

DYNAMIC CAPABILITIES AND INTERNATIONAL ENTREPRENEURSHIP IN PERNAMBUCO'S TECHNOLOGICAL PARK: AN ANALYSIS OF PORTO DIGITAL'S COMPANIES

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ABSTRACT

International Entrepreneurship (IE) and Dynamic Capabilities (DCs) have been gaining prominence, especially in technology-based companies. The search for this achievement leads organizations to take risks and use proactive and entrepreneurial positions. Organizations adapt processes, routines, and tools to reach the desired goal. This link between dynamic capabilities and international entrepreneurship has proven to be critical to the success of internationalization. This paper investigates how dynamic capabilities influence Porto Digital companies' international entrepreneurship. A multiple-case study was conducted with companies that have joined this technology park to enable the investigation. The data were collected through interviews with strategic managers, who had information about the internationalization of the enterprises, and secondary data obtained from newspaper and magazine articles via subscription access. Two links were revealed between dynamic capabilities and the IE dimensions: identification and exploitation of opportunities, the ability to establish relationships, the propensity to adapt, and the ability to learn. Only some studies exist on countries with emerging economies in what is considered a still-recent field. Both the limitations and the lessons learned by strategic managers for internationalization contribute to a more robust vision of the internationalization process and the application of dynamic capabilities for company survival and competitive advantage. The topic investigation and comprehension in companies based in one of Latin America's largest technology parks reveal the influence of DCs and IE dimensions that occur in a tenuous and critical way for the internationalization process.

Keywords: International Entrepreneurship; Dynamic Capacities; Digital Port.

INTRODUCTION

Globalization has influenced the opening of international markets and allowed more economic integration. In this context, it is observed that information, capital, and technology are projected beyond national borders (Friedman, 1999), allowing multinational corporations to expand operations in several countries (Feenstra and Hanson, 1997).

Within this scope, International Entrepreneurship (IE) stands out, and it can be considered a recent field of research initially mentioned by Morrow (1988) and investigated in academia by McDougall (1989). The IE studies started in the area of company internationalization with a focus on firms called “born globals.” Research on these firms has been gaining relevance in the academic field and is concentrated mainly in the technology sector (Chakravarty, 2021; Keupp & Gassmann, 2009; Ribeiro et al., 2012).

In this sense, as research advances, the theoretical framework develops and evolves regarding the understanding of the IE concept, which can be understood as “a combination of innovative, proactive, and risk-taking behavior that crosses national boundaries and aims to create value in organizations” (McDougall & Oviatt, 2000, p. 903). Such an understanding pervades the conception that IE comprises only commercial organizations that seek to create competitive advantages in using resources and selling end products in multiple countries (Oviatt & McDougall, 1994).

Currently, the phenomenon has been observed in large and small organizations, as well as old and new ones (Coombs et al., 2009), which demonstrates the need for further research (Ahmed & Brennan, 2021; Keupp & Gassmann, 2009). In this context, internationalization, such as entrepreneurship, is not considered a static phenomenon but rather a process (Dimitratos & Plakoyannaki, 2003; Keupp & Gassmann, 2009). Venkataraman et al. (2012) point out that during the internationalization process, the entrepreneur is required to act and interact with the environment and relate to the identification and exploitation of opportunities in a dynamic way.

In Brazil, there has been growth in entrepreneurship indicators. According to the study published by the Global Entrepreneurship Monitor (GEM), Brazil went from 27 million entrepreneurs in 2011 to 53 million in 2019. More unstable scenarios can be seen in developing countries. Companies must be entrepreneurial and attentive to threats and new opportunities (Guerra et al., 2016; Herrmann et al., 2017).

Thus, in the internationalization process for entrepreneurs to act in a complex environment, dynamic capabilities help organizations through reconfiguration and integration of competencies, ensuring a competitive advantage to act and perform business activities (Teece et al., 1997). Thus, it must have dynamic capabilities to recognize the value of new external information, assimilate it, and apply it commercially, identify and capitalize on emerging market opportunities, and develop new innovative products and services in quantity and quality superior to those of competitors (Mckelvie & Davidson, 2009; Wang & Ahmed, 2007). Therefore, the study of dynamic capabilities proves indispensable for this research.

