Dynamic Innovation Capabilities and their Impact on Export Performance in Times of Economic Crisis

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Abstract

Purpose – To determine the mediator role of innovative dynamic capabilities in performance in the internationalisation strategy of firms during periods of economic crisis.

Theoretical framework – We base our study on the Theory of Dynamic Capabilities, as a response to the environment produced by an economic crisis. Two firm models are analysed in accordance with their internationalisation strategy: born-global and gradual internationalisation firms.

Design/methodology/approach – We propose two hypotheses which are tested with a sample of 145 Spanish exporting firms. We use partial least squares structural equations modelling (PLS-SEM) and partial least squares multigroup analysis (PLS-MGA) to compare the results between born-global and gradual internationalisation firms.

Findings – Firstly, innovation capability is necessary for entering new markets to lead to improvements in export performance. Secondly, there are significant differences between born-global and gradual internationalisation firms.

Practical & social implications of research – The analysis makes management contributions for improving the use of skills and resources in firms in periods of profound variations of the environment, indicating for managers the importance of advancing in a process of creation and culture of dynamic capabilities.

Originality/value – The study makes contributions regarding the role of innovative dynamic capability as an enhancer of international results in periods of economic crisis. It also contributes a novel form of capturing the dynamic character of innovation capability.

Keywords: Crisis, dynamic capabilities, born-global, exporting, innovation.

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Revista Brasileira de Gestão de Negócios

1 Introduction

When a period of deep global economic crisis recently took place, there were firms which opted for a strategy of external growth (Zouaghi et al., 2018). At these times substantial modifications take place in firm behaviour, reacting differently when facing an environment which obliges them to give their best to survive. The research indicates that at times of economic crisis dynamic and strong external sectors mean a source of financing for a sagging internal demand (Beliaeva et al., 2020) and act as a pole of growth and dynamism. There are two different strategies for firms that sell abroad. The first is progressive and gradual internationalisation, in accordance with the gradual knowledge acquisition model (Johanson & Vahlne, 2017). Their internationalisation takes place after a prolonged period in national markets. Another is fast internationalisation, practically from the start of the firm's activity, as is done by the so-called born-global firms (Knight & Liesch, 2016), which from their beginnings have a global view of the markets. In brief, our work is aimed at analysing what type of firm has more international success in times of economic crisis. Analysing recent experiences is a good source of knowledge for decision making in the current scenario caused by COVID-19.

Considering the business problem proposed, from the academic point of view, one of the current trends in strategic management is to know why some firms are systematically capable of maintaining their resources and activities aligned with an environment which is in permanent change and are successful when others are not (Zhou et al., 2019). The process can be considered from the dynamic capabilities viewpoint. These capabilities offer an opportunity for renovation and permanent adaptation from an innovation standpoint. The firm's knowledge is channelled through innovative processes which improve its performance. The main aim of this study is to analyse the relationship between the strategy of increasing the international markets served, innovative dynamic capability, and international performance. To do so, we establish two specific objectives. The first is to analyse if innovative dynamic capability mediates between the strategy of increasing international markets and the improvement of the firm's external results, within a turbulent environment marked by an economic crisis. The second is to determine if there are differences in this relationship between the internationalisation strategic model of firms; that is to say, firms with gradual processes

and born-global firms. There is not a consensus in the literature (Zucchella, 2002) about the maximum number of years which must pass for a firm to enter international markets and be considered born-global. We contemplated five years, in accordance with recent studies on the matter (Zonta & Amal, 2018), and this is appropriate based on the Spanish business context (Instituto Nacional de Estadística, 2018).

There are various aspects of our study's academic contribution. Firstly, we did not find in the extant literature studies about the mediating power of innovative dynamic capabilities with respect to increasing the number of markets and performance (Ribau et al., 2017). There is an important study gap in a matter of significant academic relevance regarding dynamic capabilities (Wu et al., 2016). Secondly, our work is framed within a very complex environment that is a challenge for firm management: a global economic crisis which serves for us to put to the test theories and concepts acquired in times of economic boom. This analysis adds originality due to the difficulty of obtaining the data. This approach provides a view of the results and the use of the resources outside the usual business environment (Calvo-Porral et al., 2016). Related with this, we also add to the study two strategic models of different internationalisation. So, thirdly, we evaluate gradual internationalisation firms and born-global firms to try and find out how the two have faced the economic crisis with their tools from the innovative dynamic capability point of view, going deeper into a necessary differential analysis between the two internationalisation models as required by recent works (Paul & Rosado-Serrano, 2019). Fourthly, the evolving nature of the variables in the data collection method is addressed. This is especially important for dynamic capabilities.

