

A model of entrepreneurial internationalisation in uncertain foreign environments: Smaller firms and the global niche strategy

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Abstract

Purpose of the paper: By proposing a model of SMEs' entry in foreign markets characterised by uncertainty, we test the relationships among the implementation of a global niche strategy, the perception of lower competition, and international performance.

Methodology: Hypotheses are tested on a sample of 110 Australian firms by applying structural equation modelling through the PLS-SEM technique.

Results: Our results support the idea that entrepreneurial firms need to create their own environment and, at the same time, control it by exerting high levels of control on manufacturing and technological capabilities and by vertically integrating production processes.

Research limitations: More samples from more countries would increase the generalisability of the results. The operationalisation of the components of the global niche strategy which resulted as non-significant need further refinement. Longitudinal studies are required to measure the sustainability of the global niche strategy over time.

Practical implications: A customer focus instead of a country focus can help manage perceived uncertainty while growing internationally. Furthermore, decision makers should leverage on product uniqueness through a continuous refinement of technology thanks to insourced production processes.

Originality of the paper. To date, no study has advanced a model to represent firms' internationalisation by considering a process that starts with the formation of strategic antecedents - here represented by the components of the global niche strategy - of international performance.

Key words: SMEs; uncertainty; internationalisation; niche; strategy; control

1. Introduction

Uncertainty represents the natural condition in which most business decisions and processes take place. In acknowledging this, the extant literature also shows two major research gaps: first, the concept of uncertainty frequently overlaps with that of risk and their boundaries appear blurred. Second, we know more about the strategies to deal with risk, for example through diversification, coverage, reduction, and so on, than about how to cope with true uncertainty, as defined by Knight (1921). This is even truer in an international business and entrepreneurship setting,

where much attention is on internationalisation decisions, which are typically shrouded in uncertainty (Ghoshal, 1987; Hymer, 1976; Johanson and Vahlne, 1977; Welch and Luostarinen, 1993), particularly in the case of smaller entrepreneurial ventures.

For these firms, entry into foreign markets is a particularly evident case of decision making under uncertainty (Lu and Beamish, 2001; Laufs and Schwens, 2014), being these ventures highly sensitive to external challenges and uncertainties (e.g. Lu, 2002; Schwens *et al.*, 2011). Also, their paucity in (both financial and managerial) resources prevents them from engaging extensively into data analysis and planning activities, which - in some cases - is found to be a successful strategy to revert a situation of uncertainty into a situation of risk (Li *et al.*, 2004; Samiee and Walters, 1990). By adhering to Knight (1921) we refer to *risk* with respect to those situations where the probabilities of outcomes are known, and therefore the decision maker can proceed by computing the expected utility of the alternatives and choose those with the highest value. We define *uncertainty* with respect to those situations where the decision maker is unable to draw the probability distribution of the outcomes of a set of instances and to classify them homogeneously.

In this study we address a research gap in international business (IB) and international entrepreneurship (IE) studies about the successful mechanisms that are adopted by small and medium sized enterprises (SMEs) to cope with Knightian uncertainty, following the call for research by Liesch *et al.* (2011). We test the preliminary results obtained in a previous exploratory multiple case-study on ten Italian entrepreneurial firms (Magnani and Zucchella, 2019) which enabled the identification of a common response of SMEs in relation to managing uncertainty in their internationalisation process, i.e. a global niche strategy, composed of and defined through, a set of specific strategic components. Through the present study we refine the set of Propositions advanced in the exploratory study through a more comprehensive set of Hypotheses to assess the relationships among the global niche strategy and international performance.

According to our results, two strategic components emerged as statistically significant, i.e. “creation of markets spaces” and “control of superior manufacturing and technological capabilities”, and can therefore be considered key components of the global niche strategy. First, with regards to “creation of market spaces”, the relevance of proactive and continual efforts in shaping the environment (Courtney *et al.*, 1997; Cyert and March, 1963) is confirmed. The creation of market spaces and unique systems of offer maintaining product uniqueness over time via a progressive refinement of the latter, is associated with lower competition perception. This implies that foreign growth may be determined by a “customer-driven” approach with problem-solving and intense customer interactions, instead of a “country-driven” one (Prahalad and Ramaswami, 2004; Ranjan and Read, 2016), thus challenging IB and IE literatures that often argue about the reverse. This finding also sheds light on the international marketing standardisation/adaptation debate according to which firms are driven by country-specific strategies of marketing mix adaptation to reduce risk (thus not referring to uncertainty). The firms in our sample do not seem to

follow this “deterministic” logic, instead they pursue customisation, thus focusing on individual niche clients’ requirements, problems and potential needs.

Second, the statistical significance of “control of superior manufacturing and technological capabilities” challenges the IE perspective of entrepreneurial internationalisation as driven and supported by networks (Coviello, 2006; Johanson and Mattson, 1988; Johanson and Vahlne, 2009). In contrast, our SMEs do not seem to rely on networking to cope with uncertainty: their global niche strategy requires a relatively high degree of vertical integration, with continuously improved production processes thanks to capabilities to apply scientific and technological knowledge (Deeds *et al.*, 2000; Scherer, 1965), the accumulation of internal expertise and tacit know-how (Kogut and Zander, 1993; Nonaka and Takeuchi, 1995; Polanyi, 1967). Another key aspect is the development of machinery in-house that, in turn, enables the firm to improve production processes continuously.

A further methodological contribution of the present study to the IB and IE literature about entrepreneurial firms’ strategies to cope with uncertainty in foreign environments lies in its having operationalised the components of the global niche strategy (cfr. Paper supplementary materials).

The paper is structured as follows. First, we build our theoretical background with a review of the strategic responses to risk and uncertainty. Next, we build our research hypotheses based on the literature review and on the results of a previous exploratory study. Then, we present the research design and methodological protocols. Last, we discuss our findings and conclude by illustrating the implications of this work to the relevant literatures, while highlighting the main limitations, thus drawing insights for future research. This contribution also has managerial implications because it highlights some practices that have been successfully adopted to deal with uncertainty, with special reference to the case of small business firms.

