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The Influence of Enterprise Resource Planning (ERP) Implementation System on Company Performance Mediated by Organizational Capabilities

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Abstract:

Research aims: This study aims to examine the effect of Enterprise Resource Planning (ERP) system implementation on company performance with organizational capabilities as a mediating variable.

Design/Methodology/Approach: This research is a quantitative study using 117 samples of manufacturing companies listed on the IDX from 2013 to 2018. Analysis and testing in this study employed SEM-PLS to test the effect of Enterprise Resource Planning (ERP) system implementation on company performance with organizational capabilities as a mediating variable.

Research findings: The results showed that the ERP system's implementation had a significant positive effect on company performance and organizational capabilities. Organizational capabilities also had a significant positive effect on company performance. Besides, it was found that organizational capabilities mediated the relationship between ERP system implementation and company performance.

Theoretical contribution/Originality: This study utilized a cybernetics approach theory, Resource-Based View (RBV) theory, and organizational capabilities theory to investigate the mediating role of organizational capabilities in increasing the impact of ERP systems on company performance.

Practitioner/Policy implication: This study provides evidence that ERP implementation makes an integrated operating system and can increase organizational capabilities by utilizing existing resources, and ultimately will also increase company performance.

Research limitation/Implication: In this research, it is challenging to find organizational capability measures, such as marketing capability and process improvement. This study only used one intervening variable so that the information obtained from the results is still limited.

Keywords: Enterprise Resource Planning (ERP) System; Company Performance; Information Technology; Organizational Capabilities

Introduction

The impact of intense global business competition has led companies to improve or maintain their competitiveness by using information systems, particularly to improve customer service, shorten cycle times, and reduce costs.

According to Syofyan and Putra (2020), organizations or companies are considered living things or communities that aim to achieve their creators' expectations. Investors as owners hope that the investments made can impact the company's progress (Sofyan, Putra, & Aprayuda, 2020). One of these hopes can be achieved by investing in information technology. Information technology investment is needed as a goal to maintain company vitality and competitiveness and is becoming increasingly crucial for the companies' survival and growth (Lu, & Jinghua, 2012). Investing in information technology in a company requires a fairly large cost with a relatively large risk. However, investment in information technology can provide opportunities to increase productivity and improve business processes (Putra & Rahayu, 2020).

Facing challenges in maintaining vitality and competitiveness, companies can improve organizational capabilities. According to Shang and Seddon (2002), the organizational capability is the ability to carry out its activities using company resources, both tangible and intangible, to produce products in the form of goods or services. Companies develop their organizational capabilities to create competitive advantage by leveraging organizational resources such as information systems and are innovation-oriented, enabling them to meet customer needs and compete in their industrial environment.

Organizational capabilities are created when the internal resources of the organization are integrated according to content. Increasing organizational capabilities can be done in the field of information technology by implementing Enterprise Resource Planning (ERP). According to Aremu, Shahzad, and Hassan (2019), ERP is a computer-based integrated system designed to process company transactions and facilitate integrated planning, real-time production activities, and fast consumer response. An ERP system can provide material resource planning and is an information system that integrates and automates all departments within a company, such as finance, human resources, logistics, etc., as well as helps the total management of company resources that have an integrated function in one system.

In general, implementing an ERP system cannot guarantee that the company will get added value from the system. Based on a survey conducted by Panorama Consulting Group (2010) on ERP implementation in companies around the world with 1,600 company respondents, it was found that the costs incurred in implementation were greater than planned, the value obtained in implementation was less than the value in planning, and 71.5% of executives and 67.1% of employees stated that they were not satisfied with the results of the implementation carried out. ERP system failure can occur when implementation experiences integration problems, lack of funds, inconsistencies in project scheduling, and user resistance to change (Katerattanakul, Lee, & Hong, 2014). According to Saade and Nijher (2016), 90% of ERP implementation exceeded the company's budget, and activities showed 67% of its failure rate in achieving negative or unsuccessful style ERP implementation goals.

Based on the constraints that arise, there are several ways that the implementation of an ERP system can provide maximum added value for the company, such as using the Resource-Based View (RBV) approach by meeting the resource-based resource criteria

valuable resources, rare resources, imperfectly imitable resources, and non-substitutability (VRIN) to improve company performance (Barney, 1991). Furthermore, Hastuti, Dalle, and Khatimi (2016) stated that resource utilization could be seen from ERP, organizational capabilities, and organizational core competencies. Thus, the company can take advantage of this to increase competitive advantage and provide maximum added value.

Research on ERP implementation has been done a lot, but the results obtained are still different. Hunton, Lippincott, and Reck (2003) showed a significant difference in companies' financial performance that adopted ERP and those that did not. Similar results were obtained by Daoud and Triki (2013) that ERP affected the increase in Tunisia's company performance. In line with Park and Park (2015), the results revealed that ERP implementation could help manage company resources to increase large profits. In contrast, Hsu's (2013) research uncovered that ERP implementation did not affect the company's competitive advantage. Similar results obtained by Kristianti and Achjari (2017) and Acar, Zaim, Isik, and Calisir (2017) in their research disclosed that ERP implementation did not affect financial performance.

