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*Research Paper*

## How Capabilities Shape Export Performance: Evidence from Portuguese Firms.

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### ABSTRACT

This study examines the capabilities that enhance firms' export performance, emphasizing the multidimensional nature of export-oriented competencies. It develops and validates a 27-item scale to measure four key capability dimensions: dynamic capabilities, technological capabilities, marketing capabilities, and entrepreneurial orientation. The items used to measure the capabilities of exporting companies were adapted from the literature. An online survey was conducted with 267 exporting firms located in the central region of Portugal. The measurement model was validated using confirmatory factor analysis (CFA), ensuring construct reliability and validity. The results indicate that all four capabilities have a positive relationship with three measures of export venture performance: financial, strategic, and achievement. Among them, dynamic capabilities - specifically sensing and seizing - and marketing capabilities show stronger correlations with annual export performance. This study confirms the validity of operationalizing export capabilities as a second-order reflective construct. By operationalizing export capabilities through a validated scale, this study provides a more comprehensive measurement tool for firms and policymakers to assess a firm's strengths and weaknesses in international markets. The study's conclusions offer valuable guidance for firms navigating uncertainty about which organizational capabilities to develop to enhance export performance when expanding their operations abroad.

**Keywords:** Dynamic capabilities; technological capabilities; marketing capabilities; entrepreneurship orientation; export performance.

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## 1. INTRODUCTION

Exporting is a fundamental strategy that benefits both countries and their companies. From the perspective of countries, exports contribute to balancing the trade balance and driving economic growth. By expanding their operations to foreign markets, countries can reduce their exposure to domestic recessions or slowdowns, increase their foreign reserves, boost production, create jobs, and stimulate investment and technological development (Lages & Montgomery, 2004). From the perspective of companies, exports enable the acquisition of new customers, improve profit margins, and reduce the risk of relying solely on one country (Leonidou et al., 2007).

However, exports also present some obstacles to organizations, including longer payment deadlines, issues associated with exchange rates, economic and political instability, and difficulties associated with a lack of market knowledge (Lages et al., 2009). The development of internal capabilities can help companies address these challenges and seize opportunities offered by exports (Jin & Cho, 2018).

Capabilities are defined as sets of competencies, behaviors, processes, and routines that enable a company's potential to achieve certain objectives and goals (Teece et al., 1997). They are unique combinations of tangible or intangible resources based on knowledge, indicating what the company can achieve when sets of resources work together (Tsai & Shih, 2004).

To understand the unique competencies that allow exporting companies to differentiate themselves in their target markets, this study identifies the capabilities of exporting companies that are essential to improving their performance in export markets.

The perception of whether marketing capabilities contribute to a company's export success can be pertinent to decisions, such as investment in communication or product development. However, the technology or dynamic capabilities of companies may contribute to export success. Furthermore, the ability to assess a company's internal perspective on its own export performance may allow us to understand the evaluation that companies make of the market, how companies perceive themselves, and when they decide to invest in their capabilities.

Investigating this topic can help ensure that data is always up-to-date and enable relevant entities, businesses, and industrial associations to assess and create an environment conducive to the development of exports, and consequently, of companies.

The main objective of this study is to create a tool for identifying the distinctive capabilities that enable Portuguese exporting companies to improve their performance in international markets. The research develops and validates a multidimensional scale that measures firms' export capabilities, focusing on four key dimensions - dynamic capabilities, technological capabilities, marketing capabilities, and entrepreneurial orientation. Furthermore, the study examines the impact of these dimensions on annual export performance. The findings provide valuable guidance for firms navigating uncertainty about which organizational capabilities to develop to enhance export performance.

This study unfolds in a structured manner, beginning with an exploration of the theoretical landscape in the following section. The methodology section outlines the intricate procedures involved in developing a scale to measure exporting firms' capabilities. In the results section, we delve into a detailed examination and discussion of the empirical findings. Moving forward, we draw principal conclusions, delving into the theoretical implications and practical insights collected from our analysis. Finally, we examined the limitations of our study and outlined avenues for future research.