2. Theoretical background

2.1 Risk and uncertainty in SME internationalisation

Risk and uncertainty are embedded in the internationalisation process of firms. The IB literature has provided frameworks to introduce risk and uncertainty to the internationalisation process of firms by building on Hymer (1976)’s costs of doing business abroad. The liability of foreignness (Buckley and Casson, 1976; Dunning, 1977; Hennart, 1982) is “the costs of doing business abroad that result in a competitive disadvantage [...] broadly defined as all additional costs a firm operating in a market overseas incurs that a local firm would not incur” (Zaheer, 1995, pp. 342-343). The liability of outsidership (Johanson and Vahlne, 2009) consists in the disadvantages of not being part of the network of relationships of the country the organisation wants to approach. The liability of smallness

refers to constraints for smaller organisations, while the liability of newness (Stinchcombe, 1965) is the propensity of younger firms to “have higher failure rates than their older counterparts” (Baum, 1996, p. 79). The liability of complexity (Zucchella and Servais, 2012) refers to the liability arising from the unpredictability, variety and variability of factors characterising foreign markets with a relevant degree of complexity.

The above liabilities can explain why smaller and younger firms, when entering foreign markets, may be at a special disadvantage both in comparison to local firms and to larger organisations. These conditions also define the context of entrepreneurial internationalisation, i.e. the processes of foreign market entry by smaller and younger independent ventures, as being characterised by uncertainty. Notwithstanding these conditions, a number of these firms successfully internationalises, showing the capacity to cope with uncertainty and thus being highly entrepreneurial. Despite the presence of many studies on SMEs internationalisation and international entrepreneurship, there is still a need to better understand exactly how uncertainty-coping occurs in entrepreneurial internationalisation (Autio, 2017; Liesch *et al.*, 2011).

Building on the Knightian (Knight, 1921) definition of risk and uncertainty, we employ the following definition of *uncertainty in the internationalisation process*, referring to all those features or instances of foreign markets about which the decision maker is uncertain, in the sense that they: (a) are not known or knowable in advance¹; (b) are not known or knowable by the entrepreneur/manager making analogies² to previous market experiences in other countries. Such a definition was tested on the interviewed entrepreneurs during the qualitative exploratory phase.

The IB literature has provided constructs to introduce risk and uncertainty in internationalisation from the perspective of multinational enterprises (MNEs), though often using the two concepts interchangeably (Liesch *et al.*, 2011). Furthermore, both concepts have been prominent since the early emergence of the field.

Among the strategies to cope with uncertainty in internationalisation that have been identified by the literature about the internationalisation process, the role of experiential knowledge is prominent (Johanson and Vahlne, 1977; 2009). According to these authors, entry in foreign markets is influenced by the reduction of uncertainty/risk via experiential learning (and more recently also via *insidership* in networks).

Classic theories of risk diversification assume that types of location specific risk vary based on the kind of foreign direct investments. The risk minimisation hypothesis argues that - other things being equal - firms will prefer to diversify the geographical portfolio of their investments because diversification spreads the risk across product markets (cf. Hitt *et al.*, 1997). Rugman’s risk diversification theory suggested that different

¹ In relation to features, it means that they cannot be known without direct experience in the market; with regards to instances (events) it means that the entrepreneur/manager is not able to assess the distribution of the probabilities of the outcomes.

² With the term analogy we mean that the features or events encountered in previous internationalisation stages are used by the decision maker to draw inferences in newly approached markets.

MNEs may view identical investment opportunities offered by a particular country differently, *inter alia*, according to the distribution of their existing portfolios and their attitudes towards uncertainty (Rugman, 1979).

Specific responses to uncertainty in approaching international markets have been advanced in the literature, and include *avoidance* (Mascarenhas, 1982; Pich *et al.*, 2002), *control* (Allaire and Firsirotu, 1989; MacCrimmon and Wehrung, 1986; March and Simon, 1958), *cooperation* (Miller, 1992; Pfeffer and Salancik, 1978; Vernon, 1983), *imitation* (Aharoni, 1966; Barlow and Wender, 1955; DiMaggio and Powell, 1983; Vernon, 1983) and *flexibility* (Hill *et al.*, 1990; Petersen *et al.*, 2003; Porter, 1985).

In reviewing many of the responses to risk and uncertainty, Liesch *et al.* (2011) propose - in support of Alessandri's (2003) study - that managers tend to use analytical, quantitative approaches in the face of risk, while they shift toward more judgmental approaches and/or relying upon experience under uncertainty.

In International Marketing (IM) studies, strategy in foreign markets often refers to the standardisation or adaptation of marketing mix elements. Some studies have addressed the importance of product strategies, and particularly that of pursuing product uniqueness (Knight and Cavusgil, 2004), and product innovation (Bell *et al.*, 2004) but they have also highlighted the role of customer focus (Wolff and Pett, 2000). Nonetheless, in this literature results are still controversial.

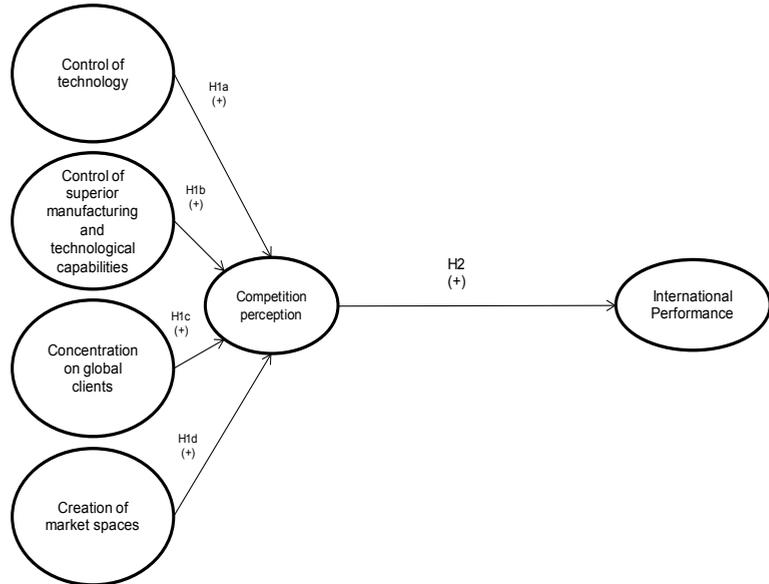
Recently, authors have called for research about the strategies pursued by entrepreneurial firms to internationalise (Autio, 2017; Knight and Liesch, 2016; Love and Roper, 2015) and about their international marketing approaches (Styles and Seymour, 2006; Zou *et al.*, 2015). Analyses at the intersection of the Marketing and Entrepreneurship interface (Fillis, 2001) can improve our understanding of smaller firms' internationalisation.

