Guest editorial

Understanding resource-based competitiveness: competencies, business processes and alternative performance assessment

1. Introduction

The objective of this special issue is to develop theory and empirical evidence that provoke the scholarly debate dealing with business competitiveness. In an increasingly complex economic environment, business struggle between the design of value-adding strategies and the selection of measures to effectively evaluate the degree of achievement of their goals. In this sense, the resource-based view (RBV) of the firm is one of the most important theoretical frameworks to understand how firms create value-adding competencies and, consequently, achieve superior performance (Wernerfelt, 1984; Barney, 2001; Prahalad and Hamel, 1990).

Over the years, the stock of empirical work testing one of the primary postulates of the RBV –which states that firms create or develop competitive advantages by deploying valuable resources and capabilities that are inelastic in supply – has begun to accumulate (Newbert, 2007; Cetindamar and Kilitcioglu, 2013; Lafuente *et al.*, 2020a, 2020b).

Although competitiveness is an attractive construct that has been largely analyzed from multiple angles, various interwoven aspects of great relevance for scholars and policymakers have emerged in this discussion. These aspects are at the heart of this special issue.

First, organizations are a bundle of resources and capabilities and these ingredients do not work in isolation. Competitiveness is a multidimensional construct and scholars have fueled the debate on how to model the competitiveness function for evaluation purposes. Competitiveness is more than the mere growth of quantitative metrics, and firms need to accommodate different aspects that affect their functioning (at all levels) if the realization of the potential of their resources and capabilities is the desired goal (Ketchen *et al.*, 2007). Instead of focusing on quantitative approaches that evaluate the individual contribution of different resources or capabilities to competitiveness we argue that, consistent with recent work, scholars should continue to study the determinants of competitiveness from a multidimensional angle (Hult *et al.*, 2007; Sirmon *et al.*, 2011; Cetindamar and Kilitcioglu, 2013). This way, the analysis of how businesses can effectively orchestrate their resources and capabilities and of how to evaluate the outcomes of their competitiveness from a more holistic, systemic approach.

Because of the relevance of accurately identifying the driving forces of competitiveness in economic contexts demanding more demonstrable returns, effective managerial and

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policy recommendations should be rooted in research that emphasizes evaluation and confronts many often "taken for granted" assumptions. In this sense, much still needs to be studied concerning a number of issues, including, for example, the development of analyses that account for the multidimensional and systemic nature of competitiveness (e.g. the systemic competitiveness index proposed by Lafuente *et al.* (2020a, 2020b) and implemented by different European and Latin American countries through the Global Competitiveness Project (https://www.sme-gcp.org)), the identification of competitiveness improvements resulting from strategies targeting different resources or capabilities, and the study of how the characteristics of the local economic setting affect business competitiveness as well as the configuration of competitive forces (i.e. strengths and weaknesses).

Throughout this editorial note, we address these subjects by providing an overview of the collection of 14 papers included in this special issue on business competitiveness.

2. Contributions of this special issue to the business competitiveness literature

This special issue includes 14 articles that contribute significantly to advance the theory and empirical evidence of business competitiveness. By analyzing the different approaches adopted by the selected papers (Table 1), we observe that business competitiveness can be researched from multiple angles. Note that part of the value of the collection of papers included in this special issue results from the capacity to bring together multiple theoretical premises from different fields – including organizational, resource-based and place-base frameworks.

The richness of these papers also becomes evident in the methodological diversity and geographical coverage of the selected papers. The selected studies use a large variety of methods, spanning from qualitative studies, including in-depth descriptive analysis of composite indicators and fuzzy set QCA models, to quantitative approaches based on regression models, non-parametric frontier methods (i.e. data envelopment analysis [DEA]) and structural equation modeling (SEM). Additionally, the geographic diversity is a constant in the selected manuscripts, and the analyzed settings cover various European – i.e. Bosnia, Czech Republic, France, Hungary, Portugal and Spain – and Latin American – i.e. Brazil, Colombia, Costa Rica and Mexico – countries. By using multiple analytical methods, the selected papers contribute to identify patterns and attributes that are conducive to business competitiveness.

The diversity of the selected papers is entirely consistent with and further reinforces the arguments and logic presented above on the need to analyze the driving forces of competitiveness, while taking into account the multidimensionality of this construct.