## **2. LITERATURE REVIEW**

The current socioeconomic context justifies the focus on exports as a means of ensuring the survival and increasing the competitiveness of companies. Organizations with distinctive capabilities and a presence in international markets are better equipped to withstand and recover from economic crises.

The recent crises of the COVID-19 pandemic and the Russia-Ukraine conflict caused a rise in commodities and labor pricing. During the COVID-19 pandemic, companies that demonstrated greater resilience to the crisis adapted quickly, shifting the types of products they marketed, moving from offline to online channels, and seeking new markets for their products (Jeong & Yang, 2023). In addition to the COVID-19 pandemic, the raw material crisis resulting from the Ukrainian war highlighted that companies with a greater capacity to resist the crisis were those that diversified their suppliers, maintained strategic inventories, adapted their production

processes, invested in new technology, and efficiently managed their strategic planning (Milewska, 2022).

Digital platforms and discretionary adaptation strategies are essential for responding to export market challenges (Liu et al., 2025). As globalization and digital technologies continue to transform international trade, businesses must adapt to remain competitive in the global market. However, the effectiveness of these strategies may vary depending on factors such as management international experience, export market competition, and distinctive capabilities (Lages et al., 2005; Liu et al., 2025).

In this study, we focus on dynamic capabilities, technological capabilities, marketing capabilities, and entrepreneurial orientation. Consistent with previous research, this study posits that successful internationalization is not the result of a singular capability but rather an integrated bundle of capabilities that effectively address market demands (Lages et al., 2005). The synergistic interaction of these capabilities is essential in establishing competitive advantages that facilitate business success in the global marketplace.

Dynamic capabilities are defined as a company's unique potential to generate new organizational knowledge that enables it to respond to changes in markets and technologies (Teece, 2007). Silva and Meirelles (2014) identify two lines of approach in various definitions of dynamic capabilities: i) a set of skills, behaviors, and organizational capabilities, and ii) a set of routines and processes. Dynamic capabilities are based on behaviors of change and innovation that result in new ideas, products, and services (Teece, 2009).

Wang and Ahmed (2007) consider that dynamic capabilities consist of adaptive, absorptive, and innovative capacities. Adaptive capacity refers to a company's ability to identify and capitalize on emerging market opportunities and to adapt in a timely manner through resource flexibility and alignment with capabilities related to environmental changes. Absorptive capacity emphasizes the importance of acquiring external knowledge, combining it with internal knowledge, and absorbing it for internal use within an organization. Lastly, innovative capacity is the company's ability to develop new products and markets through a strategic alignment orientation towards innovative behaviors and processes.

Teece (2007) divided dynamic capabilities into sensing, seizing, and reconfiguring capabilities. Sensing refers to the ability to detect an emerging opportunity before it fully materializes. Seizing encompasses all routines and processes that ensure that strategic choices and investments are made

during emerging opportunities. Finally, reconfiguring encompasses all organizational routines that execute the decisions made through the implementation of new processes or the adaptation of existing ones.

Technological capabilities refer to a company's ability to acquire important technological information, identify, and respond to new technological opportunities, master cutting-edge technologies, and continually develop innovations (Freixanet et al., 2021; Zhou & Wu, 2010).

According to Zhou and Wu (2010), when a company builds its technological capabilities, its learning capacity increases, which, in turn, encourages receptiveness to external information. As a company accumulates technological knowledge, it becomes more efficient in evaluating, assimilating, and applying existing knowledge to product extensions and improvements (Zhou & Wu, 2010). These competencies foster creativity and facilitate product development (Freixanet et al., 2021).

