

Design of Information Systems Customer Relationship Management to Improve Services Sales Approach System Development Life Cycle (SDLC)

Noer Layli Budianto Putri
Master Program of Technologi management
Field Of Information Technology Management
Graduate Program
Institut Teknologi Sepuluh Nopember Surabaya 2017

Abstract: Insurance is a necessity that is increasingly favored by the people of Indonesia, one of the newly established company but has more than two million customers, PT Axa Mandiri, which is one of the subsidiaries and joint PT Bank Mandiri Axa Group. PT Axa Mandiri has a problem in three levels, namely, operational, analytical and strategy. From an operational perspective, client and financial advisor to the difficulty in obtaining information on insurance policy especially for unit linked products. A higher level, in the analytical segment, area sales manager difficulty identifying the bank employee profile that helps to get customers to give reward programs in the absence of previous data due to area sales manager often rotational workplace. And strategic segmented, regional sales manager can not know the customer data that has great potential to be treated specifically so as not to close an insurance policy before maturity closure.

The purpose of this research is to know the design of Customer Relationship Management Information System to improve customer service with the System Development Life Cycle. Design feasibility analysis shows that the system has been designed according to user requirements so that the system design is feasible to be implemented in the Regional Sales. Besides the benefits of customer relationship management are viewed from three aspects, namely get customers, increase profits and retain customers is also approved by the regional sales manager, area sales manager, financial advisor and the client.

Keywords: *Customer Relationship Management, System Development Life Cycle (waterfall model)*

1. PRELIMINARY

The need for insurance is now more favored by the people of Indonesia, both by individuals and by institutions. According to the World Insurance Outlook 2013 in the Asia Pacific Region, Indonesia as a developing country occupying the emerging level of insurance which the insurance industry is fairly new and as a beginner but has great potential to grow. Indonesia, which is one of the most populous country has a high potential in the growth of the insurance, estimated average premium growth in 2013-2020 amounted to 23.2% (World Insurance Outlook, 2003). The impact that the insurance business players in Indonesia actively make an effort to attract people's interest in enhancing the development of the insurance company.

Offer insurance products to the Indonesian people carried out by one of them through Bancassurance. Bancassurance is a Life Insurance companies are cooperating with the company's banks to market insurance products to bank customers. One bancassurance are quite popular in Indonesia, namely PT Axa Mandiri. PT Axa Mandiri is one life insurance company that is widely known by the public until the country. The new company was established in 2003, is rapidly already has 2 million customers. One of the problems that occur in Axa Mandiri in terms of operational management there are two problems, namely from the customer and Financial Advisor (FA). Customers should contact customer care or customer comes to the bank branch Mandiri to obtain information and services regarding insurance policy customers. in terms of the FA, FA difficulty in knowing the information the customer insurance policy that is not customer production FA FA so the service provided to customers inadequate. At the level of analytical, Area Sales Manager (ASM) difficulty in providing programs reward is right for Lead Generator (LG) because each ASM has a placement order tasks which are rotated throughout the area of the bank spread in Indonesia, it is the primary problem of ASM not there are data to customers and employees of the bank earlier that can be explored and has the potential for opening a new policy by providing reward programs that fit the customer profile. With programs in accordance with the customer's profile, the possibility of closing a huge long shot, so that the program can be precisely targeted. Then at the strategic level Regional Sales Manager (RSM) has no concrete data is on clients from previous years that still has value and great potential. Regional sales and sales managers are difficulty in identifying the customers who should be given special treatment in order to remain loyal to the company. In some cases that is often experienced by many large clients shut down its policy due to lack of attention from the company to the customer. These cases often occur due to lack of information about clients who should be given special care in terms of the value of a great contribution to the company.

To help deal with the problems that occur in Axa Mandiri terms operational, analytical and strategic solutions that give the design created for Customer Relationship Management Information System to improve customer service with the System Development Life Cycle.

