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Internationalization effects on financial performance: The case of Portuguese industrial SMEs

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Internationalization; Financial performance; Export markets; SMEs; Panel-data methodology

ABSTRACT

The objective of this paper is to empirically examine the relationship between the firms' degree of internationalization and their financial performance. The literature about performance determinants is abundant however, the relation between internationalization and profitability in the context of Small and Medium Enterprises (SMEs) is much less studied. It used an unbalanced panel data of 4.133 Portuguese industrial SMEs for the period from 2010 to 2016 and applied a random effects model. The results indicate that internationalization, measured as export intensity/diversity/distance, influences firm profitability, in particular when exports are directed to distant markets and conducted by small firms. Also, the presence of a non-linear relationship between internationalization and profitability calls for managers' attention to its dysfunctional consequences for firm performance, especially at intermediate levels of internationalization. Due to SMEs relevance in the majority of the economies, our results and its implications can be generalized to other countries.

Introduction

Small and medium enterprises (SMEs) are commonly referred to as the backbone of the economy, playing a critical role as suppliers of employment and key agents for local and regional communities' well-being. The role of these firms ultimately depends on the flexibility they have to undertake entrepreneurial strategies and promote innovation (Navarro-García, Schmidt, & Rey-Moreno, 2015). The adverse effects of the recent financial and economic crises prompted SMEs to seek their viability abroad, increasing their exports and looking attentively to more distant markets (Navarro-García, Peris-Oritz, & Barrera-Barrera 2016). So, this context highlights the importance to understand the determinants of firms' financial performance, namely, the impact of that internationalization effort.

International expansion is an especially important decision for SMEs, which traditionally face financial constraints, have a domestic focus and a limited geographic scope (Pangarkar, 2008; Pukall & Calabrò, 2014). Researchers in the international business and strategic management areas have routinely explored if and how international diversification influences firm performance. However, most of these empirical studies were originally focused on large, well-internationalized firms, originating in the US and large European countries (Dana, Etermad, & Wright, 1999; Geringer, Beamish, & Da Costa, 1989; Goerzen & Beamish, 2003; McDougall & Oviatt, 1996). The empirical findings on the relationship between internationalization and firm performance based on samples of large firms do not necessarily apply to SMEs because it has been well argued and documented that smaller and larger businesses are different species (Lu & Beamish, 2001; Oviatt & McDougall, 1994), exhibiting differences in ownership, resources, organizational structures and management systems. It is well recognized that, in an increasingly interlinked and borderless world, SMEs make important contributions to the economy, sometimes initiating their internationalization processes at early stages of development (Karagozoglu & Lindell, 1998; Oviatt & McDougall, 1994; Stray, Bridgewater, & Murray, 2001).

European SMEs have in most cases directed their internationalization efforts to other countries from the same area. However, a crucial question that arises is whether firms mainly focused on the European market show differ-

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ent profitability levels than those with a broader geographic scope. The answer to this question could enable us to highlight the consequences for the profitability of SMEs of the choice between proximity and a global approach (Zucchella, 2001).

Since theoretical predictions are not straightforward, the main objective of this paper is to use an unbalanced panel data of 4,133 Portuguese industrial SMEs for the period from 2010 to 2016. Then apply a random effects model to empirically examine the relationship between the degree of internationalization of industrial SMEs, measured as export intensity/diversity/distance and their financial performance levels. The following specific objectives are also studied: i) to explore the moderating role of some firm characteristics in influencing the internationalization-financial performance relationship; ii) to deep between the non linear nature of that relationship and; iii) to make a contribution to distinguish between export intensity, export diversity and export distance, facilitating the interpretation of their different effects on firm profitability.

To the best of our knowledge, this paper fulfills a gap in the literature since it employs a set of alternative measures of international activity to examine the relationship between internationalization and firm financial performance. Additionally, this paper extends the literature on this topic since it is focused on a small European economy, with different historical factors, financial markets, legal frameworks and business characteristics when compared to English-speaking countries, where most studies on SMEs have been conducted. The choice of a national data set allows us to compare our results with similar studies in other countries (e.g., Fernández-Olmos, Gargallo-Castel, & Giner-Bagües, 2016; Lu & Beamish, 2001; Majocchi & Zucchella, 2003;). From this comparison, we expect to gain some insights into country-specific factors influencing the international commitment and performance of SMEs, which are frequently rooted in the domestic environment (Narayanan, 2015; Stouraitis, Mior Harun, & Kyritsis, 2017).

The obtained results indicate that internationalization, measured as export intensity/diversity/distance, influences firm profitability, in particular when exports are directed to distant markets and conducted by small firms. In addition, the non-linear nature of the relationship between internationalization and financial performance evidences that internationalization brings dysfunctional consequences for firm performance, especially at intermediate levels of internationalization.

The next section presents an introduction to the main issues dealt in this paper and a literature review. Section 3 presents the research hypotheses and outlines the variables, data and methodology to be used. Section 4 presents the empirical results, which are extensively discussed in the following section. The final section concludes analyzing the paper's main limitations and suggesting future research possibilities.

Literature Review

Internationalization and Firm Profitability

The contribution of exports to firm growth through sales increase is straightforward. By selling in new geographic markets, a firm broadens its consumer base and can potentially achieve a higher sales volume. Thus, by broadening markets, creating room for expansion and enabling the achievement of economies of scale and improved efficiency, exporting to foreign markets is considered a crucial factor for firm growth and profitability (Lu & Beamish, 2006).

According to Kirca et al. (2011, p. 49), "no theoretical rationale supports a generalizable multinationality-performance relationship", and Hennart (2007. p. 442) argues that "it seems difficult to develop a single theory that would predict the effects of such expansion on profits". Thus, since internationalization is a multi-layered concept, its relationship with performance must be approached with a set of different theories, namely, organizational learning, industrial organization or resource-based theories. These multiple lenses would try to explain the effects of internationalization on performance (Nguyen, 2017).

