

Analysis of the Implementation of Enterprise Resources Plan (ERP) on Company Performance (Case Study of PT Sapta Sentosa Jaya Abadi)

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ABSTRACT

PT Sapta Sentosa Jaya Abadi is a plantation company located in four different provinces. The company operates the oil palm business (cultivation and processing factory). The company was founded in 2002. Previously the company relied on manual operation in every of their administration, realizing the importance of building an information system based on Enterprise Resources Plan (ERP), the company collaborated with third parties s developed ERP which they called Go Palms. Indeed, Go Palm makes work easier and ultimately improves the company's performance, but performance data from 2016 to 2020, actually shows a downward trend. Lack of socialisation, makes employees as users find it difficult both in adapting and using information systems in their work to find out how the role of information systems drives performance, the authors researched the role of ERP on company performance through Quality of Information Systems. The research method used is quantitative with the Regression Analysis Approach as a data processing method. The research was conducted on all 10ERP users. The results show that: 1) there is a simultaneous influence of Go Palm's Information System Quality on the Company's Performance; 2) There is a partial effect of Product Operation on Company Performance; 3) there is no partial effect of Product Revision on Company Performance, and; 4) There is a partial effect of Product Transition on Company Performance at PT. Sapta Sentosa Jaya Abadi. The suggestion in this study is that management needs to carry out socialization and training related to the use of the ERP system, so the employees know why

they need to do work using an ERP information system and also the benefits they can get.

Keywords: Enterprise Resources Plan (ERP), Performance Appraisal Management, Quality of Information System

BACKGROUND

Indonesia is the largest producer of palm oil commodities in the world where the output of the palm oil industry is currently in the form of an upstream industry, namely Fresh Fruit Bunches (FFB) and Crude Palm Oil (CPO), while the downstream industry is a derivative product of palm oil such as refineries (producing oil food), oleochemical (producing chemicals from plants). Unfortunately, the palm oil industry has not received a positive response from Europe, the United States and Australia. They assume that the management of the palm oil industry does not heed the sustainable system until a campaign against the use of palm oil products appears (Dradjat, 2012). This also has an impact on the palm oil industry in Indonesia. The negative issue of the palm oil industry has resulted in CPO sales prices tending to decline in recent years.

As one of the players in the palm oil industry with the main products in the form of FFB and CPO, PT. Sapta Sentosa Jaya Abadi also feels the impact of unstable CPO prices, while the cost of production

increases every year. To face this challenge, the company implements productivity improvements with indicators of increasing the effectiveness of workers as well as efficiency in the use of tools (machines) and money. This productivity is measured through the Balanced Scorecard (BSC) system.

The main reason why management implements BSC in the measurement system at PT. Sapta Sentosa Jaya Abadi because the BSC system is more objective and open, in addition to boosting company productivity because company performance is always monitored through the achievement of Key Performance Indicators (KPI). But after 4 years running, the company's performance tends to decline.

To increase productivity and work efficiency, PT. Sapta Sentosa Jaya Abadi implements an application-based management system, namely the Enterprise Resource Plan (ERP). ERP is a system and software package used by companies to manage their daily business activities, such as financial management, procurement, production, projects, HR, and others. This system can facilitate business with real-time and accurate information so that companies can make good business decisions based on the data generated. By collecting transaction

data together from multiple sources, ERP systems prevent data duplication by providing data integrity.

The ERP system is applied at PT. Sapta Sentosa Jaya Abadi they call Go Palm and it has been implemented since 2016, exactly one year after the implementation of the BSC. The idea of implementing Go Palm is to facilitate administrative work, reporting and management decision-making. Go Palm refers to 4 main functions:

1. Finance function, is the main function of this management system. This function is a synchronization of all other functions.
2. Admin and Personnel functions, also includes individual KPI dashboards
3. Logistics function, which includes warehouse and purchasing
4. Factory functions which include maintenance, production

In addition, there is a Reporting function, this function explains the reporting display needed by management so that financial, production and other reports can be displayed in real-time. Management has invested quite a lot by presenting Go Palm and BSC at PT. Sapta Sentosa Jaya Abadi, but the company's performance still does not improve and even tends to decline.

