits. The residual values are normally distributed, according to the normality test results. According to the multicollinearity test, the simple regression model showed no signs of multicollinearity. Half of the effect of DSS on corporate profits is positive, according to the hypothesis

test. External factors influence half of this influence. Overall, the results show that DSS has a positive and significant influence on corporate benefits, which is in line with the theory that work effectiveness in organizations is influenced by organizational characteristics, including the structure and interactions within it. Organizational structure determines work patterns and employee behavior in achieving common goals.

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