Seven of the manuscripts included in this special issue specifically deal with the analysis of different factors explaining competitiveness measured by the *Competitiveness Index* proposed by Lafuente *et al.* (2020a, 2020b). Dvouletý and Blažková (2020, in this issue) study the connection between competitiveness, firm size and age on a sample of 132 Czech SMEs. The regression results (OLS models) suggest that small and medium-sized businesses show a higher competitiveness level, compared to micro businesses with up to ten employees. Also, the authors find that local conditions (location) play an important role in explaining the observed variability in business competitiveness.

Two studies in this group use non-parametric frontier techniques, namely, DEA, to evaluate competitive efficiency. On the one hand, Horváth and Lafuente (2020, in this issue) evaluate how the configuration of competitive pillars affects competitive efficiency among 115 Spanish SMEs. Results indicate that competitiveness-enhancing strategies are heterogeneous across industries. Also, findings show that the observed differences in the prioritization strategies explain variations in competitive efficiency.

355	 a. (2020) - Method: Binary choice model (logi 14) Manress <i>et al.</i> (2020) b. Setting: Spain and Croatia c. Method: SEM model 	t al. (2020) 9. Lukovszki et al. (2020) t al. (2020) - Setting: Bosnia, Colombia, Costa R hoice model (logit) Rep., France, Hungary, Mexico, an – Method: Binary choice model (logi 10) Balogh et al. (2020)	al. (2020) al. (2020) - Setting: Bosnia, Colombia, Costa R velopment Analysis Rep., France, Hungary, Mexico, an lera (2020) - Method: Descriptive analysis/ANC nalysis mona and Gomes	n of papers included in the special issue International (multi-country)
	13) Seclen-Luna <i>et a</i> - Setting: Peru - Method: Regressi	- method: Jun Ind 8) Moreno-Gómez a - Setting: Colombia - Method: Binary cl	 4) Alonso-Ubieta et Setting: Costa Ric Method: Data Enn 5) Bayon and Aguil Setting: Mexico Method: Cluster a 6) De Montreuil Car (2021) Setting: Brazil Method: SFM mon 	ic scope of the collectio Latin America
	 11) Berbegal-Mirabent et al. (2020) Setting: Spain Method: Fuzzy set QCA 12) Farinha, Lopes, Sebastiao, Ferreira, Oliveira, Silveira Setting: Portugal Method: Descriptive and VRIO model 		 Dvouletý and Blažková (2020) – Setring: Czech Rep. – Method: Regression model (OLS) 2) Horváth and Lafuente (2020) – Setting: Spain – Method: Data Envelopment Analysis 3) Markus and Rideg (2020) – Setting: Hungary – Method: Regression model (OLS, logit) 	Geograph
Table 1. Methodology and geographic scope of the articles included in the special issue	Other performance/ competitiveness metrics	Competitive drivers/ factors	Competitiveness index (Lafuente et al., 2020a, 2020b)	Dependent variable

On the other hand, in their efficiency analysis (DEA) of 231 Costa Rican SMEs, Alonso-Ubieta *et al.* (2020, in this issue) find that a balanced configuration of competitive pillars jointly with the prioritization of competitive factors directly connected to innovation produce superior competitive efficiency results.

In their study of 639 Hungarian SMEs based on regression models (OLS and logit), Markus and Rideg (2020, in this issue) find that competitiveness is connected to futureoriented cash flows. Specifically, the authors identify a strong correlation between competitiveness and dividend payments and innovation efforts. Bayon and Aguilera (2020, in this issue) evaluate how differences in managerial perceptions about the strategic relevance of resources and capabilities influence the resource configurations in 62 Mexican SMEs. Results of the cluster analysis reveal four configurations based on the managers' perception of the potential value created by the firms' resources and capabilities. The findings also show that managerial perceptions of the strategic relevance of resources and capabilities might influence business competitiveness.

De Montreuil Carmona and Gomes (2021, in this issue) use SEM to validate the instrument proposed by Lafuente *et al.* (2020a, 2020b) and test the role of size, age and industry on business competitiveness on a sample of 55 Brazilian SMEs. The findings corroborate the validity of the analyzed competitiveness measure (Lafuente *et al.*, 2020a, 2020b) and highlight strong differences in the competitiveness pattern of KIBS businesses vis.a.vis firms in other industries.