Miller, Lavie, and Delios (2016) identify three distinct facets of internationalization: international intensity, international diversity and international distance. International intensity captures the firm's commitment to serving customers in foreign markets. International diversity captures the breadth versus depth of internationalization by studying the dispersion of a firm's operations across the host countries (Goerzen & Beamish, 2003; Kim, Hwang, & Burgers, 1989). International distance refers to the geographic, cultural, institutional, and economic differences between the characteristics of the firm's home country and those of the host countries of its subsidiaries. International distance introduces costs and benefits, with firms normally entering first proximate markets (Johanson & Vahlne, 1977) and experience regional effects (Ghemawat, 2001; Goerzen & Beamish, 2003; Navarro-García et al., 2016; Qian, Li, Li, & Qian, 2008).

Pangarkar (2008) argues that prior literature on the relationship between internationalization and performance is hampered by problematic measures for the key constructs (degrees of internationalization and firm performance), since there is a lack of uniformity across different studies

that yield inconsistent results.

Much of the literature on international strategy tends to agree that the benefits of internationalization outweigh the increased costs and hence should positively impact firm performance (Gomes & Ramaswamy, 1999; Papadopoulos & Martín, 2010). Regarding SMEs, some authors argue that this conclusion is not so clear-cut, due to their internal constraints and ability to compete in international markets (Pangarkar, 2008). Despite the constraints and challenges faced, SMEs are likely to enhance their performance through greater internationalization (Loth & Parks, 2002; Pangarkar, 2008). Nevertheless, international expansion involves high risks and uncertainties, therefore, firms having the organizational and resource endowments required to deal with those risks are likely to be more proactive in international expansion, as these resources and capabilities are key success factors for innovation (Singla & George, 2013).

According to Lu and Beamish (2001), Miller et al. (2016), Pangarkar (2008), and others, the main constraints for SMEs internationalization are: i) the lack of the necessary information to exploit international opportunities (due to the shortage of managerial resources); ii) an increase in the requirements for coordination and communication and; iii) an increase in the risk level for the firm, due to the exposition to new risk factors (political, exchange rate, global market behavior, etc.). Concerning the benefits from internationalization, the literature refers the following: i) exporting is a less capital intensive path (than FDI) providing firms with fast access to foreign markets and the opportunity to gain valuable international experience; ii) to exploit market niches and economies of scale and scope (this specially if volume gains were constrained in the domestic market due to saturation or increased competition); iii) the presence in multiple multinational markets leads to an increase in market power; iv) to provide better services to their clients and avoid tarrifs (in the case of FDI) and; v) to benefit from export incentives from the home government or, in the case of FDI, from the host country.

Lu and Beamish (2006) argue that firms have extensively employed exporting as an internationalization strategy. Compared to foreign direct investment, exporting is a relatively easy and fast way to enter foreign markets because it involves comparatively low levels of commitment and risk, without the need to establish subsidiaries and letting open the decision to easily withdraw due to political instability or adverse market conditions. These advantages are particularly attractive to SMEs, which tipically face resource constraints and do not want to make excessive resource commitments and be exposed to unreasonably high investment risks.

There is a widespread consensus that the effects of foreign expansion on the profitability of SMEs have not been studied sufficiently (Miller et al., 2016). Empirical studies on samples of SMEs have revealed the existence of a "liability of foreignness" at the beginning of the internationalization process via FDI, and a positive relationship between profitability and exports. This "liability of foreignness" stresses the costs of unfamiliarity and discrimination ascribed to cross-national differences (Contractor, Kundu, & Hsu, 2003; Lu & Beamish, 2001; Miller et al., 2016; Zaheer, 1995)

Empirical results of prior studies have been inconclusive with some studies finding a positive impact of the degree of internationalization (e.g., de Jong & van Houten, 2014; Delios & Beamish, 1999; Geringer et al., 1989; Grant, 1987; Grant, Jammine, & Thomas, 1988; Hsu, Chen, & Cheng 2013; Kim et al., 1989; Qian, 1996, 1997, 2002; Tsao & Chen, 2012;), others finding no effect (e.g., Buckley, Dunning, & Pearce, 1978; Buhner, 1987; Geringer et al., 1989; Hoskisson & Hitt, 1990; Hughes, Logue, & Sweeney, 1975; Kumar, 1984; Morck & Yeung, 1991; Rugman, Lecraw, & Booth, 1985; Tallman & Li, 1996; Vithessonthi, 2016) and still others finding a negative effect (e.g., Michel & Shaked, 1986; Siddharthan & Lall, 1982; Singla & George, 2013; Vithessonthi & Racela, 2016; Xiao, Jeong, Moon, Chung, & Chung, 2013).

Recently, scholars have predicted curvilinear relationships, again with little consistency across studies. Using the organizational learning perspective, Chiao, Yang, and Yu (2006), Lu and Beamish (2001), Miller et al. (2016), and Ruigrok and Wagner (2003), predicted and found support for a U-shaped relationship. Other studies (e.g., Geringer et al., 1989; Gomes & Ramaswamy, 1999) have theorized and found an inverted U-shaped relationship, primarly based on an increase in organizational costs (coordination and communication) as the diversity grows beyond the optimal level. Finally, another set of studies (e.g., Contractor et al., 2003; Riahi-Belkaoui, 1998;) argued for and/or found (Contractor et al., 2003; Lu & Beamish, 2004; Thomas & Eden, 2004) a multi-stage sigmoid relationship. The sigmoid shape is an attempt to reconcile the last three decades of research into a three-stage model (Contractor, 2007; Ruigrok, Amann, & Wagner, 2007). According to Ruigrok et al. (2007), in the context of an S-shaped relation between internationalization and performance, the literature tends to locate a higher performance in the 40% to 70% foreign-sales-to-total-sales range. Ruigrok et al. (2007) also indicate that the research in this field needs to focus on the role of some promising moderating variables, which may add to knowledge that has academic as well as managerial relevance. Miller et al. (2016) consider that low international intensity levels affect firm performance by imposing setup costs, whereas at intermediate levels economies of scale generate accrued gains

to the firm, albeit the situation is reversed for higher levels given information processing costs and psychological factors. According to the same authors, this non-linear relation between internationalization and performance is also present when internationalization is regarded in terms of international diversity. Given the liabilities of foreignness, at low levels of international diversity firm performance is reduced, whereas at higher levels economies of scope and access to resources generate accrued gains to the firm, thus implying a U-shaped relation.