2. LITERATURE AND THEORETICAL

System Development Method

In designing the system development method used System Development Life Cycle method which consists of System Planning, System Analysis, Systems Design, Implementation, Testing System and Maintenance System. But in this study only to the system design. These stages are:

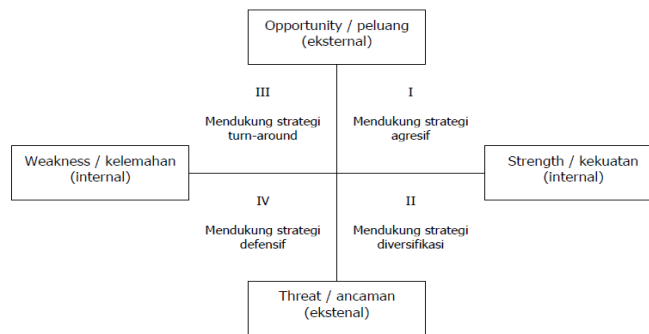
a. System Planning

The process of system planning aims to review planned projects system will be developed in the future, such as the stage, reviewing its objectives to making system, identifying projects System, created the target system, observing the constraints that occur when making system.

b. Analisis Sistem

Phase analysis is decomposers of a complete information system into its component parts with a view to identify and evaluate the problems, opportunities, barriers that occur and needs expected to be proposed the amendments.

This system analysis using SWOT analysis. SWOT analysis is to identify the various factors systematically to formulate the company's strategy. This analysis is based on the logic that maximizes strength (strength) and opportunities (opportunity), and can minimize your weaknesses (weakness) and threats (threat). SWOT analysis comparing the external factors opportunities and threats to internal factors strengths and weaknesses. Strategic decision making process is always associated with the development of the mission, goals, strategies and policies of the company. Thus strategic planners (strategic planner) should analyze the company's strategic factors (strengths, weaknesses, opportunities and threats) in the conditions that exist today. where to determine the condition of internal and external company then analyzed strengths and weaknesses. An overview of the strategy SWOT analysis can be seen in Figure 1.



Gambar 1. Analisis SWOT

c. Design Sistem

In designing customer relationship management information systems use several tools such as context diagrams, Data Flow Diagrams (DFD), Conceptual Data Model (CDM), Physical Data Model (PDM) and design interface.

RESEARCH METHOD

Data collection

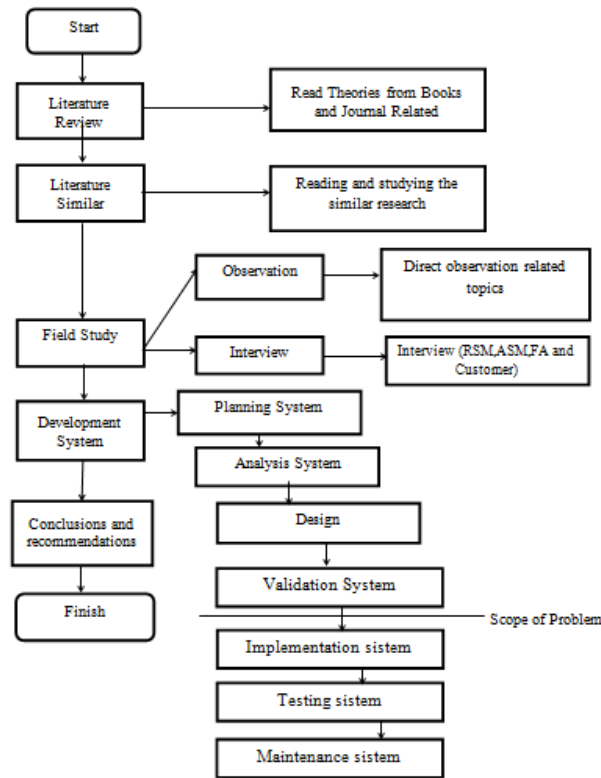
The data collected for this study were obtained through observation and interview stage. Interviews were conducted directly with related parties Financial Adviso, Area Sales Manager and Regional Sales Manager.

Observation

The observations were made by analyzing the flow of Financial Advisor Job deskription a major role in direct contact with customers. Observations made to observe the process of delivering the required customer information about the products owned by the customer directly by the Financial Advisor.

Interview

Interviews with Regional Sales Manager (RSM), Area Sales Manager (ASM), the IT division and Financial Advisor. From interviews obtained is some information regarding the state of the system is already running and several shortcomings that be need to be added, so that needs to be made in the new integrated system XYZ. From some of the questions posed to the IT division is possible for a system made in improving customer service and also to be integrated with existing systems.



Gambar 2. Research Method

ANALYSIS OF RESULTS

In developing this web-based application, using a structured approach to the stages in SDLC theory with the waterfall model.