In the last paper of this group, Lányi *et al.* (2021, in this issue) examine how digitalization strategies (i.e. quality of websites and social media engagement) impact competitiveness on a sample of 958 SMEs from eight countries (i.e. Bosnia, Colombia, Costa Rica, Czech Republic, France, Hungary, Mexico and Spain). Results of the ANOVA analysis show that both the development and the quality of websites have a positive impact on business competitiveness. Also, the authors find that different online-presence maturity categories contribute to different competitiveness pillars. Business websites are more related to marketing functions than information technology from the competitiveness point of view.

A second group of three papers focuses on different organizational-related factors that are considered *drivers of business competitiveness*. Moreno-Gómez, Escandón-Charris, Moreno-Charris and Zapata-Upegui (2020, in this issue) use logistic regression models to examine how process innovation impacts export propensity on a sample of 57 Colombian knowledge-intensive business services (KIBS) firms and non-KIBS firms. Results highlight a positive relationship between export propensity and KIBS businesses that engage in process innovation actions. Additionally, the findings suggest that the probability to export of KIBS firms increases among businesses with few years of market experience.

Lukovszki, Rideg and Sipos (2020, in this issue) use logistic regression models to identify relevant corporate functions that explain successful innovation processes by SMEs with limited resources on a sample of 784 SMEs from eight countries (i.e. Bosnia, Colombia, Costa Rica, Czech Rep., France, Hungary, Mexico and Spain). The authors find that two corporate functions play a crucial role in the effectiveness of SMEs' innovation processes: management and research and development (R&D). Although the low significance level, the marketing function was also found a relevant factor explaining SMEs' successful innovations. Balogh *et al.* (2020, in this issue) use logistic regression models on a sample of 784 SMEs from eight countries – i.e. Bosnia, Colombia, Costa Rica, Czech Republic, France, Hungary, Mexico and Spain – to analyze the sophistication of the compensation system. Results indicate that, among the sampled SMEs, compensation systems are primarily based on salaries. Also, the authors find that the adoption of sophisticated compensation systems – i.e. including salaries, bonus systems, in-kind payments, employee engagement in

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decision-making – are more prevalent in SMEs whose operation emphasize innovation Gu practices (number of cooperation and innovation agreements) as well as the active implementation of information and communication technologies (ICTs).

The last group of manuscripts includes four papers that use *other specific performance metrics* to evaluate competitiveness in different organizational contexts (Table 1). By proposing a model in which technology transfer outcomes (i.e. intellectual property agreements, spin-offs and technology transfer income) are used to proxy the competitiveness level of 40 Spanish universities, Berbegal-Mirabent *et al.* (2020, in this issue) use a fuzzy set QCA to evaluate the connection between universities' specific resources and competitiveness. From a RBV perspective, results show that different configurations, in terms of resource consumption, explain universities' competitiveness measured as technology transfer outcomes. This finding seems to reflect the characteristics and competencies added by universities, along with the attributes of their socioeconomic context. A relevant policy implication of this study is that the development of a competitive advantage among Spanish public universities might rely on internal intangible resources or specific and inimitable combinations of the available resources.

Building on the premises of the RBV approach (Wernerfelt, 1984; Barney, 2001), Farinha *et al.* (2020, in this issue) interviewed 494 stakeholders to assess the appropriateness and degree of achievement of smart specialization policies implemented by seven Portuguese regions. The findings suggest that the perceived valuation of smart specialization policies by stakeholders is heterogeneous across regions and that these differences might be partially explained by discrepancies in regional competitiveness, in terms of infrastructures and the development of network cooperation within and between regions.

Finally, two studies rooted in the servitization literature (Bustinza *et al.*, 2019; Vendrell-Herrero *et al.*, 2017) evaluate the role of different resources and innovation processes on performance. On the one hand, Seclen-Luna *et al.* (2020, in this issue) use OLS regression models to analyze how human capital impact labor productivity among 584 Peruvian manufacturing firms with different levels of servitization. The results suggest that labor productivity is positively related to human capital. Also, when this relationship is analyzed in terms of the innovation portfolio, findings indicate that the productivity—human capital relationship is stronger among businesses with product—service innovation systems in place than in traditional manufacturing firms that only engage in product innovation.