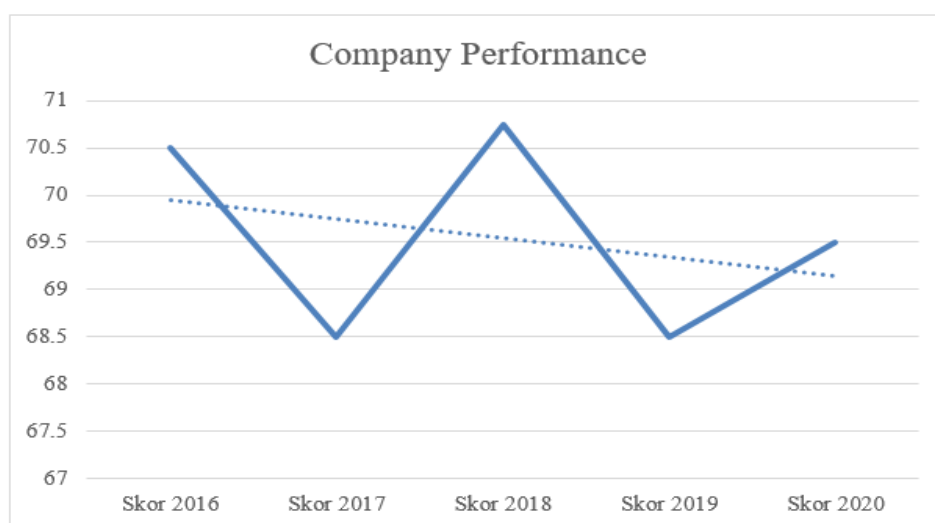


Figure 1. Company Performance
Source: Financial Data of PT. Sapta Sentosa Jaya Abadi, 2019

Some of the problems faced by company employees in implementing the Go Palm Application are as follows:

1. The preparation of the Go Palm module did not involve employees, especially user employees, this resulted in many employees not understanding the function and use of Go Palm features.
2. PT. Sapta Sentosa Jaya Abadi has employees with an average working period of more than 5 to 10 years, so the culture of working manually is still attached to employees. One of the weaknesses of the company is that it does not carry out sufficient socialization of the implementation of a comprehensive management information system, so changing organizational culture to working with information systems requires time and effort. Until now, there has been a lot of wrong work done by the employees of the Plantation and Factory Units. Input errors, of course, result in inaccurate information results and have an impact on reporting errors. This readiness is hereinafter referred to as organizational culture readiness
3. PT. Sapta Sentosa Jaya Abadi also does not have a clear procedure, so when Go Palm was about to be made, the difficulty in the manufacturing phase was that it was not clear what procedure to use, even though the procedure was the main basis of the management information system. Until now, job confusion is often found because the procedures are not yet established. This readiness is hereinafter referred to as procedure readiness.
4. Bugs are still often found in the Go Palm application which results in hampered performance. The procedure for repairing and or maintaining the Go Palm application is quite complex, it must get approval from several layers, which starts with making a bug report, then verified by superiors and then sent to the vendor (Go Palm application manager) and then the vendor responds,

so this takes time which is quite long, while repairs are needed as soon as possible, especially regarding the work of the user.

5. Besides the management of PT. Sapta Sentosa Jaya Abadi in terms of the formation of culture and procedures, management also encountered problems with data and technology problems. In practice in the field, personnel still do not understand what data is needed, and how to distinguish one data from another. Besides that, infrastructure readiness, especially in the Plantation and Factory Units, is far from maintenance in Jakarta and Medan. This readiness is hereinafter referred to as Technological Readiness.

Based on the previous description, it can be found that there is a common thread between ERP implementation at PT. Sapta Sentosa Jaya Abadi in this case is Go Palm which is intended to facilitate administrative work and decision making. However, there are still many problems with the Go Palm application, such as bugs, and errors in data management, resulting in obstacles in the user's work. The unpreparedness of the Go Palm application is also because the preparation of Go Palm does not involve many user employees, this in the end makes productivity decrease. The decrease in productivity that is in line with ERP implementation makes the author want to find further answers by conducting research at PT. Sapta Sentosa Jaya Abadi regarding the role of ERP-based Information System Quality on Company Performance at PT. Sapta Sentosa Jaya Abadi.

Enterprise Resources Planning (ERP)

ERP according to (Chandra and Augustine, 2015) is a set of digital-based systems designed to process operational transactions and provide integrated and real-time information between all parts (Departments) from planning, production, sales and distribution. This operational integration

makes it possible to combine all information in one application. ERP, not only allows convenience in the company's operations but also records the company's books to financial reports. The ERP principle integrates all operations in 1 (one) system, this makes connections between departments. This unification makes it easier in terms of work reporting, business intelligence, and early detection of errors. This unification allows stakeholders (top management) to view the information in real-time. This of course makes it easier for management to quickly make decisions (Nawawi, 2018).

Company Performance

Sobirin (2015) describes the company's performance management in the elaboration of 4 indicators as follows. First, performance is a set of processes. This indicates that performance is not a single activity, nor is it just a result. On the other hand, performance is a series of actions starting from an action plan, the process of taking action and evaluating the results of actions that involve various elements including human and organizational behaviour and the environment that affects the process. In system language, performance involves input, process and output as well as the environment that surrounds the input-process-output.