2 Literature review

2.1 Economic crisis and international performance

We define "recession" or "crisis" as "a process of decreasing demand for raw materials, products, services and labour" (Shama, 1978), or as "the state in which the demand for a product is less than its former level" (Kotler, 1973). Firms face new challenges during these periods. Their limited resources do not allow them to maintain their competitive advantage and there are great levels of business destruction (Papaoikonomou et al., 2012). Our

study is focused on a sample of Spanish firms during the 2008-2016 global crisis. Our proposal is based on being able to obtain valuable knowledge from the former crisis to apply it to the current crisis caused by COVID-19. Since the end of the 20th century, there have been numerous periods of recessions and economic crises have taken place in different parts of the world, specifically affecting Spain (1980-1982, 1990-1999, 2000-2002, 2008-2016), including the one in which we are currently immersed. The causes of the crises have been diverse, from energy problems to financial crises or public debt. The current crisis is caused by the health effects of COVID-19. However, in all the crises a reduction of demand has taken place. Like each of the former ones, the current COVID-19 crisis has its distinguishing characteristics. It is a global crisis which affects all national economies, although not all of them in the same way. In both the crisis of 2008-2016 and in the current one, Spain has been one of the most adversely affected economies. International markets appeared comparatively more attractive than the national market. Gross domestic product hardly grew in that period (0.38%), having at first decreased a good deal, and the unemployment rate went from 11.25% to 19.64%. Nonetheless, exports increased considerably, as did the number of firms which began their international activity, by 35.49% and 52.6%, respectively. That is to say, in spite of the complex international moment for the economy due to the economic crisis, the international operations of Spanish firms rose notably, which leads us to consider what the possible causes of this success were.

The research shows that at times of recession there is very important growth of exports and external sectors (Fernández et al., 2017). In the case of Spain, during the hardest years the external sector started to grow at levels above 5% annually, something unknown until then, reaching rates above 90% for imports, with even a positive balance if we subtract the effect of energy and its by-products (Instituto Nacional de Estadística, 2018). Moreover, this boost meant the attainment of historic exports in 2017, as well as the number of export firms in Spain. When faced with the processes of modification or alterations of the environment, such as the stages of economic recession, dynamic capabilities enable a firm to develop and change, but to do so it must first absorb and internalise the new knowledge derived from the situation of the environment (Alves et al., 2017).

The concept of dynamic capabilities is determined to integrate the literature of strategy and innovation and provide a general management framework of the capabilities which a firm needs to maintain its growth capacity and competitive advantage (Teece, 2007). Our work is important to bridge the gap in the literature which tries to specifically investigate the relationship between the type of firm and the development of dynamic capabilities and their effect on performance (Teece, 2018). In our case, this is done via the analysis of gradual internationalisation and born-global firms. Dynamic capabilities, within the perspective of maintaining a competitive advantage, are one of the most recent orientations in the studies on born-globals (Paul & Rosado-Serrano, 2019). Furthermore, this research considers internationalisation within an environment of economic instability. Economic recessions bring about changes in the perceptions of managers of firms, affecting their decisions and their behaviours (Petzold et al., 2019). The conclusions obtained in empirical works about environments of economic instability are altered when the business context is more difficult and complex in the face of reductions in demand and the resulting problems. Survival in international environments is in itself a demonstration of the essence of dynamic capabilities, which express not only that it is paramount to have specific assets, but that their ongoing adaptation and redefinition is necessary to respond to the new market opportunities (Teece, 2007). These characteristics are central to the response to dramatic changes in the environment, such as an economic crisis, as well as serving as an innovation base for the creation of new processes. The literature indicates the existence of a leverage effect of dynamic capabilities on the firm's own strategies (Jeng & Pak, 2016), which leads us to note a better response of those firms which develop them to address the effects of the economic crisis. An alignment of resources takes place with respect to the changing environment (Salvato & Vassolo, 2018).