Thus, this study aims to contribute to the advancement of management knowledge by relating the IE and dynamic capabilities in organizations in the technology field, specifically Porto Digital. Porto Digital is one of the largest technology parks in Brazil (Steiner et al., 2008) and concentrates on entrepreneurs seeking differentiation through technology and innovation in the domestic and global markets. Furthermore, this research aims to contribute by analyzing organizations in a country with an emerging economy and thus fill the gap in the scientific literature due to the scarcity of research in developing nations (Ahmed & Brennan, 2021; Johanson & Vahlne, 2009). In view of the above, the following research question is posed: How do dynamic capabilities influence the international entrepreneurship of companies in the Digital Port?

THEORETICAL FRAMEWORK

Next, the EI and dynamic capabilities literature is presented.

Dynamic capabilities

As markets develop, environments become more complex and dynamic, technological change becomes faster, and dynamic capabilities gain relevance as they enable organizations to deal with these issues in ways that provide competitive advantage (Teece, 2007; Teece & Pisano, 1994; Teece et al., 1997). In the initial definition proposed by Teece et al. (1997, p. 516), “dynamic capability” is defined as the firm’s ability to integrate, build, and reconfigure external and internal competencies in rapidly changing environments. Eisenhardt and Martin (2000), differently from what was proposed by Teece et al. (1997), understand dynamic capabilities as an organizational process that achieves, through routines and strategies, the reconfiguration and recombination of resources to obtain a competitive advantage, mostly gui-

ded by the resource-based view (RBV) and not adhering to the theoretical approach used by Teece (Di Stefano *et al.*, 2014).

According to Zollo and Winter (2002), an understanding of dynamic capabilities is developed as the field evolves. They understand DCs as a pattern of collective activity that uses mechanisms to modify the routine in search of learning efficiency. In this same vein, Wang and Ahmed (2007) understand it as a constant behavior to reconfigure, recombine, renew, and recreate resources and capabilities for reconfiguring key capabilities to act and sustain competitive advantage in the face of a changing environment. Zahra *et al.* (2006) consider DCs to be able to reconfigure company resources and routines as planned by the organization's top manager. Moreover, some authors understand it this way (Andreeva & Chika, 2006; Collis, 1994; Wang & Ahmed, 2007; Zollo & Winter, 2002).

Di Stefano *et al.* (2014) argue that the DC field builds on a heterogeneous foundation due to the existing dichotomy in seminal introductory articles based on different perspectives. Thus, as the field evolves, divergence in understanding prevails because the introductory concepts are contradictory. Thus, as advances are made, Teece (2014) argues that dynamic capabilities intertwined with internationalization strategies are fundamental to competitive advantage.

International Entrepreneurship

According to Schumpeter (1988), entrepreneurship is intrinsically related to the innovation process, and he introduces the term "creative destruction," which has implications for product creation, in which existing methods are destroyed and replaced by new ones. Gimenez *et al.* (2014) agree with Schumpeter and complement his view by considering the act of entrepreneurship as relating to someone who, under financial uncertainties and risks, generates an innovative idea using a combination of resources. Dornelas (2014) starts from the perspective of people and the identification of opportunities when determining that working together generates the transformation of ideas into opportunities and opportunities into businesses.

By analyzing the phenomenon from a global perspective, International Entrepreneurship (IE) gains relevance in the academic field by helping understand the internationalization process. In this sense, IE was defined by McDougall (1989) as "the development of new international companies or startups that from the outset engage in international business, thus having their domain

operations be international from the early stages of the firm's operation" (McDougall, 1989, p. 387). According to Zahra and George (2002), IE is viewed as a process of discovery, identification, and creative discovery. In the logic of opportunity exploration, Dimitratos and Plakoyiannaki (2003) contribute to the view established by Zahra and George (2002) and add to it by integrating organizational culture into IE and the role of the entrepreneur. In this panorama, Mtigwe (2006) also identifies International Entrepreneurship as a process; however, his conception builds on Dimitratos and Plakoyiannaki's (2003) viewpoint by highlighting entrepreneurial behavior in the concept of International Entrepreneurship as crucial to a business outcome, contemplating courageous management in which innovative, proactive individual engagement and favorable behavior are used to face calculated risk designed to process overseas business opportunities presented by multinational market imperfections and success, as well as financial and non-financial rewards.

