A Literature Review on CRM in B2C Enterprise

Jingjun Cheng

Henan University, Zhengzhou 450000, China.

Abstract: In the context of economic globalisation, companies are provided with more opportunities as well as faced more challenges. The CRM tool helps organizations "by identifying a company's best customers and maximizing the value from them by satisfying and retaining them" . In an era where customer resources have become an intangible asset, customer relationship management is a powerful and effective way for B2C companies to build and maintain customer relationships. There is currently a wealth of academic research on customer relationship management, this paper sorts out the literature on customer relationship management in B2C companies in recent years, analyses and summarizes the research content, and finds better ways for B2C companies to improve their customer relationship management.

Keywords: Enterprise; Economic Globalisation; Customer Relationship Management; B2C

Introduction

Customer Relationship Management (CRM) is a customer-centric business model. Customer relationship management has been widely regarded as a company activity related to developing and retaining customers through increased satisfaction and loyalty[1]. With the continuous development of Internet-related technologies, people's consumption patterns and living habits are changing, and they are more dependent on various B2C companies. While the B2C business market is expanding, consumers' requirements for their services are constantly increasing. Some B2C companies are not sensitive enough to the needs of their customers, and it is difficult to respond quickly, resulting in the loss of customers. In an age where customer resources are an intangible asset, rational CRM is a key factor for B2C companies to gain competitiveness. How to use CRM to provide a strong impetus for the development of enterprises in the information age, is the key research content of the enterprise's innovation and development. This article sorts out the research on CRM in B2C enterprises in recent years and summarizes its content.

1. Main body

In the research on CRM in B2C companies, we focused on the comparison of customer relationship management in B2C companies and B2B companies, and methods to improve CRM in B2C companies.

1.1 A comparative analysis of B2B and B2C CRM

B2B and B2C companies are different in nature and their emphasis is on CRM. Business-to-business (B2B) refers to a business that is conducted between companies, rather than between a company and an individual consumer [2]. B2B transactions often occur in supply chains, where one company will buy raw materials from another for use in a manufacturing process. B2B transactions are also common in companies in the automotive industry, as well as in property management, housekeeping and cleaning companies. Business-to-business (B2C) refers to selling products and services directly between a business and consumers who are the end-users of its products or services. Most companies that sell directly to consumers can be referred to as B2C companies [3]. B2C usually includes online retailers who sell products and services to consumers via the Internet. Companies face different types of customers and different consumer groups with different audiences, requiring different CRM approaches[4]. According to the research of scholars, B2B and B2C companies also differ in their CRM focus. Milichovsky [5] in his research concluded that the B2C market is typified by customers being touched by emotions rather than rational purchase decisions, while the B2B market is more concerned with the logic of the

product and its characteristics. Therefore, when facing CRM, B2C companies will pay more attention to customers' interests, emotions, and internal needs such as customer services, while B2B companies will pay more attention to what their customers want from the product itself, such as providing highly customized products. products. L. Povolná [6] argues that B2B companies should be more inclined to build long-term stable partnerships when making CRM decisions, while B2C companies are more inclined to short-term buying relationships. This is because B2C customers tend to buy goods sporadically and in much smaller quantities, and customer relationships can cease at any time. B2B customers, on the contrary, are pragmatic buyers who spend more time investigating products and measuring their suitability and financial benefits for their business and are more willing to establish long-term relationships with suppliers based on good supplier goodwill [7].

Although scholars' research has confirmed that B2C companies should be more inclined to establish short-term cooperative relationships, for some B2C companies such as clothing and cosmetics, how to improve customer stickiness and establish long-term purchasing relationships is also very important. How to improve and establish a long-term customer management method for a specific B2C enterprise could be a future research focus.

1.2 Methods for B2C companies to improve CRM

Comparing different scholars' studies on ways to improve CRM, we find that enhancing user management for customer segmentation and CRM based on Data mining are effective approaches.

1.2.1 Customer segmentation

Enhancing user management for customer segmentation was proposed by Cao Bin[8], based on Chris Anderson's "long tail", who argues that low-value customers should not be abandoned just because of little or no value. According to the different parts of the demand curve, the market is divided into three parts, the "main market", the "gray market" and the "long tail market", as shown in figure 1.
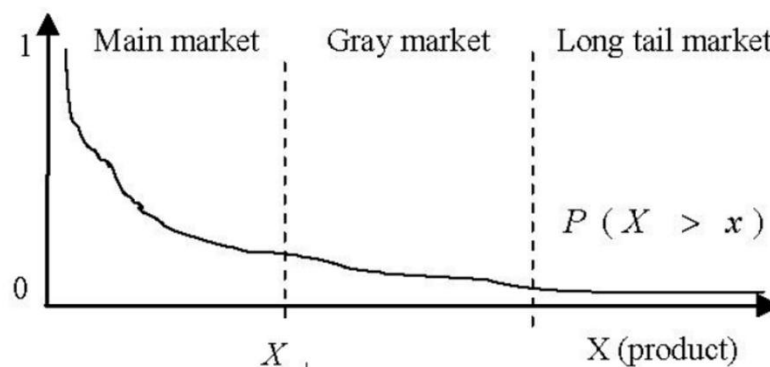
Demand curve based on Pareto distribution

Figure 1. Demand curve based on pareto distribution

The main market is the so-called mainstream market, where products sell well and are the main source of profit. The grey market is a product of the abundant economy, where millions of goods are sold. The grey market is the link between the main market and the long tail market and is a very lucrative edge of the market, with much lower sales than the main market but still very profitable. Although the long tail is very narrow, its unlimited extension length also makes it is own a big profit. In the internet era, dropping this part of the market will lead to strategic mistakes. After segmenting the different customers, Cao Bin proposed an approach to their CRM as shown in Table 1. The customers in the long tail market are usually very targeted or professional people. The profits in this market are the result of an aggregation effect, so he is not divided into four segments as in the other two markets. For long-tail market customer relationship management, it is important that the customer receives as many products as possible and reduce the search costs are reduced, in addition to guiding the customer through uncharted territory according to their interests.

