
Analysis of Implementation and Cloud Based ERP Implementation (Case Study of PT. Hologram Indonesia Kreatif)

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Abstract

The development of increasingly sophisticated technology enables companies to take advantage of these technologies to compete by increasing the efficiency and effectiveness of the company. One technology that can improve this is ERP, which now consists of on premise and cloud based. One company that uses cloud based ERP named Apptivo, is PT. Hologram Indonesia Kreatif, where they aim to improve the performance of the sales marketing department, as well as finance. However, in its implementation, there are several obstacles. Using qualitative methods namely study cases and data collection with in-depth interviews, the authors found that there are three factors that play a role in these constraints, namely characteristics of individuals, characteristics of organizations and, characteristics of technology. In order to maximize the use of Apptivo, it can be suggested for companies that PT. Hologram Indonesia Kreatif can conduct training both in terms of business process or technical. In addition, companies can do roleplaying to familiarize users with Apptivo, as well as create a user guide or a kind of manual, for old or new users to read.

Keywords: ERP, ERP Implementation, ERP Evaluation, ERP Performance, IT

I. INTRODUCTION

The development of technology in this digital era is growing faster. This of course affects us indirectly, in our daily use of technology. The development of technology also turns out to have a good impact, such as making work easier due to the relatively faster exchange of information, so that the work becomes more effective and efficient.

One of the technological developments that has been quite impacted is information technology. The development of increasingly sophisticated technology makes companies no longer only focus on providing products and services, but can take advantage of these technologies to compete by increasing the efficiency and effectiveness of the company (Ifinedo, 2007). An example of using this technology is by applying an information system in accordance with company needs (Utami et al., 2016).

One of the uses of information systems that can be applied to companies is to use Enterprise Resource Planning or often referred to as ERP (Utami et al., 2016). ERP is a structured information system that can be integrated with various departments in a company, from procurement to marketing and this data can be accessed in real-time. (Ali & Miller, 2017)

In the implementation itself, there are two types of ERP that can be adopted by companies. Namely On-Premise ERP or commonly called Offline ERP, and Cloud-Based ERP (Elango, 2017). Offline ERP itself is an ERP information system that is integrated and run offline using a server provided by the company (Elango, 2017). Meanwhile, Cloud-Based ERP is cloud computing ERP that can be accessed by users via a website using the internet, by offering advantages such as flexibility and agility (Surendro & Olivia, 2016)

The choice of this type of ERP, of course, must be adjusted to the needs and capabilities of the type of company. For small and medium-sized companies, Cloud-Based ERP is a pretty good choice when compared to Offline ERP. This is because the types of small and medium companies have limitations on capital and skills in their human resources (Elango, 2017). The choice of Cloud-Based ERP is certainly quite beneficial for small and medium-sized companies, supported by previous research which explains that Cloud-Based ERP has relatively cheaper investment, operation and maintenance costs when compared to Offline ERP (Elango, 2017). In addition, Cloud-Based ERP is better at technical support, implementation relatively faster, and can be accessed from anywhere as long as it is connected by the internet.

One of the small and medium companies that uses Cloud Based ERP is PT. Hologram Indonesia Kreatif, a creative technology agency located in Tangerang. They have been using Cloud Based ERP since early 2020. Emphasizing the optimization of the Sales and Finance

department, PT. Hologram Indonesia Kreatif uses Cloud Based ERP Apptivo, which focuses on business management, specifically customer relationship management.

The use of Apptivo is due to problems, namely the absence of integration between the sales and finance departments, so that the arrangement is not neat and there is no clear flow. The purpose of using the system is to improve the work efficiency of employees of the department. However, it turns out that this utilization can only help solve the problems faced by the company, as much as eighty percent, and only about forty-three percent can use Apptivo well.

The use of this information system certainly has the aim of improving performance by providing data and information accurately, increasing efficiency, and reducing performance errors in the company (Abugabah et al., 2015). However, in reality, sometimes it does not match the company's expectations, which results in reduced effectiveness of using the system (Abugabah et al., 2015)

This of course can be detrimental to the company because it is not consistent with the original purpose of using ERP which can improve company performance, but at the time of implementation the users do not maximize the system so that the expected results are not maximized (Wicaksono et al., 2015) and the users back to using the manual method.