1. Planning System

Planning system is the first step in modeling the system development life cycle. Planning system is to define the purpose and scope of system development from existing permasalahan and ensure the development of systems that will be proposed to be developed. There are three main issues which are summarized from this interview is Regional Sales Manager difficulty in monitoring clients who have great potential to provide different services from other customers. At the level of area sales manager difficulty in determining programs that are appropriate for the lead Generator and also clients, because the area sales manager transferring placed on the team or a different city so that the area sales manager difficulty in delivering programs that are effective in accordance with the character and the conditions of the lead Generator and historical customer. Besides the interview with Financial Advisors often face to face with the customer said that many customers have complained about the balance of investment that can not be monitored at any time customers want. These issues are expected from the development of

systems to help facilitate in improving service to customers, thereby increasing customer loyalty.

2. Needs Analysis

This needs analysis will be used SWOT analysis to facilitate in obtaining the solution of the existing problems and in accordance with the original purpose of the insurance business in the improvement of services to customers. Analysis of the existing system is conducted through an interview process to interested parties, in this case the Regional Sales Manager, Area Sales Manager and Financial Advisor, to determine the condition of the system that is currently running. This interview was conducted to find out the problems faced by the marketing department (Branch Channel). To know permasalahan-problems faced by researchers to find internal and external conditions. Internal condition is seen from several aspects such as corporate strategy, human resources, infrastruktur, enterprise networks, products and business processes. While on the external conditions the company can be seen in terms of governance, the economy and technology regarding insurance in Indonesia.

Table 1. SWOT of Analysis

Strength	<ol style="list-style-type: none"> 1. The company is focused on clients of Bank Mandiri as the market share 2. Financial Advisor assisted by frontline Axa Mandiri 3. Interaction with customers directly 4. Help all customers of Axa Mandiri from anywhere 5. Customers can find out information on an insurance policy in many ways 6. It has a lot of big customers
Weakness	<ol style="list-style-type: none"> 1. Less accordance with company objectives regarding the focus on the customer 2. Less knowing potential customers 3. Lack of knowing the character of frontline Bank Mandiri 4. Information received from customer transactions old 5. Lack of knowing the right program for customers
Opportunities	<ol style="list-style-type: none"> 1. Customer satisfaction 2. Increased sales 3. Creating better relationships with customers 4. Improving the interaction with customers
Threats	<ol style="list-style-type: none"> 1. Reduce direct interaction with customers 2. Over automation 3. There is a gap advance of the front office and back office 4. The increased competition with faislitas that allows customers

Strategy For Improvement

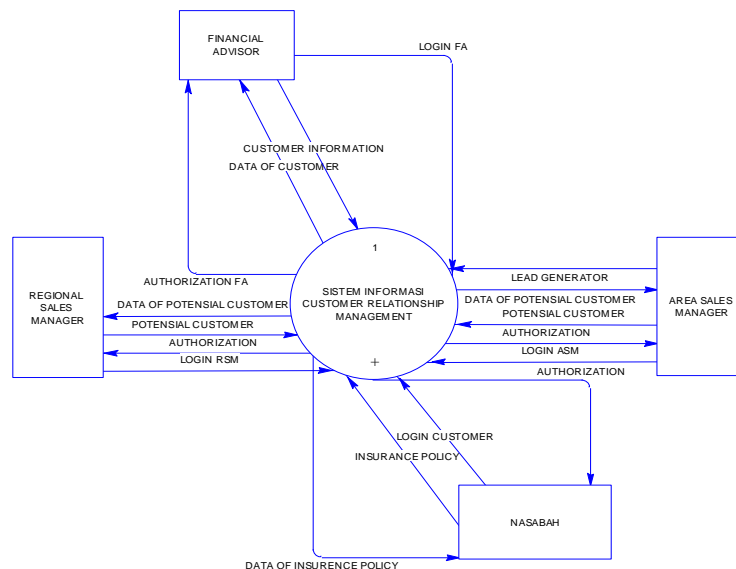
This improvement strategy aims to provide remedies that must be done to suit the company focused on customers. This strategy prioritizes kepetingan customers to see the conditions that exist in the field. The problems that have been outlined in the previous section then diambillah steps strategy of using the SWOT method to make it easier to devise strategies for improving services to nasabah PT XYZ. This service improvement strategy derived from the SWOT matrix. The following strategies

can be done in an effort to improve service to customers so that they can have an impact on customer loyalty kepada PT XYZ.

