Research on customer relationship management system of ceramic enterprises based on web

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Abstract

Customer relationship management competition plays a very important role in modern enterprises. Good relations between customers and companies are important aspects for enterprise's survive and development. In this paper, through combing customer relationship management research results from home and abroad and our own study on the ceramics production process, we come up with "ceramic enterprise customer relationship management" concept. We made a further analysis and built a functional model enterprise customer relationship management particularly concerning on the ceramic industry. We apply software engineering ideology and divide the system into several modules.

Keywords

CRM, Ceramic Enterprises, Marketing, Data Mining.

1. Introduction

With the acceleration of the process of economic globalization, the Internet popularity and the emergence of electronic commerce, a company which is sensible to the market changing is more likely occupy a favorable position in the fiercely competitive market. With the further development of the market economy, many enterprises have gradually moved from the traditional product and scale centered extensive management mode into a customer-centric, service-oriented, service first ones to achieve intensive management and maximize their profits. The "customer-centric" concept in many industries has become a subconscious one. Good customer relations are the enterprise vital resources for survive and development.

Production processes of ceramic enterprises consist of a series of processes: procurement of raw materials, designing, manufacturing, sales, after-sales services and so on. The ceramic enterprises face a number of customer groups of various types. How to effectively develop and use client resources, keep business partnerships with partners and suppliers, improve business decision-making levels, maximize the value of the customers and thus gain and maintain a good competitive business ability is the inevitable issue that the enterprises must tackle with. In order to obtain satisfactory customer relations, ceramic enterprises should implement customer relationship management projects to achieve this goal.

2. The concept of customer relation management

As different scholars or organizations study CRM (customer relationship management) for different research purposes and from various perspectives so they put forward different explanations upon it. Thus there is still no acceptable definition to all.

Gartner Group, a world's authoritative research organization, is the proponent of CRM. Its CRM definition is given as follows: "Customer Relationship Management (CRM) is a enterprise-wide business strategy for enhancing profitability, revenue and customer satisfaction. "From this concept, we

can see that Gartner emphasizes that CRM is a business strategy, which covers the entire enterprise, and its goals is to increase profits and sales revenue and improve customer satisfaction.

Other authoritative definitions are as follow:

1) CRM is an enterprise business strategy, according to segmentations of customers, it effectively make use of corporation resources to cultivate a customer-centric business practices and implement customer-centric business processes to improve enterprises' capacity, revenue and customer satisfaction.

2) CRM is a customer-centric business strategy, using information technology as a means to reengineer business functions and restructure workflow.

Though the above definition of CRM is put forward from different perspectives, these concepts consensus that a company and its customers should build a "win-win relationship" and a information technology and modern management model combination [1] , base on information technology support, implementing "customer-centric" operations, strategic analysis and business process reengineering to enhance customers' satisfaction and loyalty. Eventully companies can achieve ultimately efficient business operations and improve enterprise competitiveness.

3. Definition of Ceramic Enterprise Customer Relationship Management

Basis on the current study at home and abroad of the CRM and analyzing the production process, we create a ceramic enterprise customer relationship management model, namely, C-CRM. Ceramics business involves marketing, sales, service and technical support and other customer-related fields. Production process of ceramic enterprises is shown in Figure 1. From the figure, we can find ceramics enterprises as the core throughout the whole business chain and its customers are not only the final consumer, but also include a company's business co-operation partners, potential customers, model customers, competitors and so on. After getting the idea of ceramic production processes and the contents of corporate customers, we can be clear at the concept of ceramic enterprise customer relationship management: belonging to "customer-centric and market oriented" modern enterprise management mode, ceramic enterprise customer relationships management is a business strategy and a business philosophy throughout the whole supply chain. Ceramic Enterprise Customer Relationship Management is a strategy backed by buyers' demand, driven by customer requirements. Though interactive selections between raw material suppliers and ceramic manufactures , optimizing internal organization, management and enhancing production process level, decision analysis, customer services, ceramic enterprises can enhance cognitive abilities , achieve customer retention, enhance customer' satisfaction, loyalty and obtain the long-term customers.
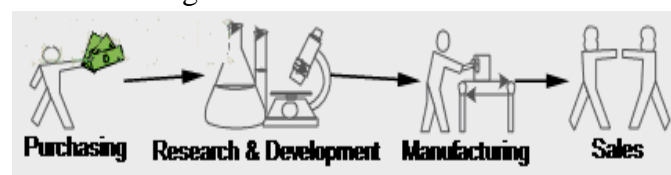