2.2 Innovative dynamic capability

Innovation seems to originate as a positive logical result of the possession of dynamic capabilities. From this point of view, dynamic capabilities must be driven by innovation. However, this conceptual link is not explicit, as another perspective defines dynamic capabilities as the firm's potential to systematically solve problems according to its propensity to detect opportunities and make opportune market-oriented decisions (Barreto, 2010). Therefore, this perspective sees innovation capability as an independent capability that the firm can have or not,

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according to its unique structure of resources. Through our analysis, we consider that the second perspective better reflects the orientation of our work, as there are firms which, although they have important specific dynamic capabilities and are creators of competitive advantage, are not innovative. The concepts of dynamic capability and innovation capability are complementary (Breznik & Hisrich, 2014).

Innovation capability is an organisation's skill to present and develop new ideas for the market, which leads to competitive advantages and a short- or long-term improvement of profit (Nisula & Kianto, 2013). This is an internal capability of a "potential to produce innovations", for which continuous improvements are required to produce the necessary value (Saunila, 2017) and for the new creations to be more effective than those of one's competitors (Jeng & Pak, 2016). Innovation capabilities cover aspects within the firm related with product innovation, process innovation, marketing innovation, services innovation and administrative innovation (Pedron et al., 2018). The position of researchers with respect to innovation capability spans various aspects. The points of view vary, indicating that there is not a clear relationship between innovation and dynamic capabilities (Breznik & Hisrich, 2014), as it is not possible to establish a specific path between the two, as well as them being seen as complementary. For Wang and Ahmed (2007), innovation capability is, however, a critical component of dynamic capabilities, and Dixon et al. (2014) identify it as a specific form of dynamic capability. Going further, dynamic capabilities are considered as precursors of innovation capabilities (Alves et al., 2017). As an intermediate view, other authors have proposed innovation capability as a high order integrated capability capable of managing various capabilities (Lawson & Samson, 2001). Nonetheless, the importance of innovation within dynamic capabilities is generally not considered (Babelytė-Labanauské & Nedzinskas, 2017), and the link between the two remains inappropriately explored (Alves et al., 2017).

2.3 Hypotheses

The impact of internationalisation on performance has generated interest in the research community, being described as the strategy via which firms expand their activities beyond national markets. In principle, various advantages are expected, such as economies of scale, effects on the power and control of markets, a reduction of risk

and the learning effect (Jiang et al., 2020). It should be highlighted that internationalisation is therefore a strategic option which can be attained via the design of different approaches (Thompson & Zang, 2016) and that it will improve the firm's performance. However, we believe that the positive effect on performance of an increase in markets served in the international environment can be enhanced by an innovative dynamic capability. The theory about dynamic capabilities determines that a firm's search for competitive advantage will motivate it to use its resources more effectively, as well as to create and obtain new resources. The search for and creation of these resources corresponds to an innovative dynamic capability which will develop superior contents to the competitors' (Jeng & Pak, 2016). The skill in its development and, consequently, in its innovation capability, will differentiate some firms from others, conferring higher performance. Innovation can be conceived as a main tool for the firm's adaptation to dynamic environments, such as an environment of a significant economic crisis. This is due to its allowing firms to change their product, process or management systems more quickly than the competition, thus achieving a competitive advantage (Jiménez-Jiménez & Sanz-Valle, 2011).

The presence of innovation as a dynamic capability within the firm shows the existence of skills and tools as well as ways of acting which give a competitive advantage in the form of advantageous positions in the market (Vladova, 2018). Innovation becomes one of the key factors in improving firms' international results (Alves et al., 2017). The adoption of innovative dynamic capabilities positively influences the export strategy (Golovko & Valentini, 2011). Innovative firms are more prepared to work in an unstable environment, such as that of an economic crisis (Jiménez-Jiménez & Sanz-Valle, 2011). In general terms, an innovative dynamic capability is a critical determinant of performance as it enables firms to obtain a competitive threshold and quickly respond to market changes, especially in turbulent environments (Jeng & Pak, 2016). A firm with a high capability to learn improves its export performance (Fernández-Mesa & Alegre, 2015). Therefore:

> H1: There is mediation between the strategy of increasing international markets and international performance by innovative dynamic capabilities.

