

## عنوان مقاله:

Mining association rules for identifying critical factors affecting the implementation of business intelligence systems through WST-WFIM algorithm

## محل انتشار:

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## خلاصه مقاله:

In spite of the various advantages of Business Intelligence Systems (BIS), implementing them brings different challenges. Implementing BIS without considering the related challenges and determinants will increase the total cost and decrease added value for the organization. In this study, a questionnaire is developed to identify the critical factors affecting the implementation of BIS in automotive parts manufacturing companies and analyzed through a data mining technique, namely association rules, and the WST-WFIM algorithm on weighted data. The algorithm aims to extract sets of frequent rules and their weights (determined according to their importance) obtained from an expert panel. Taguchi method was adapted to design the algorithm's optimized parameters in order to obtain more effective rules. After applying the new algorithm to effective weighted factors, the relation and importance of each collection of effective factors are analyzed. The findings showed that, from the experts' viewpoint, the most important factors for successful implementation of BIS include (۱) Removing potential negative resistances and barriers in spite of the various advantages of the Business Intelligence Systems (BIS), implementing them brings different challenges. Implementing BIS without considering the related challenges and determinants will increase the total cost and decrease added value for the organization. In this study, a questionnaire is developed to identify the critical factors affecting the implementation of BIS in automotive parts manufacturing companies and analyzed through a data mining technique, namely association rules, and the WST-WFIM algorithm on weighted data. The algorithm aims to extract sets of frequent rules and their weights (determined according to their importance) obtained from an expert panel. Taguchi method was adapted to design the algorithm's optimized parameters in order to obtain more effective rules. After applying the new algorithm to effective weighted factors, the relation and importance of each collection of effective factors are analyzed. The findings showed that, from the experts' viewpoint, the most important factors for successful implementation of BIS include (۱) Removing potential negative resistances and barriers to implement BIS, (۲) alignment between business strategy and BIS characteristics; and (۳) system reliability, flexibility, and scalability.

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## کلمات کلیدی:

Business Intelligence, Data Mining, Weighted Association Rules, WST-WFIM Algorithm, Taguchi method

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1767401>