Moreover, research on ERP system implementation on company performance cannot be separated from organizational capabilities with all the advantages obtained through ERP implementation. Several previous studies have ignored the mediating role of organizational capabilities, providing broader information on added value in the relationship between ERP implementation and company performance (Defriko, 2020). Organizational capabilities are used as a mediating variable because they can determine how an organization or company gets an advantage over other companies, and organizational capabilities can increase the impact of utilizing the company's resources on its performance (Rehman, Mohamed, & Ayoup, 2019). Suhendra, Filandari, Indrayani, and Maulana (2019) also revealed that organizational capabilities as a mediator could provide good value information in the relationship between ERP system implementation and company performance. Thus, organizational capabilities have a mediating role in increasing the impact of ERP system implementation on company performance. Hence, the authors felt it is essential to research the impact of ERP system implementation on company performance mediated by organizational capabilities.

This study is different from the research of Suhendra et al. (2019) because it used sample selection criteria of the application of ERP keywords with "Enterprise Resource Planning" or ERP, while this study expanded the search by adding vendor keywords, such as SAP, Oracle, Peoplesoft, and others (Lu, & Jinghua, 2012) so that the sample criteria obtained were broader, and it is expected that the research also reveals different results. Furthermore, this study added to the year of observation to 2018 compared to previous studies.

Research on the implementation of ERP systems on company performance using organizational capabilities as mediation is still rarely done, so few kinds of literature can be used as a reference. Based on the background of the problems that have been described and the differences in the results obtained in previous studies, it is vital to

research the impact of ERP system implementation on company performance mediated by organizational capabilities.

This research has a theoretical contribution, namely using the Resource-Based View theory and the Organizational Capabilities theory approaches by meeting the criteria for valuable resources, rare resources, imperfectly imitable resources, and non-substitutability (VRIN) so that it can improve company performance. Besides, Cybernetic theory is a theory to see the implementation and evaluation, where the implementation of the ERP system provides an effective choice for managers in developing organizational capabilities to improve company performance. Furthermore, contribution to the practitioners by implementing ERP systems can provide effective management choices in developing organizational capabilities so that they can overcome problems faced by the company by providing accurate, timely information and integration between departments in corporate decision making. Thus, the organization's capability to utilize its resources impacts increasing operational and financial capabilities, thereby increasing its profitability and making the company's performance better.

Literature Review and Hypotheses Development

Resource-Based View (RBV) Theory

Barney (1991) explains that the RBV theory focuses on the ability or capability to maintain a combination of resources that cannot be owned or built in the same way by competitors. RBV theory is very important for companies in managing resources well, including information systems and other organizational factors to create competitive advantage. According to Sheikh, Shahzad, and Ku Ishaq (2017), companies need to create value by using available, valuable, non-substitutable, rare, and inimitable resources in gaining a competitive advantage.

Companies can use information systems to gain a competitive advantage when the company can implement them appropriately. Thus, implementing an ERP system can provide maximum added value for companies, such as using the Resource-Based View (RBV) approach by meeting the criteria for valuable resources, rare resources, imperfectly imitable resources, and non-substitutability (VRIN) to improve company performance (Barney, 1991).

Cybernetic Approach Theory

According to Hatch and Cunliffe (2006), cybernetic theory takes a system approach, which states that organizational and individual goals can be aligned if goals and standards are set, feedback mechanisms are established to compare performance with objectives (performance measures and performance evaluation systems), then adjustments are made depending on the results. The cybernetic theory is a theory with dynamic information processing so that it can process relevant information by exploring the basic concepts for system control and regulation as well as the essential properties

of the system so that the technology management in organizations can be carried out well (Schuh & Kramer, 2016). Cybernetics plays a role in feedback system work standards, measuring system performance, and comparing the performance standards that have been set in the company.

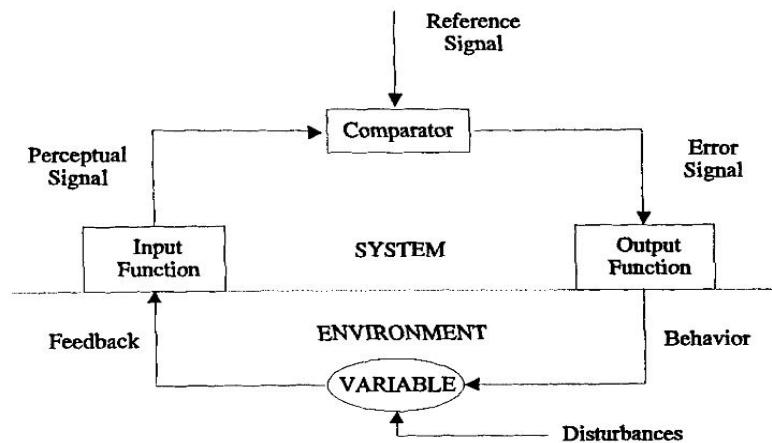


Figure 1 Cybernetic Model
Source: Vancouver (1996, p. 171)

Figure 1 shows a cybernetic model used to describe the subsystem structure of an information system. The figure describes the current or anticipated state in the perceptual signal, the desired state in the reference signal, the difference in the error signal, and behavior action. The cybernetic control process acts as a feedback loop to reduce observed and desired states. The previous action influences subsequent actions because the previous action brings the observed state in line with the desired state.