Given that our analysis evaluates the international behaviour of firms facing an important milestone in time, such as the recent Spanish crisis, we consider it interesting to analyse whether there are significant differences as to the results between the strategic internationalisation models, those of born-global firms and those of gradual firms. The global view considered from the beginning of activities and the adaptation capability stemming from the high levels of intangibility, effectiveness and management experience of a firm's founders predispose it more to international activities, as well as to responding to significant variations in the environment (Weerawardena et al., 2020). Moreover, born-global firms with a strong innovative culture tend to obtain higher performance (Almor, 2018), so we can foresee differences between the behaviour and, therefore, the international performance of the two strategic models of firms. We thus propose the following hypothesis:

> H2: There are significant differences between born-global firms and gradual internationalisation firms concerning the relationships between increasing new markets, innovative dynamic capabilities, and export performance.

3 Methodology

3.1 Sample

The basis of this work is an empirical study concerning Spanish export firms. The sample is appropriate for various reasons. Firstly, Spain has suffered a significant, deep and long-lasting economic crisis (Eppinger et al., 2018). This fact facilitates the study of the adaptation of its firms to the new scenario. Secondly, a multi-sectoral sample broadens the variance observed and emphasises the generalisation of the results obtained (Morgan et al., 2004). The sectors considered within the study are agro-alimentary (30.82%), industrial (32.19%) and services (36.99%). The sample also includes segmentation characteristics such as the presence of staff dedicated exclusively to exports, or the existence of independent export departments. Likewise, to determine the type of internationalisation strategy, we distinguish between gradual internationalisation firms (54.5%) and born-globals (45.5%), and the number of countries to which they export. All these data are shown in Table 1. These sample data correspond to after the crisis, when the research was done. Thirdly, the sample size is appropriate for this kind of study and is totally comparable with those published in the literature (Chen et al., 2016). Specifically, the sample of firms comes from both the Andalusian Agency of Foreign Promotion (EXTENDA) and the Industrial Catalogue of Export Firms of the Basque Country (CIVEX). A pre-test was done with various experts to ensure the correct interpretation of the items. As the questionnaire was in English, it was translated into Spanish and then back into English to ensure the exactitude of the translation (Brislin, 1970). Maintaining the sectoral proportionality, 750 questionnaires were emailed to the CEOs and those in charge of internationalisation departments. A total of 145 valid responses were obtained: a response rate of 19.3%. This result is within the acceptable range of 15 to 20% (Menon et al., 1996).

Table 1

Some characteristics of the sample (After the crisis)

Size	0-11 employees	36.90%
	12-49 employees	38.35%
	50-250 employees	17.81%
	More than 250 employees	6.84%
Staff	Has staff dedicated exclusively to exports	53%
	The staff of other areas deal with exports	47%
Department	It integrates exports into other departments	57%
	It has an export department	43%
Start of international activity	From the fifth year of activity (gradual)	54.5%
	Within the first five years (born-global)	45.5%
	Same year as start of activity	11%
Export diversity	Exports to 10 or less countries	26%
	Exports to more than 10 countries	74%

One of the main contributions of the work lies in the way of addressing the evolving nature of the variables, which is especially important for dynamic capabilities. Our study asks the respondents a question which they must answer placed in two different time moments, established as time milestones or a differential of the response to the recent economic crisis (Kutschker et al., 1997). That is to say, they must answer the same question from the perspective of "before the crisis" and "after the crisis". This form of analysis creates a differential variable between both answers (Ledesma-Chaves et al., 2020). Taking the idea of episodes of Kutschker et al. (1997), we applied it to the crisis like Lee and Makhija (2009) and following Grewal and Tansuhaj (2001), who asked about the export performance before and after the crisis.

3.2 Measurement scales

Diverse measurement scales were identified in the literature review for each of the constructs analysed. Following Slavec et al. (2012), each scale was chosen according to its appropriateness for the definition of the concept proposed in this work, the number of items necessary to measure the concept, and the reliability produced in indicators such as Cronbach's alpha or composite reliability. Specifically, to evaluate the proposed model, the variable "Increase of the number of markets" is established via the difference between the number of international markets handled by the firms before and after the economic crisis. The variable "Innovative Dynamic Capability" is evaluated through an already established scale which covers all the aspects concerning the variable (Rodenbach & Brettel, 2012) and, as we have indicated before, it is established as a differential variable with the answers in two established time moments. Likewise, it is operated with the variable "International Performance", which is measured with the scale of Farrell et al. (2011). A 7-point Likert scale has been used to measure the variables "Innovative Dynamic Capability" and "International Performance". In Table 2 we can see the description of each of the items analysed.

