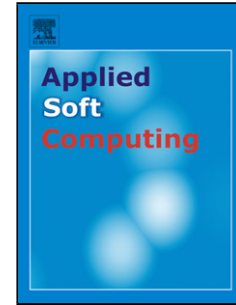


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An Extension of ARAS Methodology under Interval Valued Intuitionistic Fuzzy Environment for Digital Supply Chain

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Highlights

- Digital Supply Chain is evaluated under Group Decision Making based on IVIF values.
- IVIF AHP is used to determine the evaluation criteria weights.
- A novel IVIF ARAS methodology is developed to evaluate potential suppliers.
- A case study is provided to validate the proposed approach.

Abstract

Technology, such as personal computers and mobile devices, alters the foundation of how people communicate and interact with their surrounding environment. Emerging technologies affect every industry and management of supply chain and logistics are no exception. Given that Digital Supply Chain (DSC) provides several opportunities to companies the topic has received increasing attention from both academia and industry in the recent years. Today, an emerging worldwide trend in supply chain management is a shift of the focus from classical supply chains towards DSC, which leverages new solutions to generate new sources of revenue and additional business value for organizations. Recognizing these potential benefits, today's modern organizations now interact with their dealers through DSC processes for improved efficiency and effectiveness in their production and delivery operations. Supplier selection is one of the crucial processes that has been affected by the digitalization of supply chain management. Addressing multi-criteria nature of the supplier selection process, this article introduces a new DSC approach for the first time to support the supplier selection process. This approach develops a group decision making (GDM) method in an uncertain environment. This methodology also considers decision makers when they are under pressure and/or lack expertise during the evaluation process. The proposed framework integrates for

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