The Use of Recommender Systems in Demand Management in Intelligent Supply Chain Management

With the rapid development of internet technology, electronic commerce (e-commerce) has become a new development direction of the application of internet technology. E-commerce has the characteristics of opening, global, offering low cost and high efficiency services. The traditional supply chain cannot match the speed of the development of e-commerce, as a result, the intelligent supply chain management shows up and plays an important role in e-commerce. It not only uses internet as a method of communication, but also deeply excavate the potential application of internet throughout the whole process of e-commerce, such as strategic planning, inventory management, demand management and so on, by using electronic data interchange technology (EDI), inventory management technology, and recommender systems. In intelligent supply chain management, demand management predicts the demand using collected information from users’ behavior. For this reason, precise collection and analysis of information are quite necessary. This can be achieved by recommender systems, as they can collect data from users’ historical behavior and feedback, and then identify and recommend product or content to users that they are looking for in the front end. It is based on user interest and offers personalized services to users. With the help of recommender systems, the intelligent supply chain in e-commerce process can achieve a great improvement in efficiency. So, it is an important choice for the e-commerce-based enterprises to improve the sales ability of themselves and the loyalty from the users.

This paper focuses on demand management in supply chain management, analyzing how recommender systems can affect the intelligent supply chain. Cases as Amazon, Alibaba are used to present explanations and make contrastive analysis. Based on theoretical exposition and case analysis, this paper discusses the concept of the recommender systems and their trend of development in the recent years, the problems appearing, and the potential solutions to the problems are put forward.

Keywords: Recommender systems, intelligent supply chain, demand management, e-commerce