

Implementation of E-CRM (Electronic Customer Relationship Management) using the ERP Concept in Case Studies of Conventional Weaving Fabric Companies

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ABSTRACT

The increasing of internet use in Indonesia has a quite significant value of 143.26 million in 2019. This value has an impact on the business venture in running their business. Most business enterprises in Indonesia have implemented information technology in their business processes, where the benefits of applying information technology to the business ventures can be used as a free promotional media by utilizing existing social media. Of course, with the use of information technology, it will increase business competition that is quite tight, where companies that do not implement technology will find it difficult to compete. One example of companies that have not yet implemented information technology in their business processes is the XYZ Weaving Company in Bali, Indonesia. XYZ Weaving Company is a conventional company which produces and sells ikat, batik, airbrush and songket cloth. The problem of this company is the lack of buyer interest in buying the products they offer, so the solution provided is to implement E-CRM using the Odoo application in the Conventional Woven Fabric Company case study. System testing is done by using the USE Questionnaire to calculate the user usability level, and it is expected that by implementing E-CRM using this Odoo application, it will increase sales from the XYZ Fabric Weaving company.

KEYWORDS: E-CRM, Marketing and Sales, Odoo, ERP, Information Technology

INTRODUCTION

Economic growth in Indonesia in 2019 experienced a significant increase of 5.07 percent (YoY). This economic growth has a greater value compared to 2018, the value of economic growth in Indonesia in 2019 is the highest value in the last five years [1]. This increase is influenced by the use of information technology in a business field. Indonesia ranked fifth in the number of internet use, which is 143.26 million in 2019. Of course, the use of the internet is already common for Indonesian people to help entrepreneurs selling their wares [2].

The advantages gained in applying information technology to business ventures are: it helps in making sales transactions, it makes a company easier to make financial statements, it can be used as a free promotional medium, etc [3]. With the current technological advances, companies in Indonesia are required to use information technology in the company's business processes. One strategy to increase sales is using information systems in sales management [4].

One of the use of information technology to business ventures in Indonesia is the use of information systems in batik businesses in Bengkulu, Indonesia. This information

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system is used to market products to customers using a web-based information system. Another application of information technology is in the waste bank business Bantul, Indonesia. The implementation is carried out by creating an information system to help the process of recording and managing various forms of transactions from products offered by the waste bank [5]. Another application is the implementation of ERP (Enterprise Resource Planning) at a Pharmacy in Padang, Indonesia. ERP implementation is done by using the Odoo application by analyzing the old processes of the company [6].

One of the success of the application of information technology is by implementing ERP in the company's business processes, it will help companies manage sales well. If the company can manage sales well, customers will respond well to the company. ERP (Enterprise Resource Planning) is a concept for planning and managing company resources, so that work becomes more efficient and provides maximum benefits for all stakeholders of the company [7].

One company that has not yet implemented information technology in their business processes is the XYZ Weaving Company in Bali, Indonesia. XYZ Weaving Company is a

conventional company which produces and sells ikat, batik, airbrush and songket cloth. XYZ Weaving Company encountered an obstacle that was the lack of customers who want to buy products from the XYZ Weaving company. So, the solution given was to implement E-CRM by using the Odoo application in the Conventional Woven Fabric Company case study. It is hoped that implementing ERP with the Odoo application will help XYZ Weaving companies in increasing revenue, productivity and visibility in business.

RELATED WORKS

Research conducted by Herry Irawan, Irwan Syah entitled Evaluation of Implementation of Enterprise Resource Planning Information System with DeLone and McLean Model Approach, discusses the testing of ERP systems (Enterprise Resource Planning) at PT. Telkom Indonesia Tbk, which in this study, they use the DeLone and McLean Model Approach [8].

Research conducted by Natalia Limantara, Fredy Jingga entitled Open Source ERP: ODOO Implementation at Micro Small Medium Enterprises, uses qualitative methods and conducts surveys and interviews directly on SMEs. The results obtained from this study are the implementation of ERP Odoo in the production and purchasing modules [9].

Research conducted by Yolanda Trinoverly entitled Analyzing the Benefits of ERP Implementation in Developing Country: A State Owned Company Case Study, shows the analysis carried out in this study has the aim of knowing how successful the use of ERP is in a company [10].

RESEARCH METHOD

The research methodology entitled "Implementation of E-CRM by Using Odoo Applications in the Conventional Weaving Fabric Business" can be seen in Fig 1.