Technological capabilities are critical for an organization's success. Companies with superior technological expertise have greater skills and resources, which contribute to strategic endeavors. First, the accumulation of technical knowledge enables a company to understand and recognize the value of technological development, which in turn provides insights into how to leverage current knowledge and competencies (Cohen & Levinthal, 1990). Second, as a company accumulates knowledge in a specific technological area, it becomes more proficient in assimilating external knowledge in similar areas because of the positive feedback between experience and learning (Lieberman & Montgomery, 1998). Third, applying similar knowledge in existing domains to enhance a product is consistent with the current organizational processes and routines. Therefore, a high level of technological capability enables further development of existing knowledge (Stuart & Podolny, 2007).

Marketing capabilities can be considered a strategic resource for a company because they are distinct for each organization (Song et al., 2008). They are defined as the capabilities to respond to the needs of export customers and connect the products of companies to these needs (O'Cass et al., 2015; Sharma et al., 2018). They include knowledge of competition and customers and competencies in market segmentation, communication, pricing, and control and evaluation of marketing activities (Sharma et al., 2018; Song et al., 2008; Zou et al., 2003).

The development of marketing capabilities requires a company to invest time and resources and to have the capacity to develop, communicate, market, and deliver goods and services with unique

value to export customers (O'Cass & Weerawardena, 2010). Distinctive marketing capabilities are sources of competitive advantage and contribute to increasing export performance (Vicente et al., 2017), as they help the company respond to market demands and anticipate changes in market conditions (Mariadoss et al., 2011).

Entrepreneurial orientation influences how organizational leaders respond to environmental uncertainty as it reflects managers' willingness to take risks, be proactive, and experiment with innovative methods (Xu et al., 2018).

In this study, entrepreneurial orientation is a combination of three dimensions: innovativeness, proactiveness, and risk-taking (e.g., Miller, 1983; Xu et al., 2018). Innovativeness refers to a tendency towards novelty, creativity, and experimentation in the development of new products, services, or technical processes (Hossain et al., 2023; Lumpkin & Dess, 1996). Proactiveness reflects the ability to seize market opportunities by anticipating future market wants and needs (Hossain et al., 2023). Finally, risk-taking is associated with a willingness to commit significant resources to projects and bold decisions to seize opportunities in the marketplace despite the high cost of potential failure (Hossain et al., 2023; Lumpkin & Dess, 1996).

Entrepreneurial orientation can be considered a management style in which companies prepare for what the market will be in the future or they themselves create the future of the market, either by possessing new information or new technologies, or by deciding to apply or develop them, ultimately creating solutions that will create and respond to the new and latent needs of users (Hughes & Morgan, 2007).

In this study, entrepreneurial orientation is considered a capability because it influences networking capabilities and resource combinations, which are key capabilities for firms to access resources and stay competitive in international markets (e.g., Martin & Javalgi, 2016).

Export performance is a fundamental aspect of decision-making in international trade. This is the result of the path a company travels to achieve its goal of exporting a product to a foreign market (Navarro et al., 2010).

Tan and Sousa (2015) argue that export performance is influenced by two strategies: low-cost and differentiation. A low-cost strategy is a business approach in which a company aims to become the lowest-cost producer in its industry or market segment. This strategy consists of offering products or services at prices lower than competitors' prices while maintaining acceptable levels

of quality (Porter, 1980). The differentiation strategy focuses on working on the product variable to create a unique product, thus making it difficult for competitors to imitate (Porter, 1980).

### 3. METHODOLOGY

The investigation was conducted in 2021 and involved the selection of exporting firms belonging to the central region of Portugal.

Model testing relied on the data gathered through an online questionnaire. In total, 267 valid responses were collected. Among the respondents, 52% held positions as presidents or managers within the surveyed companies and had an average of 11 years' experience in exporting.

To mitigate concerns related to common method variance, the procedures recommended by Podsakoff et al. (2003) were implemented. Specifically, respondents' anonymity was ensured, they were informed that there were no correct or incorrect responses, and the sequence of measuring both the independent and dependent variables was counterbalanced. Furthermore, the Harman's Single-Factor Test was utilized. The goodness-of-fit indices for the Harman's one-factor model demonstrate a poor fit, indicating that common method bias is unlikely.