Changing perceptions of environment variables cause differences and generate error signals. Assuming the system can influence environment variables, the output function will affect the observed state. For example, in general, the organization's executive committee wants to maintain the customer satisfaction level. Disturbance in the perception of the current level provides a change to the desired level leading to a change in the organization's output. This change is an effort to produce high-quality products to improve customer service; then, the cybernetic model provides feedback to the input function to regulate the system as a behavior and action controller.

The understanding of cybernetic theory is related to the development of control systems in technology management activities. An organization or company must follow technological advances and ensure sustainability and efficiency to survive in its business environment, one of which is by utilizing information technology resources. The cybernetic theory reveals that if an organization adapts and survives in its environment, decision-makers need to receive feedback from performance indicators; if there is insufficient time to notice unexpected deviations, it is necessary to take appropriate action and observe system response (Vancouver, 1996). In this study, the cybernetic theory was employed to see the implementation and evaluation, where ERP

implementation provides an effective choice for managers in developing organizational capabilities (Hatch & Cunliffe, 2006). ERP system implementation provides a means for organizations to capture, process, and provide broad direction for performance indicators in real-time conditions (Markus & Robey, 1998). Thus, successful implementation of an ERP system can improve organizational capabilities, including access to information, product variety, financial flexibility, and improve company performance.

Organizational Capabilities Approach Theory

According to Shang and Seddon (2002), organizational capabilities are the company's ability to carry out a series of activities using tangible and intangible company resources to produce products in the form of goods or services. Companies develop their organizational capabilities to create competitive advantages by leveraging organizational resources such as information systems and are innovation-oriented, enabling them to meet customer needs and compete in their industrial environment.

Organizational capabilities can determine how an organization or company gains advantages over other organizations, and organizational capabilities can increase the impact of resource management that the company has (Rehman et al., 2019). Suhendra et al. (2019) also revealed that organizational capabilities as a mediator could provide good value information in the relationship between ERP system implementation and company performance.

According to Kurniawati, Gunarta, and Baihaqi (2015), several measurements for organizational capabilities include the following:

1. Operational capabilities

Operational capabilities are basic capabilities that enable a company to achieve its production goals, such as superior product quality, product flexibility and volume, fast delivery, and cost reduction (Terjesen, Patel, & Covin, 2011; Kamboj, Goyal, & Rahman 2015). Operational capability in this study was measured employing the Operating Profit Margin (OPM). OPM shows how much profit a company generates after paying production costs, such as wages, raw materials, and so on.

2. Financial capabilities

In this research, financial capability is financial flexibility, which measures the extent to which the company takes advantage of unexpected opportunities or deals with unexpected events depending on the company's financial policies and structure. Financially flexible companies can use financial resources in response to new information about the company and its environment (HassabElnaby, Hwang, & Vonderembse, 2012). Financial capability in this study was assessed utilizing Cash Debt Coverage (CDC). CDC was used to see the relationship between the company's operating cash flow and its total liabilities and describe its ability to pay debts from its operations.

Literature Review of ERP System Implementation and Company Performance

An ERP system is a software program used by companies to integrate and coordinate information in each area of business processes, help the organization of all business processes in each department (Aremu et al., 2019), and is used as an effective management reporting tool to support decision making (Monk & Wagner, 2013). Almajali, Masa'deh, and Tarhini (2016) and Aremu, Shahzad, and Hassan (2018) stated that an ERP system could control and control all management levels in an organization by supporting efficient business processes by integrating sales, marketing, manufacturing, logistics, and accounting tasks, and staffing throughout the business.

Implementing ERP systems in company information systems is usually the desire of companies to improve organizational performance and capabilities and increase company effectiveness and efficiency. ERP systems provide a means for organizations to capture, process, and provide broad direction for performance indicators in real-time conditions (Markus & Robey, 1998). Besides, an ERP system allows an organization to maximize data sharing within the organization, reduce costs, increase customer satisfaction (Forcht, Ileschnick, & Aldridge, 2007). Therefore, ERP systems can help organizations integrate information flows and process all accessible resources. Thus, companies that adopt ERP systems have better performance than those that do not (Hunton et al., 2003 and Voulgaris, Lemonakis, & Papoutsakis, 2015).

