ARE INVS SO DIFFERENT?

Ana Paula OLIVEIRA
University of Porto, School of Economics and Management
Rua Dr. Roberto Frias, Porto, Portugal
anap.oliveira17@gmail.com

Raquel MENESES
University of Porto, School of Economics and Management
Rua Dr. Roberto Frias, Porto, Portugal
raquelm@fep.up.pt

Nuno MOUTINHO
University of Porto, School of Economics and Management
Rua Dr. Roberto Frias, Porto, Portugal
moutinho@fep.up.pt

Abstract. *Many studies focus on the pre-internationalization phase and very few pay much attention to the post-internationalization phase. This study aims to bridge this gap, exploring the speed at which traditional firms, INVs, and Born-again-Global firms become international and their degree of internationalization, and how this process is reflected differently vis-à-vis innovativeness and competitive advantage. It is important to note that the firm's age when it carries out its first internationalization activity is what conceptually differentiates these kinds of firms. Based on a sample of 129 Portuguese metalworking firms, we develop several hypotheses to test. Surprisingly, new forms of firms (INVs and Born-again-Global firms) do not seem more innovative and do not have a greater competitive advantage.*

Keywords: *INV; internationalization; Born-Global; Speed; Degree; Innovation; Competitive advantage*

Introduction

Globalization promotes new opportunities for small and medium-sized enterprises (SMEs), which are expanding their activities to external markets, in order to gain a competitive advantage internationally. International New Ventures (INV) from their very inception broaden their horizons, leaving behind local views that usually characterize small new firms (Oviatt & McDougall, 1994). At the same time, the increasingly global environment has fueled the vision and business strategy of some traditional companies, driving them to suddenly expand across borders. These companies are referred to as *Born Again Global* (BaG) companies, as they suddenly internationalize after a long period of being focused on the domestic market (Bell, McNaughton, Young & Crick, 2003).

The extant literature extensively covers the period prior to the first internationalization period and the factors that influence the timing of entry into the international market, however, there are few studies that analyze the period after the company's initial entry into the foreign market.

This study intends to bridge this gap, by analyzing the different dimensions of internationalization after the first entry into the external market, both in traditional companies, and new forms of companies (INV and BaG) and their innovativeness and *competitiveness.* In terms of defining what differentiates these companies from each other is the time when they begin their internationalization process.

Literature review

Some studies suggest two central dimensions in the process of internationalization are *degree* and *speed* (Cesinger, Fink, Madsen & Kraus, 2012; Zahra & George, 2002). The degree of internationalization is related to the level of commitment of the company to its international expansion process (Casillas & Acedo, 2013). Speed is the time that elapses from the time the company is established to its first international activity. More strictly speaking, this is the starting speed. The speed of internationalization refers more specifically to the number of international activities that the company performs within a certain period of time after its first international activity (Casillas & Acedo, 2013).

New firms typically compete in global niche markets and are quite flexible in adapting to the needs of their customers (Rennie, 1993). Their ease of adaptation to new markets enables them to reach new international markets faster. Traditional firms have a more rigid stance, which hampers the process of adaptation to new international markets (Autio et al., 2000; Hilmersson & Johanson, 2016), as they have to deconstruct some of the routines developed for the domestic market (Hilmersson, Johanson, Lundberg, & Papaioannou, 2017), slowing them down. Therefore, Hypothesis 1a (H1a) is as follows:

H1a: The post-internationalization speed of new forms of companies is faster than the post-internationalization speed of traditional enterprises.

The new forms of companies have more in-depth market knowledge, partly driven by the founder's previous international experience, which allows them to make international commitment decisions more easily (Madsen & Servais, 1997), as well as establish new subsidiaries. Therefore, Hypothesis 1b (H1b) is as follows:

H1b: The speed at which new forms of enterprises are prepared to commit their resources to the outside is greater than the speed at which traditional enterprises are prepared to commit their resources to the outside.

De Clercq et al. (2005) report that companies that are more predisposed to participate in international activities have a greater degree of internationalization. Given their characteristics, the new forms of companies have a more international posture, since from the beginning they seek to sell their products to multiple countries (Oviatt & McDougall, 1994).

Reuber and Fischer (1997) point out that companies that have international entrepreneurs (usually INVs) that influence them to establish international strategic partnerships have a greater degree of internationalization. Therefore, Hypothesis 2 (H2) is as follows:

H2: The degree of internationalization of new forms of enterprises is greater than the degree of internationalization of traditional enterprises.