Fig. 1 Ceramic production flow chart

4. Ceramic Enterprise Customer Relationship Management Analysis

Ceramic Enterprise Customer Relationship Management (C-CRM) is a new management system designed to improve relationships between ceramic enterprises and raw materials suppliers, between ceramic enterprises and its business partners and products purchasers. C-CRM aims to provide faster and more convenient services to attract and retain more customers and reduce business costs through the overall management of business processes. Ceramic enterprises can make use of C-CRM systems to collect, record, analyze client's information to find what customers really need, and deliver individualized goods (services) to them.

C-CRM also can provide available statistics and analysis of impacts of the business revenues on customer behaviors and help optimize the business and customers relations and corporate profits.

From a point of view of management science, customer relationship management (CRM) is a branch of marketing theory from the marketing science. It mainly reflects such contents as Customer satisfaction and Customer care [2]. Therefore, the ceramic enterprise customer relationship management system primarily focuses on four areas as follow:

Establishment of a complete customer information database

Production process involve a series of customers such as raw material suppliers, transporters, ceramic design and development staff and product buyers who are of different types at each production stage. Even if at the same stage of production process, they are still some difference. For example: ceramics retail includes two ways: direct sales method and sales agent method and thus at the first stage of selling, the customer differences are noticeable. Only by establishing a complete customer information databases, can companies have a more comprehensive view of each client.

Establishment of a complete customer database to exchange information

We can establish a complete file involving a large number of highly specific and valuable market information after interaction with the clients. The information of product features, sales channels, changes in demand, potential users as well can be important basis for business decisions making.

Unified customer analysis and service platform

Because of multiple production processes, companies are often difficult to timely access to accurate and comprehensive customer information, let alone smoothly deliver customer information to various production sectors. Implementation C-CRM may be able to make customer information of order issuing, goods receiving, inventory and so on timely delivered among the various production departments. Thereby it can enhance business-to-customer information processing capacity in various productive sectors and improve controls of various sectors. Meanwhile, the company relying on the platform to serve customers with a unified image can eliminate suffer and puzzles of customers for the various explanations put up by different department in the past.

The establishment of customer information analysis platform for intelligent query

C-CRM use a variety of data mining techniques and methods to describe and predict customer information in order to meet the needs of modern companies for efficent decision-making and management.

5. Design of Ceramic Enterprise Customer Relationship Management

Analyzing ceramic enterprise business processes and focus of ceramic enterprise on customer relationship management, we build the C-CRM which can be divided into seven modules: customer management, operations management, product management, sales management, customer service management, cost management and decision-making analysis.

Customer Management:

Customer Information: Through this module the company can carry out systematic management of customer information, so that companies can more fully understand their customers.

Customer groups: Here is for all customers: Diamond customers, Platinum customers, gold customers, general customer .The information can be edited, deleted, queried and exported

Contact: Here is a record of customer contact. With this module you can more easily understand each customer's contact information so you can better communicate with them.

Operations Management:

Contact Activities: Here is a record of all the company's business activities, such as new product demonstrations, signing ceremony and other activities. The information can be achieved to add, delete, modify, query, export data and so on.

Historical events: Here is a record of a variety of activities of the company held before. Though this module, the company's statistics of the past activities can be found and companies can reference similar activities to be held in the past

Product Management:

Product: Here are the company records of all the product information. By this unified records and management, sales personnel can easily understand the company's products better and lay a solid foundation for further sales.

Product Tracking: Here are for tracking products that have been sold and this can enable a company have a more detailed understanding of each product in order to gain market dynamics and provide the basis for the further development of marketing programs.

Sales Management

Customer Orders Management: Here is a record of detailed information of sales orders received from the customers which can be added, deleted, queried, modified, exported.

Business Management: Here are records of business opportunity that the sales staffs have got from the customers which allows sales personnel to better grasp the opportunity for every sale rather than trade-off.

Return Management: Here is a return list of the product that does not satisfy customers' requirement thus being sent back. From this you can analyze the market dynamics of each kind of products and you can accomplish to add, delete, query, modify and export data.

