SYSTEM INFORMATION OF CUSTOMER RELATIONSHIP MANAGEMENT (CASE STUDI IN PT. KENCANA BERLIAN MAKMUR)

Mochamad Rizal Iskandar

Universitas Komputer Indonesia (UNIKOM)
Jl. Dipati Ukur No. 112-116, Bandung 40132
Email : if10105066@yahoo.co.id

ABSTRACT

Large and powerful companies always build strong relationships with their customers, one by applying the concept of customer relationship management in business strategy. Customers are a valuable asset for any company. Therefore, companies try to maintain customer loyalty due to the existence of loyal customers will have an impact on the sustainability of their purchases of a product and services in a particular company and willingness to recommend products and services to other parties. These advantages make the company to design and build a business strategy that can create customer loyalty through a product or service offered, but at present the company is still less known customers in more detail.

Companies need an information system that can manage the relationship with the customer and apply the concept of customer relationship management that can be utilized in the customer care center at the corporate department.

Application of the concept of CRM in the company's business activities are expected to increase the number of customers in dealing with ways to apply the concept of CRM in the information system is built.

Keywords: Information system, Customer Relationship Management (CRM).

1. INTRODUCTION

1.1 Background

Current technological developments will be consistent with the development of information technology that drives the changes in the various sciences, either in studies or implementation in the field. The role of information technology is needed by the company - a company in Indonesia, not only big companies but small companies also need information technology to advance the company and to offset the increasingly tight competition. An application in the application of information technology related to databases of information systems have great benefits for mankind, among others to facilitate the process of data storage company that so much data can be organized so well by people who manage them within the company.

Companies large and powerful always build strong relationships with customers, one by applying the concept of customer relationship management in business strategy. Customers are a valuable asset for any company. Therefore, companies try to maintain customer loyalty due to the existence of loyal customers will have an impact on the sustainability of their purchases of a product and services in a particular company and willingness to recommend products and services to other parties. These advantages make the company to design and build a business strategy that can create customer loyalty through a product or service offered, but at present the company is still less known customers in more detail.

PT. Kencana Kencana Makmur want vehicle maintenance activities continue to be customers are continuously on the dealers PT. Kencana Berlian Makmur where every customer bought the vehicle. Therefore, companies need an information system that can manage the relationship with the customer and apply the concept of customer relationship management that can be utilized in the customer care center at the corporate department. At this time, the activities carried out at a department customer care center to manage data and provide information to customers felt less effective by the company due to lack of support from a good information system in its implementation activities.

1.2 Identification of Problems

Based on the background of the problem noted earlier, the authors identify the problems in the following questions:

1. Company customers less familiar with the details cause the company's customer dissatisfaction.
2. Dissatisfaction in the number of customer companies in the transaction due to the lack of an efficient information delivery to customers.
3. Management of data related to each other's customers are not integrated and provide information to customers less effective result in slow and less accurate management information produced.

1.3 Objectives

The intent and purpose of the writing of this final task is as follows: Based on the issues that will be examined, then the purpose of writing this final task is to apply the concept of customer relationship management in developing information systems on customer service activities at PT. Diamonds Kencana Makmur.

Objectives to be achieved in the writing of this final task are:

1) apply the concept of CRM in the company's business activities.
2) increase the number of customers in dealing with ways to apply the concept of CRM in the information system is built.
3) integrate the system with other systems to manage data more effectively so that they can contribute in terms of a comprehensive data collection.

2. MODEL, ANALISYS, DESIGN SYSTEM AND IMPLEMENTATION

2.1 Model

Data analysis techniques in the making modeling software using software with waterfall paradigm as shown in Figure 1.1, which includes several processes including:

a. System Engineering
System engineering is part of the largest system in progress of a project, start by setting the various needs of all the elements necessary to allocate into the system and software creation.System Analysis

b. System Analysis
System analysis is the stage of analyzing the things needed in the implementation of software manufacturing projects.System Design

c. System Design
System design is the translation phase of the analyzed data into a form that is easily understood by the user.System Coding

d. Coding System
Coding system is the data translation step or solving problems that have been designed keadalam particular programming language.System Testing

e. System Testing
System testing is the testing phase of software that was builtSystem Maintenance

f. System Maintenance
System maintenance is the final step in which a software may have already completed the changes or additions as requested by the user.