3. Hypotheses development

A preliminary exploratory multiple case-study on ten Italian entrepreneurial firms (cf. Zucchella and Magnani, 2019) led to the identification of a set of sources of uncertainty - and of a common strategic response to uncertainty in approaching foreign markets. The adoption of a global niche strategy³ (GNS from now on) emerged as a successful mechanism. In this paper we refine and test the model that emerged from the preliminary quantitative study (Figure 1), hypothesising that the use of the global niche strategy can explain lower competition perception and, in turn, international performance, as we explain hereafter.

³ The niche concept is a twofold one: it refers both to (i) the product, and to (ii) customers. Niche customers consist of groups of -either B2C or B2B- customers within the larger marketplace who have similar characteristics, behaviours, and needs. The (global) niche product is typically a very specialised one thanks to an almost never-ending process of improvement. Very high quality, in terms of technology, performance and reliability, are important features, often coupled with intense customer pre- and after-sale service and the possibility of customisation.

Fig. 1: Empirical model: Uncertainty-coping via a global niche strategy



Source: authors' elaboration

The findings of the exploratory study highlighted three strategic components of the global niche strategy, as being positively associated with a lower perception of competition, i.e.: a) the creation of market spaces and unique systems of offer; b) the concentration on horizontal segments of homogeneous clients in different countries; c) the control of technology and manufacturing/technological capabilities.

The “control of technology” GNS strategic component deals with value chain structuring/restructuring decisions. Hence, it entails decision-making about (i) the organisation mode (outsourcing): in-house, versus contract-provider; versus alliance; and (ii) the geography (offshoring) of foreign location decisions due to comparative advantage, market size, cultural distance, institutional environment (Contractor *et al.*, 2010).

In the case of the firms that were analysed in the preliminary exploratory phase, production was often found to be completely vertically integrated. According to respondents, this allows for better industrial processes and component performances vis-à-vis competitors. The interviewed firms did not find technological uncertainty (Eisenhardt, 1989), rather control of technology is the means to reduce environmental uncertainty. This seems to be in contrast with IB literature that stresses enhanced firms’ flexibility as a result of the outsourcing of production (e.g. Buckley and Tse, 1996; Tong and Reuer, 2007). Firms focusing on an internationalisation strategy based on the control of technology will not perceive benefits from outsourcing any part of their production. The amount of tacit knowledge and practices built over time makes it very difficult to transfer or outsource such knowledge. The above considerations lead to the following hypothesis:

H1a. There is a positive relationship between control of technology and the perception of lower competition.

The “control of superior manufacturing and technological capabilities” GNS component refers to manufacturing and technological capabilities being intertwined to successfully combine a unique process of production (Deeds *et al.*, 2000; Scherer, 1965). This is also possible thanks to the development of machinery in-house enabling the firm to further improve production processes continuously. A strong link between technological application and customers’ needs is a critical aspect of the interviewed firms. The constant attention and tracking of customers’ demand and technology application is relatively flexible, and technology itself can undergo steps of incremental development and/or modifications (cf. Fiegenbaum and Karnani, 1991; Swamidass and Newell 1987). The accumulation of expertise and tacit know-how (Kogut and Zander, 1993; Nonaka and Takeuchi, 1995; Polanyi, 1967) in managing production processes is firm-specific and makes it difficult for others to copy the capabilities that embody this knowledge (Yeoh and Roth, 1999), therefore leading to lower competition perception. The above considerations lead to the following hypothesis:

H1b. There is a positive relationship between the control of superior manufacturing capabilities and the perception of lower competition.

With regards to the “concentration focusing on a horizontal micro segment of customers” GNS component, it refers to focusing on a limited number of customers through specialisation, product differentiation, and customer relationship marketing (Dalgic and Leeuw, 1994; Mattiacci, 2000). Niche marketing has been defined as “a method to meet customer needs through tailoring goods and services for small markets”, or “positioning into small, profitable homogenous market segments which have been ignored or neglected by others” (Dalgic and Leeuw, 1994, p 42). Kotler (2003) refers to niche marketing as the practice of focusing on customers with a distinct set of needs who will pay a premium to the firm that best satisfies their needs, where the niche is not likely to attract other competitors, where the niche firm gains certain economies through specialisation, and where the niche is preferably characterised by sufficient size, profit and growth potential. The mentioned definitions imply that there is a small number of customers, plus aspects of tailoring, positioning, differentiating and focusing in a niche market.

In the context of this study we refer to a specific feature that seems to characterise firms’ strategizing while approaching foreign - and especially uncertain - markets. The relationship with global customers is prominent, in that the firm focuses on a process of horizontal micro-segmentation of foreign markets focusing on clusters of homogeneous clients (cf. Zucchella and Palamara, 2006). At the same time market features are not neglected, rather they are reflected in customers’ practices and behaviours. The above considerations lead to the following hypothesis:

H1c. There is a positive relationship between concentrating on horizontal micro-segment of customers and the perception of lower competition.

With respect to the last GNS component, “creation of market spaces”, we refer to the niche strategy’s feature of requiring continual efforts in order to maintain uniqueness over time via a progressive refinement of the

latter or via the progressive development of a portfolio of niche businesses. Creation refers to the shaping of an environment (Courtney *et al.*, 1997; Cyert and March, 1963), through the creation of market spaces and unique systems of offer.

H1d. There is a positive relationship between creating market spaces and unique product/services to offer, and the perception of lower competition.

Overall, the role of competition perception emerged as a relatively evident factor in the exploratory study, where we found that the competitive advantage of the firm is reinforced by the perception of no - or at most very few, and not very dangerous - competitors both in the domestic space and in foreign markets. Building on the contribution by Weerawardena *et al.* (2014), we contend that GNS' strategic components are part of a broader firm's orientation, which is identifiable as a "strategic monopolistic mind-set" made up of control and influence behaviours, leading to the perception of lower competitors (Kim and Mauborgne, 2009) thanks to the niche positioning. In both IE literature (Zucchella and Palamara, 2006; Zucchella *et al.*, 2007) and established research in marketing (Dalgic and Leeuw, 1994; Kotler, 2003; Parrish *et al.*, 2006) a niche strategy is expected to shelter smaller from (larger) thus allowing entrepreneurs to perceive complex business environments as relatively less competitive. According to IB and IE studies (Hennart 2014; Hennart *et al.*, 2017; Mascarenhas, 1999; Zucchella and Palamara, 2006; Zucchella *et al.*, 2007) the perceived competitive space, both in the domestic and foreign markets is a factor that can affect the international performance of the firm thanks to its niche positioning. The above considerations lead to the following hypothesis:

H2: The greater the perception of lower competition in the international environment due to the implementation of a global niche strategy, the higher the international performance.