Classical studies have contributed significantly to the literature review (Dimitratos & Plakoyiannaki, 2003; Oviatt & McDougall, 1994; Zahra & George, 2002) and theoretical-empirical studies (Anderson, 2000; Schweizer *et al.*, 2010; Welch & Welch, 2004). Thus, the area is relevant and demands the improvement of export practices, diversification, the evolution of the growth rate, and achieving economies of scale (Czinkota, 1994).

Dynamic capabilities and international entrepreneurship

When organizations operate in international contexts, entrepreneurs are required to have the ability to face international barriers and deal with risks in a new host country, including cultural differences, bureaucracies, financial limitations, suppliers, psychic distance, and other factors. From this perspective, entrepreneurial orientation stands out as having the ability to manage international companies and enable successful internationalization (Vahlne & Johanson, 2017). Sarasvathy (2014) argues that managers have an important role in resource management since strategic decision-making generates better results. Moreover, he highlights that actions taken with resources are more important than the resources themselves, a view shared by Vandekerckhove and Dentchev (2005). Mostafiz *et al.* (2019a, p. 10) highlight that dynamic managerial capabilities assist in identifying and exploiting international opportunities, play a significant role in the internationalization success of organizations, and define them as "the ability of managers to sense, learn, and transform international opportunities." From this managerial perspective, the aim is to explore opportunities and create a competitive advantage that reflects organi-

zational learning (Li *et al.*, 2018), seen as an improvement to generate new products or services (Batti *et al.*, 2020). According to Weerawardena *et al.* (2007), the global-born acquires new organizational routines and processes that support the efficacy of internationalization.

Zahra and George (2002) and Mitgwe (2006) conceive the concept of IE in light of innovation, understanding it as a creative discovery and exploitation of opportunities to pursue competitive advantage. France *et al.* (2019) recognize that innovation fosters the creation of new products and services, a viewpoint shared by McKelvie and Davidson (2009). Alegre *et al.* (2012) argue that to be competitive, innovation and internationalization have become essential activities.

In this sense, as internationalization occurs, some individuals stand out in IE and explore opportunities. Tseng and Lee (2010) and Fraccastoro *et al.* (2021) state that the ability to establish networks influences the way companies to identify changes and market trends, as well as interpret information, and further explain that organizations connected to international markets can overcome barriers such as cultural differences, market turbulence, and uncertainties in the regulatory process. In the same marketing view, adaptive capability (Gibson & Brikinshaw, 2004; Monferrer *et al.*, 2015; Tayauova, 2011; Wang & Ahmed, 2007) for Miocevic & Morgan (2018) assists the organization in anticipating rapid changes in the market and gaining an advantage by meeting external demands.

Luo (2000) argues that dynamic capabilities become crucial for a successful internationalization process since they support this action (Vahlne & Jonsson, 2017). Thus, environments such as technology parks, which encompass varied innovative organizations and seek to ensure the organization's competitive advantage and sustainability (Steiner & Robazzi, 2008; Valentim *et al.*, 2018), can directly benefit from research developed on IE and dynamic capabilities.

METHODOLOGICAL PROCEDURES

This study used the qualitative method, which, according to Godoy (1995), focuses on empirical analysis. Thus, the researcher is required to have intensive contact with the environment and the situation under study. According to Neves (1996), the relationship between knowledge and phenomena is caused by the researcher's interpretation capacity, which he employs as a referential and world view.

The research method employed is the multiple case study because the evidence formed with this method

is reliably measured (Baxter & Jack, 2008). Gustafsson (2017) states that when suggestions are intensively established in considerable empirical evidence, multiple case studies produce a more eloquent theory. Therefore, this method allows research questions and theoretical developments to take place more broadly (Eisenhardt & Graebner, 2007). In order to obtain data on actions taken by entrepreneurs who have achieved internationalization, this research also adopts a longitudinal retrospective perspective.

The study objects are restricted to companies embarked on in Porto Digital that are technology-based and operate in the Information and Communication Technology (ICT) and Creative Economy (CE) sectors. The complex has been awarded the best technology park three times and has been internationally recognized for its important role in global technological development. It also stands out for having more than 300 companies, research institutes, incubators, accelerators, and investment funds, representing a turnover of R\$2.3 billion and employing more than 11,000 people (Porto Digital, 2017).

The year of foundation, ownership, number of employees and main markets served by the selected companies are presented in **Chart 1**. Companies A and B were founded in 2006, with the latter serving the largest number of foreign customers.