The implementation of an ERP system has been proven to improve company performance. The findings of Hunton et al. (2003) proved that there was an increase in financial performance based on ROA, ROE, and asset turnover in 63 companies in the US that adopted ERP compared to those that did not implement it. Then, Kallunki et al. (2011) managed to confirm that in addition to improving ERP system adoption's financial performance, it could also improve non-financial performance in 70 business units in Finland. In line with that, Ince, Imamoglu, Keskin, Akgun, and Efe (2013) also succeeded in proving that ERP systems positively impacted company performance based on individuals' perspectives using systems in companies listed in Turkey's Istanbul Commerce database. However, they contrast with Kristianti and Achjari's (2017) research findings, which failed to prove an increase in profitability after the company implemented an ERP system; there was no difference in average ROA and NPM in the periods before and after ERP implementation. It proved that the ERP system's implementation did not directly impact Indonesian companies' performance and profitability.

Not only the identification of ERP implementation on performance but HassabElnaby et al. (2012) also tried to take the effect of mediating strategy and organizational capabilities on the relationship between ERP implementation and company performance. Their findings had proven that ERP implementation would positively impact when a company used a business prospect strategy, and a business prospect strategy could increase organizational capabilities to achieve a higher financial performance level. However, they failed to find evidence that ERP implementation affected organizational capabilities and organizational capabilities on financial

performance. In contrast to Suhendra et al. (2019), they succeeded in showing ERP systems' implementation as significant to company performance and organizational capabilities. Furthermore, organizational capabilities also significantly influenced company performance, and organizational capabilities were proven to mediate the relationship between ERP systems and company performance.

Furthermore, previous research documentation has shown ERP system adoption could improve company performance in various countries, such as the US (Hunton et al., 2003 and HassabElnaby et al., 2012), Finland (Kallunki et al., 2011), Turkey (Ince et al., 2013). However, in Indonesian companies themselves, there are still differences in research findings. Some proved that ERP implementation could not improve company performance in terms of ROA and NPM (Kristianti & Achjari, 2017), while the rest revealed that ERP could improve company performance in terms of ROA, ROE, and NPM (Suhendra et al., 2019). It indicates that there are still inconsistencies in research results that identify the impact of ERP implementation on performance in Indonesia. Besides, differences in findings also exist in organizational capabilities, which are variables between ERP implementation on performance. HassabElnaby et al. (2012) did not find organizational capabilities to mediate ERP systems on performance, while Suhendra et al. (2019) managed to find the mediating effect of organizational capabilities as a variable between ERP systems and company performance. There are still differences in previous studies' findings, so it is crucial to investigate further, especially in companies in Indonesia.

Hypotheses Development

ERP systems can help organizations integrate information flows and process all accessible resources. Thus, companies that adopt ERP systems have better performance than those that do not (Hunton et al., 2003 and Voulgaris et al., 2015). Several studies have revealed the relationship between ERP system implementation and company performance, such as research by Hunton et al. (2003), which showed positive and significant financial performance results by comparing companies' performance that adopted ERP with those that did not. Similar results were obtained by Daoud and Triki (2013) that ERP affected the increase in Tunisia's company performance. In line with Park and Park (2015), the results showed that ERP implementation could help manage company resources to increase large profits. Based on this description, the following hypothesis was concluded:

H₁: ERP system implementation has a significant effect on company performance.

Besides, the cybernetic theory reveals that if an organization adapts and survives in its environment, decision-makers need to receive feedback from performance indicators; there is insufficient time to notice unexpected deviations, it is necessary to take appropriate action and observe system response (Vancouver, 1996). Consistent with this theory, ERP systems provide a means for organizations to capture, process, and provide broad direction for performance indicators in real-time conditions (Markus & Robey,

1998). Thus, successful implementation of an ERP system can improve organizational capabilities, including access to information, product variety, financial flexibility, and improve company performance.

Several studies have revealed the relationship between ERP system implementation and organizational capabilities, such as Shang and Seddon's (2002) research, showing that ERP systems benefited from achieving organizational strategic, management, operational, and IT infrastructure goals. ERP systems enable more accurate and timely information coordination, reduce costs, and respond more quickly to market demands. Similar results were obtained by Masini and Van Wassenhove (2009) that the ERP system significantly impacted increasing organizational capabilities. Based on this description, the following hypothesis was concluded:

H₂: ERP system implementation has a significant effect on organizational capabilities.

Further, information technology is beneficial for creating minimum products, time, or resources to increase organizational efficiency. Efficiency considers effective access to information and has a big impact on business performance (Rehman et al., 2019). Information technology enables companies to perform better with new products adapted to market demands and better quality. Therefore, increasing organizational capabilities through the correct use of information technology can improve company performance.

