

ESEP 2011: 9-10 December 2011, Singapore

The Design of Customer Information Management System

Xie Shui-Ying^{a,*} Yin Li^b

^a*Zhejiang Industry Polytechnic College, Shaoxing, 312000, China*

^b*School of transportation & logistics, Southwest Jiaotong University, Chengdu, 610031, China*

Abstract

With the continuous improvement of socio-economic level, and the development of information management industry, the flourishing of customer information management industry has contributed to the diversification of investment, a lot of capital floods into the management industry, promoting the rapid and healthy development of the management. This paper briefly describes the development of information management system at home and abroad, combined with the enterprises' situation, the author analyses the consumer's needs of information management system, and describes the main function modules of the system, finally gives an account of the function flowchart of specific parts of the system modules.

© 2011 Published by Elsevier Ltd. Selection and/or peer-review under responsibility of Singapore Institute of Electronics

Keywords: system design, information management system, customer information, information

1. Introduction

With the continuous improvement of socio-economic level, and the development of information management industry, the flourishing of customer information management industry has contributed to the diversification of investment, a lot of capital floods into the management industry, promoting the rapid and healthy development of the management. As an emerging industry, the customer information management, enterprises are gradually getting rid of the traditional management model, calling for a modern enterprise system. The fundamental characteristics of the modern enterprise system are detailed products and modern management methods. As a professional management method of company - information management, it will play an increasingly important role in the company with the new type.

* Xie Shui-Ying. Tel.: 13105856978; fax: 0575-88009411
E-mail address: lbyzsy@163.com

2. the development of information management system at home and abroad

With the globalization and the network of economic has become the inevitable trend of world economics development, the increasing competition between companies' makes customers to be battlegrounds. Customer relationship management was first proposed by Gartner Group, from the United States. Since 1997, the global CRM market has been explosive fast growing after several years of development. In 1999, the global CRM market yield about 76 billion U.S. dollars. According to market analysts predict that the revenue of the global CRM market in 2000 will exceed 12 billion U.S. dollars and in 2004 it will reach 67 billion U.S. dollars. The annual growth rate will stay at 50% or more. At present, China's CRM market has also started. Like the previous ERP, e-commerce and other new concepts, the development of CRM in the country passed through from concept introducing to market launching, and these new ideas will play an active role on promoting China's information technology.

In order to avoid the shortcomings of manual management, Enterprises must implement the upgrade of management. To establish of a information management system in the enterprise will be a very effective method. In this way, the firm's activities will be showing the situation of significantly reducing the cost while ensuring the quality of service, or greatly increases the income by a slight increase of the cost. In other words, to enable enterprises increase the selectivity of marketing strategy by using of advanced technological methods, and enterprises gains a more flexible marketing tool. So it is necessary to implement of information management. On the other hand, due to the continuous development of computer network technology and maturation of LAN technology provides technical support for enterprises to establish information management system. Because of the price of hardware resources dwindling, the application of information management system in enterprise is guaranteed.

3. the analysis of the consumer's needs of information management system

The final program of the target system is based on the analysis of system requirements. In order to develop a system to meet customer demand, we must find out the truly needs of customers, then the entire system will play its due role. As a key management system platform to manage the relationship of firms and customers, CRM not only need to handle the business between enterprises and customers, but also to deal with the relevant departments within the enterprise business. CRM includes the customer information、competitor intelligence information related to the market, and the data of business of marketing, sales and support services required. Therefore, the customer information management system should be focused on data management, user management, sales and service management, after-sale service management, system maintenance while designing the functional departs, and we could add some additional functions such as search function or statistical function, according to the customs' needs, so the system can provide strong management support and development assurance for enterprises.

Through investigation and analysis, the system needs the following features:

- Information management: regional information management, customer data management, competitors' material management.
- Enterprise information management: basic information management, employee information management, cargo data management, major historical events management.
- Statistical analysis: customer-level management, customer source management.
- User management: user details management, change the password, setting rights.
- Sales and service management: information management (including services information, sales data), sales data analysis.
- After-sale service management: service arrangements, incident reporting management.
- System maintenance: data backup management, data reduction management, data clean-up management.
- Help: help documentation.

4. the outline design of the customer information management system

The outline design determines consists of the system, that is the composition of the system, as well as the relationship between components. The goal of outline design based on system requirements is determining the system's operating characteristics, user interface, structure of the export system module, and allocating the function requirements of the system to each module, finally defining the links between the modules.

The main functions of customer information management system includes eight modules, they are data management, enterprise information management, statistical and analysis, user management, sales and service management, after-sale service management, system maintenance and help module. The following describes only parts of the modules.

4.1. Data Management Module

The data management module of this system, through using data mining technology, can bring a lot of customer information into different categories (groups), and it is used to segment the customer. By this kind of segment, the users of customer relationship management system can understand our customers better and find out the behavior rules of the overall customer and customer in groups, at last formulate the corresponding marketing strategy. By the following sub modules:For author/s of only one affiliation (Heading 3): To change the default, adjust the template as follows.

- Regional information management module. The module's main function is to divide all customers into different regions, while completing the following functions; add, modify, delete, query information.
- Customer data management module. The module's main function is to complete the customer information management, such as to add, modify, delete, query customers' information (customer name, gender, and home address and contact information).
- Rival management module. The module is to add, modify, delete, and query the rival's information. Including employee information, product information, short-term plans and other information.

