Web-Based Enterprise Resource Planning (ERP) Systems Implementation Analysis at PT. Anugrah Jasa Caterindo

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Abstract

ERP systems is an information technology that is designed to integrate and automate all business processes and business functions of a company. This study is aimed at knowing the analysis of ERP implementation by using Qualitative Case Study Research in a catering industry company. The data used in this study is primary and secondary data. For assessing the performance of ERP systems condition, the study used descriptive case study. Descriptive analysis is used to gather or to collect in-depth information on ERP systems implemented by PT AJC. It can be concluded that there have been different opinions and responses on ERP systems performance in this company. The ERP systems has much supported and facilitated the operational activities of PT AJC but ERP systems has not been fully implemented by PT AJC. It is mainly implemented for its operational activities and purposes. As a matter of fact, the implementation of ERP systems for operational activities by PT AJC is considered good, due to the availability of the three basic elements of the system, namely: physical component, human resources, organization, or industry processes.

Keywords: ERP systems, Catering and Service Company, Case Study Analysis.
I. Preliminary

The progress of integrated information technology has contributed a lot to the business development nowadays. All business processes in an organization have been much supported and facilitated by the fast progress of the information technology. According to Sukoharsono (2012), due to the need for time and cost efficiency, businessmen feel it necessary to apply information technology in their working environment. The use of the IT has brought about changes on the way the staff work. With the technology, quality of every business process is getting more and more measurable.

Enterprise systems are crucial for any kind of organizations nowadays. Due to the great number of projects scattered in different and far locations, it is almost impossible for the company to accomplish all operational activities with manual system. The company needs an information system that is able to help achieve the company’s goals and solve any problem and manage the company’s operational activities which are not effective and efficient yet. That is ERP systems, one of the available software applications which includes the management system of a company. It is applied by this company for its entire activities starting from the planning up to the monitoring. (Sukoharsono 2012).

ERP system is definitely needed by large companies which want to survive and be more successful and competitive in this globalization era. In fact, it does cost a lot of money to apply or to implement the system in the company. Adjustment to the new systems and frequent discussions with the employees of the systems should be seriously considered. All of these efforts will be very fruitful when the systems can be run well and be able to improve the company’s performance to be more efficient and effective. As stated by Alballaa and Al-Mudimigh, 2011 that ERP systems offers enormous benefits to organizations, such as: time efficiency, improved productivity and quality management, cost reduction and decision making speed.

Previous researches have usually focused more on: change management strategies, factors supporting the success of ERP and the implementation technique at the large-scale companies or industries. While in this research, I report findings from the field-research on ERP system in a company. I analyzes problems encountered by users of the ERP system, understands the task of the system of every Division in order to support improvement on the system implementation,
effectiveness and efficiency of the operational activities. Problems found are the indiscipline attitude of the employees doing the data entry and data update for the company’s reports, errors during the operating of data input and still some other.

PT. Anugrah Jasa Caterindo (AJC) a service providing company, provides catering services for projects such as; oil and gas, shipping companies, and factories. Business activity of PT. AJC is contract-based project of which duration usually ranges from 1 – 2 years. The company should be able to plan and to manage well its project. In project management, the company should carefully and well consider the scope of works, cost, and duration. Punctuality in completing a project, accurate cost estimation and kinds of services provided, should meet the customers’ expectation. This will be the key of success of a PT AJC project management.

Most of the projects of this catering and associated services company are usually located on remote areas, offshore and onshore. The locations or sites of these project areas, the company’s Branch Offices and Main Offices are quite a distance from one to another. Considering particularly the locations or sites of the projects, and those Offices, PT. AJC needs an integrated systems which can provide direct information on all operational activities for the management. For that purpose and also for achieving the company’s vision, namely to present superb service which is measurable and consistent, PT. AJC has built an integrated web-based Enterprise Resource Planning (ERP) systems which can support the following process.

From explanation above, the research question of this research is how does PT. Anugrah Jasa Caterindo implement Enterprise Resource Planning (ERP) systems. The aim of this research is to explore mainly the integration among divisions in ERP systems implementation at PT. Anugrah Jasa Caterindo.