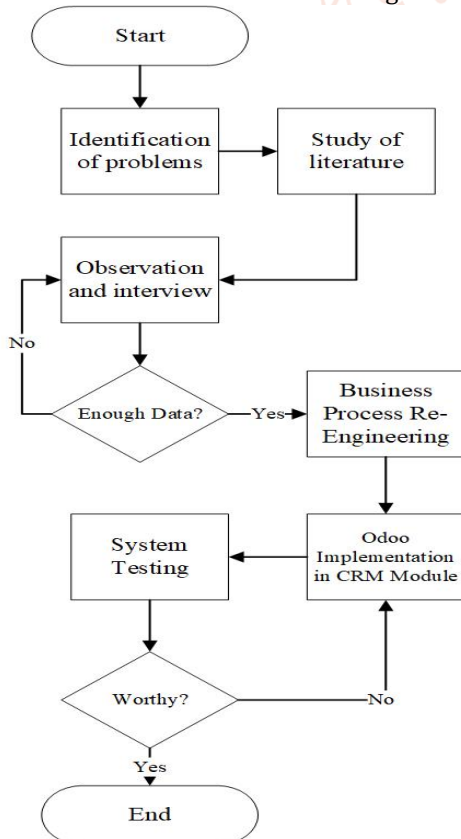


Fig1. Research methodology

Fig1. is a flow of research methodology that has 6 processes, namely problems identification used to determine the problem to be analyzed again, then conduct a literature study to find the right solution by finding solutions from reliable sources such as books and journals related to ERP implementation, then conduct observations and interviews directly to the company that will be used as a case study, then conduct a business process re-engineering to improve the company's business processes, and proceed with ERP implementation using the Odoo application in the marketing and sales modules, and CRM, then the last process is testing the system to check whether the implementation is feasible to be used by the company or not.

THEORETICAL FRAMEWORK

Literature studies that is used as a reference in implementing E-CRM using the Odoo application with a case study of Conventional Weaving Fabric companies are as follows.

1. ERP (Enterprise Resource Planning)

The Enterprise Resource Planning (ERP) system is a core software program used by companies to integrate and coordinate information in each business area [7].

2. CRM (Customer Relationship Management)

CRM is a strategy that companies need to optimize profits by increasing customer satisfaction. It also showed empirical evidence that companies that effectively implement CRM, as a business strategy, are likely to become market leaders [11].

3. Odoo

Odoo or previously is called OpenERP is an ERP application that has a modern and complete design that is distributed by open source. This ERP application has various business application programs including Sales, CRM, Project Management, Warehouse Management, Manufacturing, Finance and Accounting, Human Resources, and so on [11].

4. USE Questionnaire

Usability measurement is done by using a series of questionnaires that can process data related to effectiveness, efficiency, and satisfaction in the use of an information system. The USE Questionnaire (Usefulness, Satisfaction, and Ease of Use) is a method of measuring usability using a questionnaire package proposed by Lund [12].

RESULT AND DISCUSSION

Analysis conducted on the implementation of E-CRM by using the Odoo application in the XYZ Conventional Woven Fabric Company case study is by conducting a business process re-engineering which can be seen in the SOP as follows.

1. Business Process Re-Engineering

The business process re-engineering carried out in the E-CRM implementation research using the Odoo application with a Conventional Weaving Fabric Company case study are as follows.

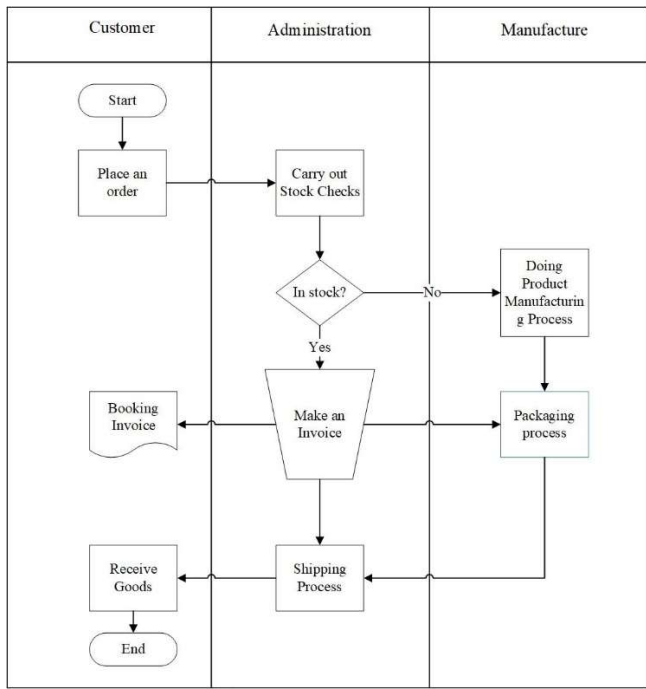


Fig2. Research methodology

Fig 2. is a display of ordering products SOP at the company before the business process re-engineering applied. The ordering products was done conventionally, means that the customer makes an order directly to the company then the administration will check the product in the warehouse, if the stock is still available then the administration will be directly make an invoice and immediately send the product according to the order, and if the stock is not available then the administration will immediately contact the manufacturing department to make the product and when the product is finished, it will be sent directly to the customer.