II. LITERATURE REVIEW

a. Information System

There are several definitions of information systems, namely:

According to O'Brien's opinion quoted from the journal (Wijaya & Damayanti, 2011) information systems are an integration of several things, namely hardware, software, human resources, communication networks, and data that has been collected, then converted into information. . The information system itself has three main roles, namely as a support for business processes and applications, a support for decision makers in the management section, and a support for strategy making that increases competitive advantage.

According to Hall's opinion, which is quoted again from the journal (Wijaya & Damayanti, 2011), an information system is a neat and formal flow of procedures, where data is collected, processed into information and distributed to users.

Further opinion from Whiten et al (2001), says that:

An information system is an arrangement consisting of people, data, processes, information exposure, and information technology. It is then used to support problem solving, and take decisions required by management and users.

Based on the above opinions, it can be concluded that the Information System is a combination of various aspects that can process data into information, which can then be used to help users solve problems and management to make decisions.

b. Enterprise Resource Planning

Enterprise Resource Planning, or commonly abbreviated as ERP, is an important system that can be used for business process planning, information movement, and managing company resources such as finances, materials, equipment, and labor. If the implementation of ERP is successful, it can provide benefits for the company in the scope of planning & decision making, and can improve the performance of a company. (Kurniawati et al., 2015) ERP itself consists of two types, namely On Premise ERP or commonly referred to as Offline ERP, and Cloud Based ERP.

On Premise / Offline Enterprise Resource Planning is an ERP system that is used and used offline in a company. All the software is loaded on the computer and maintenance is also carried out in the company. Maintenance as a whole is also the responsibility of the company that implements it. (Elango, 2017). On Premise ERP itself has several advantages such as implementation which is relatively less time consuming, does not depend on the internet so that it can be accessed by computers at any time. Despite its advantages, On Premise ERP also has several drawbacks, such as high initial investment costs, complicated maintenance, and inaccessibility outside of the office network. (Elango, 2017)

Cloud Based Enterprise Resource Planning is an ERP information system that combines a website-based Service Oriented Architecture and can be accessed via the Internet. Characteristics on- demand-service offered by Cloud Based ERP, making it more flexible, and efficient. (Surendro & Olivia, 2016). Cloud Based ERP has its own advantages, namely investment and operational costs which are relatively more efficient when compared to On Premise ERP and can be accessed remotely from a website via the Internet. (Elango, 2017). However, Cloud Based ERP has its own drawbacks such as storage insecurity on cloud computing, customization limits, and reliance on the internet. (Elango, 2017)

c. Performance

There are several definitions of performance, namely:

According to the opinion of Kurniawan, Lubis, and Adam quoted from the journal (Wicaksono et al., 2015), performance is the level of success of an employee for his responsibility in achieving the vision and mission of a company. There are several factors that

can affect an employee's performance, such as motivation, abilities and skills, education, knowledge, experience, physical and emotional conditions, as well as other basic human needs both from a biological, social, or egoistic side.

Meanwhile, according to Murti and Srimulyani (2013) quoted from the journal (Wicaksono et al., 2015), performance is the final result of what employees have done from how much the employee contributes to the company, and the ability of an employee to complete tasks and responsibilities. According to him, there are several factors that affect the performance of an employee. This is an ability that consists of intelligence and knowledge, as well as motivation that is formed through work situations so as to move these employees to achieve the company's vision and mission.

From the two things above, it can be concluded that performance is the end result of the efforts made by employees to achieve the company's vision and mission and is driven by several factors such as ability, expertise, and motivation.

III. METHODOLOGY

In this study, the authors used a qualitative paradigm by conducting in-depth interviews with employees of PT. Hologram Indonesia Kreatif with a case study research approach. A case study research design is a study in which it aims to explore a problem to provide in-depth understanding. This type of approach is used to answer questions of complex social problems, especially those that require in-depth explanations.

1. The qualitative research design that will be carried out contains the following stages:
2. Stage description (Grand Tour Question):
3. Stage reduction / focus
4. Selection stage

In this study, the sampling technique used was non-probability and by using purposive sampling. The use of purposive sampling is used because this study refers to users of the Apptivo software.