Several studies have revealed the relationship between organizational capabilities and financial performance, such as Zehir and Acar's (2006) research that showed an increase in organizational capabilities positively affecting the company's financial performance. Similar results were also found by Cruz-Ros and Gonzalez-Cruz (2015) that organizational capabilities significantly affected company performance. Based on this description, the following hypothesis was concluded:

H₃: Organizational capabilities have a significant effect on company performance.

Furthermore, ERP systems provide a means for organizations to capture, process, and provide broad direction for performance indicators in real-time conditions (Markus & Robey, 1998). Thus, successfully implementing an ERP system can improve organizational capabilities, including access to information, product variety, financial flexibility, and ultimately increase company performance.

The research revealed the relationship between ERP system implementation with organizational capabilities and company performance, such as research by Suhendra et al. (2019), showing that the ERP system's implementation made the information system integrated so that it allowed the company to be more efficient. Therefore, it would affect the company's capability to maximize company resources utilization, which could

improve company performance. Based on this description, the following hypothesis was concluded:

H₄: ERP system implementation has an indirect effect on company performance mediated by organizational capabilities.

Figure 2 shows the conceptual framework of this research.

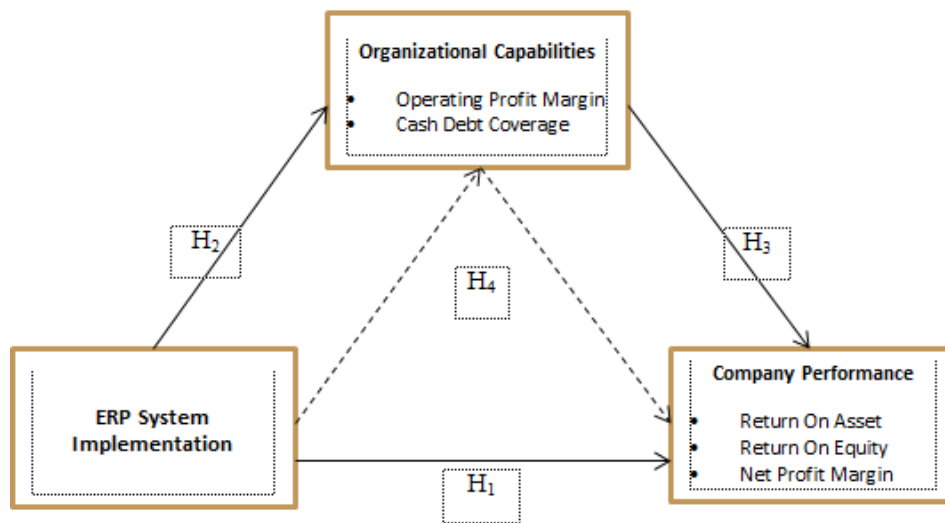


Figure 2 Research Model

Research Method

This study used a quantitative approach. This study's population was all manufacturing companies listed on the IDX during the observation from 2013 to 2018. Sampling in this study employed a purposive sampling method with the following criteria:

1. Manufacturing companies listed on the Indonesia Stock Exchange (IDX) in 2013-2018 and were not delisted from the Indonesia Stock Exchange during the 2013-2018 observation period
2. Manufacturing companies consistently published annual reports and financial statements that ended on December 31 during the 2013-2018 observation period
3. Manufacturing companies with complete data regarding the variables in this study during the period 2013-2018

Based on these criteria, the number of samples obtained was 117 companies. The type of data used in this study was secondary data. Sources of data in this study were obtained in the form of published evidence or documentation reports. The research data was in the form of an annual report published by the IDX website and the company's official website as research samples. This research instrument was company

performance (dependent variable) measured by ROA, ROE, and NPM (Kurniati et al., 2015).

ERP system implementation (independent variable) was gauged by dummy variables (Suhendra et al., 2019) because the implementation of the ERP system disclosed in the annual report encompassed non-financial disclosures, which are good news for investors and will have an impact on increasing company value. Following Holland's (2002) statement, investors need non-financial information because financial information is not sufficient as a basis for evaluating a company. Thus, the company disclosed the ERP system implementation in the annual report, and these indicators represented the company's ERP system implementation.

Organizational capability (intervening variable) was assessed employing Operating Profit Margin (OPM) and Cash Debt Coverage (CDC) (Suhendra et al., 2019). OPM shows how much profit a company generates after paying production costs, such as wages, raw materials, and so on, while CDC was utilized to see the relationship between the company's operating cash flow to its total liabilities and describes the company's ability to pay debts from its operations.

The data analysis technique in this study used SEM-PLS. According to Abdillah and Hartono (2015), the advantages of using SEM-PLS include suitable for complex research models such as mediation and moderation, appropriate for use in models that predict the relationship of causality at the latent variable stage, stronger and more practical in the processing execution process, and suitable for research using a small sample. Based on these advantages and research conducted using a mediation model, the researchers utilized SEM-PLS data analysis techniques.