Firm size was assessed using the number of full-time employees. The results indicate that 42% of the companies had fewer than 10 employees, 23% had between 10 and 19 employees, 19% had between 20 and 49 employees, 8% had between 50 and 99 employees, 7% had between 100 and 499 employees, and 1% had 500 or more employees.

The companies in question have an average operational history of 23 years and an average export experience of 13 years. Their main export markets are Spain, France, and Angola.

### 4. RESULTS

To enhance the precision of the measures and evaluate the reliability and validity of the constructs, the items were submitted for both exploratory and confirmatory factor analyses.

The overall chi-squared value for this model was statistically significant ( $\chi^2=804.57$ ,  $df=303$ ,  $p<0.00$ ).

Additional measures of fit were investigated: comparative fit index (CFI=0.95), incremental fit index (IFI=0.95), Tucker-Lewis fit index (TLI=0.94), and root mean square error of approximation (RMSEA=0.079). The results indicated a good fit between the model and the collected data.

Table 1 presents the final constructs, items, and scale reliability.

**Table 1.** Constructs, items, and scale reliabilities.

Construct/items	Standardized loadings
Dynamic Capabilities - Sensing and Seizing (adapted from Wilden et al., 2013) (AVE=0.52, CR=0.81, $\alpha=0.80$ )	
Scale: 1-strongly disagree; 5-strongly agree	
1. We observe best practices in our sector	0,75
2. We gather economic information on our operations and operational environment	0,63
3. We invest in finding solutions for our customers	0,69
4. We adopt the best practices in our sector	0,79
Dynamic Capabilities - Reconfiguring (adapted from Wilden et al., 2013) (AVE=0.60, CR=0.86, $\alpha=0.85$ )	
Scale: 1-strongly disagree; 5-strongly agree	
1. Implementation of new kinds of management methods	0.68
2. New or substantially changed marketing method or strategy	0.80
3. Substantial renewal of business processes	0.81
4. New or substantially changed ways of achieving our targets and objectives	0.74
Technological capabilities (adapted from Zhou & Wu, 2010) (AVE=0.70, CR=0.92, $\alpha=0.92$ )	
Scale: 1-strongly disagree; 5-strongly agree	
1. Acquiring important technology information	0,86
2. Identifying new technology opportunities	0,84
3. Responding to technology changes	0,90
4. Mastering the state-of-art technologies	0,82
5. Developing a series of innovations constantly	0,78
Entrepreneurial orientation- Innovativeness (adapted from Xu et al., 2018) (AVE=0.50, CR=0.74, $\alpha=0.72$ )	
Scale: 1-strongly disagree; 5-strongly agree	
1. A strong emphasis on R&D, technological leadership, and innovation	0,55
2. Having many new lines of products or services	0,80
3. Changes in product or service lines have usually been quite dramatic	0,75
Entrepreneurial orientation- Risk-taking (adapted from Xu et al., 2018) (AVE=0.49, CR=0.74, $\alpha=0.74$ )	
Scale: 1-strongly disagree; 5-strongly agree	
1. A strong emphasis on high-risk projects with chances of very high returns	
2. A bold and aggressive posture to maximizing the probability of exploiting potentials when faced with uncertainty	0,73
3. Owing to the environment, bold and a wide range of actions are necessary to achieve the firm's objectives	0,70
	0,66
Entrepreneurial orientation- Proactiveness (adapted from Xu et al., 2018) (AVE=0.53, CR=0.69, $\alpha=0.69$ )	
Scale: 1-strongly disagree; 5-strongly agree	
1. Usually initiating actions to which competitors will respond	0,72
2. Very often being the first firm to introduce new products/services technologies	0,74
Marketing capabilities (adapted from Sharma et al., 2018) (AVE=0.52, CR=0.86, $\alpha=0.88$ )	
Scale: 1-strongly disagree; 5-strongly agree	
1. Knowledge of competitors	0,52
2. Knowledge of customers	0,58
3. Skills to segment and target markets	0,68
4. Effectiveness of pricing programs	0,58
5. Effectiveness of advertising programs	0,93
6. Control and evaluation of marketing activities	0,92

AVE- variance extracted; CR-composite reliability;  $\alpha$ -internal reliability.