IV. RESULT AND DISCUSSION

a. Problems before using Cloud Based ERP

Based on the author's observations and validated by interviewing the CEO of PT. Hologram Indonesia Kreatif, there are several problems that occurred before using Apptivo as a support for work, especially in the sales & marketing department, as well as the finance

department. This is of course because the two departments intersect with each other, if there is a project.

b. Cloud Based ERP Selection – Apptivo

Based on the results of an interview with the CEO who is the decision maker for Apptivo use, this selection is based on two things. Namely the technical and financial side. According to Daniel, the selection of Apptivo uses a user-based subscription system and this is deemed appropriate by him because the number of users who use Apptivo at the company is not so many and it is easy to adjust according to the business processes run by the company.

c. Apptivo Usage

The use of Apptivo, which has been used for almost a year, can certainly help work in the sales & marketing and finance departments. Work becomes more concise and reduces duplicate data, and the use of Apptivo makes work more scheduled and neatly organized, so that the work can be completed as targeted.

d. Implementation and Usage Problems

Based on the results of interviews with informants about Apptivo, there are problems during implementation, namely on the technical side such as changes according to business processes and even though it looks easy during training, using Apptivo is quite difficult for a while.

e. Implementation Success Factors

The factors that can certainly affect the success or failure of implementing and using Apptivo are the human factors, more precisely in the apprehension of employees on the use of Apptivo. If the employee's apprehension is good enough, then the work flow will be more organized and can be monitored properly. Other than that, the factors that can influence the success or failure of implementing and using Apptivo are technical, which is its application and how to use it daily.

f. Apptivo Usage and Implementation Improvement

According to the interviewee, what can be improved from implementing Apptivo is creating a user guide so that those who are not familiar with the application can understand it well. In contrast to other interviewees, what can be improved is to simplify the system (in this case the user interface and user experience) so that it is simpler and does not seem complicated.

V. CONCLUSIONS

Based on the research results, it can be concluded that there are two opinions from each decision maker and user.

The conclusions from the opinion and the results of the discussion with the decision maker are as follows:

1. The reasons for using Apptivo at PT. Hologram Indonesia Kreatif is to tidy up and streamline business processes in interconnected departments, namely sales and finance. Especially in making quotations and invoices.
2. The reason for the decision maker to choose Apptivo to support the activities of PT. Hologram Indonesia Kreatif is because the decision maker considers the price and the ease of changing or customizing the Apptivo itself.
3. That Apptivo has solved 80% of the problems in the sales and finance department of PT. Creative Indonesian Hologram.
4. Whereas the problem when implementing Apptivo is precisely the technical side, not the manpower or the user.

The conclusions from the opinions and results of discussions with users are as follows:

1. Users have been using technology since they were young, but there is a difference between the two interviews regarding the perceptiveness of technology use. This is due to interview number 3 who first worked using a technology that has similarities like Apptivo.
2. According to users, using Apptivo is quite helpful and makes work easier. Although there were difficulties at first, in the end they were able to use the Apptivo system. Using Apptivo is enough to help the work of two informants, who previously worked on tasks manually. Now, according to users, work has become more scheduled and structured and the work is no longer manual and more concise.
3. Although using Apptivo is quite helpful, it turns out that there are problems when using it, namely difficulties when operating it. What's interesting about this study, interview number three has no problems at all, even though the ages between interview number two and number three are only one year apart. Back to point number one, the fluency of interview technology number three is more advanced because it has used a similar system before using Apptivo.

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4. According to the user, several factors that play a role in the successful implementation of Apptivo consist of two sides, namely organizational characteristics, namely training support, and individual characteristics, namely the capture power of the employees themselves.

Based on the results of this study, the authors suggest some recommendations that can be made by PT. Creative Indonesian Hologram. These recommendations are suggested based on the results of interviews with users, as well as literature studies.

1. Conduct training on the business processes carried out by PT. Hologram Indonesia Kreatif to provide digesters to users about the workflow from the sales & marketing division, to finance.
2. Conduct training on Apptivo, starting from the function of each menu to the workings of each menu. This can be done to make users memorize and understand the functions of the menus found on Apptivo.
3. Do roleplaying using Apptivo, for users to get used to using Apptivo. This of course can increase the level of habituation of using Apptivo, so that users can maximize its use.
4. Create a user guide or manual book about Apptivo. This is so that if users start to forget how Apptivo works, or if there are new employees working at Hologram Indonesia, they can use the user guide.

Due to limited time and place, for further research, the authors recommend:

1. Using several companies to get more insight, not only from one company.
2. Combine qualitative and quantitative methods so that results are stronger.
3. Adding the number of respondents to get a more significant answer
4. Relate the relationship between economic, social, and educational backgrounds with technology capture and ERP implementation

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