After dividing the customer market into three segments based on the long tail theory, although customer segmentation can be done according to different markets for customer management, the value of each customer is still different, and how to accurately "price" the customer is still a question worth thinking about.

Market	Low CCV Low CPV	Low CCV High CPV	High CCV Low CPV	High CCV High CPV
main market	should not put any resources to maintain these customers and should further observe transactions with them.	Investing resources appropriately to recycle the relationship	continue to provide them with super value, to make them always firmly believe that the company is the best option	invest major resources to maintain and develop the relationship with these customers, even design and implement one-on-one CRM strategy when necessary.
gray market	no need to invest additional resources for them to do customer relationship maintenance.	Provide quality services to allow customers continuing satisfaction with the company and thus form a high level of trust'1	no need to implement price discount strategy but offer the quality service and reasonable recommendation about other products to maintain customer	offering them comprehensive and personalized products and services, so that companies can maintain the customer relations on a high level

Table 1. Market Customer Relationship Management.

CCV: customer current value

CPV: Customer potential value

1.2.2 CRM methods based on data mining

Data mining is the process of discovering the intrinsic patterns between data and uncovering potentially high value from the vast amount of data. In business operations, data mining techniques can help managers identify trends in business development, predict unknown outcomes by revealing potentially valuable information, and enable companies to increase revenue, reduce costs and gain more valuable competencies. Data mining technology can play an important role in managing all stages of the customer lifecycle, such as identifying new valuable customers, encouraging existing customers to generate more profit, maintaining valuable customers, etc. Data mining algorithm-based customer relationship management methods generally use clustering algorithms, neural networks, and causal inference trees.

Clustering using the K-means clustering technique in data mining is of the most used unsupervised learning algorithms for identifying and grouping different sets of clusters based on defined attributes [9]. Yoshio Harada (2022) used the customer behaviour of a B2C company as the basis of data, used the k- means algorithm for clustering segmentation to classify customers into three types, and then made predictions for these three types of customers, empirically demonstrating that clustering segmentation using the k-means algorithm has a significant effect on identifying customer churn. Neural networks can effectively simulate specific human brain activity to achieve more optimal information processing, with corresponding effects of self-organisation, adaptation, and learning. Baesens [10] relied on a special Bayesian neural network algorithm to build a model based on a European direct mail company and successfully demonstrated the applicability of Bayesian neural networks for modelling repeat purchases, helping to solve the problem of whether customers would buy back. Causal inference trees are constructed using special random, unlinked decision trees. After constructing the basic forest, the subsequent input of samples is further implemented so that the entire decision tree can make type

determinations around a particular sample, with the detailed prediction types being the most selected types of decision trees. Guelman [11] applied causal inference trees and identified the group of policyholders that can expect to make a profit thanks to the strategy and to whom, therefore, the cross-selling attempt should be addressed, retained regular customers in the insurance industry.

Research by academics confirms that data mining-based class clustering algorithms are useful for customer relationship management, but that acquiring large amounts of data for calculation already adds additional costs to the business. Each algorithm has been proven in specific industries such as healthcare and insurance, and it is debatable whether it is suitable for all B2C companies[12].

2. Methodology

In this paper, we have mainly read Chinese and foreign literature on CRM and research on B2C companies' CRM over the last 20 years and have selected around 15 articles as the basis of our research[13]. We read articles selected from journals represented by Science Direct. Although some conclusions have been drawn from the comparative study of the literature read, there are still some shortcomings in the paper. For example, the methods mentioned in the paper, such as the K- means class clustering algorithm, have been utilised on the basis of the conclusions drawn by other researchers, without demonstrating their availability in specific companies. In addition, some of the literature cited is quite old and it is questionable whether it is still applicable to modern B2C companies[14].

3. Conclusion

This paper analyzed and summarized the research on customer relationship management in B2C companies in recent years. It is concluded that B2C companies are different from B2B companies in that B2C companies are more inclined to build short-term customer relationships as the customer endpoint is directly the consumer. In addition, scholars have researched a number of methods to improve customer relationship management in B2C companies, the most representative of which is to divide the market into the main market, the grey market and the long tail market according to the different parts of the demand curve, and then implement different customer management methods for them. Data mining techniques based on clustering algorithms, neural networks and Causal inference trees are also effective ways to improve customer management in B2C companies.

The above analysis shows that customer relationship management is very important for the development of B2C companies. However, there has been little research by scholars to empirically analyze the role of specific CRM approaches in the development of B2C companies. How to use different customer relationship management approaches depending on the nature of the B2C company is the focus of future research.

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