To ascertain the accuracy of the measures in representing the intended concept, we examined various validity procedures, including convergent validity, discriminant validity, and nomological validity.



Convergent validity was evaluated by computing the average variance extracted (Fornell & Larcker, 1981). All values meet or exceed the threshold of 0.5, except the Entrepreneurial Orientation “Risk Taking”, in which the value presented is 0.49, very close to the lower limit (Hair et al., 2010).

Composite reliability was computed for each construct (Bagozzi, 1980). All constructs meet the recommended minimum threshold for composite reliability of 0.7 (Nunnally, 1978), except “Proactiveness” which reaches the value of 0.69, which is very close to the minimum reference limit.

Discriminant validity was evaluated by examining the construct intercorrelations. The root of the AVE for each construct was compared with the shared variance between the constructs. The square root of AVE must be higher than the correlation between one construct and any other (Fornell & Larcker, 1981).

Table 2 presents a summary of the means, standard deviations, and correlation matrices of the constructs.

**Table 2.** Means, standard deviations, and correlations among constructs.

Construct	Mean	Standard deviation	1	2	3	4	5	6	7
1. Dynamic Capabilities - Sensing and Seizing	4,19	0,55	<b>0,72</b>						
2. Dynamic Capabilities - Reconfiguring	3,57	0,75	,56**	<b>0,77</b>					
3. Technological capabilities	3,47	0,73	0,41**	0,5**	<b>0,84</b>				
4. Entrepreneurial orientation- Innovativeness	3,32	0,75	0,24**	0,41**	0,33**	<b>0,70</b>			
5. Entrepreneurial orientation- Risk-taking	3,14	0,75	0,16*	0,42**	0,29**	0,65**	<b>0,70</b>		
6. Entrepreneurial orientation- Proactiveness	3,26	0,83	0,38**	0,52**	0,55**	0,55**	0,65**	<b>0,73</b>	
7. Marketing capabilities	3,29	0,59	0,26**	0,33**	0,43**	0,33**	0,39**	0,4**	<b>0,72</b>

\*\*p<0.01

<sup>a</sup> The diagonal (in bold) shows the square roots of the average variance extracted.

Adequate discriminant validity is demonstrated as the square root of the AVE for each of the two constructs (on the diagonal) exceeding the correlation between those constructs (off-diagonal).

To evaluate nomological validity, we examined the relation between our scale constructs and other constructs that were theoretically related in previous research but not directly included in the model (Vicente et al., 2015).

Based on the literature, both theoretical frameworks and empirical evidence suggest a positive correlation between capability and performance.

Prior studies indicate that dynamic capabilities play a crucial role in enabling firms to achieve superior performance (Teece, 2007). Furthermore, technological capabilities equip companies with the capacity to create value (Zhou & Wu, 2010). Marketing capabilities, facilitating an understanding of customers and competitors as well as the ability to segment markets, enhance export performance (Jin & Cho, 2018). Finally, there is evidence that entrepreneurial orientation enhances international performance across markets (Martin & Javalgi, 2016).

Table 3 shows the correlation coefficients between the factor scores for each construct of export capability and performance.

**Table 3.** Export capabilities and annual performance.

	Annual Performance		
	Export venture financial performance ( $\alpha=0.85$ )	Export venture strategic performance ( $\alpha=0.90$ )	Export venture achievement ( $\alpha=0.92$ )
1. Dynamic Capabilities - Sensing and Seizing	0.35**	0.38**	0.36**
2. Dynamic Capabilities - Reconfiguring	0.25**	0.27**	0.19**
3. Technological capabilities	0.26**	0.26**	0.21**
4. Entrepreneurial orientation- Innovativeness	0.19**	0.20**	0.11
5. Entrepreneurial orientation- Risk-taking	0.28**	0.16*	0.17*
6. Entrepreneurial orientation- Proactiveness	0.25**	0.27**	0.20**
7. Marketing capabilities	0.31**	0.20**	0.33**