One of the advantages of qualitative research is that evidence can be obtained from multiple sources, such as interviews, observations, and document analysis. (Godoy, 2005). Thus, 71 journalistic articles were analyzed, of which 15 contributed to the study. **Chart 2** shows the sources and descriptors used to find the secondary material. In more local magazines, the search allowed using descriptors directly related to the Digital Port or internationalization, while the descriptor in HSM management was more comprehensive. Of the texts found, 15 were selected as useful for the research.

The criterion for choosing the study participants was access to individuals and the relevant information they might have to contribute with relevant data for identifying the strategic actions carried out in the enterprise. Participants in the research included occupants of C-level positions and influential respondents in the design of strategies for internationalization.

Data were gathered using the Google Meet platform for two interviews and Google Forms for two more responses. Triviños (1987) argues that the semi-structured interview "favors not only the description of social phenomena but also their explanation and the understanding of their totality [...]," besides maintaining the conscious

Companies	Founded in	Property	No. of employees	Main international markets served
Companie A	2006	Pernambucana	47	U.S
Companie B	2006	Pernambucana	29	Mexico, Netherlands, Canada, and United States
Companie C	1992	Pernambucana	94	Portugal
Companie D	2004	Pernambucana	400	U.S

Chart 1. Presentation of the analyzed projects

Source: The authors

SOURCS	DESCRIPTORS	SEARCH RESULTS			
		REPEATED	SINGLE TEXTS	DO NOT CONTRIBUTE	VALID TEXTS
Jornal do comércio newspaper	“Digital Port”	0	10	10	0
Diário de Pernambuco	“Digital Port” “Internationalization”	2	36	23	15
Exame	“Digital Port”	0	25	25	0
HSM Management	“Recife”	0	0	0	0
Total		2	71	58	15

Chart 2. Analyzed secondary material

Source: The authors

and active presence of the researcher in the information collection process (Triviños, 1987, P. 152). This interview genre allows the information to manifest itself more freely, making the answers less subject to standardization (Manzini, 1991).

Chart 3 shows the position, the Training, the time in the company, and the way the data was obtained; only the interview with Company C occurred with more than one person from the same company. All the interviews were done online with respondents who knew the internationalization process.

After obtaining primary and secondary data, Bardin’s (2011) content analysis was used to treat the information.

DISCUSSION OF RESULTS

This section discusses the dynamic capabilities and the dimensions of International Entrepreneurship found in the analyzed companies at Digital Port. Furthermore, the existence of links between the DCs and the identified IE dimensions is discussed.

Dynamic capabilities of the analyzed companies

This research identifies the dynamic capabilities of International Entrepreneurship in the selected companies. The data analysis identified three dynamic capabilities: adaptation, learning, and establishing relationships (**Chart 4**).

Dynamic adaptive capability can be understood as the ability to identify opportunities, be flexible with changing strategies, and utilize resources for marketing, mapping competitors, and responding to rapid market changes. Moreover, it is vital for the firm’s survival (Monferrer *et al.*, 2015; Teece *et al.*, 1997; Wang & Ahmed, 2007). The findings of this research corroborate Miocevic and Morgan (2018), who advocate adaptability as the adaptation made to meet customer needs and customize the value offering. Likewise, adaptation requires giving up traditions and practices to help the enterprise succeed in internationalization (Gibson & Brikshaw, 2004).

On the other hand, the dynamic learning capacity has a distinct aspect, according to Weerawardena (2007), specifically regarding the knowledge acquired in previous international experiences, as exposed by a respondent:

Company	Respondent	Position	Training	Time in the company	Data collection
Company A	Respondent A	Administrative Director	Masters of Science in Computer Science	16 years	Google Forms
Company B	Respondent B	Controller	Bachelor of Business Administration	5 years	Google Forms
Company C	Respondent C1	COF	Masters of Design	2 years and 3 months	Google Meet
	Respondent C2	Head of Business	Masters of Data Analysis	1 year and 9 months	
Company D	Respondent D	CEO	Masters of Computer Science	17 years	Google Meet