3.3 Statistical tools

We used PLS analysis to test the first hypothesis, regarding the mediation capability of innovation between the variation in new markets and export performance. The PLS analysis model is a type of structural equation modelling which we have used to test the proposed research

Table 2
Loadings of the different items

		Loadings		
		Global	Born global	Gradual
Innovative dynamic capability	AVE:	0.985	0.971	1.000
	CF:	0.990	0.995	1.000
	Alpha:	0.970	0.983	0.987
My firm is good at creating new types of manufacturing and operational installations		0.998	0.997	1.000
My firm is good at learning technology not used before		0.978	0.960	1.000
My firm is good at recruiting staff specialised in technical areas with which it is not familiar		0.998	0.997	1.000
My firm is good at evaluating the viability of new technologies		0.998	0.997	1.000
My firm is good at identifying emerging technologies		0.979	0.962	1.000
My firm is good at implementing new types of production processes		0.998	0.997	1.000
Number of Markets				
Inc Num Markets (difference between the number of international markets dealt with before and after the economic crisis)	n.a.	n.a.	n.a.	n.a.
Export Performance	AVE:	0.997	0.968	0.975
	RC:	0.997	0.989	0.992
	Alpha	0.984	0.994	1.000
Market share (indicate your personal perception of the position of your firm, in its main foreign market, with respect to its most important competitor in market share)		0.981	0.993	0.974
Profitability (indicate your personal perception of the position of your firm, in its main foreign market, with respect to its most important competitor in profitability)		0.993	0.992	0.994
Sales volume (indicate your personal perception of the position of your firm, in its main foreign market, with respect to its most important competitor in sales volume)		0.981	0.966	0.994

Note: n.a. not analysable

model (Tenenhaus et al., 2005). The PLS approach is a variance-based structural equation modelling technique which is widely applied in business research and social sciences (Henseler et al., 2017). PLS estimates the parameters of a set of equations in a structural equations model combining the analysis of principal components with regression-based analysis (Hair et al., 2017).

On the other hand, to test the second hypothesis, which seeks differences between born-global firms and gradual internationalisation firms, we used a multigroup analysis (MGA-PLS). To do so, two sub-samples were differentiated depending on the time passed before carrying out their first international operation. The born-global firms did their first international operation in the first five years after their creation (Zonta & Amal, 2018). They are 45.5% of the sample. On the other hand, the gradual internationalisation firms did their first international operation five years or more after their foundation. On average, the first international operations were done after 15 years within this group. These firms represent 54.5% of the sample. For this analysis we used the SmartPLS software (Ringle et al., 2015).

4 Results

Firstly, we followed Kock's (2015) method of full collinearity assessment to evaluate common method bias (CMB). Kock's proposal notes that a variance inflation factor (VIF) greater than 3.3 is an indication that CMB may contaminate a model. We found that all latent variables have a VIF value of less than 1.4, which is lower than the accepted threshold. Thus, this method reveals that CMB in this study is not an issue. The structural equation modelling analysis, for instance PLS, has two

steps: firstly, the reliability and validity of the measurement scales are analysed; secondly, the proposed structural model is validated. Finally, a multigroup analysis (MGA-PLS) is carried out to differentiate the results of the two sub-samples: born-global firms compared to gradual internationalisation firms.

The recommendations in the literature (Henseler et al., 2017) were followed to analyse the reliability and validity of the measurement model. In the case of the reflective variables, firstly the item's individual reliability was ensured. To do so, the factor loadings on their own latent variables were examined. These loadings must be over the value of 0.7 proposed in the literature. Secondly, the reliability of the constructs is analysed using the indicators of composite reliability and the Cronbach's alpha. In all the cases, our indicator values are over 0.9, far above the recommended 0.7. Also, the convergent validity was ensured by analysing the average variance extracted (AVE). In our case, in the same way, all the indicators show levels over 0.9, above the proposed 0.5. These results are presented in Table 2. Summing up Table 2, our measurement scales pass the tests to prove the individual reliability of the items, the construct reliability and the convergent validity. Taken together, these results are especially important given the distinct measurement form used.