\*\*p<0.01

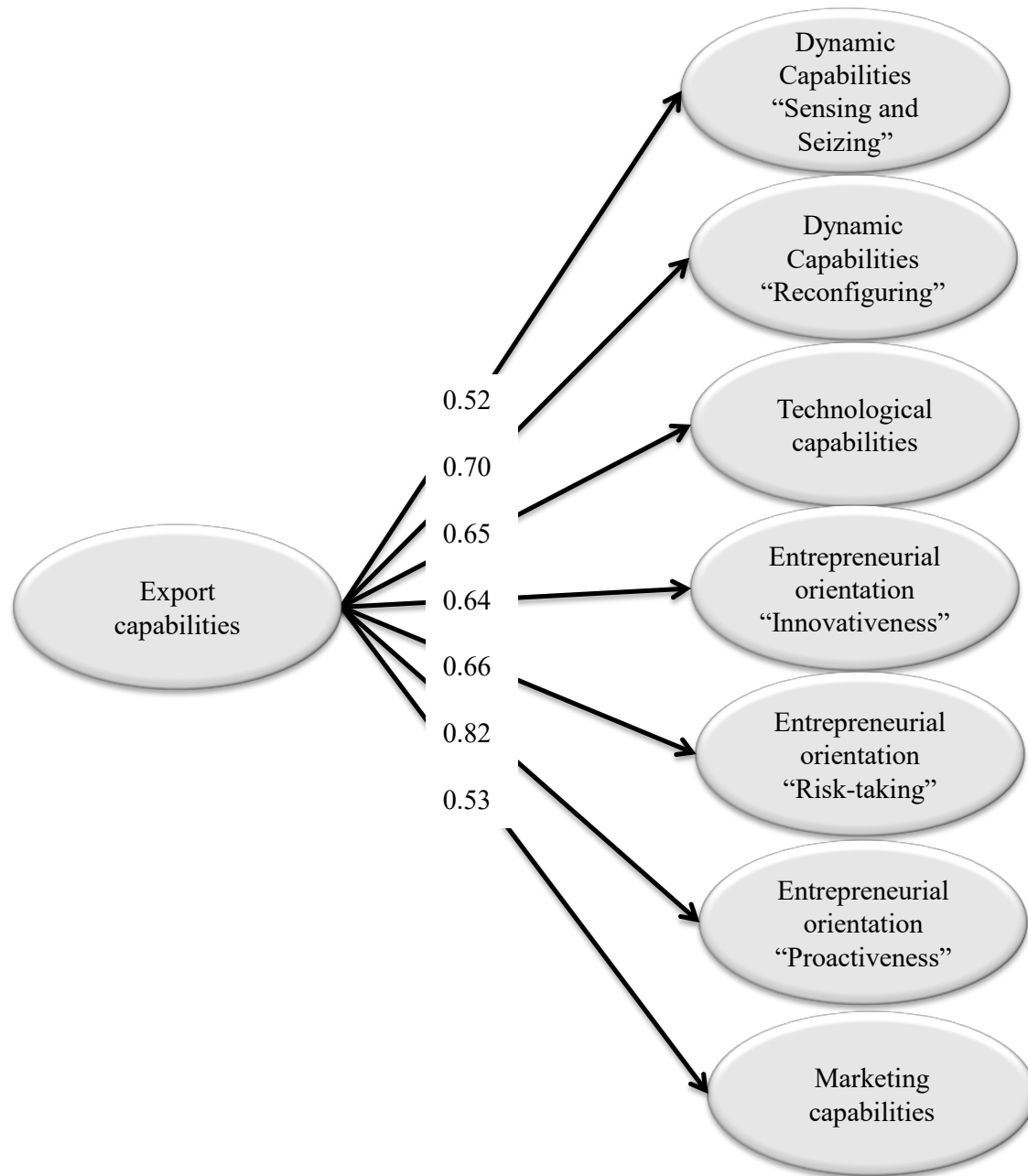
$\alpha$ =internal reliability

All constructs exhibit positive and statistically significant correlations with export performance. Hence, we can infer that the nomological validity of the proposed construct scale is sustained (Hair et al., 2010).