- a. Establish good cooperation with frontline XYZ
- b. Establish good communication with customers, especially those that have great potential through the entire communication path that allows it to do.
- c. Building a customer relationship management information system

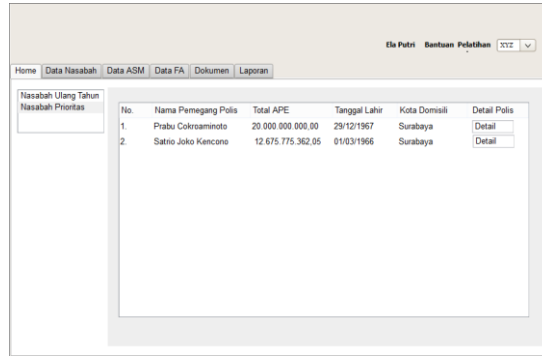
3. SYSTEM DESIGN

Conteks Diagram

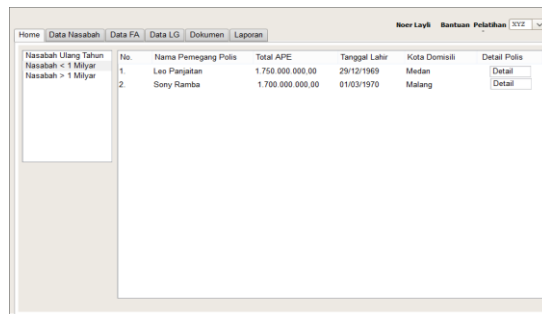


Gambar 4.3 Conteks Diagram

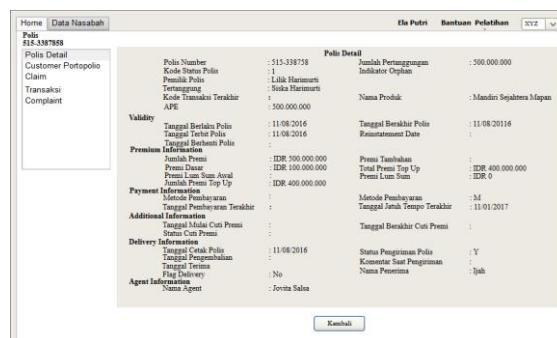
User Interface



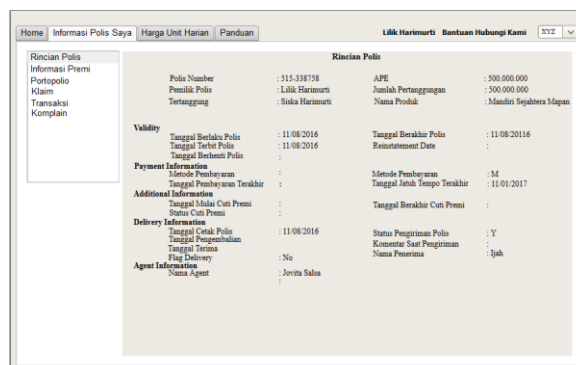
Gambar 5. Display of Customer Data for RSM



Gambar 6. Display of Customer Data for ASM



Gambar 7. Display of Customer Data for FA



Gambar 8. Display Data Insurance Policy for Nasabah

Feasibility Analysis of Design Sistem

Feasibility analysis system design is used to measure the quality of the solutions provided to the organization. In addition, to measure how a user assessment of the system design and the solutions given are acceptable or not. Feasibility analysis system design outlines a comparison between the needs of users with mapping the needs of users on the system design.

Comparative mapping user needs and user requirements on the system design can be seen in Table 2. From Table 2 inididapatkanbahwaantara mapping user requirements on the design of the system in accordance with user needs and design of customer relationship management system is feasible to be implemented to improve customer service.