Although some researchers attributed the mixed findings to measurement issues (e.g., Goerzen & Beamish, 2003), the mixed empirical evidence also reflects the distinctive conceptualizations and theoretical lenses, confirming that internationalization is a complex phenomenon and a theoretical framework that analyzes its performance implications should reflect that complexity.

Additional Determinants of Firm Performance

In order to rule out alternative determinants of the sampled firms' performance, and following previous authors (e.g., Fernández-Olmos et al., 2016; Miller et al., 2016; Vithessonthi, 2016), it includes a set of control variables, namely, firm age, size, indebtedness, intangible assets, advertising expenses and the exchange rate. It also explores the moderating role of some of those organizational characteristics in influencing the internationalization-performance relationship, because certain characteristics can reduce some of the costs of internationalization. For instance, organizational attributes such as size and age could play a role in enhancing the legitimacy of firms and reducing their "liabilities of foreignness" in foreign markets (Singla & George, 2003).

Theoretically, older firms should possess a greater stock of knowledge and experience, which could have a positive impact on performance. Older firms have enjoyed the benefits of learning, are not prone to the liabilities of newness and therefore can enjoy superior performance. For example, brand, reputation and legitimacy are some strategic resources that firms build with time. These resources can reduce some of the costs associated with the "liabilities of foreignness". Older firms could also be better equipped to learn from their experiences in the past and would possess more skills to implement their learning in new undertakings (Singla & George, 2008). Yet, as firms age they tend to become more conservative and prone to inertia (Aggarwal & Gort, 1996; Hannan & Freeman, 1984;). Albeit the impact of age on performance is ultimately an empirical question (Capasso, Gallucci, & Rossi, 2015; Coad, Segarra, & Teruel, 2013), our expectation is that age negatively moderates the internationalization-performance relationship.

Regarding the impact of size on performance, the literature points to the fact that size can be a source of competitive advantage because larger firms have at their disposal greater technical and commercial opportunities, allowing them access to economies of scale, greater bargaining power and the capability to raise barriers to deter potential competitors or have an easier access to capital markets (Dhanaraj & Beamish, 2003; Schuman & Seeger, 1986; Thomas & Eden, 2004). Based on these arguments, several authors (e.g., Bloodgood, Sapienza, & Almeida, 1996; Claver, Rienda, & Quer, 2009; Fernández & Nieto, 2006; Tallman & Li, 1996) show that resource availability – proxied by firm size – positively correlates to the extent of internationalization. Nevertheless, the fixed costs and organizational inefficiencies associated with larger size could outweigh the benefits of increased market power, with the larger flexibility of smaller firms being a competitive advantage (Chen & Hambrick, 1995) or size could only influence performance in certain industries, given specific differences in terms of the degree of competition or the existence of economies of scale (Bamiatzi, Bozos, Cavusgil, & Hult, 2016). In sum, the existence of competitive advantages positively related to size also remains an empirical issue.

Regarding leverage, some studies show that SMEs prefer going into debt before increasing capital to finance their investments, thus avoiding the entry of external shareholders (Anderson, Mansi, & Reeb, 2003). However, other studies show that SMEs prefer to be more prudent, not going into debt in order to avoid losing their independence to creditors (López-Garcia & Aybar-Arias, 2000). Given that SMEs could have specific concerns in terms of privacy, control and generational transition, they tend to prefer internal financing policies, favouring the reinvestment of their own funds to capital increases or long-term debt (Gallo, Tàpies, & Cappuyns, 2004; Zahra, 2005), nevertheless, their attitude towards debt could change as generations, managers and the business as a whole evolves (Lussier & Sonfield, 2009). Debt ratios are included because a firm's ownership may influence its capital structure (Demsetz & Lehn, 1985; Randøy & Goel, 2003) and, in line with the agency and pecking order theories and the majority of the literature, we expect a negative relationship between SMEs indebtedness and its financial performance.

Knowledge and innovation, as a result of R&D activities, should have an impact on firm performance. Departing from a knowledge-based view of the firm, Vithessonthi and Racela (2016) regard R&D and internationalization as means for firms to build up their knowledge stock toward developing a competitive advantage that leads to superior performance. The authors also find that the level of R&D is

negatively associated with firm performance but the level of internationalization has no direct effect on the return on assets, albeit a positive effect on the return on sales. The authors also find weak evidence for the moderating effect of internationalization on the relationship between R&D intensity and firm performance. The negative relation between R&D and the return on assets is attributed to the high degree of uncertainty and risk associated with capital investment needed to develop R&D activities, so that in the near term R&D brings about negative returns. While two separate streams of research have been developed to address how firm performance is influenced by either R&D or internationalization, a growing body of literature has focused on the interplay of these two determinants. There are several prior studies that have examined simultaneously the role and impact of R&D and internationalization on firm performance (Bae, Park, & Xiaohong, 2008; Chakrabarty & Wang, 2012). Due to the lack of data about SMEs' R&D, we will consider intangible assets as a proxy for R&D, alternatively computing that variable as the ratio of intangible assets to total assets or to total sales. Additionally, we include advertising intensity, defined as the ratio of the firm's advertising expenditures to total sales, to measure the level of proprietary content in marketing assets.

Finally, following Lu and Beamish (2001) and Majocchi and Zucchella (2003), it considers the exchange rate and it also tests the presence of sectoral differences (Bamiatzi et al., 2016).