II. Research Methods

Method used in this research is Case Study. A medium large-scale industry already implemented the ERP systems is selected as location of the research. This ERP systems has already been applied in the different sites of PT AJC projects since 2011. The systems is used to manage all operational activities, starting from processing the working contract, purchasing, maintaining the abundant and complex raw materials.
There are quite a number of researches relating to the ERP systems especially focused on its technical implementation. Whereas the aim of this research is to investigate the problems occur during the operation of the ERP systems. The informants for this research were taken come from different Divisions in the company. They consisted of operational employees, middle and top management. Although having their respective roles in the company, these informants or respondents do need the systems to produce accurate data and to accomplish the operational activities of the company.

The interviews were conducted at office, via phone and internet chatting usually after office hours. The semi-structured interviews were started with the introduction on the purpose of the interviews and the research, and followed by a series of questions already prepared by the researcher. Data analysis was done by transcribing the result of the interviews which could be used as supporting evidence. To keep the confidentiality of the company as the research object, the researcher does not describe the system of the company in detail.

After all result of interviews together with the additional documents obtained from the case study were transcribed, the researcher analyzed the content of the documents and transcribed interviews. Quotations of the transcription of the interviews are presented. These quotations represent the opinions, perceptions and experiences of other employees on the success and fail factors and specific problems during the implementation of the systems. Therefore, the quotations are essential for the readers to get an insight or a concept on the phenomenon.

III. DISCUSSION AND RESULT

3. Analysis of ERP Systems at PT AJC

The analysis process began with the creation of a classification structure derived from the observations made during the interview process and from an initial analysis of the transcripts. A researcher then classified the entire interview material at a detailed level to identify ERP implementation of PT AJC.
3.1 Company Profile

PT. AJC does its business in catering and associated services. The company provides the services to projects located whether in remote area, offshore or everywhere else throughout Indonesia. Based on its respective need and demand, each project is served either with single or full service operation. The operational projects of AJC are among others in West Papua, Nusa Tenggara, South Sumatra, East Kalimantan, South Kalimantan, and Java. The company has two main offices, one is located in Jakarta, the country’s capital. This office employs 13 people; and the other in Balikpapan, East Kalimantan employs 17 people. Meanwhile the operational projects of PT. AJC which are located in different site employ around 750 people.

The company’s major business is catering in which it serves meals, snack & refreshment in between the meals, and maintains function room for comfortable dining. In order to ensure healthy, nutritious and superb daily meals, the company constructs its own kitchen on each site.

In 2004, PT. AJC obtained certification Quality Management System ISO 9001:2008, and certification on Food Safety Management System (HACCP) that is assessed by Mutu certification (MALQS). HACCP System is registered at Komite Akreditasi Nasional or the National Accreditation Committee, known as KAN, and in the BMTRADA Certification – UKAS for ISO 9001:2008. With these certifications, the company provides the highest and most professional standard in quality and undertakes only the best efforts to render its professionalism in services.

Business reports in any company, are documents prepared to inform about performance, achievement, strategies of the business and etc. Among the most important business reports are operational reports, which are used to see the company’s operational performance, its achievement in key performance indicators, and to determine business plan that suit the company’s mission statement. Other important reports are business plan and mission statements which provide direction for the company and benchmarks for management and employees. I want to study the operational system applied by PT. AJC and the way it works for preparing the operational reports. The system applied is Service Management System, the product of
Enterprise Resource Planning (ERP). The systems presently applied by the company is the development of the original ERP.

3.2 Description of ERP in PT. AJC

PT. AJC as a matter of fact, has long been implementing the information technology. However, the implementation of this technology still limits to data processing as not all functions within the company have been integrated. The decision making by managers was previously based on reports manually and not integratedly organized or recorded. It did take much time to organize or record such reports and then delivered them to the managers concerned. These processes might have delayed corrective responses by those managers. Furthermore, due to the above – mentioned explanation, the operational management control might not be able to give a real – time management situation or condition. Decision making is a crucial part and should be based on profound analysis. In order to be able to give responsive but efficient services to the customers, data accuracy must be absolute requirement.