4. Data and methodology

4.1 Data sources and sample

The mail contacts of the firms that were surveyed in this study were extracted from the Australian Suppliers Directory (Australian Trade Commission, AUSTRADE) during April 2014. The directory contained 9,960 firms: these were small, medium, and large Australian firms that agreed to publicly make available information about their business activity and few mail contacts.

We built a dataset using the above-mentioned directory while looking for a representative sample of Australian firms. Missing contact information led us to end up with a total of 5,170 firms. The sample was random. Firms were sorted by industry; sixteen industries were found (Table 1).

Tab. 1: Sample by industry

Industry	Number of firms	Number of firms (%)
Agribusiness	597	11.5
Arts + Recreation	302	5.8
Building + Construction	376	7.3
Business + Other services	401	7.8
Defence + Security + Safety	241	4.7
Consumer goods, non-food	360	7.0
Education + Training	336	6.5
Environment + Energy	223	4.3
Finance + Insurance	155	3.0
Food + Beverage	400	7.7
Health, Biotechnology, Wellbeing	241	4.7
Tourism + Hospitality	310	6.0
ICT	308	6.0
Manufacturing - other	313	6.1
Mining	301	5.8
Transport	306	5.9
Total	5170	100

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Source: authors' elaboration

4.2 Questionnaire

In order to test the predictions gained through the exploratory qualitative study, we employed a lengthy questionnaire to gather information on variables measuring the perception about the most uncertain countries to be approached in the future, the most relevant sources of uncertainty, the strategies used to cope with uncertainty in the internationalisation process, international performance, and the likeliness of using a global niche strategy. We have pre-tested our questionnaire in two stages. The first wave included five experienced scholars of the University of Queensland Business School and three experienced scholars belonging to the Department of Economics and Management of the University of Pavia. The first stage of pre-testing amongst the University of Queensland and University of Pavia faculty enabled the questions to be substantially improved so that they could be more easily understood by Australian respondents. A second wave of testing was undertaken within a dataset consisting of a random sub-sample of 20 firms.

The final version of the questionnaire was repeatedly sent online in four waves of follow ups between May 2014 and February 2015. The online software platform that was used to send the survey was *Qualtrics*. We ended up with 110 responses, corresponding to a 2.1% response rate. In general, international mail surveys to business firms have a history of very low response rates. For regular mail surveys without a telephone follow-up/pre-contact, response rates typically vary between 6% and 16% (cf. e.g. Ghoshal and Nohria, 1993; Jobber and Saunders, 1988). The fact that we got an even lower response rate may be ascribed to the fact

that the questionnaire, was sent under the name of an Italian university rather than an Australian one and that it was rather long, requiring at least 20-25 minutes to be completed. Nonetheless, the absolute number of responses, i.e. 110, was considered sufficient to run statistical analyses with a structural equation modelling technique. (Hair *et al.*, 2012) (see also our analytical approach section further on).

Tab. 2: Summary of indicators for measurement model constructs

	Control of technology (CTECH) (<i>formative</i>)
ctech_1	Will retain production processes in the home country without relying on external providers or alliances with other firms in the home country itself
ctech_2	Will retain production process in the home market as a deliberate decision overriding cost-efficient advantages in relocating production abroad
ctech_3	The two above allow us to carry out better industrial processes and component performances
	Control of superior technological and manufacturing capabilities (CAPA1)
capa1_1	Constantly applying technology excellently
capa1_2	Constantly improving production processes
capa1_3	Appointing highly qualified human resources
capa1_4	Accumulating expertise in managing process and tacit know-how
capa1_5	Monitoring customers' needs and developing technological improvements
	Control of superior technological and manufacturing capabilities (CAPA2) (<i>formative</i>)
capa2_1	We apply technology with excellence
capa2_2	We constantly and continuously improve production processes
capa2_3	We employ highly qualified human resources
capa2_4	We accumulate expertise in managing processes and tacit know-how
capa2_5	Customers' needs are constantly monitored to develop technological improvements
	Concentration on horizontal micro-segments of clients (HORCLI) (<i>formative</i>)
horcli_1	Consists in planning in advance which countries to enter based on country-characteristics such as culture
horcli_2	Focuses on customers that share the same characteristics globally
horcli_3	Consists in prioritizing countries where there are customers with similar characteristics
deepniche_1	The quality of our product is unique compared to competitors' products
deepniche_2	Our product is of a higher quality than competing products/services
	Creation of market spaces and unique product/service (WIDENICHE) (<i>formative</i>)
wideniche_1	Our product's technology is constantly refined both in terms of performance and design
wideniche_2	Over time we have been developing a number of related niche businesses connected to our technological platform and competencies
	Competition perception (BLUE1) (<i>formative</i>)
blue1_1	Overall, how much you think the above 5 factors (viz those mentioned in the previous question) are important to achieve competitive advantage in your home country?
blue1_2	Overall, how much do you think the above 5 factors are important to achieve competitive advantage in approaching the targeted countries you nominated?
	Competition perception (BLUE2) (<i>reflective</i>)*
blue2	Overall, how much do you think the above 4 factors in Q23-24 are important for a competitive advantage in entering these markets?
	International performance (PERFINT) (<i>reflective</i>)
perfint_1	Return on assets
perfint_1	Net profit margins
perfint_1	Return on investment

* According to the PLS-SEM theory, one-item constructs are to be understood as reflective (Hair *et al.*, 2014)

Source: authors' elaboration

4.3 Indicators for measurement model constructs

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Table 2 summarises the indicators of our measures and identifies whether they are *reflective* or *formative*. In reflective measurement models, the measures represent the effects of an underlying construct. In formative measurement models, the assumption is that the indicators cause the construct (Hair *et al.*, 2014). Formative indicators, in contrast with reflective ones, are not interchangeable and capture a specific aspect of the construct: therefore, omitting one indicator could significantly alter the construct.