Sales staff Management: Here is a record of information of the company's sales force, from which you can allow the company managers to better manage all of the sales staff.

Sale Details: Here is a detailed description of sales information which will allow companies to understand the sales performance of each salesperson.

Customer Service Management:

Customer Service Record: Here is a record of after-sales service for customers noted by sales personnel in order to facilitate the rest of the sales staff when they encounter similar problems.

Customer Care: Here is a record of customers in need of care to reduce customer turnover, thereby to increase the company's customer number.

Message: Here is a record of client's message reflecting the customer's satisfaction.

Cost Management

Cost Management: mainly for achieving to manage variety internal expenses in order to achieve that all spending accounts can be investigated, to reduce expenses, to achieve the lowest cost and more efficient using of funds.

Decision Analysis

Sales trend analysis and sales composition analyses mainly rely on the vital data from customer relationship management system. It provides a basis for decision-making for senior managers of the future developing direction and working focus of the company.

Based on functional modules of ceramic enterprise CRM systems, functional structure of ceramic enterprise customer relationship management is shown in Figure 2.

Ceramics enterprises-oriented functions of C-CRM structure which is based on the data center consists of a ceramic enterprise customer interaction database, a customer information databases, a product information databases. Using data mining and online analytical processing technology we can achieve customer intelligence and business intelligence management. In the background processing, we can realize the interconnection among production processes such as ordering, manufacturing, logistics, supplying and so on thorough B2B and B2C technology. Evently, they are turned into customer services, sales management and marketing management. Customers can dial Call Center and use Web communication, telephone, fax, Email, etc. to interact with the enterprise.

Figure 2 shows the divisions of the functional structure, the achievement of effective separation between C-CRM application-layer specific functional requirements and C-CRM specific data management and the attainment of coupling relationship between analytical C-CRM in the analysis and specific data mining methods
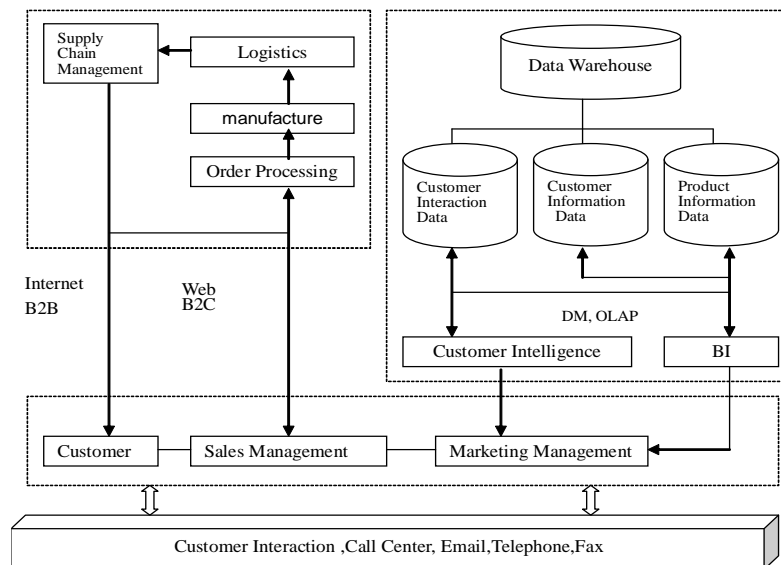

Fig. 2 Ceramics enterprise customer relationship management function structure chart

6. Conclusion

Implemented in the enterprise marketing, sales, service and technical support and other customer-related areas ,CRM, as a new management mechanism, is to improve the relationship between business and customers,. Currently, the successful implementation of CRM is not common in many companies, yet China's traditional ceramic enterprises implementing CRM are only at the exploratory stage. Building Ceramic Enterprise CRM system can not only help marketers improve their management methods, their marketing and but also can assistance them to accumulate client resources and enhance the ability to control the market. Further more, it is helpful in enterprise management decisions making for through the C-CRM, different customers in the entire ceramic production process can be analyzed and processed. If the ceramic enterprises can commitment to CRM method, profits, customer loyalty and customer satisfaction and so on will be achieved. C-CRM system will become a powerful weapon for ceramics production enterprises to improve their core competency.

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