A company that is innovative is willing to abandon old routines and test new ideas (Menguc & Auh, 2006), developing or adopting new products and processes. New forms of companies are established in various world markets through the introduction of a unique and specialized product for each niche market. Thus, it is assumed that new forms of business must continually develop new products to meet the demand of the various markets. Therefore, Hypothesis 4 (H4) is as follows:

H3: The innovativeness of new forms of business is greater than the innovativeness of traditional enterprises.

Companies can enter international markets because they have valuable, unique assets (Oviatt & McDougall, 1994), which is a source of competitive advantage. Companies that seek competitive advantage through an intangible resource, such as knowledge, are more likely to develop learning skills useful for adapting to new markets than firms that rely almost exclusively on tangible resources (Autio et al., 2000). New forms of firms usually have a very dynamic organizational structure enabling them to develop knowledge-based products hard to imitate (Zahra et al., 2000). The capacity of the founder is also a source of competitive advantage for new forms of business since it allows opportunities in international markets to be detected and new ways of exploiting them to be developed (Zahra, 2005). Therefore, Hypothesis 5 (H5) is as follows:
H4: The competitive advantage of new forms of business is greater than the competitive advantage of traditional enterprises.

Methodology

 A quantitative methodology is used in large samples to obtain an overview of the study area and to determine any patterns or inconsistencies in the sample (Park & Park, 2016).

The hypothesis test is a statistical inference process that aims to verify if sample data are compatible with certain populations. According to the study sample and the type of variables to be analyzed, parametric (*t-student* test) or non-parametric (Kruskal-Wallis and Wilcoxon-Mann-Whitney tests) statistical inference tests were used.

The population under study is the Portuguese metalworking sector (MM). It is a very heterogeneous sector that integrates a set of different activities in industry and offers a range of diversified products. Most of the activities produce goods to support the production of other sectors, that is, intermediate goods and capital goods or produce durable goods for final consumption. The MM sector represented 22% of all Portuguese companies, 26% of turnover and 25% of employees (INE, 2017a, 2017b 2017c) in 2015. In 2015, the MM sector reached the highest ever value of exports amounting to 14,968M€ of which 75% represents exports to the intra-Community market, while the remaining 25% represents exports to the extra Community market (INE, 2017d, 2017e). Thus, this sector occupies a central position in the Portuguese economy.

The instrument most commonly used in data collection, based on a quantitative approach, is the questionnaire. The questionnaire used for the purpose of this study consists of 30 questions, answered by a representative holding the position of CEO or similar.

By definition, the main difference between traditional enterprises and new forms of business is the time between the founding year of the company and the year of their first international activity. Questions 2 and 5, respectively, measure the year the company was founded and the year of its first international activity.

BaG companies are included in the new forms of companies. Question 16 identifies the companies that, as a rule, undergo a critical event that drives them to internationalization.

Firm size is measured through questions 3 (number of employees) and 4 (turnover).

International speed is understood as the relation between the amount of time between when a firm is first established and the first international events of a company (Casillas & Acedo, 2013). The company's uptime is measured by the difference between 2016 and question 2. The company's international events are measured through questions 13, 14 and 15, which were elaborated on the basis of the Transnationality Index-TNi (UNCTAD, 1995). TNi measures the ratio of foreign sales to total sales, the ratio of foreign assets to total assets, and the ratio of foreign employment to total employment. In order to determine the post- internationalization speed TNi is divided by the company's activity time, the difference between the current year of the company's activity and the year of the first internationalization activity. The speed of international commitment is measured through question 10, taking into account the time elapsed since the first international activity.

The degree of company internationalization is the level of the company's commitment to its international expansion process (Casillas & Acedo, 2013). To measure the degree of internationalization, there is a multiplicity of variables as mentioned in the literature review. Questions 8, 12, 13, 14 and 15 measure these variables, the last three questions answering the TNi and question 12 allows the Network Spread Index (NSi) variables to be measured.

Based on the following:

$$TNi = \frac{\frac{foreign\ Sales}{Total\ Sales} + \frac{Foreign\ Actives}{Total\ Actives} + \frac{Foreign\ Employees}{Total\ Employees}}{3}$$

$$Nsi = \frac{n}{n^*}$$

n – countries with subsidiaries

n* – all possible countries

$$InternationalizationDegree1 = Nsi \times Tni$$

$$InternationalizationDegree2 = \frac{Foreign\ Sales}{Total\ Sales}$$

Innovativeness reflects the company's tendency to engage and support new ideas and experiences that may result in new products, services or processes (Lumpkin & Dess,

1996). The scale for measuring innovativeness was validated and tested by Uzkurt et al. (2012) and used in the present study with appropriate adaptations.