4.2. Enterprise Information Management Module

Enterprise information management module consists of four parts: basic information management, employee information management, the cargo data management and the great historical events module.

- Basic information management module. Just to add, modify, delete, query of basic information of the company.
- Employee information management module. This module is designed to manage employee's information, to add, modify, delete and query staff information.
- Cargo data management module. The module's main function is to manage the data of goods, such as sources of goods, cargo inventory, cargo agents, cargo whereabouts and other information. We can t add, modify, delete or query these information.
- Great historical events module. Mainly to add or query the company's outstanding performance, worthy of recordings, the great changes, an event of great significance and other information.

4.3. Statistical and analysis module

The module is consists of customer level and customer source analysis module.

- Customer level analysis module. To analysis and evaluation of the customer level according to trading goods, amount, quantity, quality and other transaction records and customer credibility, customer background information and customer economic strength.
- Customer source analysis module. This module is to deeper analysis the source of customer.

4.4. Sales and service module

- Sales and service information management module. This module's aim is to add, modify, delete and query of sales product, customer consumption details, customer information, corporate transactions information.
- Sales and service information management module. This module's function is to add, modify, delete and query achieve sales, customer consumption details, customer information, corporate transactions Attn information.

4.5. After-sale tracking service module

- Service arrangements module: Service information management, complaints information management, program analysis.
- Event report management module. To add, modify, delete and query sales records, service records, after-sales product management, customer changes, service staff management information.

5. the flow chart of parts of the system function module

5.1. the flow chart of user login

The user inputs his or her name and password in the login screen, then clicks "Login" button, and the backend server check s on the user's input validation, if the user does not exist or the user information entered incorrectly, the system prompts an error message, or logs in successfully, into the main interface, finally system assigned to the user interface according to user permissions. The figure 1 is the flow chart of the user login process.

5.2. the flow chart of customer information management

Information management module is one of the most important aspects of customer information management, therefore, the function complete degree of this module can be as one of the important criteria to evaluating this system performance. As the system involved in the regional information, customer information, competitor information and so on, so the algorithms of data management module is more complex, its flow chart is shown in figure 2.

6. Conclusion

Customer information management system is an important tool to improve the efficiency of customer information management in the company, by the application of customer information management system, customers can maintain a more friendly and cooperative relations with customers, enabling enterprises to focus on their core competitiveness and providing strong support and guarantee for the enterprise's daily development.

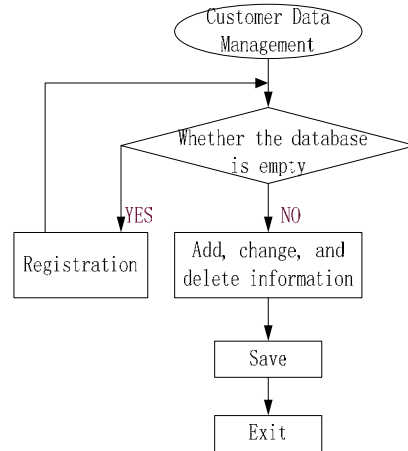
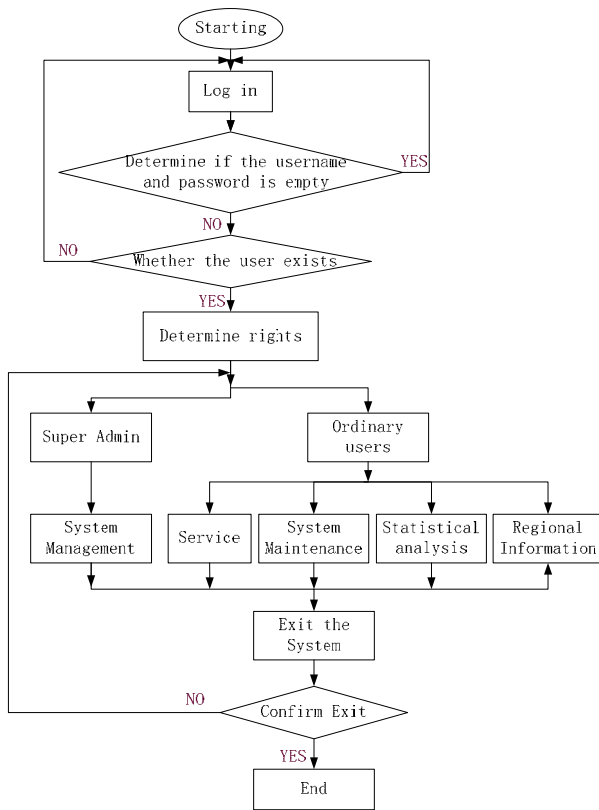


Fig. 1.The flow chart of the user login process

Fig. 2.The flow chart of customer information management

Reference

[1] MA Fujing, "The Design and Develop of Information Management System", Science and Technology Information, 2007.
 [2] LI Fansheng, DAI Xiaoting, WANG Hongwei, "The Analysis of Enterprise Management System", Computers and Information Technology, 2004.
 [3] Scott Allen, "C # database primer", Tsinghua University Press, 2003.
 [4] John Sharp and Jon Jagger. "Microsoft Visual C# .NET Step by Step – Version". 2003.
 [5] Itzik Ben-Gan, Dejan Sarka, Roger Wolter, "SQL Server 2005 techniques T - SQL query, Publishing House of Electronics Industry, 2007.