Today, ERP should be able to facilitate PT. AJC produce accurate and on-time reports which may bring about effective, efficient and responsive policy. In the future, ERP is expected to be able to help the company improve its competitiveness in catering industry. PT AJC has been implementing ERP since 2011. The company has selected one of ERP products called ‘Service Management System’. Basically, this Service Management System developed by PT. STI has a module that can be implemented either in stages (Incremental Installation) or all at once with simultaneous conversion on all systems. This Service Management System can be classified according to their logical relationship.

The implementation strategy chosen by PT AJC is the phased implementation strategies; because, since the beginning of its development then its implementation, PT AJC has gradually applied the ERP systems for its business processes and kept the previous information systems in function. By doing this, the company may feel secured or safe while carrying-out its business activities. Moreover, applying phased strategy does not risk much.

The chosing of phased implementation strategy has always been intensively evaluated and discussed by the Director, Management and Consultant of the systems. Cost analysis, profit,
advantages, disadvantages and usefulness of the strategies have always become references. The company always try to give the best way to run the ERP systems.

The purpose of this ERP systems is to help manage business processes such as marketing, HR, logistics, warehouse, and purchasing and IT in an integrated whole. The implementation of ERP systems requires advance preparation process and changes on the available or on-going business processes. These changes mean to firstly analyze the business processes before the implementation of the system. Effective and efficient data sharing among functional areas will lead to an efficient business process. This allows an assessment of the current adjustment process with the one caused by the ERP systems.

The ERP combination implementation strategy taken by PT AJC is based on the prudence of the company and Board of Directors and also for the sake of both the company and the customers’ benefits. The most important thing is that the company’s operational activities can be run smoothly. PT AJC puts more emphasis or gives more priority on its service products.

Regarding the implementation of this ERP systems, not all users or employees can use it appropriately. This is due to the lack of good communication among users, frequent data overload and troublesome internet networks. Thus, it does need a lot of improvement.

### 3.3 Benefit of ERP System

The system applied has given positive impacts to every operational activity of the company. All reports from several different units in the organization could be compiled very quickly, and fairly easily, since there were no separate systems for data collection with only one ERP, he said:

“That’s right. The system is very helpful because it has perfectly integrated all data; so, I just read all the coming-in data quickly, timely, and accurate then see what can we do next.”

The Director also described that he had the highest level of authority to audit, see, review and delete data already kept in the system as stated in the following:

“I have got the highest authority to see, read, audit, review and delete the data that has been input in the system.”
The Director also emphasized that ERP systems could help formulate the company’s strategy and the decision making process. He said:

“Technically, the IT Division will answer the question for you. They know well about this. I can say that the system has helped me in formulating the company’s strategy, target of achievement and decision making.”

The Director pointed out that ERP had created transparency and it was easy to control all the business units and activities at one time. The system applied has given positive impacts to every operational activity of the company. All reports from several different units in the organization could be compiled very quickly, and fairly easily, since there were no separate systems for data collection with only one ERP.

ERP at PT AJC has given positive impacts to the company especially the ones relating to the operational management. Benefit felt by each user is different from one to another; however one thing for sure is that after implementing ERP, related parties within the company. ERP becomes a useful and helpful tool for the management to formulate strategies and to determine decision in order to achieve the company’s goal.

3.4 Person in charge of ERP system

As the ERP system is a crucial information system of the company, the researcher was eager to know every component and aspect in the implementation of the system at PT AJC. For that purpose, the researcher interviewed the IT Administrator, the one in charge of the ERP system. Name of the IT Administrator PT AJC is Mr. Iryanto Setiadi with experience working in PT AJC for 7 years.

This ERP systems is web-based. This product applied by PT AJC is a ready-use product built by PT STI, and especially designed for a company dealing with catering industrial business. As I have already explained in the previous chapter(s), there are some physical components that construct this web-based ERP systems. This is as IT Administrator said:

“It is called web-based because as far as I know the ERP systems bought by the company is a ready-use product. It has already been web-based. I
don’t really know if the systems is based on the request of the company or it is an already-built product of the vendor. A web-based or directly copy to the desktop, we just use/operate the already-provided systems”

The authority in operating the system is based on the employees’ functions and positions within the structure of the company. The level of authority is inversely proportional with the hierarchy-shape structure of the company. This means that the smaller the space within the structure of the organization, the more or the bigger authority one has in operating the data.