In addition, we observe that dynamic capabilities (sensing and seizing) and marketing capabilities show a stronger correlation with annual export performance.

A second-order factor model of export capabilities was also constructed. This higher-order factor is posited as the driver of capabilities, gauged by reflexive items. The model encompasses first-order factors, standardized coefficients, observable indicators, and measurement errors (see Figure 1).

The first-order factors have significant (at  $p < 0.01$ ) loadings of 0.52, 0.70, 0.65, 0.64, 0.66, 0.82, and 0.53, respectively, on the second-order factor. The  $\chi^2$  value for the second-order model was significant ( $\chi^2 = 878.65$ ,  $df = 317$ ,  $p < 0.00$ ). The model had good fits: the comparative fit index (CFI=0.94), the incremental fit index (IFI=0.94), the Tucker-Lewis fit index (TLI=0.94), and the root mean square error of approximation (RMSEA=0.082). The  $\chi^2$  difference test between the first and second-order models was not significant ( $\Delta\chi^2 = 74.08$ ,  $\Delta df = 14$ ), suggesting that the higher-order model accounted for the data well (Hair et al., 2010).



**Figure 1.** Export capabilities - second-order model.

## 5. DISCUSSION

Exporting continues to offer a promising avenue for research as companies continue to use this strategy when expanding their operations abroad with the aim of increasing both sales and profits. However, as stated by Martin and Javalgi (2016) “*international markets are environments of rapid*

*change, shortened product, and business model lifecycles, where the future profit streams from existing operations are uncertain and businesses need to constantly seek out new opportunities”* (p. 2044).

Therefore, it is important to identify the key capabilities of exporting companies relevant to increasing performance in international markets. Understanding major capabilities can help managers decide where to invest to improve company performance. In addition, by understanding which capabilities increase export performance, the government’s export-supporting institutions can design investment and support programs tailored to and targeted at developing key resources and competencies.

This study finds that exporting firms’ capabilities can be measured by dynamic capabilities, technological capabilities, marketing capabilities, and entrepreneurial orientation. All these capabilities demonstrate a direct and positive relationship with the performance of exporting companies.

In terms of dynamic capabilities, items such as observing and adopting the best sector practices, collecting information about the business environment, and looking for client solutions should be the company’s emphasis. In addition, companies should continually implement new management, marketing, and business strategies to achieve their targets and objectives.

Regarding technological capabilities, identifying and acquiring new technology, responding to technological changes, mastering cutting-edge technologies, and constantly developing innovations positively affect a company’s export performance.

Marketing capabilities, such as knowledge of competitors and customers, skills to segment and target markets, and effective price and advertising programs, enhance performance in the export market.

Regarding entrepreneurial orientation, firms with superior entrepreneurial orientation are more likely to adopt a strategic posture to innovate, take aggressive risks, and pursue proactive behaviors. This means that companies need to focus on research and development (R&D), technological leadership, and innovation and invest in new lines of products and services. In addition, organizations need to have a strong emphasis on high-risk projects and a bold and aggressive posture to explore possibilities when faced with uncertainty. Finally, companies should focus on initiating actions in which competitors will respond and are the first to introduce new product or service technologies.

In export markets, companies can transform these capabilities into added value, which becomes a competitive advantage and increases performance by developing processes, products, and strategies that are suitable to exploit foreign market opportunities.

## **6. CONCLUSION**

This study develops a multidimensional scale to assess firms' export capabilities, concentrating on four essential dimensions - dynamic capabilities, technological capabilities, marketing capabilities, and entrepreneurial orientation. All these dimensions demonstrate a positive and statistically significant correlation with export performance. Dynamic capabilities (sensing and seizing) and marketing capabilities reveal a stronger correlation with financial performance and achievement. Dynamic capabilities (sensing and seizing) demonstrate the higher correlation with strategic performance.