Hypotheses

Considering the literature review made in the previous section, we can now state the six hypotheses tested in this paper:

Hypotheses 1. There is a positive relationship between SMEs level of export intensity/diversity/distance and its financial performance

Hypotheses 2. There is a non-linear relationship between SMEs level of export intensity/diversity/distance and its financial performance

Hypotheses 3. There is a negative relationship between SMEs age and its financial performance

Hypotheses 4. There is a positive relationship between SMEs size and its financial performance

Hypotheses 5. There is a negative relationship between SMEs indebtedness and its financial performance

Hypotheses 6. There is a negative relationship between SMEs intangible /advertising intensity and its financial performance.

The following figure presents a graphic illustration of the research hypotheses:

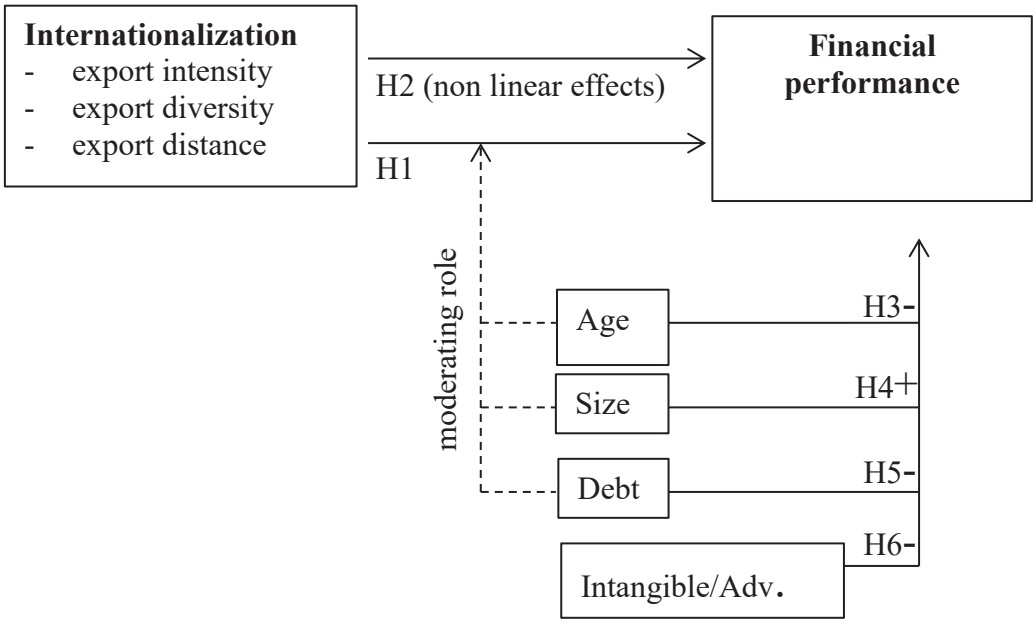

Figure 1 Research hypotheses

Method

Constructs and Variables

Prior studies have used a broad range of performance measures ranging from outcomes achieved in the product markets (such as sales growth: Grant, 1987; Siddharthan & Lall, 1982), to accounting measures (such as ROA, ROS and ROE: Daniels & Bracker, 1989; Kumar, 1984; Lu & Beamish, 2001; Rugman et al., 1985; Riahi-Belkaoui, 1998) as well as market-based measures (such as Beta and risk-adjusted returns: Buhner, 1987; Collins, 1990; Goerzen & Beamish, 2003; Hughes et al., 1975; Michel & Shaked, 1986). A key problem with narrow measures is that they may not be representative of firm performance, which may differ from traditional profitability ratios (Pangarkar, 2008). For instance, many SMEs in the early stages of their evolution might place a strong emphasis on sales growth.

Due to data availability, the use of ROA is widely supported by the literature and has been used in several studies analyzing the relationship between internationalization and firm performance (e.g., Gomes & Ramaswamy, 1999; Lu & Beamish, 2001; 2004; Majocchi & Zucchella, 2003; Singla & George, 2013; Vithessonthi, 2016; Vithessonthi & Racela, 2016), being generally considered to be a key performance indicator and superior to alternative measures such as ROE which is sensitive to the firm's capital structure (Miller et al., 2016). Additionally, ROA and related profitability measures can be easily computed from financial statements and compared in cross-country surveys.

ROA is computed as net income scaled by the book value of total assets. In order to check robustness, we also proxy financial performance by the ratio between EBITDA and total assets (REBITDA) and by the ratio between EBIT and total assets (REBIT).

Concerning the independent variable "internationalization", a consensus is still lacking on the best or true measure (Pangarkar, 2008). The use of a uni-dimensional measure such as the ratio of exports to total sales ("export intensity") does not take into account the geographical distribution of sales, i.e., whether or not they are geographically well balanced in major world markets, a factor which has relevant implications for performance. In fact, Thomas and Eden (2004) argue that dispersion (or breadth) may be a more important determinant of performance than the traditional intensity measures. Additionally, as stated by Majocchi and Zucchella (2003), it can be argued that, given the existence of the internal market and a single currency, exporting to other European Union countries cannot strictly be defined as a form of internationalization. Thus, we consider a set of alternative measures of internationalization, trying to account both the intensity of foreign sales and its breadth (diversification and distance to different markets: national, EU or the rest of the world). This should allow us to identify possible differences in profitability between regional and global players.

Regarding "international diversification" and "international distance", this paper used three sets of variables. Firstly, following Pangarkar (2008), we use a combination of the traditional proportion of foreign sales variable and the dispersion of foreign sales across geographic regions, albeit unfortunately, due to data availability, we can only distinguish between the EU and the rest of the world markets:

$$DOI_1 = \%\text{foreign sales} / [(\%\text{ sales to EU countries})^2 + (\%\text{ sales to the rest of the world})^2]$$

We also employed an alternative measure, which is grounded in the psychic distance and location perspective (Johanson & Vahlne, 1977; Petersen & Pedersen, 1997; Clark & Pugh, 2001; Navarro-García et al., 2016):

$$DOI_2 = (1 + \%\text{ sales to EU countries}) + (2 + \%\text{ sales to the rest of the world})$$

Weights (1 and 2) are arbitrarly assigned and we test the robustness of our results to alternatives. Notice that, due to the lack of detailed data regarding exports by Portuguese industrial firms, we do not compute a traditional "international distance" measure (for instance, similar to the one used by Miller et al., 2016).