2.2 Analysis

2.2.1 System Analysis

Systems analysis is a decomposition of an information system into its component parts in order to identify and evaluate the problems, opportunities, barriers that occur and needs can be expected that the proposed repairs, repair.

B. Problem Analysis

PT. Diamonds Kencana Makmur as companies engaged in the sale of a vehicle, motorcycle spare parts and vehicle maintenance. The company has business processes that are dependent on the level of customer satisfaction and customer confidence in the services and products provided to customers. Business activities conducted within the company has not fully use good information systems for data management that are closely related to customer satisfaction. The data in the company's systems can not be used and can be useful for the company due to lack of data on the connection work with each other. In this case, the data is to be connected to the enterprise system is the customer care center department, technical service and marketing department to department employees aimed at customer care center at the department know the process of data transactions that occur on the technical service department and marketing department. This company requires an information system customer relationship management (CRM) that can manage customer data is a vehicle purchase transaction data and transaction processing services are integrated in the vehicle which occurs as reference data for the handling of customer complaints on these activities.

2.2.3 Concept Analysis CRM implementation stage

Relatonship customer management concepts applied to the business processes of PT. Diamonds Kencana Makmur, the implementation has 3 (three) stages performed, among others:

A. Acquire

Acquire (obtain / acquire) is the customer acquisition phase. At this stage the company doing business strategies by providing a good impression to customers against the company by providing the best service to the company's customers are interested to do business with the company.

In addition, the company acquires new customers by giving them the form of promotional brochures to customers that come to deal and assess the company's service by filling out the questionnaire provided by the employee to customer care questionnaire pelanggan.Contoh given as shown below.



BERLIAN PASTEUR – DEALER YANG MENGERTI ANDA

No Undian : Tanggal : _____

Data Pribadi		**Data Motor**	
Nama	:	No. Polisi	:
Alamat	:	Tahun	:
No. Telepon	:	Pernah Service Disini	:Ya / Tidak
Tanggal Lahir	:	Service ke	:

1. Apakah *Counter Service* menyambut dan menyapa anda dengan ramah?
2. Apakah *Counter S'Part* memberikan estimasi harga service motor anda?
3. Apakah Kepala Mekanik menanyakan kondisi motor anda pada saat pendaftaran?
4. Apakah Fasilitas ruang tunggu (TV, Majalah/ Koran, Sofa, Internet dan lain-lain) membuat anda nyaman?

(Nama dan tandan tangan)

* Mesukan form ini ke dalam kotak saran, karena setiap akhir bulan akan ada hadiah menarik.

B,Enhance

Enhance is a process in which companies build good relationships with customers. This business strategy by the company by listening to complaints, provides solutions that resolution of complaints by customers advanced, accepting suggestions from customers using questionnaires given to customers when transactions and use the phone so that customers can provide parts of a complaint or suggestion. In addition, companies applying alternating cross and up selling campaigns by providing information to customers in order to transact with more quantity of the company.

a. Retain

Retain a stage where companies try to maintain relationships with customers, in other words to get customers and then maintain contact with them. In this stage the company retain customers by always providing the best service company owned primarily on the services offered. In addition to the company to use technology such as using the system to be built in the form of information by send short message service.

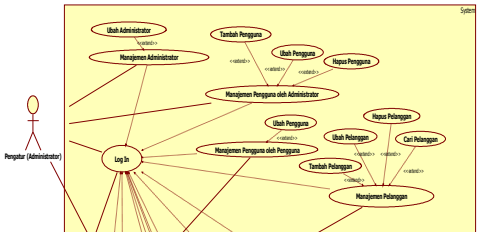
2.2.4 Functional Requirements Analysis

2.2.4.1 Usecase Diagram*, Scenario, *Activity Diagram*, *Sequence Diagram

A model should focus on the needs of visible without a problem or business domain and written as a relatively high level. Use-case modeling is a modeling system from the perspective of the end user's view (end user). Use-case model is the view from outside the system, while the design model is the view from the inside. Model use cases capture the system uses, while the design model represents the development of the system.