4.4 Controlling for common method bias

In designing the questionnaire, we checked *ex-ante* for common method bias through a *procedural remedy* that consists in allowing the respondent to answer anonymously (Podsakoff *et al.*, 2003). Moreover, we dedicated careful attention to the items' very constructs by keeping the questions as simple, specific, and concise as possible, and eliminating item-related social desirability.

Post-hoc analysis has been undertaken to reduce common method variance by employing the following statistical remedies. This step of the analysis was undertaken using SPSS software. First, we checked for internal consistency - meaning that the items of a scale would all measure the same construct and thus be highly correlated - using Cronbach's alpha (Table 3). The generally agreed upon lower limit of Cronbach's alpha is 0,70, although it may decrease to 0,60 in exploratory research (Hair *et al.*, 2014). We have listed the scores for our variables and how we proceeded below:

- *UNCERTINT* (i.e. *uncertainty in the process of internationalisation*) scored very low Cronbach's alpha (0,118) so we decided to drop this item from our subsequent analyses.
- *CTECH* (i.e. *control of technology*): we can see that Cronbach's alpha was 0,814, which indicates a high level of internal consistency for our scale with this specific sample.
- *CAPA1* (i.e. *control of superior manufacturing and technological capabilities*): Cronbach's alpha was 0,907, which is an excellent score. Moreover, the Cronbach's alpha of the CAPA2 - the 5-point Likert-scale we employed to ask respondents to rate their company's performance, in comparison to the lowest 20% of firms in the industry, and the top 20% of firms in the industry - scored 0,885.
- *BLUE1* (i.e. *competition perception*) scored 0,573.
- *HORCLI* (i.e. *concentrating on global clients*) scored 0,549. At the same time the item-total statistics indicate that if we dropped the first item the Cronbach's Alpha would become 0,780, leading us to drop this item from our analyses.
- *NICHEPR* (i.e. *creation of market spaces and unique product/service*) as mentioned was split into two separate sets of questions in order to measure the extent of a *deep niche strategy* and the extent of the creation of a *portfolio of niches* (i.e. *widening niche strategy*). DEEPNICHE (Q24) scored 0.713, while WIDENICHE scores very low, i.e. 0.212, thus suggesting that we drop this item from the analyses.

Tab. 3: Reliability measures

Variable	Question Number	Cronbach's Alpha	Cronbach's Alpha based on Standardised Items	N of Items
UNCERTINT	Q8	,118	,199	2
CTECH	Q19	,814	,813	3
CAPA1	Q20	,907	,907	5
CAPA2	Q21	,885	,887	5
BLUE1	Q22	,573	,574	2
HORCLI	Q23	,573	,574	2
DEEPNICHE	Q24	,549	,562	3
WIDENICHE	Q25	,212	,225	2
PERFINT	Q29	,953	,953	4

Source: authors' elaboration

4.5 Exploratory factor analysis

We performed an exploratory factor analysis through a principal component analysis using an oblique rotation (we assumed that our factors were correlated) with a criterion of eigenvalue that was greater than 1.0 in order to look for a more parsimonious set of variables. The value of the Kaiser-Meyer-Olkin Measure of Sampling Adequacy was 0,626 [a value above 0,6 is acceptable (Tabachnick and Fidell, 2007)], and the result of Bartlett's Test of Sphericity was highly significant ($p < 0.001$) (Table 4), meaning that factor analysis was appropriate.

Tab. 4: Sampling adequacy tests

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	,626	
Bartlett's Test of Sphericity	Approx. Chi-Square	1405,613
	df	456
	Sig.	,000

Source: authors' elaboration

Table 5 shows all of the factors that are extractable from the analysis along with their eigenvalues, percentage of variance attributable to each fact, and cumulative variance of the factor and the previous factors. The first factor accounts for 19,46% of the variance, the second 14,13%, the third 9,68%, the fourth 7,81%, the fifth 7,33%, the sixth 5,94%, the seventh 5,11 and the eighth 4,13%. All the remaining factors are not significant.

Tab. 5: Total variance explained

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Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings ^a
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	6,033	19,462	19,462	6,033	19,462	19,462	4,654
2	4,380	14,130	33,592	4,380	14,130	33,592	4,140
3	3,002	9,685	43,277	3,002	9,685	43,277	4,163
4	2,423	7,815	51,091	2,423	7,815	51,091	2,613
5	2,273	7,332	58,423	2,273	7,332	58,423	2,870
6	1,844	5,948	64,371	1,844	5,948	64,371	2,585
7	1,586	5,117	69,488	1,586	5,117	69,488	2,131
8	1,278	4,123	73,611	1,278	4,123	73,611	2,061
9	,991	3,197	76,808				
10	,909	2,931	79,739				
11	,769	2,479	82,218				
12	,668	2,154	84,372				
13	,568	1,833	86,205				
14	,550	1,775	87,980				
15	,514	1,658	89,638				
16	,447	1,443	91,081				
17	,429	1,385	92,466				
18	,360	1,161	93,626				
19	,324	1,044	94,671				
20	,275	,887	95,558				
21	,235	,759	96,317				
22	,197	,636	96,953				
23	,171	,553	97,506				
24	,154	,498	98,004				
25	,145	,468	98,472				
26	,125	,402	98,874				
27	,102	,328	99,201				
28	,095	,307	99,509				
29	,070	,227	99,735				
30	,049	,159	99,894				
31	,033	,106	100,000				
Extraction Method: Principal Component Analysis.							
^a When components are correlated, sums of squared loadings cannot be added to obtain a total variance.							

Source: authors' elaboration

The component matrix (Table 6) shows the un-rotated factor loadings, i.e. the correlations between the variable and the factor. We suppressed all loadings that were less than 0.40 to remove low correlations.

Tab. 6: Un-rotated component matrix*

	Component							
	1	2	3	4	5	6	7	8
capa2_2	,750							
capa2_1	,747							
capa2_4	,745							
capa2_5	,712							
capa2_3	,698							
wideniche_1	,624							
blue1_2	,578							
blue1_1	,509							
blue2_1	,497		,444					
capa1_2		,711						
capa1_4	-,431	,689						
capa1_3		,634						
ROI	,510	,606	-,406					
capa1_5	-,444	,605						
ROS	,519	,569	-,449					
ROA	,451	,549	-,496					
capa1_1	-,437	,493						
Net profit margins	,496	,534	-,534					
horcli_2			,496				,494	
ctech_1				,755				
ctech_2				,735				
ctech_3				,681				
orgmem_1		,561			,629			
orgmem_3		,518			,614			
orgmem_2					,609			
orgmem_4		,561			,586			
deepniche_1			,440			,586		
deepniche_2			,509			,529		
horcli_3							,605	
wideniche_2								,609
horcli_1								,506

Extraction Method: Principal Component Analysis.
* 8 components extracted.