Chart 3. Presentation of the interviewed subjects

Source: The authors

DCs	Enterprises	Evidences
Dynamic adaptive capacity (Miocevic and Morgan, 2018; Schweizer et al., 2010)	Companies A,B, C, and D	<p>“Totally. We have a speed of change that could be lower (laughs). When some article arrives, we implement it and change something. For instance, I have a folder with proposals made to clients. It is impressive to see how all the proposals are practically identical. It always changes because even our understanding of the business evolves; it is not just how we show it to the client. “We implement this internally and then express it in proposals and actions, but it is constant; change is constant.” (RESPONDENT C1)</p> <p>“Yes. With the exploration of the international market, our whole team had to adapt a little bit as to the culture and work format of our clients.” (RESPONDENT B)</p>
Dynamic learning ability (Schweizer et al., 2010; Weerawardena, 2007).	Companies B, C, and D	<p>“YPO events, partner courses at MIT and Harvard, plus events from our partners (Unify, Poly, etc.)” (RESPONDENT B)</p> <p>“Study skills—reading all that is happening in the world and bringing it in to verify internally whether or not we can follow it. Therefore, we are a company focused on knowledge, which constantly studies the facts worldwide and how this can be applied in practice. This is because we change every week. After all, we pick up drawings of what is happening around the world and still try to pass them on to our reality.” (RESPONDENT C1)</p>
Dynamic ability to establish relationships (Tseng and Lee, 2010; Vahlne and Johanson, 2013)	Companies A, C, and D	<p>“You had André, who worked at Fundão, where there is another innovation ecosystem; therefore, being present in places like this makes you create relationship networks, which make one talk to the other, and you kind of get to places that you wouldn’t get to by knocking on the door and wanting to get in. So, through these innovation ecosystems, you create a very interesting relationship network.” (RESPONDENT C1)</p> <p>“Normally, it is through clients that we already serve in Brazil. That was the example I mentioned about Asex. We serve the subsidiary in Brazil, and we end up going to units in other countries. This is one way. The other way is through contact in the countries where we have clients that we have already served in Brazil. These are Brazilians who were transferred during events in which we participated, but our focus is the Brazilian market. In the international market, we do not have active prospecting; it happens when there are situations like the ones I just mentioned.” (RESPONDENT D)</p>

Chart 4. Dynamic capabilities of the companies analyzed

Source: The authors

"[...] Depending on the managers, we will discuss... Of course, top management must be involved and have this understanding and focus. [...] Project leaders and project managers, too, as they begin to have more international interaction [...]" (RESPONDENT D)

There is also the acquiring of additional knowledge (Weerawardena, 2007). From the speeches obtained, it is noted that this factor demonstrates that companies seek external knowledge to identify market opportunities and improve market orientation. In this same sense, Batti *et al.* (2020) argue that learning moves towards incremental improvement in technology and competence, providing an innovative product.

As for establishing relationships, it stands out as a capacity to detect market opportunities. In this same perspective, Tseng and Lee (2010) argue that the network capacity assists the organization in formulating business strategies and responding to changes in the market while strengthening ties and bonds with customers and suppliers. In addition, the authors advocate the relational scope within which networks assist in overcoming cultural barriers, as mentioned in the interview:

"Besides the physical presence, I also place in the sales pitch opening that I am Portuguese, and they 'ahhh [...],' because there is a lot [...] There is a lot of natural prejudice; they think that the Brazilians are always involved with something old fashioned." (RESPONDENT C2)

Besides supporting with bureaucratic issues and entry mode, as mentioned:

"From the administrative point of view, we have a focal point in Brazil, let us say, a financial one, which takes care of all this financial and legal part and has the support of Luís in the main bodies regulating the Portuguese market. His physical presence there is also important; it helps. "To meet the external demands of these changes that occur, for example, in the market, and to resolve several administrative issues within the company." (RESPONDENT C1)

Thus, dynamic capabilities become present for companies willing to start or continue exploring internationalization, as discussed below.

Relationship between dynamic capabilities and international entrepreneurship

This section aims to investigate the existence of links between the dynamic capabilities and international entrepreneurship of the companies analyzed. Initially, the IE dimensions in the companies investigated are analyzed (**Chart 5**).

One of the IE dimensions found is the network of relationships, which, according to Fraccastoro *et al.* (2021), can be considered a means of acquiring information about foreign markets and identifying and developing domestic and international opportunities. About this, there is the following account:

"We exploit our national portfolio to serve the international market." (RESPONDENT B)

Another important point within this dimension, which stands out in the findings, is the importance of closer ties and trust building through presence. From this perspective, Schweizer (2013) emphasizes that the formation and strengthening of trust foster the establishment of a favorable basis for dealing with internationalization.