Secondly, following Majocchi and Strange (2012), it used a measure of entropy, which accounts for the dispersion of a firm's sales by three main geographical areas (Portugal, the EU and the rest of the world):

$$\text{International diversity (DIV\_INT)} = \sum_{j=1}^{2} \left(\frac{\text{exports}_j}{\text{total exports}}\right)^2$$

The subscript j defined one of the three markets and x_j is the percentage of sales realized in market j. The natural logarithm of the inverse of the sales realized in every market is the weight given to each geographical segment. The entropy measure will equal zero for firms that have all their sales concentrated in one region, and will reach a maximum value of 1,098 for firms with exactly the same share of sales in each of the three defined areas. Nevertheless, as stated by Majocchi and Strange (2012), such a measure also has some weaknesses: it is not expected that a firm's level of interna-

tional sales to be evenly distributed between destiny areas, and an ideal measure of internationalization should not only measure the dispersion of foreign sales, but also their level.

Thirdly, following Miller et al. (2016), "international diversity" (DIV_INT) is measured using a Herfindhal index:

$$\text{International diversification (INTERN)} = \sum_{j=1}^{3} x_j \ln\left(\frac{1}{x_j}\right)$$

The subscript j defined one of the two markets (EU and the rest of the world). This measure takes into account the relative importance of each market and it is highly correlated with the entropy index (e.g., Majocchi & Strange, 2012), being preferable to a simple count of countries, which does not consider the depth of operations in each market.

Finally, it also tested the traditional and simpler measures of internationalization intensity, measured by the traditional ratio foreign sales/total sales (INT) and by the percentage of total sales exported to the EU and to the rest of the world (respectively, EXPEU and EXPRW).

Even though our paper is focused on the relation between the degree of internationalization and performance, we will include a set of control variables in order to rule out alternative determinants of the sampled firms' performance. Those variables are traditionally used in studies about performance determinants: firm age, size, debt, intangible assets, advertising expenditures and the exchange rate.

For kurtosis reasons, variables age (AGE) and size (SIZ) are measured, respectively, as the log of the number of years since the firm's inception and the log of total assets.

The debt level of the firm is measured as total debt (TD = Total liabilities/ Total assets) and its subdivision in long-term and short-term debt (respectively, Non-current liabilities/ Total assets and Current liabilities/ Total assets). Intangible assets are measured as a proportion of total assets (INTAG) and advertising intensity is measured as the ratio of the firm's advertising expenses to sales (AD). Data for the average annual USD/EUR exchange rate was retrieved from the Portuguese Central Bank.

Sample and Database

In this paper, we used a sample of Portuguese industrial SMEs. The dependent variables are different performance measures and the independent variables represent the firm's performance determinant factors according to the previously stated hypotheses (Table 1). Aditionally, the exchange rate is also included in the regressions.

After the identification of the hypotheses to be tested as well as the dependent and independent variables, it is necessary to describe the data collection process for the sample characterization over which our empirical study will be made. Our objective is to analyze a sample of SMEs from the industrial sectors (codes 10 to 32, from the *European Classification of Economic Activities* – NACE – Rev. 2) obtained from SABI (*Sistema de Análise de Balanços Ibéricos*), a financial database powered by Bureau van Dijk. Applying the criteria for SMEs definition (Commission Recommendation 2003/361/EC), thus excluding a large number of micro firms (which employ fewer than 10 persons and whose annual turnover and/or annual balance sheet does not exceed 2M€), considering only firms already existing in 2010 and presenting at least 5 years of complete data from 2010 to 2016, excluding firms with negative debt ratios or liabilities greater than assets and winsorizing all variables at the 1st and 99th percentiles to mitigate the impact of extreme values and potential data coding errors, we obtained an unbalanced panel data of 4.133 SMEs distributed by all industrial sectors.

Table 2 presents a detailed description of our sample. The sample is composed of mature SMEs, with a mean age of 24 years, accounting for 171.891 employees, a turnover near 14.750 M€ and total assets of 16.500 M€ in 2016. The sample has 73% of small firms (3.021), 27% of medium firms (1.112) and all relevant sectors are represented.

Analysis and Results

The relation between internationalization and performance is addressed with a panel data methodology estimated through three different regression models: Pooled Ordinary Least Squares (POLS), Fixed Effects Model (FEM) and Random Effects Model (REM). Applying the Breusch-Pagan and Hausman tests to choose the most appropriate regression technique, the Breusch-Pagan test leads to the rejection of the null hypothesis, indicating that REM is more appropriate than POLS whereas the Hausman test leads to the acceptance of the null hypothesis that REM is preferable to FEM. A random-effects model explains inter-firm performance variation over time and, as stated by King and Santor (2008), it is a well-suited specification since a number of our variables are either time-invariant or exhibit few changes over time (e.g., age or size). Similarly, to Lu and Beamish (2006), we repeated the estimations lagging all the independent variables and controls, experimenting 1-, 2- and 3-year lag structures. Nevertheless, the results from different lag structures were qualitatively the same, so that in the next section we report the results with no lags.