According to Sigalas et al. (2013), competitive advantage reveals itself when a company exploits market opportunities and neutralizes competitive threats superior to the industry in which it is inserted. The authors developed a four-point scale to measure the competitive advantage, which was adapted to the present study. Topics 27 and 28 measure the exploitation of market opportunities, while questions 29 and 30 measure the neutralization of competitive threats.

Results and discussion

Of the 13,369 companies in Portugal in the sector, 6,100 email addresses were collected, to which the research questionnaire was subsequently sent. 129 valid answers were provided.

54% of companies have a turnover of fewer than 2 million euros, 36% have a turnover between 2 to 10 million and 10% of companies have a turnover of between 11 and 50 million, and none have a turnover of over 50 million euros. According to this criterion, 100% of the companies in the sample are SMEs.

26% of the companies have less than 10 employees, 48% have between 10 and 50 employees, 23% between 51 and 250 employees and only 3% have more than 250 employees. Therefore, according to this criterion, 97% of the sample companies are SMEs.

44% of companies are considered INV since their first international activity occurred in or before their third year of existence (Knight & Cavusgil, 2004; Nordman & Melén, 2008). Traditional companies represent 44% of the sample, about 12% of companies are BaG, as they had a long period when they were only active in the domestic market and then suddenly expanded internationally, driven by a critical event. Some of the main critical events presented by such companies were a change of owners or the governing body and/or an alteration in the international attitude of customers that led them to follow the path of internationalization.

Velocity

Table 1. Kruskal-Wallis test for speed between new forms of companies and traditional companies

	ET	Sig. (2-tailed)	Decision
Speed1	25.715	0.000	Reject H0

Taking into account the results present in Table 1, considering the *p-value*, there is sufficient statistical evidence to reject the null hypothesis. Thus, it is possible to conclude that there are significant differences in the post-internationalization velocity of the new forms of companies and traditional companies.

To test if the post-internationalization velocity INV is identical between INVs and traditional firms, the *t-student* test for independent samples is used (Table 2).

Table 2. Test t-student for speed 1 between INV and traditional companies

		Levene Test		T Test	
		F	Sig	T	Sig (bilateral)
Speed1	Equal Variance Assumed	13,403	0,000	2,789	0,006
	Equal Variance not assumed			2,763	0.008

As the hypothesis is "the post-internationalization speed of new forms of enterprises is greater than the post-internationalization speed of traditional enterprises", a unilateral test is required.

Concerning the observed data, t = 2.763, then the $p-value\ unilateral = \frac{0,008}{2} = 0,0004 < \alpha = 0.05$, is estimated. There is sufficient statistical evidence to reject H0. According to the results obtained, INVs present post-internationalization velocity higher than traditional companies.

Table 3. Wilcoxon Mann-Whitney for velocity 1 between BaG companies and traditional business

Ranks

	Type	N	Mean Rank	Sum of Ranks
Speed1	Traditional	54	31.89	1722.00
	BaG	15	46.20	693.00
	Total	69		

Test Statistics[a]

	Speed1
Mann-Whitney U	237.000
Wilcoxon W	1722.000
Z	-2.452
Asymp. Sig. (2-tailed)	.014
Exact. Sig. (2-tailed)	.013
Exact. Sig (1-tailed)	.007
Point Probability	.000

a – Grouping Variable: Type

To test whether the post-internationalization speed of BaG companies is identical to the post-internationalization speed of traditional firms, the Wilcoxon-Mann-Whitney test is used for independent samples (Table 3). In this case, we intend to carry out a one-sided test to the right, so that the one-sided (exact) p-value is used. With the **p-value = 0,007**

$< \alpha = 0.05,$ then H0 is rejected. Therefore, the post-internationalization speed of BaG companies is higher than the post-internationalization speed of traditional businesses.

Table 4. Wilcoxon Mann-Whitney for velocity 1 between INV and BaG

Ranks

	Type	N	Mean Rank	Sum of Ranks
Speed1	INV	53	37.21	1972.00
	BaG	15	24.93	374.00
	Total	68		

Test Statistics[a]

	Speed1
Mann-Whitney U	254.000
Wilcoxon W	374.000
Z	-2.126
Asymp. Sig. (2-tailed)	.034
Exact. Sig. (2-tailed)	.033
Exact. Sig (1-tailed)	.016
Point Probability	.000

a – Grouping Variable: Type

To test whether the post-internationalization velocity of INV is statistically different from the post-internationalization velocity of BaG firms, the Wilcoxon-Mann-Whitney test is used for independent samples. In this case, we aim to carry out a one-sided right-hand test, so that the unilateral p-value is used to analyze the results. With the *p-value* = 0,016 $< \alpha = 0.05$, then H0 is rejected. In conclusion, there is a significance level of 5%. Thus, the post-internationalization speed of INV is higher than the post-internationalization speed of BaG companies.