By measuring different facets of export capabilities, this scale can help identify which specific capabilities are most critical for success in different export markets or industries.

### **6.1 Theoretical implication**

The export capabilities scale can advance the resource-based view (RBV) by providing a more nuanced understanding of how specific capabilities contribute to competitive advantage and performance in international markets.

Research has shown that various organizational capabilities play crucial roles in enhancing export performance and achieving competitive advantages in foreign markets. For instance, informational, relational, and marketing capabilities have been found to provide export firms with competitive advantages and improve their export performance (Keskin et al., 2021). Similarly, technological and marketing capabilities have been linked to enhanced performance in international markets for small and medium-sized enterprises (SMEs) (Jin & Cho, 2018). However, some studies have revealed contradictions or nuanced findings. For example, while service advantages generally contribute positively to export performance, competitive intensity has been found to negatively moderate this relationship, contrary to most existing literature (Keskin et al., 2021).

In this study, we demonstrated that dynamic capabilities, technological capabilities, marketing capabilities, and entrepreneurial orientation are positively related to annual export venture performance. Effectively managing these resources and capabilities for export activities is indeed

seen as essential for comprehending performance differences among export companies. Variations in these abilities can explain why some firms perform better than others within the same industry. This nuanced approach aligns with the RBV framework and can help predict which resources and capabilities are most likely to lead to superior profitability in international markets.

## **6.2 Managerial implication**

The export capabilities scale can offer a more detailed understanding of how specific resources and capabilities contribute to performance in international markets. By identifying and measuring capabilities such as dynamic capabilities, technological capabilities, marketing capabilities, and entrepreneurial orientation, managers can better understand their individual and combined effects on export performance. In addition, this scale encourages managers to adopt a wider view of the export capabilities, taking into consideration relationships between different functional areas within the firm.

A well-developed scale helps managers identify areas needing attention and comprehend how export capabilities facilitate value creation. To improve a firm's performance in the international market, managers should target specific factors that have a substantial impact on the outcome variable.

Moreover, the export capabilities measurement scale enables firms to identify areas for improvement, benchmark against competitors, and identify areas where investment or improvement is needed to enhance export performance.

## **6.3 Limitations and future research directions**

This study has some limitations. The first limitation was the low response rate. A questionnaire survey was administered during the COVID-19 pandemic. This was a period of stress for companies, especially at managerial level, which were the respondents of this study.

The second limitation is related to the incomplete survey responses. A total of 267 incomplete responses were obtained. Several attempts have been made to encourage incomplete surveys, but without success.

A third limitation concerns the generalizability of the research findings. We collected data from the central region of Portugal. This specific context may influence local industries and economic activities in ways that differ from other regions. Future research could benefit from comparative studies across different countries and regions to better understand which findings are country or region-specific and which have broader applicability. For example, Brock and Hitt (2024)

highlight the importance of studying capabilities for different entry modes in international markets. Krammer et al. (2018) suggest that political instability and informal competition significantly influence the export propensity of emerging economy firms. In addition, it would be interesting to analyze environmental influences, including competitive intensity, market turbulence, and technological intensity, and how they affect export performance.

Moreover, in this study, we analyze the individual dimensions of dynamic capabilities and entrepreneurial orientation constructs in isolation. Future studies should integrate these dimensions and treat them as second-order constructs.

Finally, it is important to emphasize that previous research has demonstrated a mediated relationship between capabilities and export performance. Considering this, we propose that a study incorporating mediators would elucidate the significance of these mediators and their respective contributions in elucidating the mechanisms through which capabilities may impact export performance. Subsequent investigations could delve into the interrelationships among these mediators, potentially revealing a more intricate dynamic such as mediated or moderated mediation effects. For example, Jin and Cho (2018) demonstrate the full mediating effects of technological and marketing capabilities on international entrepreneurial orientation and export performance.

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