IT admin said:

“However, in operating the system, each of them has his/her own personal authority which is different from one to another. The operating authority is based on level of position in organizational structure. Authority level is inversely with organizational structure in the form of hierarchy, this means that the smaller organizational structure chart is the greater of authority in the operation of the data”

PT AJC has managed the ERP system well. The company has IT Administrator responsible for the technical matters of the ERP system. This IT Administrator understands the system very well and in detail. The responsibility on the ERP given to the IT Administrator has shown that PT AJC really wants to maximize the performance of ERP system. The becoming better and better the ERP system and the less and less technical problems occur, will definitely help performance of the employees applying the system.

3.5 The Operating of ERP System

The steps of operating the ERP system of PT AJC starting from the beginning, as stated by the General Manager and Logistic Manager as follow:

” log-in first, enter username and password, you are in there and do the data entry.”

The organizing of the ERP system by PT AJC is as it is expected by the users. The Managers explained that they found it quite easy to operate the system. The comfort felt by the users while operating the system was that the company had already provided trainings on ERP
for all users of ERP in the company. However, technical failure during the ERP implementation had frequently occurred, with this reason they still needed some additional trainings especially intended for the new staff.

“In my opinion, ‘yes’; it is easily operated and accommodate all data of the company; and the company has already provided some trainings for the purpose.”

“For those who have already got the training, it is indeed easy to operate it; however, concerning the new staff .. they should take the training first and adjust themselves to the system.”

ERP systems can be accessed throughout the company, starting from the Head Offices, Branch Offices, up to the projects’ sites. Another thing that can facilitate the course of the company's operations is the system can also be accessed outside the office as long as there is adequate internet network. In such a condition, the employees can enter data from everywhere, when they are tasked to work outside the office or at the project sites. The data entered can be immediately used whenever needed.

In addition, based on the interviews, everyone knows that it is easy to operate the ERP systems at PT. AJC, since all ranks of staff, managers, and direct or shave got training on the ERP systems. This is proven with the opinion of each user that has already been explained before. However, the new employees who have not got any training becomes an obstacle and makes the operating of the system difficult. Therefore, periodical training especially for the new employees is extremely needed to make performance between Departments run smoothly.

3.6 ERP Implementation Level at PT AJC

This analysis is aimed at knowing the extent of the implementation process and the level of its success in supporting the operational activities of the company. In this analysis the researcher has measured the success of ERP systems by using 3 (three) indicators, namely: knowledge on ERP, ease of operating ERP systems and level of integrity. The following is a description of the 3 (three) indicators indicating the success of ERP systems at PT AJC.
Knowledge of ERP

To get full benefits, the system should be accepted and widely socialized throughout the company. For the purpose, there should be frequent discussions on the system with all employees. Such discussions will encourage all employees understanding on the system and make them know exactly what business process can be improved with the system.

Knowledge on ERP is the basic requirement which should be met by the employees of PT AJC especially the individuals and Departments working with the system. They should understand the way to operate the system and its benefits. Their understanding is supported by the training already conducted to make them more confident and skillful in using the system. The result of the interviews have shown that all informants know and understand the definition of ERP as quoted from the following interview.

“ERP is Enterprise Resource Planning. This is a system or an application which connects one and another so that it facilitates me do the planning and monitoring.” (Director of PT AJC)

“ERP systems that connects one Division and the others to facilitate them to get data; as a General Manager, it will be easy for me to do the monitoring” (GA PT AJC)

Concerning the trainings, all respondents have agreed that the trainings have been useful and given them a clearer understanding on the system and its benefits. Moreover during the trainings, they have had opportunities to ask and get the answer on things that they did not understand before. With the trainings, staff of PT AJC especially those ERP users are able to operate the system well and in a right and orderly way as stated by the informants as follows:

“The office has provided some trainings that sufficiently give new knowledge on ERP . . . but if the office will provide some other training for us, it will be no problem. However, to hold a training will cost a lot of money. The training is indeed necessary especially for the new staff.” (Business Development)

Based on the interviews by the researcher, it can be concluded that all informants or ERP users have got a general knowledge on ERP. This is a basic requirement for the informants or ERP users in order to operate the system well. ERP systems is actually on easy to use. Sufficient
education and training are important to improve knowledge and skill of the employees/users and to successfully to accomplish the system.

b. Ease to Operate The System

Another indicator to measure the success of ERP is ease to operate ERP systems. This indicator is taken with consideration that if a system can be easily applied or used, its users will feel comfortable and it will also minimize errors. Thus, data needed will always be accurate and the functions of monitoring and planning supported by the system will run smoothly. The more smoothly the 2 (two) functions run, the better the existing data and Departments are integrated. Here are the result of the interview and opinions of some informants when asked about the ease in operating ERP:

“We have been using the system some years and it has been running well. We just log-in and the data we need can be accessed, surely in accordance with our individual authority.” (Director)

“It’s easy, log-in first, enter username and password then input the data to be entered. Each employee is responsible for the data he has input. Thus, everyone has his own responsibility.” (General Manager)

From the interview above, we note that to make basic entries which means to log-in and to access the system can be done easily, but when a complicated entry is needed, challenges arise immediately. In addition to ease in operating the ERP systems, there are obstacles, such as: error while inputting the data and the slow internet connection. However, the employees have been able to overcome the obstacles. If the obstacles remain unsolved, the IT Administrator will give his hand to help solve and overcome the obstacles. So far, the obstacles did not really obstruct the flow of the company’s operation. Any obstacle so far could be settled and overcome with the assistance of the IT Administrator. Here is the result of the interview:

“The obstacle of which impact is serious and which rarely occurs is error in inputting data by the user. If this does happen and is not promptly overcome, it will obstruct the flow of the company’s operation. Fortunately, such an error could have been promptly and well overcome.” (Director)
“Regarding the obstacles, the most frequent is data overload, inconvenience of internet connection and the users themselves. Data overload is generally caused by the excessively input of data by the users. The inconvenience of internet connection is usually caused by the sudden electricity failure. It is good that we have our own generator set to quickly overcome the problem. From the users’ side, they may forget or mistype their password and do some error while inputting the data. They may have many things to think about and as a result they do the error” (IT Administrator)

From the result of the interviews described before, concerning the ease in operating ERP systems and also based on the informants’ opinion, it can be concluded that it is easy to operate ERP. However, there are indeed obstacles encountered while operating the system, such as: mistakes done by the users, internet connection and data overload. With the assistance of the IT Administrator, the obstacles can be overcome and will not obstruct the company’s operational activities.

In short, there are indeed massive challenges in using an ERP systems. It is known that people who input data into the system have a key role in the usability of the ERP system for business operation purposes. Making the entries in ERP under high pressure may lead to human error or incorrect entries. These incorrect entries may create frustration among the employees. It is known that in some situation because of the slow-down of internet connection, it is not possible to make correct entries in the ERP. In addition, a real challenge which consumed a great deal of time and resources is correcting incorrect entries. Most of the employees usually have the (basic) skills in making entries, but no skills in rectifying mistakes. When the source of mistakes is untraceable, it will be more difficult to correct the incorrect entries. So, because the various functions in the company are interdependent, all mistakes and errors during the entering process have to be corrected quickly or it will obstruct the whole work. To correct the incorrect entries, as stated before, is time consuming and frustrating. In practice, there should be a person with the required knowledge to correct those daily errors.

c. Level of Integration

Data integration is an indicator of the level of success of ERP in the future. This indicator is selected because one of the goals of using ERP systems is to integrate all data of the company. Integration means to be able to accommodate all needs in a single database so that it is easy for
the Department and top Management to obtain any information needed. This database keep real-time data and employees can access the data in accordance to their respective authorities. The information is data that is trustworthy, that can be easily accessed and disseminated.