Second, performance depends on the decisions and actions taken by a manager. A manager's decision, of course, will mean nothing (do not cause performance) if it is not followed by other actions by both the manager himself and the employees. Likewise, the impact of a manager's decision cannot be seen at the time the decision is made but only after some time. That is, although a manager's decision is a series of performance and is an important element of performance, we cannot say that a manager's decision is a performance. Manager's decision is only a trigger (driver) that allows the creation of organizational performance. Third, an organization is said to be performing if the organization

produces something in the future as a result of current actions. This explanation illustrates the existence of a causal process in the creation of performance. Action is the cause that gives rise to performance and the result is the result of an action – both occur sequentially and continuously over and over again. Fourth, the most common indicator to determine the performance of an organization can be seen in the restiveness and efficiency of the organization. Effective means the organization can act and produce something according to or better than previously determined. While efficient is the use of organizational resources as efficiently as possible as long as the desired results can be achieved.

Napitupulu (2015) in his research evaluates the success of ERP system implementation based on system quality and end-user satisfaction where the object used as a case study in this research is PT. Autonetsys Indonesia is a company engaged in Information and Communication Technology (ICT) solution services and has implemented an ERP system for two years running. The research method used is a survey based on a questionnaire to the end-users of the ERP system. The questionnaire was designed using a Likert scale that asked the respondents' level of agreement with the quality of the system and satisfaction with the ERP system that was implemented. The results of the research based on descriptive statistics show that most of the respondents agree that the ERP system implemented has the expected quality factor whereas the usability factor is considered very helpful for end-users in terms of operations. Meanwhile, in terms of satisfaction, in general, respondents are also satisfied with the ERP system where the top management support factor is felt and considered important by end-users in the system implementation process so far. In other words, the ERP system that is currently being implemented can be said to be successful as expected.

Wicaksono, Mulyo and Riantono (2015) examined the role of the ERP system in

supporting company performance. The study they did was a qualitative analysis by interviewing ERP users in a structured in-depth manner. Their study was conducted on 3 (three) companies in Jakarta that already use the ERP system. The dimensions they explore are Quantity of Work, Quality of Work, Job Knowledge, Creativeness Cooperation, Dependability, Initiative, and Personal Qualities. The results of their research concluded that based on data and information, ERP implementation has a positive impact on the performance components of Quantity of Work, Quality of Work, Job Knowledge,

Creativeness, Dependability, and Personal Qualities. As for the Initiative and Cooperation components, in the Initiative component, some informants stated that they did not get a positive impact because the use and implementation of ERP can help all their work so they do not need "initiatives" to support their work. As for the Cooperation component, the informants stated that they did not get a positive impact because the use and implementation of ERP did not require communication and collaboration with other units, they could do it themselves through the ERP system.

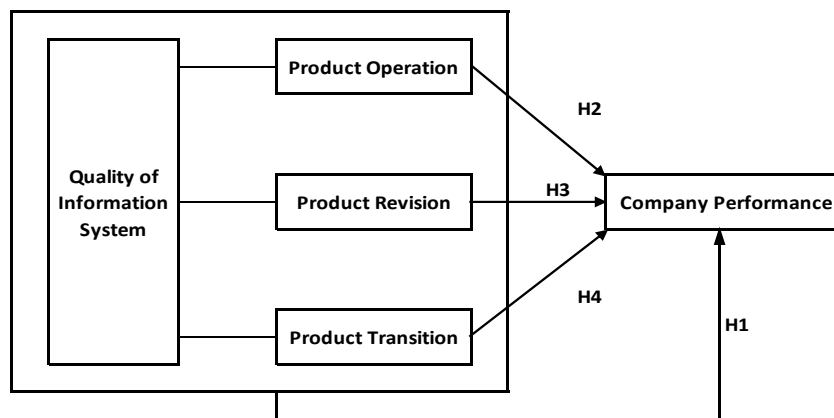


Figure 2. Conceptual Framework

Hypotheses

H1.: There is a positive and significant influence simultaneously between the Quality of Information Systems on Company Performance at PT Sapta Sentosa Jaya Abadi.

H2.: There is a positive and partially significant effect between Product Operation on Company Performance at PT Sapta Sentosa Jaya Abadi.

H3.: There is a positive and partially significant effect between Product Revision on Company Performance at PT Sapta Sentosa Jaya Abadi.

H4.: There is a positive and partially significant effect between Product Transition on Company Performance at PT Sapta Sentosa Jaya Abadi.

RESEARCH METHOD

The design used in this study is correlational analysis, which is a type of research carried out to detect the extent to which variations in a factor are related (correlated) with one or more other factors based on the correlation coefficient (Sinulingga, 2017). The population of this study is all employees who work using the Go Palm Information System to support their performance. The total number of employees who use the Go Palm application is 110 people. The researcher uses all the population as a sample to get accurate data. The main research results in the study were achieved by using correlation analysis, namely, by using multiple regression analysis, while to see the relationship of each factor to the dependent variable, t-test analysis was used.