The capacity for propensity to adapt, found among the selected companies, can be understood as the changes in the company's behavior to adapt to the environment in which it operates (Tayauova, 2011). In this sense, firms use instruments to adapt to the demands of the foreign market. Tondolo Bitencourt and Tondolo (2008) present the adoption of international certifications as one of these instruments, as mentioned:

"[...]It is essential to have this, including international certifications I have not discussed. There is this certification area for both companies and professionals and the partnerships I mentioned. [...]" (RESPONDENT D)

Thus, it can be seen that the propensity to adapt manifests itself in the selected companies in different ways, whether in the adaptation of processes or in meeting the needs of the foreign market.

Finally, the dimension of identifying and exploiting opportunities, according to Venkataraman *et al.* (2012), is associated with the entrepreneurial environment. Johanson and Vahlne (2009) argue that the internationalization process directly results from the effort invested in the search for opportunities. As opportunities are identified and explored, entrepreneurial characteristics such as courage, optimism, and initiative help internationalization (Vandekerckhove & Dentchev, 2005). Thus, one of

the social subjects of the research exposes the importance of this profile:

“Silvio talks a lot about one point: “Strategy is the transformation of aspirations into capabilities,” and his aspiration is exactly that the digital port has a global platform that it does not yet have. Therefore, he wants the strategy to be a global platform; he has this aspiration. This guides everything we do in the sense that we never give up; thus, we are always seeking to evolve, seeking new features for the platform.” (RESPONDENT C1)

In this way, the exploitation of opportunities can influence the change or formulation of products or services and the formulation of new products or services offered.

While the DCs and IE dimensions can be identified in the selected companies, we examine the links between the constructs (**Chart 6**). A priori, the literature highlights the importance of networking and networks for exploring international opportunities (Fracastoro *et al.*, 2021; Johanson & Valhne, 2009; Vandekerckhove & Dentchev, 2005). Similarly, through their link with the national customer portfolio, the participating companies started serving international customers. The way in which the entrepreneur relates to his network of contacts directly influences the discovery of opportunities. Johanson and Valhne (2009) demonstrate that the absence of networks in the process of exploring opportunities can be harmful, dubbing this barrier “outsidership liability,” implying that the company has no market relevance, which would be a challenge. The following account exemplifies this:

“[...] One of the main difficulties is knowledge because, for example, our company has Silvio Meira as the chief scientist, and he is a reference in Brazil. When you talk about Silvio Meira in Brazil, everybody knows him. He is a reference, you know? However, in Portugal, how would we get there? What would our business card be? Since Silvio Meira is not known, it is obvious that after the first meetings, people start seeing things differently when we put people in. However, to break this first barrier, to set this first meeting and introduce Silvio, people already start seeing things differently. Nevertheless, to break that barrier and set up that first meeting and get in, there was a problem. (RESPONDENT C1)

Vandekerckhove and Dentchev (2005) report that a network with high density is more efficient in communication and the expectations created. Thus, the impor-

tance of maintaining networks is noted when we start from the perspective of exploiting opportunities. A respondent explains:

“[...] It is to maintain this network and this prospecting work. The company already has a network of local clients.” (RESPONDENT D)

Another relationship in the analyzed companies stands out between the propensity to adapt and the companies’ learning capacity. Dimitratos and Plakoyiannaki (2003) argue that learning becomes important for the adaptation process, whereas knowledge allows the enterprise to follow market trends through norms that ensure success.

In the same view of growth, Li *et al.* (2018) expose that acquiring new knowledge and integrating it with existing knowledge is a means of evolution of the company since obtaining knowledge combined with the adaptation process with market orientation allows the company an improvement in the internationalization process. The adaptation process is often related to the innovation process. To meet the market, companies seek to adapt to new demands and innovate in their processes, products, and routines; innovation can be seen as a process. Alegre *et al.* (2012) argue that innovation allied to the learning process becomes a potentiating factor in exports. The link between capacity and dimension becomes an important factor in the internationalization process because it provides enterprises with the means to deal with the threats of the host country.

FINAL CONSIDERATIONS

In the selected companies, the presence of dynamic capabilities was intrinsically related to the birth and solidification of the internationalization process if linked to other factors that collaborate with survival and the generation of competitive advantage. However, even with the DC and IE dimensions, their manifestations aligned differently with the academic literature.