The speed of internationalization is also quantified through other individual indicators, such as commitment speed. Speed2 refers to the speed at which companies commit their resources abroad.

Table 5. Kruskal-Wallis test for speed2 between new forms and traditional companies

	ET	Sig. (2-tailed)	Decision
Speed2	2,252	0.324	Not Reject H0

In order to test whether the speed at which companies commit their resources to the outside is identical in the new forms and in the traditional companies, we use the Kruskal-Wallis test. Through the observation of the p-value (Table 5), it is possible to conclude that with a significance level of 0,05, there are no statistically significant

differences. Therefore, the speed at which companies commit their resources to the outside is identical in the new forms of companies and in the traditional companies.

The null hypothesis- "The post-internationalization speed of new forms of enterprises is identical to the post-internationalization speed of traditional enterprises" -is rejected. Therefore, new forms of companies (INV, BaG) have a higher post-internationalization speed than traditional companies. This result is consistent with the extant literature since companies that are internationalized at an early stage seem to be faster to internationalize (Chetty et al., 2004: Hitt, Li & Xu, 2016). Rapidly expanding companies will gain experience in different environments, which is then absorbed into the company's know-how and will then be used in different external markets (Hilmersson & Johanson, 2016). On the other hand, companies that expand gradually face challenges and a lack of flexibility in their routines, taking longer to acquire the resources needed to enter new markets (Autio et al, 2000; Hilmersson & Johanson, 2016).

INVs have a higher velocity than the BaGs. This is not surprising, as BaG companies are older companies, with more established procedures, so they have to acquire knowledge about the markets, therefore taking more time. However, these companies are very close to INVs due to their ability to expand rapidly.

The second null hypothesis - "the speed at which new forms of enterprises commit their resources to the outside is identical to the speed at which traditional companies commit their resources to the outside" -is not rejected. Following the traditional approach, companies make difficult decisions to strengthen their position in the external market (Johanson & Vahlne, 1990). The company with the greatest speed of internationalization is likely to be involved in greater resource commitments (Johanson & Vahlne, 1990, 2009). In the first hypothesis, it was determined that the new forms of companies have a higher speed than the traditional companies, as we had expected since they commit resources abroad at a higher speed. However, this does not happen; the speed of commitment of the new forms of companies is equal to that of traditional companies. It should be noted that the sample is made up of companies from the metalworking sector, an industry which is highly active in the export sector. This sector belongs to the "heavy industry" sector, the lead time of much of its equipment is high, extending for many months. Given the specialized dimensions of much of the equipment produced by this sector, it is often necessary to manufacture and assemble the equipment for international customers, which leads to a displacement of company employees to the international markets. This explains why the resource commitment rate of traditional businesses and new forms are similar.

Degree

The degree of internationalization was measured in two ways.
"Degree1" is composed of a combination of two distinct indexes, the TNi and the NSi.

Table 6. Kruskal-Wallis test for degree1 between new forms and traditional companies

	ET	Sig. (2-tailed)	Decision
Degree1	0.434	0.805	Not Reject H0

According to the results (Table 6) obtained for the Kruskal-Wallis one-way analysis of variance, with the $p-value = 0,805 > \alpha = 0.05$, then there is not enough statistical evidence to reject H0. Therefore, the conclusion drawn is that the degree of internationalization, measured by the combination of TNi and NSi, is equal for the new forms and traditional companies.

"Degree2" is measured by the ratio of the external sales to total sales.

Table 7. Kruskal-Wallis test for degree2 between new forms and traditional companies

	ET	Sig. (2-tailed)	Decision
Degree2	6.912	0.032	Reject H0

According to the Kruskal-Wallis test (Table 7), with the $p-value = 0,032 < \alpha = 0.05$, there is sufficient statistical evidence to reject H0. Therefore, there are significant differences in the volume of exports between the new forms and traditional companies.