Use case diagram of an information system customer relationship management for all actors can be seen in the figure

I.1.



2.2.5.1 Design Interface

Describe the interface design of a plan view of each form that will be used to display actual information systems. The design of the interface in information systems customer relationship management (CRM) can be seen in the figure I.4.

Figure I.4 Display F02

Figure I.1 Use case diagram of all the actors

2.2.6 Implementation

2.2.6.1 Support Device

The software is installed on a computer system used to build this system are as follows:

1. Operation System Windows XP SP2
2. MySQL for database storage.
3. Netbeans 6.5 for writing program code.
4. JDK 1.6 and JRE 6 to run the program.

2.2.6.2 Perangkat Keras

Perangkat keras yang digunakan untuk mengimplementasikan sistem adalah sebagai berikut :

a. Processor Pentium IV dengan kecepatan 2.8 GHz.
b. RAM dengan kapasitas 256 MB.
c. Harddisk berkapasitas 20 GB.
d. Lan Card.
e. Monitor berukuran 14".
f. Keyboard.
g. Mouse.

2.2.4.2 Class Diagram

Class diagrams describe the structure (attributes / properties) of a system, as well as offering services to manipulate the situation (methods / functions). Class diagram of the CRM system can be seen in the figure 1.2

Figure I.2 Class Diagram

2.2.4.3 Scheme Relations

Relation scheme is a series of relationships between two or more tables in database systems. Figure III.80 an explanation of the database sequence information systems customer relationship management (CRM).

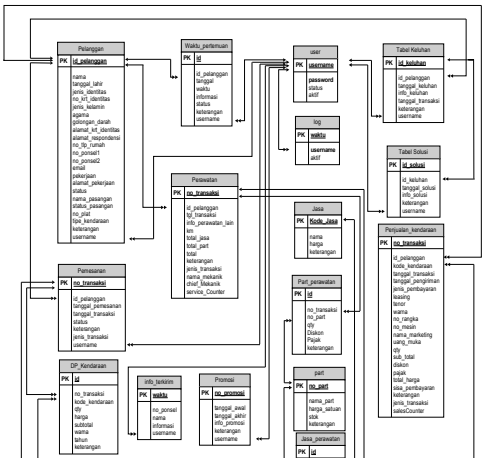


Figure I.2 Schemes in the database relations information systems customer relationship management (CRM).

2.2.6.2 Implementation Form

Implementation is to see every page that created the program. Here is the form that made implementation.

In admisitrator implementation like the following:

Table 1. Implementation of the administrator form

Menu	***Deskripsi***
Login	*To deal with the administrator login process.*
Menu Utama Administrator	*A preview of the administrator interface to go into the next process.*
Administrator	*Initial appearance to enter the administrator interface keTampilan interface for administrators to manage data, such as changing the administrator password. process.*
Pengguna	*Tampilan antarmuka untuk mengelola data pengguna, seperti menambah, mengubah data pengguna untuk hak akses pengguna dalam menggunakan sistem.*
Log	*Display interface for managing user data, such as add, modify user data for user access rights in using the system.*