Result and Discussion

Descriptive Statistics

Based on the analysis results in Table 1, it can be seen that the total observations in the companies used as the research sample were 702 observations. The ERP system average value was 0.58 with a standard deviation of 0.494. It signified that the companies that implemented an ERP system in this study sample were 58% more than companies that did not use an ERP system.

Table 1 Descriptive Statistics of Research Data

	N	Minimum	Maximum	Mean	Std. Deviation
ERP	702	0	1	.58	.494
ROA	702	-29.07	92.10	4.8712	9.40792
ROE	702	-124.80	224.46	7.8819	23.46314
NPM	702	-85.00	101.37	4.4261	12.14656
OPM	702	-92.00	52.51	6.3878	12.67799
CDC	702	-135.74	244.23	22.1572	38.04395

Return on Asset (ROA) had a minimum value of -29.07, namely PT. Asia Pacific Fiber Tbk in 2014 and a maximum value of 92.10, namely PT. Merck Indonesia Tbk in 2018, with an average value of 4.8712 and a standard deviation of 9.40792. It showed that every Rp. 1 company asset could generate Rp. 4,8712 company profit. Return on Equity (ROE) had a minimum value of -124.80, namely PT. Saranacentral Bajatama Tbk in 2018 and a maximum value of 224.46, namely PT. Merck Indonesia Tbk in 2018, with an average value of 7,8819 and a standard deviation of 23,46314. It indicated that every Rp. 1 company equity could generate Rp. 7,8819 company profits.

Net Profit Margin (NPM) had a minimum value of -85, namely PT. Inti Agri Resource Tbk in 2018 and a maximum value of 101.37, namely PT. Merck Indonesia Tbk in 2018, with an average value of 4.4261 and a standard deviation of 12.14656. It signified that the company's ability to generate net income from sales was 4,4261. Operating Profit Margin (OPM) had a minimum value of -92, namely PT. Inti Agri Resource Tbk in 2018 and a maximum value of 52.51, namely PT. Multi Bintang Indonesia Tbk in 2017, with an average value of 6.3878 and a standard deviation of 12.67799. It denoted that the company's ability to generate operating profit from sales was 6.3878. Cash Debt Coverage (CDC) had a minimum value of -135.74, namely PT. Alumindo Light Metal Industry Tbk in 2018 and a maximum value of 244.23, namely PT. Sido Tbk's Herbal and Pharmaceutical Industry in 2017, with an average value of 22.1572 and a standard deviation of 38.04395. It suggested that the amount of cash flow obtained from the company's total debt was 22.1572.

Measurement Model (Outer Model)

The relationship of each research variable indicator with other variables using the validity test and reliability test can be seen in Figure 3.

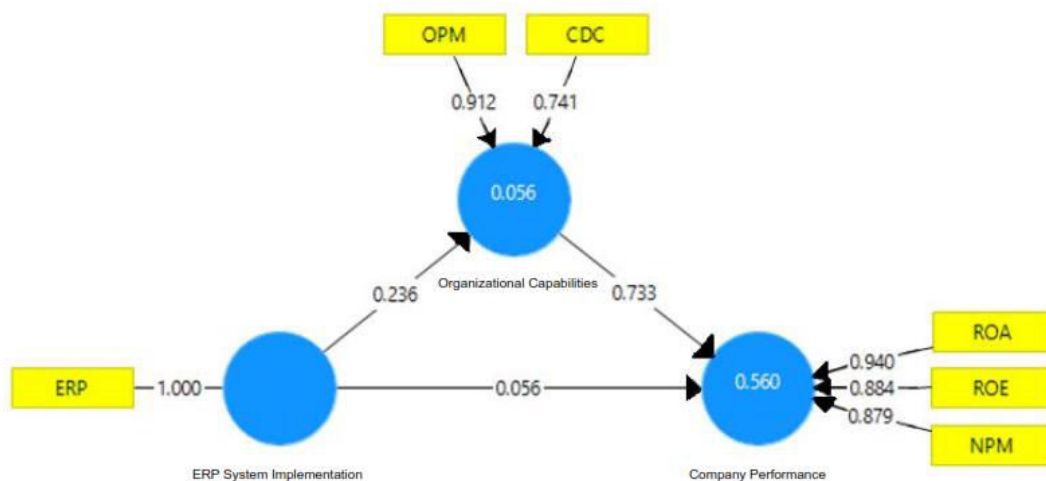


Figure 3 Outer Model Indicator

Validity

The convergence validity test results based on Table 2 show that the three variables in this study, namely ERP systems, company performance, and organizational capabilities, had an AVE value higher than 0.50. It indicated that the convergence validity test results showed that the model in this study was adequate. In other words, the three variables in this research model could explain each indicator, or the bias represented each indicator.

Table 2 Results of Convergence Validity

	Average Variance Extracted (AVE)
ERP System Implementation	1.000
Company Performance	0.813
Organizational Capabilities	0.690

Discriminant validity in this study used two criteria: Fornell Larcker and Cross Loading criteria. Fornell Larcker criterion by assessing the square root AVE of each latent variable must be greater than the correlation with other latent variables. Meanwhile, the Cross Loading criteria are expected indicator's loading higher than the respective cross-loading.