Table 8. Test t-Student for the volume of exports between INV and traditional companies

		Levene Test		T Test	
		F	Sig	T	Sig (bilateral)
Degree2	Equal Variance Assumed	6.160	0.015	2.839	0.006
	Equal Variance not assumed			2.868	0.005

Analyzing the result of t-test (Table 8) for "equal variances not taken", it appears that t=2.868, whereby the $p-value\ unilateral = \frac{0,005}{2} = 0,00025 < \alpha = 0.05$, there is enough statistical evidence to reject H0. Therefore, the volume of exports of INV is higher than the volume of exports of traditional companies.

The Wilcoxon-Mann-Whitney test is used to compare the volume of exports of traditional companies with BaG companies. We used a unilateral test to the right (Table 9), with the $p-value\ unilateral = 0,068 < \alpha = 0.1$. There is adequate statistical evidence to reject H0. Therefore, we conclude, with a significance level of 10 %, the volume of exports of BaG companies is higher than the volume of exports of traditional companies.

Table 9. Wilcoxon Mann-Whitney test for degree2 between traditional and BaG companies

Ranks

	Type	N	Mean Rank	Sum of Ranks
Degree2	Traditional	47	29.56	1389.50
	BaG	15	37.57	563.50
	Total	62		

Test Statistics[a]

	Degree2
Mann-Whitney U	261.500
Wilcoxon W	1389.500
Z	-1.497
Asymp. Sig. (2-tailed)	.134
Exact. Sig. (2-tailed)	.137
Exact. Sig (1-tailed)	.068
Point Probability	.001

a – Grouping Variable: Type

Table 10. Wilcoxon Mann-Whitney test for degree2 between INV and BaG companies

Ranks

	Type	N	Mean Rank	Sum of Ranks
Degree2	INV	51	34.04	1736.50
	BaG	15	31.67	475.00
	Total	66		

Test Statistics[a]

	Degree2
Mann-Whitney U	355.000
Wilcoxon W	475.000
Z	-.421
Asymp. Sig. (2-tailed)	.673
Exact. Sig. (2-tailed)	.679
Exact. Sig (1-tailed)	.340
Point Probability	.003

a – Grouping Variable: Type

Finally, in order to compare the volume of exports of INV with BaG companies, the Wilcoxon-Mann-Whitney test is also used (Table 10). With a significance level of 5 %, we can conclude that there are no differences in the volume of exports of INV and BaG companies.

Thus, the null hypothesis– *"the degree of internationalization of new forms of enterprises is identical to the degree of internationalization of traditional enterprises"* -is not rejected. New forms of companies (INV, BaG) have a degree of internationalization equal to traditional firms. This contradicts the extant literature, in the sense that firms that are more predisposed to participate in international activities have a higher degree of internationalization (De Clercq et al., 2005). The measure used to quantify the degree of internationalization indicates that the degree of internationalization increases the higher the percentage of activities abroad and the more these activities are disseminated in foreign countries. Thus, we would expect that the new forms of companies maintain more activities abroad, by being more flexible and benefitting from faster learning, and consequently, they have a higher level of commitment to the markets in which they operate. However, as has been tested, commitment in terms of resources to markets is the same in new forms of business and in traditional enterprises. At the same time, one would expect the new forms of companies to be more highly dispersed worldwide, in global niches, in order to be able to offer specialized products to global market niches (Rialp et al., 2005). However, in the MM sector, the new forms of firms have the same degree of internationalization as traditional firms. According to Johanson et al. (1988), the internationalization level of the company is related to its network (industry) level of internationalization. It is through their network that companies develop relationships that ensure access to important resources (Johanson et al., 1988). Thus, the fact that the companies under study are situated within a sector that is highly integrated with the outside, provides them with the same degree of international engagement, regardless of the company's age when its first internationalization activity took place.

The null hypothesis- "the *volume of exports of new forms of enterprises is identical to the volume of exports of traditional enterprises"* -is rejected. It has been found that INVs have a higher volume of exports than traditional companies. The age at which the company begins its internationalization process is an important indicator to predict export volume in subsequent years (Moen & Servais, 2002). In fact, in the run-up to their entry into the international market, new forms of companies explore and evaluate ideas and markets, as well as locating unique resources that influence their long-term performance, level of exports (Trudgen & Freeman, 2014). This result is consistent with the literature. With regard to BaG companies, they have a higher export volume than traditional companies and have an equal volume of exports when compared to INVs. This result is not surprising, as BaGs are driven by critical events that lead them to follow a rapid internationalization path (identical to INVs).