By using SEM on a sample of 205 Spanish and Croatian manufacturing businesses, Manresa *et al.* (2020, in this issue) examine the capabilities-servitization-performance chain. The authors highlight that digital capabilities are important for the provision of all types of services (base, intermediate and advanced) as these capabilities give businesses tools to better capitalize on digital devices for data acquisition which, in turn, contributes to improve the organizational agility of manufacturing businesses.

3. Directions for future research

Building on the proposed conceptualization of business competitiveness, which emphasizes the multidimensionality of this construct, and the conclusions drawn from the 14 papers included in this special issue, a number of promising future research challenges emerge.

Operationalization of competitiveness. The empirical evidence presented in different papers included in this special issue emphasize the relevance of taking into account the joint interactions between resources and capabilities when it comes to operationalize business competitiveness. In this sense, the first challenge to be tackled by future research would be to propose and test different operationalization options for the conceptual business competitiveness model emerging from the studies presented in this special issue. The validation of the model

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proposed by Lafuente *et al.* (2020a, 2020b) to measure business competitiveness (Alonso-Ubieta *et al.*, 2020 in this issue; Horváth and Lafuente, 2020 in this issue; De Montreuil Carmona and Gomes, 2021 in this issue) is definitely good news for researchers. However, there is no flawless composite indicator, and future studies should make an effort for expanding the model by Lafuente *et al.* (2020a, 2020b) by identifying other factors – e.g. listed status, organizational hierarchy of family businesses, servitization strategies – that can explain and improve the analysis of the business competitiveness construct. Additionally, the operationalization of competitiveness based on primary and secondary databases (see Lopes *et al.*, 2019 in this issue) opens the door for identifying the depth of territorial competitiveness and for establishing wider cross-territorial comparisons.

Weighing competitiveness factors and aggregation of composite indicators. Much still needs to be studied concerning the efficient weighing of the factors that contribute to business competitiveness. Underlying most papers included in this special issue dealing with the analysis of the competitiveness index is the assumption that the ten competitive pillars are equally important in shaping competitiveness and that this equal weighting approach is homogeneous across industries and territories (Bayon and Aguilera, 2020 in this issue; Dvouletý and Blažková, 2020 in this issue; Lányi *et al.*, 2021 in this issue; Markus and Rideg, 2020 in this issue).

Both the demand and access to specific, value-adding resources are heterogeneous across firms as well as across industries and territories. Two studies published in this special issue (Alonso-Ubieta *et al.*, 2020; Horváth and Lafuente, 2020) break the assumption of homogeneous competitive factors – in terms of weights – by using non-parametric frontier models. A common conclusion in these two studies is the value of determining the relative weight of the factors driving the competitiveness index by Lafuente *et al.* (2020a, 2020b). Building on the premises of these two papers, future work in this direction is needed to reveal how businesses capitalize on different resources as well as how different prioritization strategies – in terms of resources and capabilities – contribute to optimal competitiveness improvements. In this sense, the use of normative (e.g. expert-based) and data-driven weighing schemes and the application of non-parametric models (e.g. via the "Benefit of the Doubt" approach by Cherchye *et al.*, 2007) are promising avenues for future work interested in the analysis of competitiveness-enhancing strategies in different geographic settings.

Value of the local entrepreneurial ecosystem. The competitiveness analysis presented and developed in this special issue falls within the wider national system of entrepreneurship approach (Acs *et al.*, 2014) that is in many ways coherent with recent work on entrepreneurial ecosystems (Lafuente *et al.*, 2020a). Depending on the characteristics of the local entrepreneurial ecosystem, the importance and potential value-added of different resources and capabilities may vary across territories. Similarly, competitive performance might be affected by the attributes of the entrepreneurial ecosystem and these differences may become evident across firms and across industries. From this perspective, the role of policy supporting SMEs' competitive positioning should be one of facilitator rather than regulator and focus on improving attributes that strengthen competitive-enhancing strategies based on resource availability criteria. Yet, much still needs to be observed and researched concerning the role of policy for business competitiveness.

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