Automated Market Basket Analysis System

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Abstract

Market Basket Analysis (MBA) is a widely used technique among marketers to identify the best possible combination of products or services frequently bought by customers. Market Basket Analysis is one of the data mining techniques used in recent times to know the correlation between one items to another purchased. The problem of determining customers preference in terms of items purchased was focused on the traditional and heuristics algorithms with limited factors in the past. However in recent times through this study, building an automated basket analysis system, will help shop owners identify customers purchasing behavior, patterns and identify the relationship between products and item purchased in order to maximize profit through the use of association rule mining. Association rules is one of the data mining techniques which is used for identifying the relationship between one item to another. Association rule is the bedrock of a market basket analysis system as it helps to determine the correlation that exist between the items purchased. An automated MBA system was implemented through the use of the spiral model development model and a combination of
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HTML, PHP and MySQL as the programming environment to make this system web-based. The Automated Market Basket Analysis System would improve on search methodologies that can also be of help in generating recommendations for consumers though the association rule mining algorithm embedded in the system. The provided results reveal that the obtained solutions seem to be more realistic and applicable.

References


Index Terms
Keywords

Market Basket Analysis, Association Rule Mining, Data Mining, and Recommender systems.