RESULT AND DISCUSSION

F-Test Results

Table 1. F Test Result

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3739.022	3	1246.341	387.374	.000 ^b
	Residual	212.349	66	3.217		
	Total	3951.371	69			

a. Dependent Variable: Company Performance

b. Predictors: (Constant), Product Transition, Product Operation, Product Revision

The significance probability value is 0.000 and this is smaller than 0.05 so it can be concluded that there is a Go Palm Information System Quality simultaneously

on the Company's Performance (Y) at PT Sapta Sentosa Jaya Abadi, in other words, Hypothesis 1 is accepted.

T-Test Results

Table 2. T-test Result

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-4.448	.908		-4.896	.000
	Product Operation	.585	.119	.384	4.921	.000
	Product Revision	.429	.226	.146	1.896	.062
	Product Transition	1.500	.344	.530	4.367	.000

1. The significance probability value for the Product Operation (X1) variable is 0.000 and this is smaller than 0.050 so it can be concluded that there is a partial effect of Product Operation (X1) on Company Performance (Y) at PT Sapta Sentosa Jaya Abadi, in other words, Hypothesis 2 accepted.
2. The significance probability value for the Product Revision variable (X2) is 0.062 and this is greater than 0.050 so it can be concluded that there is no partial

- effect of Product Revision (X2) on Company Performance (Y) at PT Sapta Sentosa Jaya Abadi, in other words, the Hypothesis 3 rejected.
3. The significance probability value for the Product Transition (X3) variable is 0.000 and this is smaller than 0.050 so it can be concluded that there is a partial effect of Product Transition (X3) on Company Performance (Y) at PT Sapta Sentosa Jaya Abadi, in other words, Hypothesis 4 accepted.

Determinant Test Results

Table 3. R Square Test

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.973 ^a	.946	.944	1.79371

R Square of 0.946 which shows that the contribution of all X variables to Y variables in this study is 94.4%. This contribution is classified as "High". Meanwhile, 5.6% is the contribution of other variables that are not included in this study.

The results showed that the overall Quality of Information Systems affects the performance of PT. Sapta Sentosa Jaya Abadi. This is in line with the results of research conducted by Lufthi (2013) which states that Information System Quality plays a role in improving employee performance. However, they added that this could be implemented with the support of management's commitment, especially in the development of Information Systems that required a large investment. Similar research was also conveyed by Wulandari (2018) who stated that good quality of information systems also contributed to 854.6% of the company's performance.

The development of an ERP-based Information Management System helps employees in terms of simplifying their work, on the other hand, it also helps top management in obtaining factual and real-time information. This is as stated by the Head of the HR Division of PT Sapta Sentosa Jaya Abadi. It just needs improvement in terms of quality, and ease of use. This is also in line with the results of the study showing that of the 5 (five) dimensions of the Product Operation variable, the usability dimension is the lowest compared to the other dimensions.

Of the 3 (three) variables on the Quality of Information Systems, it was found that the Product Operation variable was the highest. This shows that basically, users feel the benefits of developing an ERP-based information system at PT. Sapta Sentosa Jaya Abadi. User employees feel the benefits of the Go Palm application, which makes their work easier. The Head of HR of PT Sapta Sentosa Jaya Abadi stated that previously it took time to process from the manual menu to excel and continued with manual inspection, but now it is getting

easier. Employees only enter production data, and others to applications that display Financial Report information. This is very helpful for employees and the company.

While the lowest variable is Product Revision, this is related to the flexibility of using the Go Palm application, where users think the application is too rigid or difficult to revise, especially if the user makes an input error. This was acknowledged by one of the Go Palm application users, namely the Sales Administration Section, where he stated that there were many obstacles related to repairs by employees, but employees had difficulty fixing them, they had to make reports and approval from superiors. Regarding this, the Head of the HR Division stated that this was intended to prevent employee fraud from occurring, where if the repairs were not made through the approval of superiors, it was feared that there would be an intentional data input error. It is also useful for monitoring the performance of employees who input, to be more careful.

CONCLUSION

1. There is a simultaneous influence of the Go Palm Information System Quality on the Company's Performance at PT. Sapta Sentosa Jaya Abadi.
2. There is a partial effect of Product Operation on Company Performance at PT. Sapta Sentosa Jaya Abadi.
3. There is no partial effect of Product Revision on Company Performance at PT. Sapta Sentosa Jaya Abadi.
4. There is a partial effect of Product Transition on Company Performance at PT. Sapta Sentosa Jaya Abadi.

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