

## Companies' Internationalization: Multi-Criteria-Based Prioritization Using Fuzzy Logic

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**Abstract :** A model based on a logical framework was developed to quantify SMEs' internationalization capacity. To do so, linguistic variables, such as human talent, infrastructure, innovation strategies, FTAs, marketing strategies, finance, etc. were integrated. It is argued that a company's management of international markets depends on internal factors, especially capabilities and resources available. This study considers internal factors as the biggest business challenge because they force companies to develop an adequate set of capabilities. At this stage, importance and strategic relevance have to be defined in order to build competitive advantages. A fuzzy inference system is proposed to model the resources, skills, and capabilities that determine the success of internationalization. Data: 157 linguistic variables were used. These variables were defined by international trade entrepreneurs, experts, consultants, and researchers. Using expert judgment, the variables were condensed into 18 factors that explain SMEs' export capacity. The proposed model is applied by means of a case study of the textile and clothing cluster in Medellín, Colombia. In the model implementation, a general index of 28.2 was obtained for internationalization capabilities. The result confirms that the sector's current capabilities and resources are not sufficient for a successful integration into the international market. The model specifies the factors and variables, which need to be worked on in order to improve export capability. In the case of textile companies, the lack of a continuous recording of information stands out. Likewise, there are very few studies directed towards developing long-term plans, and, there is little consistency in exports criteria. This method emerges as an innovative management tool linked to internal organizational spheres and their different abilities.

**Keywords :** business strategy, exports, internationalization, fuzzy set methods

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