Before estimating the different models we present in Table 3 some descriptive statistics and the correlation matrix of the variables. According to Gujarati and Porter

Table 1
Independent variables

HYP	ACRONYM	INDEPENDENT VARIABLES	FORMULA
H1/H2	DOI_1	Degree of i nternationalization $_1$	DOI_1 = % foreign sales / [(% sales to EU countries)^2 + (% sales to the rest of the world)^2]
	DOI_2	Degree of internationalization $_2$	(1 + % sales to EU countries) + (2 + % sales to the rest of the world)
	INTERN	International diversification	$\sum_{j=1}^{3} x_j \ln(\frac{1}{x_j})$ (x_j = % of sales in market j)
	DIV_INT	International diversity	
	INT	Export intensity	Foreign sales/ Total Sales
	EXPEU	Exports to the EU	Exports to the EU / Total Sales
	EXPRW	Exports to the rest of the world	Exports to the rest of the world / Total Sales
H3	AGE	Age	Logarithm of number of years since the firm's inception
H4	SIZ	Size	Logarithm of Total Assets
H5	TD	Total debt	Total Liabilities / Total Assets
	STD	Short-term debt	Current Liabilities / Total Assets
	LTD	Long-term debt	Non-current Liabilities / Total Assets
H6	INTAG	Intangible assets	Intangible Assets / Total Assets
	AD	Advertising expenditures	Advertising Expenditures / Total Sales

(2008), when the correlation coefficients are above 50%, the problem of collinearity becomes significant. Observing the correlation coefficients between the independent variables, only in three circumstances they are above 50%, albeit those variables will not be used jointly. Therefore, the problem of collinearity between explanatory variables will not be particularly relevant. Notice that correlations are relatively low, although international intensity and international diversity are positively correlated, consistent with the observation that firms tend to internationalize in multiple facets, albeit at different rates.

The regression results for the random-effects model are presented in Table 4, where the three alternative dependent variables (ROA, REBITDA and REBIT) are run on the different variables for "internationalization" and the control variables age, size, debt (LTD and STD), intangible assets, advertising expenses and the exchange rate. Table 4 presents mainly the results for ROA as the independent variable, albeit the results for REBITDA and REBIT are very similar, thus testing H1 and H3-H6.

The random-effects model results presented in Table 4 display values for R^2 between 12 and 18%, which are within the usual range for this kind of regressions. The first rows in Table 4 evidence that export dispersion, intensity and distance seems to have a significant impact on performance, albeit without a clear sign. The regressions run with REBITDA and REBIT yield extremely similar results. Exports' dispersion seems to have a negative effect, whereas exports' intensity and distance seems to have a positive impact, thus confirming the results from Delios and Beamish (1999), Kim et al. (1989), Loth and Parks (2002), Pangarkar (2008) and Singla and George (2013). The results for the control variables confirm the previous literature since younger, larger, less indebted and with lower intangible assets' firms tend to present better performance measures (measured by ROA, REBITDA or REBIT).

Finally, notice that the exchange rate appears with the expected negative sign, indicating that a lower exchange rate increases profitability due to the increase in sales it promotes outside the euro area.

Since one of the objectives of this paper is to test the presence of non-linear effects of internationalization on

Table 2
Distribution of the sample by industry classifications

Industry Classification (NACE)	Number of Firms	Small Firms (%)	Avg Number of Empl	Avg Sales (th€)	Exports (%)	Average EBITDA
Food products (10)	500	76,8%	40	4.794	11,6%	348,7
Beverages and tobacco (11/12)	118	95,8%	20	3.109	25,8%	488,3
Textiles (13)	281	71,5%	46	3.964	35,1%	479,8
Wearing apparel (14)	357	52,9%	62	3.597	69,5%	270,9
Leather and related products (15)	322	51,6%	59	4.090	56,7%	337,8
Wood and of products of wood and cork (16)	231	85,7%	31	3.332	31,3%	354,8
Paper and paper products (17)	92	78,3%	39	4.805	14,5%	491,6
Printing and reproduction of recorded media (18)	123	83,7%	34	2.598	7,6%	412,6
Refined petroleum, chemicals, man-made fibers and pharmaceutical products (19/20/21)	142	84,5%	29	4.720	20,2%	556,4
Rubber and plastic products (22)	244	76,2%	39	4.420	26,1%	546,2
Other non-metallic mineral products (23)	292	78,1%	40	2.998	36,1%	411,0
Basic metals (24)	52	69,2%	47	5.707	35,0%	609,7
Fabricated metal products (25)	697	75,2%	41	2.907	35,1%	474,1
Computer, communication and electronic equip. (26)	24	62,5%	59	4.597	42,1%	702,8
Electrical equipment (27)	83	77,1%	38	3.191	31,5%	339,8
Machinery and equipment (28)	222	77,9%	39	3.308	36,7%	488,5
Motor vehicles, trailers and parts (29)	68	63,2%	51	4.049	48,4%	553,6
Other transport equipment (30)	19	47,4%	55	4.315	48,4%	501,3
Furniture (31)	195	71,8%	43	2.705	42,5%	332,0
Other manufacturing activities (32)	71	80,3%	38	2.937	27,5%	393,0
	4.133	**73,1%**	**43**	**3.665**	**34,8%**	**420,8**

Note: Small firms are firms with less than 50 employees. Sectors 11/12 and 19/20/21 are aggregated since the sample only comprises a very small number of firms in sectors 12, 19 and 21.

performance, we test the internationalization variables and their squares as independent variables, thus testing H2, with Table 5 presenting the results.

Table 5 presents the results testing the presence of a non-linear relationship, where only the most significant specifications are presented. The results depend on the internationalization measure used, with columns I to III displaying an inverted U relationship for DOI_1 and a W-shaped relationship for DOI_2. Columns IV and V evidence an inverted W relationship for DIV_INT and regarding exports to the "rest of the world" the last column presents the interesting result of a sigmoid relation, where the financial benefits of internationalization are potentially outweighted by the higher costs brought up by the "liability of foreignness" and the psychic distance as well as the higher costs of managing and coordinating international activities when the firm attains an advanced stage of internationalization.

Interaction variables are included in Table 6 in order to test whether the effect of size, age or indebtedness levels are additive or not to the internationalization-performance relationship.

