

“Should I Stay or Should I Go?”: A Multiple-Criteria Group Decision-Making Approach to SME Internationalization

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Abstract

Due to domestic markets' current economic conditions, companies increasingly feel that they need to become actively involved in international trade. However, small and medium-sized enterprises (SMEs) typically face financial and intellectual constraints during internationalization processes. This means that decision makers must consider a wide range of different variables before deciding to internationalize firms. This study sought to integrate cognitive mapping and the Decision EXpert (DEX) method in order to develop a multiple-criteria decision model suitable for the identification and assessment of variables influencing SMEs' internationalization capability. The results confirm that the dual methodology adopted facilitates the development of a robust evaluation model that can improve decision-making processes in the context in question. More specifically, the proposed model identifies product features as the most important factor in SMEs' capability for successful internationalization. In addition, internal factors are significantly more relevant than external factors. The model-building process is discussed, including its advantages and limitations.

Keywords: *Cognitive maps, Decision EXpert, international entrepreneurship, internationalization process, small and medium-sized enterprises (SMEs).*

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Extended Abstract

Through international trade, small and medium-sized enterprises (SMEs) tend to acquire additional capabilities, strengthen their competitive and financial position, achieve new levels of innovation, and increase revenues, which benefits the economies of these firms' home countries (Çipi, Lłaci & Ferreira, 2014; Gonçalves, Ferreira, Ferreira & Farinha, 2019; Kubičková, Votoupalová, & Toulová, 2014). These factors have motivated many SMEs to become more competitive through their involvement in international markets.

Despite SMEs' pressing need for internationalization, the processes involved are by their nature expensive, and SMEs typically have scarce resources. These companies' internationalization is accompanied by the necessity of a rapid return on investment and a lack of the required relationships with foreign partners, which impairs SMEs' involvement in international markets (Kubičková *et al.*, 2014). SMEs are also usually managed by families or small groups of individuals with limited knowledge of internationalization but who still make decisions about their company's development (Gonçalves *et al.*, 2019; Kubičková *et al.*, 2014; Pérez-Bustamante, Marques, Jalali & Ferreira, 2016). Thus, due to the growing need for companies to become involved in international markets and the difficulty of doing so, mechanisms need to be created that support decision-making processes during SMEs' internationalization. This need becomes even more evident if researchers take into account that studies in this field are still limited.

The present study's main objective is to develop a multi-criteria evaluation model to be used in assessments of SMEs' internationalization capacity. This model is generated by a combination of cognitive mapping techniques and the Decision EXpert (DEX) method. The proposed model allows decision makers to confirm if their firms are ready to internationalize and to identify which factors are facilitating and/or conditioning these companies' internationalization processes.

More specifically, this research has the following objectives: (1) to produce results as close as possible to reality through an exhaustive process of identifying evaluation criteria and the objective and subjective aspects that need to be included; and (2) to estimate the level of each aggregate attribute's importance in order to clarify which attributes have the greatest impact on SMEs' internationalization capability.

To achieve these objectives, other intermediate goals have to be met. The first is to set up a panel of internationalization professionals willing to participate in face-to-face sessions and collaborate in the evaluation system's development. The second goal is to apply cognitive mapping techniques in order to identify and select the evaluation criteria to be included in the system for assessing SMEs' internationalization capability. The last goal is to implement



the DEX technique in order to define the decision rules for aggregating partial evaluations of the SMEs assessed and for providing overall evaluations for these firms.

The findings include which attributes are of greatest significance in the assessment system. Internal factors (63%) are more important to SMEs' capability for internationalization than external factors (37%) are. This result highlights that companies must consolidate and strengthen their internal resources before dealing with external factors, reinforcing a basic principle of resource-based theory (Barney, 1991). In addition, regarding internal factors, products are the organizational attribute with the highest weight (48%) – almost as much as the remaining internal attributes' weights together. Based on this logic, products and their characteristics become the most important factors to evaluate in terms of SMEs' internationalization capability.

We found no previous study using this dual methodology (*i.e.*, cognitive mapping and DEX) in this research context, allowing our proposal to add to the extant literature of SME internationalization, international entrepreneurship and operational research.

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