On the other hand, the discriminant validity is evaluated in two ways, using the Fornell and Larcker test, where the square root of the AVE of each latent variable is compared with the correlations of that variable with the rest; and via the heterotrait-monotrait ratio (HTMT) (Henseler et al., 2015), which in all the cases shows levels below the recommended 0.9. The results of the two tests (see Table 3 and Table 4) allow us to ensure the

Table 3.
Fornell-Larcker Criterion

	Exp Perf	Inc Num Markets	Innovation
Exp Perf	**0.985**		
Inc Num Markets	0.464	**n.a.**	
Innovation	0.801	0.480	**0.992**

Note: n.a. Not Analysable

Table 4
Heterotrait-Monotrait Ratio (HTMT)

	Exp Perf	Inc Num Markets	Innovation
Exp Perf			
Inc Num Markets	**0.468**		
Innovation	**0.808**	**0.480**	

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discriminant validity of the latent variables employed. It was not necessary to eliminate any item to ensure the reliability and validity of the measurement scales. To sum up, these results indicate that there is no confusion between the concepts of the constructs analysed by part of the sample used.

Having ensured the reliability and validity of the measurement model, we evaluate the structural model. This will enable the proposed hypotheses to be tested. To do so, we carried out bootstrapping with 10000 sub-samples to verify the statistical significance of each of the coefficients or paths and the variance explained (R2) in the endogenous variables. The SRMS criterion is employed to evaluate the model's goodness of fit. In our case, the value is 0.008, less than the 0.08 proposed by Henseler et al. (2016). Figure 1 and Table 5 show the results of the PLS analysis with the entire sample and by groups.

The results obtained indicate that the proposed hypotheses are supported, having a high level of significance. To test H1 with greater certainty we developed a mediation analysis (Table 6) to ensure that there is mediation by innovation between the increase in markets and export performance. Specifically, we employed the test proposed by Zhao et al. (2010). The results show that there is mediation of the innovative dynamic capability. To find out the type of mediation, we calculated the VAF following Nitzl et al. (2016). As this is over 0.8, it is qualified as complete mediation (Zhao et al., 2010).

On the other hand, to test H2 we used a PLS-MGA analysis (Table 5). In general, the results indicate that there is no direct relationship between an increase in new markets and export performance, both for the complete sample and for each of the subsamples. Likewise, we find that there are strong relationships between an increase

Table 5

Multigroup and global analysis. Parametric test.

| | Paths | | | | | | diff (Born - Gradual) | PLS-MGA | Parametric test |
	Total sample	P-Value	Born	P-Value	Gradual	P-Value		P-Value	P-Value
Inc Markets -> Exp Perf	0.104	0.197	0.080	0.426	0.127	0.217	0.047	0.635	0.747
Inc Markets -> Innovation	**0.480**	**0.000**	**0.641**	**0.000**	**0.347**	**0.000**	**0.294**	**0.013**	**0.030**
Innovation -> Exp Perf	**0.751**	**0.000**	**0.764**	**0.000**	**0.757**	**0.000**	0.007	0.493	0.972

n.s.: Not significant
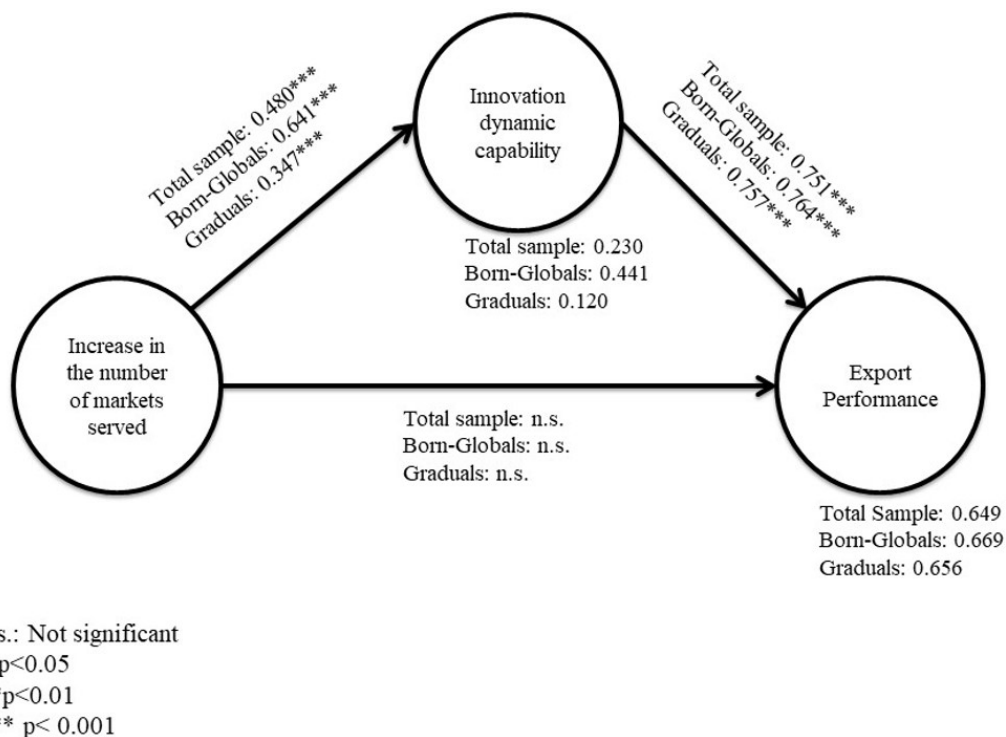* p<0.05
**p<0.01
*** p< 0.001