Table 2. Mapping User Needs In System Design

User/Level	Usee Needs	Mapping User Needs In System Design
RSM (Strategic Level)	Knowing the existing customers that provide large distribution	There is a facility displays the data existing policyholders with total APE minimal 1 billion rupiah in the working area RSM start all stood firm, which is sorted from largest APE with information date of birth and domicile city policyholders
		There is a facility featuring proprietary data the number of the insurance policy holder owned pols
	Know the detail information of potential customers	There is a facility to know personal information such as insurance policy information, policy details, claims, transactions and complaint
ASM (Analytical Level)	Knowing the existing customers that provide large distribution	There is a facility displays the data existing policyholders with total APE minimal 100 million and below 1 billion rupiah who are in the work area ASM, which are sorted from largest APE with information date of birth and domicile city policyholders
		There is a facility displays the data existing policyholders with total APE minimal of 1 billion rupiah that are in the work area ASM, which are sorted from largest APE with information date of birth and domicile city policyholders
		There is a facility featuring proprietary data the number of the insurance policy holder owned pols
	Know the detail information of potential customers	There is a facility to know personal information such as insurance policy information, policy details, claims, transactions and complaint
	Mengetahui informasi <i>Lead Generator</i> (LG)	There is a facility displays the data lead generators that are active in closing sorted from the most number of closing where this information consists of names lead generator, code LG, office, Total number of APE and closing number. Then, accompanied by a closing detail which will display data insurance policy that contains information closing No. The insurance policy, the insured Name, Name Policyholder, APE Number, Product Name and Name of Financial Advisor
	There is a facility featuring Lead Generator data is sorted from largest total APE lead name generator, code LG, office, Total number of APE and closing number. Then, accompanied by a closing detail which will display data insurance policy that contains information closing No. The insurance policy, the insured Name, Name Policyholder, APE Number, Product Name and Name of Financial Advisor	
	There is a facility data display programs area where this program provides information on programs carried out each week, the number of targets, the achievement and the success rate in terms of percent. Additionally Are Sales Manager (ASM) can also input the programs that will be held week of the where ASM can enter data Name progrm, Taregt each branch office, the total target per area, total the target APE, Number of branches managed, achieving the number of case count on the program, the achievement of total APE area in one week and the date of the program runs.	
<i>Financial Advisor</i> (Operational Level)	Knowing the customer insurance policy details	There have been worn display information policy PAID PAID Customer Starting from premiums, the validity of the data, premium information, payment information, additional information, shipping information, and agent infromation. In addition ITU has worn Subscribers There is also portopolio Where FA can be aware PAID customer funds And Also The data Regarding Claims, Transactions And Complaints
Customer	Knowing the insurance	There is a facility display information policy details of customers ranging from premium details, the data validity, premium information, payment information, additional information, delivery information, and agent infromation. There are also facilities Customer portfolios where customers can find out the details of the allocation of funds and also data about Claims, Transactions and Complaint
	The document can be downloaded	There is a facility to download the document as the document claims, policy changes in non-financial documents, documents complaint, another complaint document
	Upload dokuments	There is a facility to upload documents such as documents claim the policy change non-financial documents, and other documents complaint is not related to changes in financial

CONCLUSION

The conclusion of this study are:

1. The design of customer relationship management information system through the stages with the System Development Life Cycle. In Phase Analysis SWOT needs analysis method is used to analyze the needs of users ranging from the operational level (Customer and Financial Advisors), an analytical level (Area Sales Manager) and strategic level (Regional Sales Manager) to improve services in order to have an impact on customer loyalty. These processes include the identification of potential customer data, identification of customer detail information, data identification Lead Generator, the identification of an insurance policy, the premium identification information, the identification of the transaction, the identification of customer portfolios, claim identification, and identification complaint. Data Flow Diagrams (DFD) describes the relationship between process and data flow. Conceptual Data Model is used to describe the concept of the relationship between data and continued with Physical Data Model as the concept is easy to manufacture the current database system implementation.
2. The design of customer relationship management information system can help an insurance policy data collection process easier by replacing manual processes into automated data collection process.
3. The design feasibility analysis shows that the system has been designed according to user requirements so that the system design is feasible to be implemented in the Regional Sales.

DAFTAR PUSTAKA

- [1] Jogiyanto, H.M, Pengenalan Komputer. Yogyakarta : Andi Offset.1985
- [2] Jogiyanto,Hartono, MBA.Ph.D. Analisis dan Desain Sistem Informasi Pendekatan Terstruktur teori dan Praktek Aplikasi Bisnis. Yogyakarta : Andi. 2005
- [3] Alipour, Mehrdad. (2011). The effect Of Customer Relationship Management (CRM) On Achieving Competitive Advantage Of Manufacturing tractor. Publisher: *Global Journal Inc. (USA.)* Assauri, S., 1984, *Teknik dan Metoda Peramalan*, Universitas Indonesia, Jakarta.
- [4] Douglas. M. Lambert. (2010). CRM as a business process. *Journal of business & industrial marketing*
- [5] Bryce, Cormac (2016). Should the insurance industry be banking on risk escalation for solvency II. School, *University of Nottingham*. London: *International Review of Financial Analysis* 46.
- [6] Soliman, Dr. Hisham Sayed. (2011). *Customer Relationship Management and Its Relationship to the Marketing Performance*. *International Journal of Business and Social Science*.