Table 3 Results of Discriminant Validity (Fornell Larcker)

	ERP System Implementation	Company Performance	Organizational Capabilities
ERP System Implementation	1.000		
Company Performance	0.813	0.901	
Organizational Capabilities	0.690	0.747	0.831

Based on Table 3, the discriminant validity test results showed that each variable (ERP System, Company Performance, and Organizational Capabilities) had a square root value of AVE higher than the correlation with other variables. It could be said that the discriminant validity in this study was quite good. Meanwhile, the test results in Table 4 with the Cross loading criteria revealed that each indicator's loading value was greater than the cross-loading. Thus, it could be interpreted that all indicators in this study were valid.

Table 4 Results of Discriminant Validity (Cross Loadings)

	ERP System Implementation	Company Performance	Organizational Capabilities
ERP	1.000	0.229	0.236
ROA	0.226	0.940	0.679
ROE	0.189	0.884	0.515
NPM	0.202	0.879	0.773
OPM	0.231	0.743	0.912
CDC	0.150	0.451	0.741

Table 5 Results of Outer Weight

	ERP System Implementation	Company Performance	Organizational Capabilities
ERP	1.000		
ROA		0.384	
ROE		0.292	
NPM		0.434	
OPM			0.733
CDC			0.448

The outer weight value displayed each indicator's weight to see the level of the most dominant influence of the indicator on the latent variable. From Table 5, the ERP system implementation variable (X) had only one indicator, so that the highest outer weight value was ERP with a value of 1. Furthermore, the highest outer weight value on the company performance variable (Y) was NPM with a value of 0.434, and the highest outer weight value on the variable organizational capabilities (Z) was OPM with a value of 0.733.

Table 6 Results of Outer VIF Values

	VIF
CDC	1.191
ERP	1.000
NPM	1.976
OPM	1.191
ROA	4.942
ROE	3.917

The outer VIF value test was carried out to see if there was a strong relationship between variables in a model with the provisions of the VIF value <10. Based on Table 6, it can be seen that all variables got a value <10; this indicated that all variables had a strong relationship between variables.

Structural Model Measurement (Inner Model)

The coefficient of determination (R Square) is the overall measurement of the structural model. The inner model's main criterion is the coefficient of determination representing the number of variants described by each of the latent dependent variables. The value of R Square on the company performance variable was 0.560.

Table 7 Result of the Coefficient of Determination

	R Square	R Square Adjusted
Company Performance	0.560	0.559
Organizational Capabilities	0.056	0.054

From Table 7, it implied that the combined effect of the ERP system variables with the organizational capabilities variables with two indicators, namely OPM and CDC, jointly affected 56%. Meanwhile, the R Square value on the variable organizational capabilities was 0.056. It denoted that the influence of the ERP system variables affected 5.6%.

Table 8 Result of the Path Coefficient

	ERP System Implementation	Company Performance	Organizational Capabilities
ERP System Implementation		0.056	0.236
Company Performance			
Organizational Capabilities		0.733	

The path coefficient test was conducted to see the relationship between constructs in the PLS research model. Based on the test in Table 8, it was known that the effect of the ERP system on company performance had a weak effect because the value was closer to 0, but the effect was positive. The effect of ERP systems on organizational capabilities was also weak with positive effects. Meanwhile, the effect of organizational capabilities on company performance was quite strong in a positive direction because the value was close to 1.

Table 9 Results of Inner VIF Values

	ERP System Implementation	Company Performance	Organizational Capabilities
ERP System Implementation		1.059	1.000
Company Performance			
Organizational Capabilities		1.059	

The inner multicollinearity test was performed to see if there was a strong relationship between variables in a model with the VIF value provisions <10. Based on Table 9, it can be seen that all variables got a value <10; this suggested that all variables had a strong relationship between variables.

Hypothesis Testing and Discussion

Hypotheses testing results of this study is shown in Table 10.

Table 10 Hypothesis Testing Results

Hypothesis	Symbol	Original Sample (O)	T Statistics (O/STDEV)	P Values	Decision
ERP System Implementation → Company Performance	H1(+)	0.056	2.730	0.007	Supported
ERP System Implementation → Organizational Capabilities	H2(+)	0.236	6.884	0.000	Supported
Organizational Capabilities → Company Performance	H3(+)	0.733	18.237	0.000	Supported
ERP System Implementation → Organizational Capabilities → Company Performance	H4(+)	0.173	6.305	0.000	Supported as mediating

The influence of ERP system implementation on company performance

The hypothesis testing results showed that the ERP system had a positive and significant effect on company performance. It reinforces that implementing an ERP system for the company could increase its profitability and efficiency and maximize profits from the company's assets, investments, and resources related to the implementation of the ERP system. These findings then confirm the RBV theory that an organization's competitive advantage is determined by the organization's primary resources.