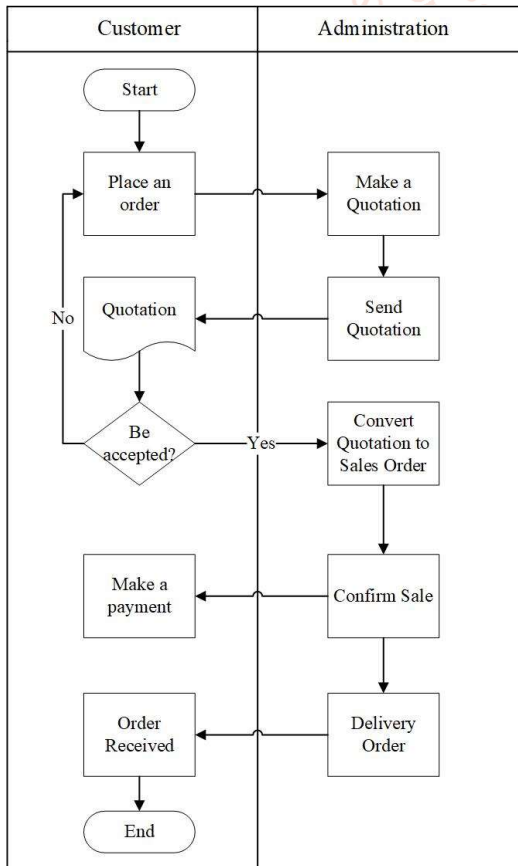


Fig3. SOP for Ordering After Implementation

Figure 3. is a display of SOP for ordering products after the SOP improvements, where to place an order, the customers will get a quotation after they make a product order. If the customer approves the quotation that is made, then the quotation will automatically be converted into a sales order, then the administration will carry out a confirmation sale process and the customer will make a product order payment. If the product has been paid, the administration will immediately process the delivery order.

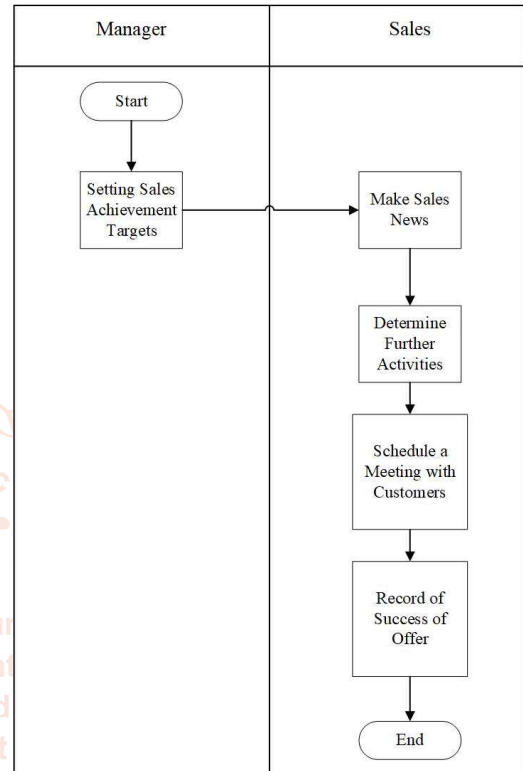


Fig4. CRM SOP After Implementation

Figure 4. is a CRM SOP after ERP implementation using the Odoo application, where the company manager will set sales achievement targets and then the sales will make an official report containing customer data, products sold, estimated product sales prices, and estimated successful sales, then the sales will also schedule meetings with customers to discuss the offers sent, and the sales will also record the success of offers received by customers.

2. Application Results

The results of the application after the business process re-engineering in implementing ERP using the Odoo application in the marketing and Sales module is conducted are as follows.