Figure 1. PLS-MGA Results

in new markets and innovative dynamic capability, and between this capability and export performance. Table 5 goes more deeply into the difference between born-globals and graduals, and finds statistically significant differences between the two exclusively in the relationship between increases in new markets and innovative dynamic capability. This relationship is much stronger in the case of born-globals.

Finally, we calculated the effect of including the innovation variable. To do so, we used the test of Hair et al. (2014). As a result, we obtained an effect size of 1.23, which is large.

To sum up, the results of the mediation analysis (Table 6) support the idea that innovative dynamic capability has a significant mediation effect between an increase in new markets and export performance. These results support H1. On the other hand, the PLS-MGA indicates that there are statistically significant differences between born-global and gradual firms as to the relationship between an increase in new markets and innovative dynamic capability. That is to say, our results support H2.

5 Discussion

In general, the results obtained allow us to successfully achieve the proposed objective of analysing how intensification of the internationalisation process means a solution to the problems generated by an economic crisis in the national market. The results on the whole sustain the proposed hypotheses, with a high level of significance. To go more deeply into this, we are going to follow the operational objectives proposed.

The first of them is to find out if there is mediation by innovative dynamic capability between the strategy of increasing international markets and an improvement in the firm's international results, within a turbulent environment marked by an economic crisis. The observation of the results determines a very significant main idea: the fact of doing business abroad does not itself generate positive results. As we proposed at the beginning,

firms taking their business abroad could be conceived as a way out of a problem or a strategic option. Our analysis determines that selling in international markets, which was not strategically planned - as a response to an environment of crisis - offers few guarantees of success. The important mediator role which we find in the innovative dynamic capability demonstrates that selling abroad and its previous procedure generates important learning and innovative processes which enhance the effect produced by the international markets. The innovative dynamic capability becomes a tool for the generation of a competitive advantage in the international markets and its empowerment is necessary. This statement is in line with that of some previous studies (Fallon-Byrne & Harney, 2017).

The results show that innovative dynamic capability is a key element to explain the internationalisation of firms and their export performance. This explanation is sought in two ways. Firstly, if we analyse the effect size, Hair et al. (2014) speak of a large effect size when it is above 0.3; in our case it is 1.23. That is to say, if we only include the increase in external markets, adding the innovative dynamic capability variable improves the explanation of export performance by 123%. These results appear thanks to the innovative dynamic capability's high mediating power. Secondly, we analyse the variance explained. In our case, with a very simple model we manage to explain around 65% of the variance; a level which is relatively high in this kind of study. The model's simplicity and its large variance explained imply high parsimony. These results are in line with previous research (Zhou et al., 2019) as to the effects of innovative aspects on performance. However, our investigation considers the innovative dynamic capability construct as a dynamic capability in itself. This is why we come close to the recommendations also made by previous studies in the correct determination of which dynamic capabilities really determine performance (Schilke et al., 2018). Previous research has evaluated innovation capability's power of influence, indicating that the firm's final favourable performance needs innovations that are

Table 6
Mediation analysis

Total Effect		Direct Effect		Mediation: Bootstrapping test		VAF
Coefficient	P- Value	Coefficient	P Value	Coefficient	P Value	
0.465	0.000	0.104	0.197	0.360	0.000	0.859

correctly designed, developed and implemented, which lead to the development of new ideas, improvements and reductions in production costs (Naala et al., 2017). With respect to this position, our analysis is favourable, but we also add the need for these tasks to be focused on a permanent process of reorganisation, adding the dynamic character. This approach would enable the international performance to be more positive and overcome the limitations when the resource base cannot be broadened.