Source: authors' elaboration

By analysing the component matrix and the rotated component matrix, the factors seemed to confirm that the constructs we were going to use in our subsequent model were relevant (cf. Table 7). A good number of loadings in the matrix suggests positive or inverse relationships above 0,6: the rule of thumb, regardless of whether they are positive or negative, is to consider loadings above 0.6 to be very high (Tabachnick and Fidell, 2007).

Tab. 7: Rotated component matrix (Oblimin rotation method)*

	Component							
	1	2	3	4	5	6	7	8
capa2_4	,870							
capa2_5	,762							
capa2_2	,712							
capa2_3	,700							
capa2_1	,668							
wideniche_1	,508					,401		
blue1_2								
capa1_5		,876						
capa1_4		,861						
capa1_2		,842						
capa1_3		,814						
capa1_1		,797						
ROS			-,929					
ROI			-,920					
ROA			-,911					
Net profit margins			-,897					
ctech_1				,909				
ctech_2				,872				
ctech_3				,749				
orgmem_3					,903			
orgmem_1					,861			
orgmem_4					,826			
orgmem_2					,457			
deepniche_1						,893		
deepniche_2						,790		
blue2_1						,545		
horcli_2							,859	
horcli_3							,831	
wideniche_2								,848
blue1_1								,507
	Component							
	1	2	3	4	5	6	7	8
horcli_1	,412							,482
Extraction Method: Principal Component Analysis.								
Rotation Method: Oblimin with Kaiser Normalization.								
* Rotation converged in 9 iterations.								

Source: authors' elaboration

4.6 Descriptive statistics

According to the Australian Bureau of Statistics (ABS) a small business employs fewer than 20 people. A micro-business has less than 5 employees. Medium-sized businesses have between 20 and 200 employees, and large firms employ 200 or more employees. According to this classification, 23% of the firms in our sample are micro businesses, 39% are small businesses,

31% are medium-sized firms, and 6% are large firms⁴.

The average age of the firms in the sample is 35 years. The oldest was established in 1861, the youngest in 2012. The firms in the sample showed very diverse shares of foreign sales over total sales (cf. Table 8).

Tab. 8: Descriptive statistics

		Unit	Min	Max	Mean	Std. Deviation
Firm specific variables	Number of employees	Log (number of employees)	,00	8,70	2,5840	1,708
	Year of establishment	Number	1858	2013	1984	27,874
	Precocity (years)	Number	0	132	12,26	21,163
	Family business	Binary (1 = yes; 0=no)	0	1	,54	,501
	Private or public	Binary (1 = yes; 0=no)	0	1	,95	,212
	Listed on the stock exchange	Binary (1 = yes; 0=no)	0	1	1,97	,160
	% foreign sales on total sales	Percentage	0	100	37,17	36,172
International performance compounded variable*	ROA	Likert Scale (0-5)	1	5	3,38	1,138
	Net profit margins	Likert Scale (0-5)	1	5	3,28	1,129
	ROS	Likert Scale (0-5)	1	5	3,33	1,101
	ROI	Likert Scale (0-5)	1	5	3,32	1,111
GNS-related variables*	ctech_1	Likert Scale (0-5)	1	5	3,48	1,319
	ctech_2	Likert Scale (0-5)	1	5	3,07	1,319
	ctech_3	Likert Scale (0-5)	1	5	3,53	1,196
	capa1_1	Likert Scale (0-5)	1	5	1,96	1,073
	capa1_2	Likert Scale (0-5)	1	5	2,07	1,097
	capa1_3	Likert Scale (0-5)	1	5	2,33	1,131
	capa1_4	Likert Scale (0-5)	1	5	2,14	1,097
	capa1_5	Likert Scale (0-5)	1	5	1,81	1,109
	capa2_1	Likert Scale (0-5)	1	5	3,84	1,053
	capa2_2	Likert Scale (0-5)	2	5	3,84	,945
	capa2_3	Likert Scale (0-5)	1	5	3,73	,977
	capa2_4	Likert Scale (0-5)	1	5	3,97	,870
	capa2_5	Likert Scale (0-5)	1	5	4,13	,991
	horcli_1	Likert Scale (0-5)	1	5	3,62	1,257
	horcli_2	Likert Scale (0-5)	1	5	3,59	1,116
	horcli_3	Likert Scale (0-5)	1	5	3,51	1,167
	deepniche_1	Likert Scale (0-5)	1	5	3,99	1,121
	deepniche_2	Likert Scale (0-5)	2	5	4,37	,785
	wideniche_1	Likert Scale (0-5)	2	5	4,03	,793
	wideniche_2	Likert Scale (0-5)	1	5	3,81	1,147
Competition perception variable*	blue1_1	Likert Scale (0-5)	2	5	4,27	,782
	blue1_2	Likert Scale (0-5)	2	5	4,22	,727
	blue2_1	Likert Scale (0-5)	2	5	4,19	,766

* See also Paper supplementary materials (published online on www.sijm.it) for constructs' operationalisation

Source: authors' elaboration

⁴ Only 6 firms in our sample are large firms. In the following analyses which were undertaken with SmartPLS software, we did not undertake a multi-group analysis in order to assess the differences between the groups of SMEs and large firms because the software needs at least 11 observations to perform the analysis. Furthermore, the sample of the preliminary exploratory study also included 2 larger firms that were medium-sized firms that could become micro-multinationals over time (see Magnani and Zucchella, 2018).

For the present study we adhered to the definition used by Zucchella, Palamara, and Denicolai (2007), where they refer to precocity as the starting point in time of international activities. We built a variable (PRECO) to measure precocity, which is the difference between the company's year of establishment and its first year of international activity. 20% of the firms in our sample began to export within their first year of their foundation; 27,6% went international between the second and sixth year of establishment, while the rest of the enterprises took between 7 and 132⁵ years to go international. An interval ranging between 1 and 10 years from the year of foundation to go international is a reasonable span of time to consider a firm born global" (Knight and Cavusgil, 2005). According to the latter definition, 47,6% of the firms in the sample were born global.