The results in the first four columns of Table 6 seem to indicate that, apart from age, there are no moderating effects on the internationalization-performance relationship. Column IV presents a full specification with all the interactions jointly considered, evidencing the absence of such effects. Considering the traditional measures of internationalization (columns V to VII) the results also evidence that firm age has a moderating role on the positive relationship between internationalization (export intensity and distance) and performance. The variables DOI_2 and EXPEU/EXPRW are significantly positive and when multiplied by AGE maintain the positive sign, whereas the interaction variable is significantly negative.

Table 3
Descriptive statistics (average and standard deviation) and correlation matrix between independent variables

	average	***s.d.***	**DOI_1**	**DOI_2**	**INTERN**	**INT**	**DIV_INT**	**AGE**	**SIZ**	**TD**	**INTAG**	**AD**
ROA	0,031	0,067										
REBITDA	0,098	0,084										
REBIT	0,054	0,076										
DOI_1	225,21	4943,5	1	-0,041 (***)	-0,036 (***)	-0,023 (***)	-0,046 (***)	-0,007	0,00	0,005	-0,005	-0,001
DOI_2	3,320	0,356		1	0,471 (***)	0,181 (***)	0,542 (***)	0,023 (***)	0,120 (***)	0,013 (**)	0,039 (***)	-0,007
INTERN	0,283	0,353			1	0,669 (***)	0,830 (***)	0,136 (***)	0,288 (***)	-0,068 (***)	0,046 (***)	-0,012 (*)
INT	0,120	0,172				1	0,479 (***)	0,126 (***)	0,232 (***)	-0,081 (***)	0,027 (***)	-0,010
DIV_INT	0,215	0,213					1	0,085 (***)	0,230 (***)	-0,023 (***)	0,042 (***)	-0,009
AGE	2,953	0,709						1	0,328 (***)	-0,314 (***)	-0,032 (***)	-0,016 (***)
SIZ	14,681	0,877							1	-0,191 (***)	-0,009	-0,008
TD	0,610	0,230								1	0,021 (***)	-0,003
INTAG	0,004	0,017									1	0,004
AD	0,014	0,527										1

Note: s.d. is the standard deviation. * $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$

Table 4
Random-effects model results

	ROA	**ROA**	**REBITDA**	**REBIT**	**ROA**	**ROA**	**ROA**	**ROA**
C	0,220 (***)	0,147 (***)	0,291 (***)	0,180 (***)	0,184 (***)	0,182 (***)	0,187 (***)	0,193 (***)
DOI_1	-0,000 (***)	-0,000 (***)	-0,000 (***)	-0,000 (***)				
DOI_2	0,015 (***)	0,015 (***)	0,015 (***)	0,018 (***)				
INTER					-0,002			
INT						-0,008 (***)		
DIV_INT							0,002	
EXPEU								0,016 (***)
EXPRW								0,015 (***)
Controls								
AGE	-0,018 (***)	-0,020 (***)	-0,024 (***)	-0,021 (***)	-0,020 (***)	-0,020 (***)	-0,020 (***)	-0,020 (***)
SIZ	0,002 (***)	0,003 (***)	0,002 (**)	0,002 (***)	0,004 (***)	0,005 (***)	0,004 (***)	0,003 (***)
LTD	-0,133 (***)	-0,170 (***)	-0,183 (***)	-0,180 (***)	-0,171 (***)	-0,171 (***)	-0,171 (***)	-0,170 (***)
STD	-0,108 (***)	-0,141 (***)	-0,165 (***)	-0,149 (***)	-0,140 (***)	-0,140 (***)	-0,140 (***)	-0,141 (***)
INTAG	-0,097 (***)	-0,079 (**)	-0,027	-0,075 (**)	-0,044 (*)	-0,044 (*)	-0,046 (*)	-0,053 (**)
AD	0,000							
EXC	-0,063 (***)	-0,053 (***)	-0,032 (***)	-0,049 (***)	-0,054 (***)	-0,054 (***)	-0,054 (***)	-0,053 (***)
Overall $^R2$	0,18	0,18	0,12	0,14	0,18	0,18	0,18	0,18

Notes: Standard-deviations presentedin brackets.* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$.

Table 5
Random-effects model (testing the presence of non-linearities). ROA as dependent variable.

	I	II	III	IV	V	VI	VII
C	0,341 (***)	-1,766 (**)	34,2661 (***)	0,108 (***)	0,108 (***)	0,109 (***)	0,109 (**)
DOI_1	0,000 (**)	0,000 (**)	0,000				
DOI_1^2	-0,000 (***)	-0,000 (**)	-0,000 (***)				
DOI_1^3		0,000	0,000				
DOI_1^4			0,000				
DOI_2	-0,148 (***)	0,1693 (**)	-40,174 (***)				
DOI_2^2	0,024 (***)	-0,509 (**)	17,668 (***)				
DOI_2^3		0,051 (**)	-3,444 (***)				
DOI_2^4			0,251 (***)				
DIV_INT				0,017 (**)	0,056 (**)		
DIV_INT^2				-0,025 (*)	-0,364 (*)		
DIV_IN^T3					0,885 (*)		
DIV_INT^4					-0,712 (*)		
EXPEU						0,006	0,027 (**)
$EXPEU^2$						0,015 (**)	-0,049
$EXPEU^3$							0,046 (**)
EXPRW						-0,018 (**)	-0,044 (***)
$EXPRW^2$						0,055 (***)	0,132 (***)
$EXPRW^3$							-0,067 (***)
Controls							
AGE	-0,016 (***)	-0,016 (***)	-0,016 (***)	-0,017 (***)	-0,017 (***)	-0,017 (***)	-0,016 (***)
SIZ	0,004 (***)	0,004 (***)	0,004 (***)	0,004 (***)	0,004 (***)	0,004 (***)	0,004 (***)
TD	-0,154 (***)	-0,153 (***)	-0,154 (***)	-0,154 (***)	-0,154 (***)	-0,154 (***)	-0,154 (***)
Overall R^2	0.17	0.17	0.17	0.16	0.16	0.17	0.17

Notes: Standard-deviations presented in brackets.* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$.