The second operational objective was to determine if in this relationship there are significant differences between gradual internationalisation firms and born-global firms. A priori, our forecast of the existence of differences as to the strategic behaviour was also corroborated (Ismail et al., 2017). Both models of firms have different ways of facing the process of increasing international markets and, therefore, the performance obtained varies significantly, which is in line with the results obtained in previous research (Almor, 2018). We note that innovative capability mediates in both firm models. The generation of innovative processes is necessary for the two internationalisation options, as well as their phases derived from learning and adoption. However, the results demonstrate that born-global firms innovate and assume related processes more quickly than gradual firms. Their overseas-oriented structure from their birth, as well as their elasticity and absence of long-established tasks and processes, possibly better predisposes them for the innovative process, with them being more affected by it, and this is reflected in the international results.

6 Academic, social and management contributions

There are various social implications of our work. From the business point of view, the crisis effectively meant a reduction in the number of firms (Instituto Nacional de Estadística, 2019), but in turn the survivors are better at using their skills and resources. Indeed, our model contributes precisely to an improvement and learning in innovation skills regarding the empowerment which is produced by the internationalisation effect (Zhou et al., 2019). That is why public administrations, through agencies and programmes for promoting internationalisation, should carry out prior studies about the presence of the capabilities in firms and even try to foster them, with a view to obtaining better yields from their aid. The programmes could cover not only the internationalisation process itself

but the creation, in a previous phase, of skills and dynamic capabilities which help to maintain a competitive advantage with respect to investments abroad. On the other hand, the reality has demonstrated that the periods of a drop in demand can be gradual or immediate, as has occurred after the confinement measures taken due to the recent global pandemic. So, firms must be prepared and have a strategic orientation to modify and adopt their resource base to the extraordinary circumstances which can come about. Our work indicates that an improvement of results is possible in these periods if firms employ a dynamic capabilities strategy and monitoring of the environment which enables them to take advantage of its opportunities, in spite of the negative demand perspective.

The contributions for managers are centred on the need for a prior learning process which fosters the process of creating dynamic capabilities. The most valued and useful knowledge of the managers according to the model developed is not uniquely that associated with knowledge about internationalisation, but with a process of learning and creativity (Somsing & Belbaly, 2017) in a global context which empowers them to know to a greater extent how the internationalisation process is developed. The development of dynamic capabilities is linked to those people who undertake them (Bridoux et al., 2017). This global learning will give rise to innovative processes which will improve the managers' decisions with a view to obtaining better international performance. The development of dynamic capabilities does not only lie at the firm level. Personal skills are at the base of the development of creative dynamic capabilities of competitive advantage (Salvato & Vassolo, 2018). Our investigation therefore confirms that the importance of a learning model for innovation through management experiences can be shown as a better way to channel and capitalise investments abroad (Schilke et al., 2018)

Our work was aimed at completing and contributing to the research on dynamic capability aspects which have not been studied until now. The literature indicates a lack of empirical studies which comprehensively analyse how dynamic capabilities affect performance and which class of capabilities can have more or less influence (Schilke et al., 2018). In our case, the use of innovative dynamic capability as a mediator of the relationship means an advance in the research, as one of the questions proposed in previous studies dealt with not only considering the presence of dynamic capabilities but with establishing the possible influence of each of them and their relative

importance and significance. Furthermore, the study measures the variables via a differentiated perception at different moments in time for the development of the contributions of dynamic capabilities, which has been recommended in the previous literature (Laaksonen & Peltoniemi, 2018), indicating that dynamic capabilities must always be measured from the perspective of change and evolution.

7 Limitations and future research lines

One of the limitations of the study is the sample size. A greater number of firms would be necessary in the empirical research for the conclusions to have a more generalised application. Moreover, in spite of our model dealing with the time perspective via a differentiated variable, it would be interesting to do a longitudinal study where we could measure the firms' specific behaviour at the beginning of the economic recession and once this had passed. This would give the study greater relevance, although its difficulty would be in determining a starting point common to all the sectors and firms for the economic crisis as well as for its end. With respect to the environment, the application of the model to countries with different levels of international exposure would also enable a better fit to particular circumstances, perhaps taking into account the most determinant aspects.

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R. Bras. Gest. Neg., São Paulo, v.24, n.02, p.351-365, apr./jun. 2022