This study achieved its goal by identifying the dynamic capabilities of the selected companies and their relationship with international entrepreneurship. This study contributes to the scientific literature by demonstrating the IE phenomenon in companies in an emerging-economy country. Furthermore, the governmental issue was one of the relevant findings in this research, as the importance of the choice of a foreign country becomes an important factor for internationalization to be successful in terms of the process, the incentives, and the ties created by the government of the country of origin, as well as

IE Dimensions	Enterprises	Evidences
Networking (Dimitratos and Plakoyannaki, 2003; Jafari-Sadeghi and Amoozad Mahdiraji, 2021; Oviatt and Mcdougall, 1994)	Companies A, C, and D	<p>“Normally, it is through clients that we already serve in Brazil. That was the example I mentioned about Asex. We serve the subsidiary in Brazil, and we end up going to units in other countries. This is one way. The other way is through contact in the countries where we have clients that we have already served in Brazil.” (RESPONDENT D).</p> <p>“You had André, who worked at Fundão, where there is another innovation ecosystem. So, being present in places like this makes you start creating networks Relationship networks, which make one talk to the other and you kind of, get to places that you wouldn’t get to by knocking on the door and wanting to get in. So, through these innovation ecosystems, you create a very interesting relationship network.” (RESPONDENT C1).</p>
Propensity to adapt (Silveira and Alperstedt, 2007)	Companies A, B, C, and D	<p>“With the exploration of the international market, our whole team had to adapt a bit as to the culture and working format of our customers.” (RESPONDENT B).</p> <p>“Management needed to be flexible to be able to quickly solve specific customer needs.” (RESPONDENT A).</p>
Identifying and exploiting opportunities (Ahmed and Brennan, 2021; Teece, 2007)	Companies B, C, and D	<p>“I would say that in our case and in the case of many Brazilian companies, Portugal is a very good place to do this experimentation because it is a tiny country. The size of Pernambuco is that it has only 10 million inhabitants; geographically, it is the same size, and things here work very smoothly. (RESPONDENT C2).</p> <p>“We exploit our national portfolio to serve the international market.” (RESPONDENT B).</p>

Chart 5. Dimensions of international entrepreneurship

Source: The authors

IE X DC	Relations	Evidences
Identifying and exploiting opportunities x ability to establish relationships (Ahmed and Brennan, 2021; as Teece, 2007; Tseng and Lee, 2010; Vahlne and Johanson, 2013)	Identify and exploit opportunities through networks	<p>“Normally, it is through clients that we already serve in Brazil. That was the example I mentioned about Asex. We serve the subsidiary in Brazil, and we end up going to units in other countries. This is one way. The other way is through contact in the countries where we have clients that we have already served in Brazil.” (RESPONDENT D).</p> <p>Being present in places such as this makes you start creating relationship networks, which make one talk to the other; it is like reaching places where you would not arrive knocking on the door and wanting to enter. (RESPONDENT C1).</p>
Propensity to adapt x learning ability (Schweizer et al., 2010; Silveira and Alperstedt, 2007; Tseng and Lee, 2010; Vahlne and Johanson, 2013)	The need and ability to adapt in the face of market changes	<p>“With the exploration of the international market, our whole team had to adapt a little bit as to the culture and working format of our customers.” (RESPONDENT B).</p> <p>“Totally. We have a speed of change that could be lower (laughs). When some article arrives, we implement it and change something. For instance, I have a folder with proposals made to clients. It is impressive to see how all the proposals are practically identical. It always changes because even our understanding of the business evolves; it is not just how we show it to the client. “We implement this internally and then express it in proposals and actions, but it is constant; change is constant.” (RESPONDENT C1)</p>

Chart 6. Relationship between international entrepreneurship and dynamic capabilities

Source: The authors

becoming crucial for enterprises to consider internationalization as an option.

Furthermore, relationship networks have proven indispensable for entrepreneurs not only to break through national barriers but also to explore the host country's market and deal with environmental changes and threats. However, when we base our research on the existing literature, we notice a theoretical limitation in the absence of indicating how networks perform such actions.

Lastly, it is recommended that future studies investigate the impacts of regulatory aspects of the destination and origin nations on the choice of the internationalization process and how the research field can still evolve from the analysis with methods other than the most commonly used, such as case study and literature review.

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