51% of the firms in the sample were family businesses, 91% were privately owned. Of the remaining 9% of public owned businesses, 1,8% was listed on the stock exchange.

63% of the respondents reported that they were "partially or wholly responsible for their firm's internationalisation in the past", and 67% that "they will be in part or wholly responsible for their firm's internationalisation plans in the future". With respect to respondents' prior experience, roughly 13,5% of the respondents had 20 years of experience in exporting. 10,5% had respectively between 10 and 17 years of experience in their current position in the firm.

We analysed our variables and indicators to see the percentage of missing values and applied mean value replacement for variables/indicators with less than 5% of missing values (apart from family businesses, private or public businesses and those listed on the stock exchange, which were dummy variables), and case-wise deletion for those with more than 5% of missing values as suggested by Hair *et al.* (2014). Distributional assumptions are of less concern in PLS-SEMs analyses because of their non-parametric nature.

4.7 Analytical approach

We estimated our model by using a structural equation modelling technique - partial least squares (PLS) (Wold, 1982). PLS is a second-generation multivariate analysis technique and a powerful tool in the estimation of models with formative indicators (Hair *et al.*, 2012), small sample sizes and non-normal data (*ibid.*). It is also a powerful tool for international business and marketing-related studies (Richter *et al.*, 2016).

In relation to the sample size, our looks appropriate according to the guidelines by Marcoulides and Saunders (2006) recommending at least 100 observations when a maximum of 10 arrows points at a latent variable in the model (as in our case).

Moreover, the PLS technique is appropriate when the theory is insufficiently grounded and for exploratory studies, as well as when the goal of the research is prediction and not model fit. The use of this methodology

⁵ There were two very old firms in the sample whose year of establishment is respectively 1858 and 1861 and that took 116 and 132 years to start their first international activity.

has been proven in previous international management literature (Acedo and Jones, 2007; Holzmüller and Kasper, 1991; Stottinger and Holzmüller, 2001). We used the SmartPLS software.

We undertook a two-stage process, firstly assessing the reliability and validity of our measurement model, and secondly assessing the structural model itself. In relation to the evaluation of formative constructs, the main issue is that of multicollinearity (Diamantopoulos and Winklhofer, 2001). We thus calculated the variance inflation factors (VIF): values lower than 5 indicate that there are no collinearity issues (Belsley, 1991) (Table 9).

Tab. 9: Formative constructs' reliability evaluation

Construct	Indicator	Collinearity statistic (Variance Inflation Factor)*
BLUE1	blue1_1	1,189
	blue1_2	1,226
BLUE2	blue2	1,135
CAPA1	capa1_1	2,354
	capa1_2	2,825
	capa1_3	3,114
	capa1_3	3,583
	capa1_4	3,382
CAPA2	capa2_1	3,034
	capa2_2	2,601
	capa2_3	2,355
	capa2_4	2,874
	capa2_5	1,996
CTECH	ctech_1	2,262
	ctech_2	1,989
	ctech_3	1,561
DEEPNICHE	deepniche_1	1,614
	deepniche_2	1,635
HORCLI	horcli_1	1,029
	horcli_2	1,705
	horcli_3	1,736
WIDENICHE	wideniche_1	1,133
	wideniche_2	1,024

* VIF were calculated by taking the first formative indicator and regressing it over all the remaining indicators of the same construct

Source: authors' elaboration

With regards to reflective measures - represented by the constructs PERFINT, BLUE1, and BLUE2 in our measurement model - we assessed (i) individual items reliability (ii) construct reliability, (iii) convergent validity, and (vi) discriminant validity.

Individual reliability was assessed by checking whether the factor loadings on its construct were greater than 0.7 (Carmines and Zeller, 1979). Construct reliability was assessed using composite reliability (CR), a cut-off value which is suggested in the literature to be at 0,7 (Nunnally, 1978). Convergent validity was assessed by calculating average extracted

variance (AVE) (Fornell and Larcker, 1981). AVE values were greater than 0.5 (ibid). Discriminant validity was assessed by checking that the diagonal elements were greater than the off-diagonal elements (Barclay *et al.*, 1995). Table 10 shows that our reflective measures are consistently reliable.

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Tab. 10: Construct reliability - reflective measures

Construct	Indicator	Factor loading	Composite reliability (CR)	Average variance extracted (AVE)
PERFINT	Net profit margins	0,929	0,966	0,875
	ROA	0.918		
	ROI	0,944		
	ROS	0,951		
BLUE1	blue1_1	0.704	0,778	0,539
	blue1_2	0.749		
BLUE2	Blue2	0,750		

Source: authors' elaboration

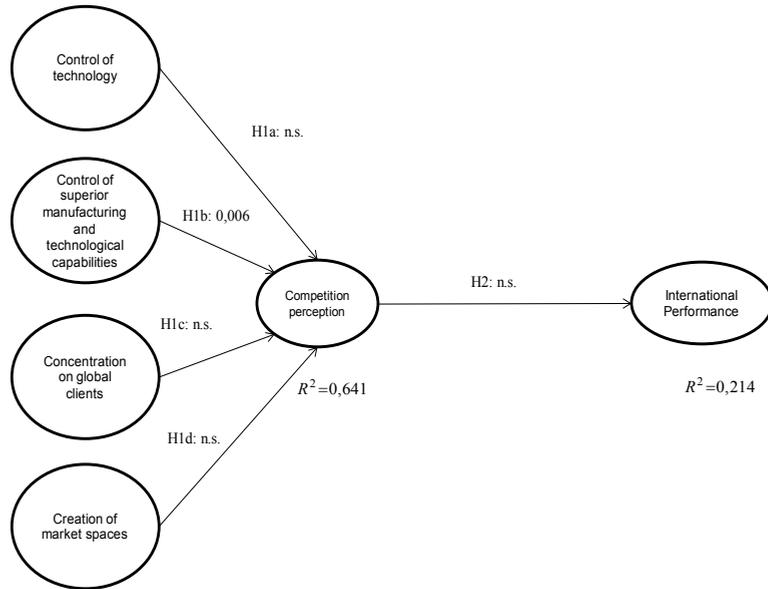
5. Results and discussion

The statistical significance of the structural model was assessed by using bootstrapping procedures with the replacement of 2,000 samples. Figure 2 is a graphical representation of the path coefficients (β), the significance level of each relationship and the explained variance (R^2). Competition perception and international performance respectively explain 64,1% and 21,4% of the variance in the model.