Innovation

To measure innovativeness, we used a scale developed by Uzkurt et al (2012). The scale was adapted and has been validated (Cronbach's alpha-0884, CR-0.907, AVE-0.526). The scale was reduced to 9 independent items, which in turn were reduced to one factor.

Table 11. Kruska-Wallis test for innovation between new forms and traditional companies

	ET	Sig. (2-tailed)	Decision
Innovation	2.063	0.357	Not Reject H0

It is verified (Table 11) that the null hypothesis is not rejected. This result contradicts what we expect, innovativeness means that a company is proactive, exploring new market opportunities, a feature that appears in the literature as intrinsic to new forms of business. Traditional companies tend to be more reactive to the market and to the development of new products and processes, taking a more opportunistic stance, which consequently will lead to a lower level of innovation vis-à-vis new forms of companies. The results obtained indicate that the level of innovativeness of the new forms of companies and traditional companies is identical.

Competitive advantage

To measure the competitive advantage, we used a scale developed by Sigalas et al. (2013), adapted and validated (Cronbach's alpha-0.898, CR-0.907, AVE-0.763). We chose to use a 7-point Likert scale, as an increase in the number of points on the scale is accompanied by an increase in scale reliability (Berk, 1979).

Table 12. Kruska-Wallis test for competitive advantage between new forms and traditional companies

	ET	Sig. (2-tailed)	Decision
Competitive Advantage	0.367	0.832	Not Reject H0

As the p-value is over $= 0.05$ (see Table 12), there is not enough statistical evidence to reject H0. The null hypothesis- "the *competitive advantage of new forms of business is identical to the competitive advantage of traditional enterprises*" -is not rejected. This result contradicts what we expect. According to the literature, new forms of companies have the ability to adapt to new markets, developing products tailored to their customers' requirements. These companies tend to offer adapted products, resulting from product innovation, they offer their customers unique products that are difficult to imitate, ensuring a source of competitive advantage. However, it was found that new forms and traditional enterprises have the same degree of innovation. Consequently, it does not come as a surprise that the level of competition between the two companies is also identical since theoretically, the increased competitiveness arises from the higher degree of innovativeness.

Conclusion

New forms of firms do not behave very differently from traditional firms (at least in most of the dimensions analyzed, and in the context of the metalworking sector), as

companies that internationalize at an early stage and those that become internationalized at a later stage tend to depict the same behavior in their international path.

More importantly, the international path followed by new forms of business and by traditional firms is not reflected in different degrees of innovation and competitive advantage. Considering that the new forms of companies achieve a greater post-internationalization speed than that of traditional businesses, we would expect that this also takes place concerning the speed at which they commit resources abroad. However, this did not take place. All forms of companies have the same speed at which they commit their resources. This result may be due to the fact that the companies under study are part of a highly internationally-oriented sector, consequently, the transfer of resources is a natural event inherent in all forms of business.

The new forms of companies tend to operate in global niche markets that are scattered across multiple markets, while traditional companies take longer to internationalize. As for the degree of internationalization, there were also no differences between the two forms of companies. This is in line with the speed at which they commit their resources abroad, thus, it is not surprising that there are no differences between companies.

According to the theory of INVs, the new forms of enterprises have a very dynamic structure, as they are proactive, seek to exploit market opportunities, are more flexible in adapting to the demands of global markets while traditional firms are more reactive, have more opportunistic behavior and have a more rigid structure. Given the results, in the metalworking sector, there are no particular differences between companies that take longer to internationalize and those that are faster in terms of competitiveness and innovation, which may raise some questions regarding the theory of *International New Ventures.* In this sector, in particular, the traditional companies and the new forms of companies have very similar international behavior. This may be related to the environment in which companies are located. According to Johanson et al. (1988), the level of internationalization of the company depends on the direct relationship of the company with other companies (micro-positioning) and the dynamics existing within the whole network where it is inserted (macro-positioning). Thus, it justifies the behavior of new forms of companies as they tend to follow the behavior within the existing network.

The first limitation of this study relates to the fact that it has addressed only one specific sector of the Portuguese economy, and therefore, the results are not generalizable to the various sectors of the economy. However, on the other hand, we analyze companies that are subject to the same background, thus obtaining more robust results. It may be interesting to replicate this study by extending it to several sectors or, on the other hand, to analyze the metalworking sector across a larger number of countries. The other limitation is related to the dimensions considered (only two). Other criteria may be used for the internationalization process, which may lead to different results. Finally, it may also be interesting to introduce new variables to the study, such as a company's financial performance, a topic that is of great interest to corporate managers.

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