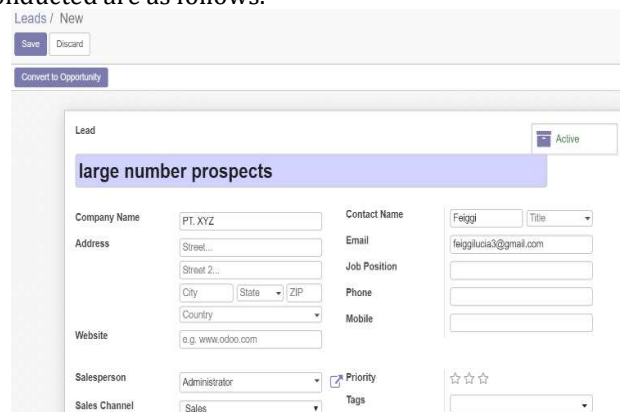


Fig5. Leads Making

Fig 5. is leads making on the CRM submodule in the Odoo application, where the function of making leads is to make a planning target that will be carried out by the sales department with the customer.

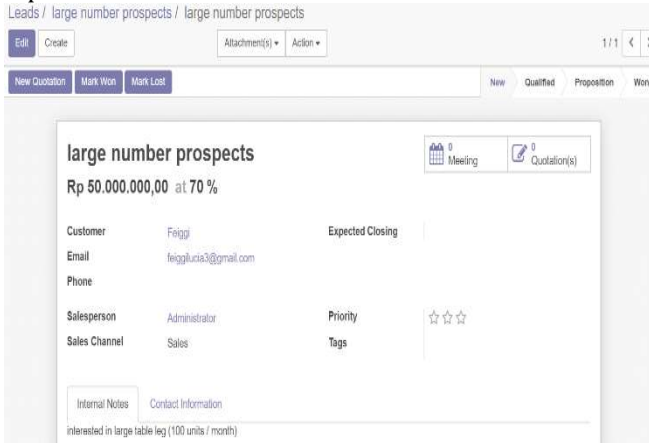


Fig6. Achievement Targets Making

Fig 6. is the making of achievement targets in the CRM submodule by using the Odoo application, which has a function to create the sales achievement targets.

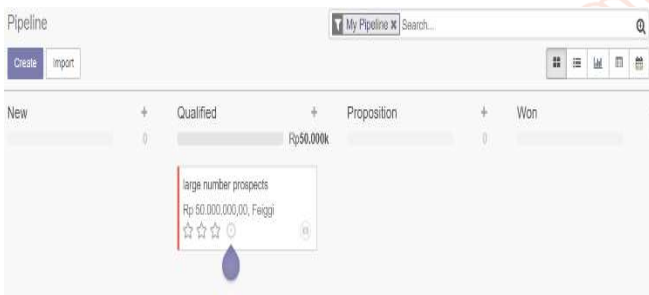


Fig7. Pipeline

Fig 7. is a display of the pipeline of the CRM submodule in the Odoo application, which has a function to display a form of activities to be carried out next by the sales department.

3. System Testing

System testing carried out in the analysis of the implementation of E-CRM using the Odoo application with a case study of a Conventional Weaving Fabric company is using the USE Questionnaire method. System testing in this study was carried out by distributing questionnaires to 10 XYZ Conventional Weaving Fabric Company employees consisting of 5 Sales employees and 5 Administration employees. The formula used to calculate the results of the questionnaire are:

$$Usability = \frac{sum}{count \times Likert\ scale} \times 100$$

Information: Sum = the total number of respondents in the questionnaire
 Count = (number of respondents x number of statements)
 Likert scale = the highest Likert score

So, for the calculation of the usability level on the parameters of usefulness, easy of use, easy of learning, and satisfaction, can be seen below:

$$Usefulness = \frac{235}{(10 \times 8)5} \times 100 = 58,7$$

$$Easy\ of\ Use = \frac{400}{(10 \times 11)5} \times 100 = 72,73$$

$$Easy\ of\ Learning = \frac{150}{(10 \times 4)5} \times 100 = 75$$

$$Satisfaction = \frac{300}{(10 \times 7)5} \times 100 = 85,71$$

Calculation of the usability level of each parameter; the usefulness parameter has a value of 58.7 which is declared as quite feasible; then, the easy of use parameter has a value of 72.73 which is declared as feasible; then, the easy of learning parameter has a value of 75 which is declared as feasible; and satisfaction parameter has a value of 85.71 which is declared as very feasible.

CONCLUSION

The conclusion of the study entitled "Implementation of E-CRM Using ERP Concepts in Conventional Weaving Fabric Companies" is XYZ Weaving Company has problems in selling products that do not reach the target so that the implementation of E-CRM using the Odoo application is used. The steps undertaken are conducting business processes re-engineering, then immediately implementing it into the Odoo application. The results of system testing were carried out using the USE Questionnaire which was declared very feasible with a value of 85.71.

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