By doing this, employees can easily input and access the data. ERP is an integrated system that can collect or compile data into one or a single database. This database accommodates all activities of the company. The followings are opinions of informants concerning the integrity of data, applying ERP:

“The system facilitates everything because all data have been well integrated. I just see whatever data coming-in and decide what should be done. I have also the highest authority to audit, see, review and delete the existing data within the ERP.” (Director)

“It is fun using ERP, I think. All employees can access data they need because the data are available and integrated in the system.” (General Manager)

Referring to the quoted interviews having been described before, it can be concluded that data available in the ERP have been well integrated. So, all employees can more easily access the data. With the integration of data and the available data, ERP can help the management make better decisions that may lead to the improvement of the company’s operational activities.

In other word, ERP systems can integrate quite a number of processes in a more efficient, effective, accurate, correct and prompt way, and data becomes visible across the organization. The implementation of ERP systems by PT AJC has made the Divisions well integrated. This greatly saves time and costs since coordination between divisions can be done through the web-based ERP systems.

From the 3 (three) indicators described before, it can be concluded that ERP systems at PT AJC has been well implemented though there are problems. All informants have understood the definition and benefits of ERP. Regarding on how to operate ERP systems, all informants have agreed that it is easy to operate the ERP. On the level of integration, the informants are of the opinion that ERP is very helpful in integrating the available data and Departments at PT AJC.

In addition to its problems, the ERP systems has its benefits and superiorities, such as integrating business processes, time and costs saving because it is online-operated, helping the director to formulate the company’s strategy, setting-up achievement targets, facilitating decision
making, assisting all staff, managers and improving the effectiveness and efficiency in the operations of PT. AJC.

The application of system and information technology for business processes, according to Sukoharsono (2008:33), will result real economic value for a company. So, he has suggested that managers and business companies invest their money on the technology. It is assumed that the decision for establishing and developing an information system can afford bigger added value than investment in the forms of buildings, machinery, or the other assets. In order to be able to stay in business, companies are required to have investment in the form of information system.

IV. Conclusion and Suggestion

4.1 Conclusion

In such a company and considering the far distance of the operational sites, operational report is no less crucial than financial report. Operational report is even more crucial than any other reports. So, the company should always pay attention to their operational activities and continue to evaluate, improve effectiveness and efficiency of their operational activities. ERP system has not been fully implemented yet by PT AJC. It is mainly implemented for its operational activities and purposes.

The implementation of ERP system for operational activities by PT AJC is considered good, due to the availability of the three basic elements of the system, namely: physical component, human resources, organization, or industry processes. Moreover the resources at the sites, Branch Offices and Head Office carrying-out the daily tasks by implementing the systems, are quite professional and dedicated.

Based on the observation of ERP systems at PT AJC, the system has been well implemented which can be seen from the 3 indicators namely knowledge on ERP, ease to operate the ERP systems and level of integration. All informants have understood the definition and benefits of ERP, and have agreed that it is easy to operate the ERP. The informants are of the opinion that ERP is very helpful in integrating the available data and Divisions at PT AJC. During the observation on the application of ERP systems, the researcher found quite a number
of problems. However, the company has consistently and continuously seek the best way to overcome those problems.

4.2 Suggestion

1) For PT. AJC: to always enrich the knowledge and skills of the team controlling the system, the staff and managers concerned is also recommended; to provide more server for data keeping and to remove unnecessary data from the server or the company can also make a backup for the data to avoid data overload; hoped that the company provides modem to the office or remote area; the company could give individual coaching program to make the employees understand the importance of communication among them in order to minimize miscommunication; PT AJC can fully implement the system for all its operational activities up to reporting, and gradually then completely leave manual way of reporting.

2) For other industry: start with good planning and clear objective; search and select vendor who offers appropriate modules according to the company’s need and condition; discuss the ERP systems with all parties (managers and staff) within the company in order to make them ready and prepared with the changes in their work practices.

3) Regarding future researches, it is suggested that researchers will develop or expand scope of their research. In addition, it is hoped that there will be more researches on ERP systems. There will be other researches, for example ERP implementation for the work flow on Logistic Department.

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