Results of the path analysis were obtained by extracting T Statistics values from the Path Coefficients table [(at least $t > 1.96$) in order to meet .050 significance level (Chin, 1998)], and demonstrate that Hypotheses H1b and H1d are confirmed by the model (Table 11). Two clear determinants of lower perceived competition are control of superior manufacturing and technological capabilities (H1b, $p < .01$), and creation of market spaces (H1d, $p < .001$), while control of technology and concentration on global clients are not indicative of lower competition perception (H1a, H1c). Results moreover indicate that lower competition perception is not related to international performance (HP2). The explanation for this result may lie in the consideration that not all GNS strategic components - taken together - resulted as significant. In fact, we hypothesised a “compounded” effect of GNS on competition perception and, in turn, international performance (“*The greater the perception of lower competition in the international environment due to the implementation of a global niche strategy, the higher the international performance*”). Therefore, the lack of significance for HP2 can be ascribed to the fact that only two out of four components resulted to be statistically significant. Despite such non-significant relationship, this paper contributes to the extant debate about entrepreneurial internationalisation, being one of the first studies to operationalise the niche strategy and test it on a large sample of SMEs. The strong evidence of two out of four GNS strategic components, i.e. the role of market creation and that of control of technological and manufacturing

capabilities paves the way for more in-depth analyses about niche strategies in international contexts. For instance, departing from this result, future studies may investigate whether there are other strategic aspects that can combine, and that may have an influence on competition perception and international performance. At the same time, the other two GNS strategic components which did not result significant will need further refinement in their operationalisation.

Fig. 2: Structural model: Results



Source: authors' elaboration

Tab. 11: Structural model: Results

	T Statistics	P Values
Competition perception †International performance	0,517	0,605
Concentration on global clients †Competition perception	0,076	0,939
Control of superior manufacturing and technological capabilities †Competition perception	2,776**	0,006**
Control of technology † Competition perception	0,997	0,319
Creation of market spaces † Competition perception	4,014***	0,000***
Creation of market spaces † International performance	0,222	0,824
***p < .001		
**p < .01		
*p < .05		
†p < .1 (two-tailed test)		

Source: authors' elaboration

The creation of market spaces through the offer of unique products seems to represent one crucial aspect of the global niche strategy. Creation refers to the shaping of an environment (Courtney *et al.*, 1996;

Venkataraman *et al.*, 2012; Sarasvathy, 2001; Yang & Gabrielsson, 2017), through the creation of market spaces and unique systems of offer. The high statistical significance of this variable supports the idea that to cope with environmental uncertainty firms need to create the environment, thus influencing markets in a sense by selling niche products. This finding supports the stream of literature about opportunity creation in foreign markets according to which enacted opportunities are “endogenously formed by entrepreneurs seeking to exploit them” (Alvarez *et al.*, 2013, p. 305). This finding is in line with reliance, in smaller entrepreneurial firms, on non-predictive control strategies exercising control over what can be done with the available resources, instead of making a decision based on a given set of predictions and plans (McKelvie *et al.*, 2011; Sarasvathy, 2001; Sarasvathy and Dew, 2005; Yang and Gabrielsson, 2017).

A further implication of this finding is that (global) customers are prominent in firms strategising with country-characteristics that are considered as a consequence of customers’ practices and behaviours. In addition, this finding sheds new light on the international marketing standardisation/adaptation debate according to which firms’ international growth is driven by country-specific strategies of marketing mix adaptation to reduce risk (thus not referring to uncertainty). According to our findings, instead, our firms pursue customisation, thus focusing on individual niche clients’ requirements instead of “generic” country-specific diversities.

The statistical significance of the component “control of superior manufacturing and technological capabilities” confirms that international liabilities can be coped with through the kind of monopolistic mindset hypothesised in our hypotheses development section by exerting high levels of control on manufacturing and technological capabilities by vertically integrating production activities and technological developmental processes. This finding points out that entrepreneurial firms benefit neither from outsourcing nor from offshoring parts of their production, and thus challenges IB literature that suggests an increase in flexibility as a successful response (Buckley and Tse, 1996; Tong and Reuer, 2007) to cope with foreign markets’ uncertainty. For our sampled firms, the amount of tacit knowledge and practices built over time becomes a crucial competitive element that is very difficult to transfer or outsource.

6. Conclusion

This study contributes to research about the internationalisation of entrepreneurial firms (Autio, 2017; Knight and Liesch, 2016; Liesch *et al.*, 2011). Although IE studies have already found that a global niche positioning can explain the internationalisation of smaller entrepreneurial firms (Autio, 2017; Hennart, 2014; Hennart *et al.*, 2017; Knight and Cavusgil, 1996; Madsen and Servais, 1997; Zucchella *et al.*, 2007), this strategy has still not been analysed in depth and operationalised in its strategic components (Magnani and Zucchella, 2019). Furthermore, there have been scant quantitative studies testing this strategy and its components over samples of entrepreneurial firms. First, this study makes

a methodological contribution to these streams of studies by providing an operationalisation of the global niche strategy detailing its strategic components: control, concentration and creation. Second, it provides evidence of the role of two global niche strategy's strategic components, i.e. "creation of markets spaces" and "control of superior manufacturing and technological capabilities". This contribution also has managerial implications because it highlights the emerging practices and attributes of a strategy that is used by our sampled firms in their process of foreign expansion. Entrepreneurs and managers planning to approach international markets that exhibit sources of uncertainty should leverage on the continuous refinement of technology and explore the benefits of applying the same technology to a wider series of products. Furthermore, it is possible to control technological development by insourcing production processes. Fast, perceived uncertainty may be mitigated by focusing on customers that globally share the same characteristics and applying a customer-focus, instead of a country-focus, approach based on generic country-specificities.

Although some of the findings of this study are interesting, our research suffers from some limitations that pave the way to future research. First of all, more samples from more countries would increase the generalisability of the results. Second, the operationalisation of the components of the global niche strategy (control of technology and concentration on global homogeneous clusters of clients) that resulted as non-significant will need further refinement. Third, more extensive and cross-country samples are needed to test the strategy in different contexts. Finally, there is place for a longitudinal study to measure the effects of the global niche strategy as a whole - and of the creation of market spaces in particular - in a process perspective to understand the sustainability of this strategy over time.

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