**CONCLUSION**

E-commerce has become the most mainstream business model in contemporary society. With the explosive growth of information in the era of big data in e-commerce, personalized recommendation system has attracted more and more attention. E-commerce provides more and more shopping and consumption platforms for people. Using recommendation algorithms such as data mining can recommend products that users like to consumers and improve the turnover rate of e-commerce websites. With the rapid development of internet commercial websites, the total amount of information in e-commerce system is increasing day by day, and the problem of information overload is becoming more and more serious. Because the recommendation system is based on user behavior, malicious user behavior should be filtered. Malicious behaviors include users browsing certain products frequently through programs, creating a large number of user behaviors, or businesses adjusting commodity attributes according to algorithms. The powerful storage, operation and security functions of cloud computing, as well as the ideal mode of resource allocation and sharing, have laid a good foundation for the development of e-commerce recommendation engine, resulting in a brand-new business recommendation mode. In the aspect of data integration, the data analysis middleware layer can be used to import the source data of the business system for analysis, and the data of the business system can also be directly stored in the distributed file system layer for management and access.