Figure I.3 Menu structure

2.2.5 Design

2.2.5.1 Menu Structure

Login

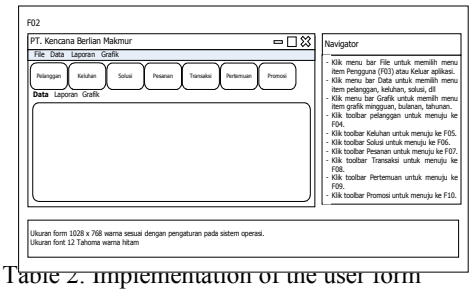


Table 2. Implementation of the user form

Menu	**Description**
Login	To handle the user login process.
Menu Utama Pengguna	A preview of the user interface for entry into the next process.
Pengguna	Display interface for managing user data, such as changing user passwords.
Log	Display interface to view log data.
Pelanggan	Display interface for managing customer data. Like add, change, delete or search for customer data.
Keluhan	Display interface for managing data from customer complaints. Like the complaint to add data, modify data complaints, grievances or delete data for complaint data.
Solusi	Display interface for managing data solutions based on the existing complaint. Like adding a solution, changing the solution, a solution or remove grievances solutions.
Pemesanan	Display interface for managing the order book data customers. Like add, change, delete or search for ordering data.
Detail Pemesanan	Interface to manage the details of data in the process of booking reservations. Like add, change, delete or search for data on vehicles or parts ordering.

Table 2. Implementation of the user form (continued)

Transaksi	Display interface to view transaction data processed outside the CRM system.
Waktu Pertemuan	Display interface for managing data when meeting with customers. As the meeting time data add, change, delete or search for a meeting time data.
Promosi	User interface to manage the promotion data, such as add, modify, delete, search for data or send promotional campaign data to the customer.
Laporan Pelanggan	Display interface to display customer data reports will be printed.
Laporan keluhan dan solusi	Default display for displaying data reporting complaints and solutions that will be printed.
Laporan Pemesanan	Default display for displaying data reports booking will be printed.
Laporan Waktu Pertemuan	Display interface to display data report that the meeting time will be printed.
Laporan Promosi	Display interface to display data report campaign.
Transaksi Per Minggu	Display interface to display graphs based on transaction data with time intervals per week.
Transaksi Per Bulan	Display interface to display graphs based on transaction data with time-per-month intervals.
Transaksi Per Tahun	Display interface to display graphs based on transaction data with time intervals per year.

3. RESULTS AND DISCUSSION

From the analysis and design has been done, the results of the application built one of them can look like the following view:

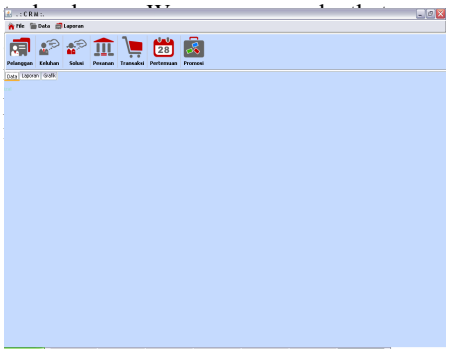


Figure I.5 Main Form

4. CONCLUSIONS AND RECOMMENDATIONS

4.1 Conclusion

After doing the analysis, design, and testing, then the conclusion can be obtained as follows:
1.This can help 1.Sistem business processes performed on the customer relationship activities.
2.Pengguna can send information directly to customers with reference data from other systems to be made upon delivery of information to customers.
3.Dengan of integrated systems, the company's customer service can more effectively manage the data in order to be useful information to customers.

4.2 Suggestions

In making system that has been made is still much that can be developed, such as: System has been built, can only be used by the user administration and customer satisfaction administrator or manager of an employee in the information

5. REFERENCES

[1]Bahrani, Ali. *Object Oriented System Development.* Irwin McGraw *Hill*, Singapore, 1999.

[2]Jogiyanto HM, Pengenalan Komputer. Andi Offset, Yoyakarta,1999.

[3]Roger S. Pressman, *Software Engineering, A Beginner's Guide*, McGraw - Hill, 1998.

[4]Zikmund G.William, McLeod JR Raymond, Gilbert W. Faye W. *Customer Relationship Management. Leyh Publishing, LLC. 2003.*

[5]http://id.wikipedia.org/wiki/UML diakses jam 22.00 18 Juni 2009

[6]Rosenberg, Doug, Stephens Matt. *Use Case Driven Object Modeling with UML* : *Theory and Practice*, New York ,2007.