Barney (1991) explains that the RBV theory views the company as a collection of company resources and strengths. RBV theory focuses on a firm's ability or capability to maintain a combination of resources that competitors cannot have or be built in the same way. Ince et al. (2013) illustrated that the successful implementation of ERP systems in companies provides benefits in planning and decision making and can improve the company's financial performance. The findings in this study also support the study's findings by Hunton et al. (2003), which showed positive and significant results on financial performance by comparing the performance of companies that adopted ERP with those that did not. Similar results were obtained by Daoud and Triki (2013) that ERP affected the increase in Tunisia's company performance. In line with Park and Park (2015), the results revealed that ERP implementation could help manage company resources to increase large profits. Thus, implementing ERP is vital for improving company performance, especially in manufacturing companies, where their business activities process raw materials into finished goods. The complexity of business activities in manufacturing companies requires a system that integrates one department to another, such as an ERP system (Ma, Nassehi, & Snider, 2019).

The influence of ERP system implementation on organizational capabilities

The hypothesis testing results revealed that the ERP system positively and significantly affected organizational capabilities. It confirms that the companies in the research sample implemented ERP systems positively impacted an integrated system, which influenced increasing organizational capabilities.

These findings confirm the cybernetic theory, which reveals that if an organization adapts and survives in its environment, decision-makers need to receive feedback from performance indicators; there is insufficient time to notice unexpected deviations, it is necessary to take appropriate action and observe system response of the Vancouver system (1996). Consistent with this theory, ERP systems provide a means for organizations to capture, process, and provide broad direction for performance indicators in real-time conditions (Markus and Robey, 1998). Thus, successful implementation of an ERP system can improve organizational capabilities, including access to information, product variety, financial flexibility, and improve company performance.

The findings in this study also verify the findings of Shang and Seddon's (2002) research, showing that ERP systems had benefits for achieving organizational strategic,

management, operational, and IT infrastructure goals. Similar results were obtained by Masini and Van Wassenhove (2009) that the ERP system significantly impacted increasing organizational capabilities. Thus, successful implementation of an ERP system could improve organizational capabilities, including information access, product variety, and financial flexibility.

The influence of organizational capabilities on company performance

The results of hypothesis testing disclosed that organizational capabilities had a positive and significant effect on company performance. These findings confirm Barney's (1991) opinion, which states that organizational resources and capabilities are key factors for sustainable and competitive advantage. The findings in this study also corroborate the findings of Zehir and Acar's (2006) research that the increase in organizational capabilities positively impacted the company's financial performance. Similar results were also found by Cruz-Ros and Gonzalez-Cruz (2015) that organizational capabilities significantly affected company performance. Thus, increasing organizational capabilities through the correct use of information technology could improve company performance.

The influence of ERP system implementation on company performance mediated by organizational capabilities

The hypothesis testing results indicated that the ERP system positively and significantly affected company performance mediated by organizational capabilities. It confirms that implementing an ERP system has been proven to increase organizational capabilities by increasing company profitability and efficiency. Utilizing information technology collaboration integrated with the organizational capabilities and utilization of company resources has succeeded in improving its performance.

The findings in this study also support the research results of Suhendra et al. (2019), which uncovered that the implementation of the ERP system made the information system integrated so that it allowed the company to be more efficient, which would therefore affect the company's capability in maximizing company resources utilization, and in turn, could improve company performance.

Conclusion

Implementing the company's ERP system can solve the company's problems by providing accurate, timely information and integration between departments in corporate decision making. Thus, the organizational capabilities in utilizing its resources impact increasing operational and financial capabilities, thereby increasing the company's profitability and making the company's performance better.

This research's theoretical contribution is to use the Combining Resource-Based View theory approach and the Organizational Capabilities theory approach by meeting the

criteria for valuable resources, rare resources, imperfectly imitable resources, and non-substitutability (VRIN) to improve company performance. Besides, Cybernetic Theory is a theory to see the implementation and evaluation, where the implementation of the ERP system provides an effective choice for managers in developing organizational capabilities to improve company performance. Furthermore, the contribution to the practitioners by implementing ERP systems can provide effective choices for management in developing organizational capabilities so that they can overcome problems faced by the company by providing accurate, timely information and integration between departments in corporate decision making. Thus, the organizational capabilities in utilizing its resources impact increasing operational and financial capabilities, thereby increasing the company's profitability and making the company's performance better.

This study's limitation is that it was challenging to find organizational capabilities measures, such as marketing capability and process improvement. This study only used one intervening variable so that the information obtained from the results was still limited. The suggestions that researchers can give for further research are finding appropriate organizational capabilities measures so that the information on the company's achievements from implementing the ERP system can be more diverse. Adding other intervening variables deemed to affect the relationship between ERP system implementation on company performance, such as corporate governance and business strategy, can be carried out so that the results obtained are more comprehensive.

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