Table 6
Random-effects model (moderating effects). ROA as dependent variable

	I	II	III	IV	V	VI	VII	VIII
C	0,037 (*)	-0,038	0,077	0,017	0,112 (***)	0,106 (***)	0,117 (***)	0,110 (***)
DOI_1	0,000 (*)	0,000	0,000 (**)	0,000				
DOI_2	0,021 (***)	0,047	0,013	0,026				
EXPEU					0,019 (**)	0,048	0,019	0,051
EXPRW					0,066 (***)	0,036	-0,014	-0,027
Controls								
AGE	-0,007 (***)	-0,017 (***)	-0,017 (***)	-0,007 (***)	-0,016 (***)	-0,017 (***)	-0,017 (***)	-0,016 (***)
SZ	0,004 (***)	0,011	0,004 (**)	0,005	0,004 (***)	0,004 (***)	0,004 (***)	0,004 (***)
TD	-0,154 (***)	-0,154 (***)	-0,173	-0,160	-0,154 (***)	-0,154 (***)	-0,156 (***)	-0,155 (***)
DOI_1xAGE	0,000 (*)			0,000				
DOI_2xAGE	-0,000 (***)			-0,000 (***)				
DOI_1xSIZ		-0,000		0,000				
DOI_2xSIZ		-0,002		-0,001				
DOI_1xTD			-0,000 (***)	-0,000 (***)				
DOI_2xTD			0,006	0,002				
EXPEUxAGE					-0,001			0,000
EXPRWxAGE					-0,018 (***)			-0,017 (**)
EXPEUxSIZ						-0,002		-0,002
EXPRWxSIZ						-0,001		0,005
EXPEUxTD							-0,001	-0,003
EXPRWxTD							0,047	0,033
Overall $^R2$	0,17	0,17	0,17	0,17	0,17	0,17	0,17	0,17

Notes: Standard-deviations presented in brackets.* $p < 0.10$; ** $p < 0.05$; *** $p < 0.01$.

Finally, testing the presence of differences between industries, Table 7 presents the results for the different sectors of activity.

Regarding differences between industries, Table 7 indicates that internationalization seems to have a broadly positive effect on performance across all sectors, particularly in sectors 23, 25, 28 and 31 and concerning exports to the EU. The positive effects seem to be stronger in those sectors with a larger proportion of small firms and lower internationalization levels. The only evidence of negative effects appear in highly technological and capital intensive sectors (26 and 29) and particularly regarding exports to the rest of the world, possibly due to higher barriers to entry and psyshic distance costs. When using the variables DOI_1 and DOI_2 the results were not significative for DOI_1, whereas DOI_2 displayed a very significant positive influence in performance in 12 of the 20 considered sectors.

Discussion and Implications

This section presents a discussion of the results, confronting them with previous literature and assessing their coherence with the proposed objectives and tested hypotheses.

Results from Table 4 indicate that the different export variables seem to have a significant impact on performance, albeit without a clear sign, so that we can partially confirm H1. Also, the results confirm our hypotheses H3, H4, H5 and H6. Possibly, older firms are more likely to be in the maturity phase, with lower levels of growth opportunities and, consequently, lower financial performance levels. Larger firms present a better financial performance, possibly a result of the positive relationship between resources and performance. Finally, more indebted firms are less profitable, independently of the maturity of the debt. This result, which is typically found in the literature, is in line with the predictions of the agency and pecking order theories, since a high level of leverage imposes a fixed financial commitment on the firm, reducing the free cash flows available to management (Vieira, 2017).

The differences in profitability between European vs. world players evident in Table 5 illustrate the fact that the increasingly integrated European market allows firms to better exploit scale economies whereas new entrants in the rest of the world market tend to serve narrow market niches and face higher entrance costs and barriers to entry. Nevertheless, after surpassing that stage, firms exporting to world markets enjoy increasing profitability. Accordingly, the existence of such inflection points suggests that managers can use the above findings to identify their position on the internationalization-performance relation in order to determine the desirability of further international expansion. Notice that, the presence of these non-linearities confirms our hypothesis H2 and previous results from Lu and Beamish (2004), Qian (2002), and Ruigrok et al. (2007) and represents one of the main findings of the present paper.

The main result from Table 6 – the moderating effect of age on internationalization – means that the positive impact of internationalization on performance is greater for younger firms, that is, those firms seem to be in a better position to leverage the opportunities provided by internationalization, possibly due to internal operational inefficiencies or to the fact that they export products to mature and highly competitive markets with lower margins. This result highlights the importance to further study the impact of firm age on performance and perhaps implement strategies to assist those firms in their internationalization efforts, helping them to surpass the "liability of foreignness". As stressed by Miller et al. (2016), the challenge is, however, to reach these optimal levels of internationalization, given that high levels are achievable only after expanding beyond previous lower levels. Being internationalization an expansion process and not a state, most firms would encounter a substantial performance decline by gradually increasing internationalization in the world markets. Nevertheless, beyond a certain level of internationalization, SMEs might lack the managerial resources as well as the experience needed to efficiently coordinate their international activities (Qian, 2002). Without appropriate capabilities greater internationalization may not lead to better performance. Thus a keytask for SMEs is to build up their capabilities in areas such as branding and marketing, technology development, financing and other managerial capabilities useful for international expansion. Naturally that remains the question of which comes first — capabilities or internationalization. Probably, the additional learning gained from internationalization may be useful for developing new products and technologies and thus increase performance.

Finally, regarding differences between industries, the results from Table 7 confirm the previous idea that export diversification is not correlated with financial performance, whereas orienting exports to more distant markets exerts a positive impact on performance. So, our results confirm that there are some interesting differences between sectors of activity.

Conclusion

The main objective of this exploratory paper is to empirically examine the relationship between industrial SMEs' degree of internationalization, measured by export intensity, diversity and distance and their financial performance. Con-

Table 7
Random-effects model for different manufacturing sectors. ROA as dependent variable

	CAE 10	**11/12**	**13**	**14**	**15**	**16**	**17**	**18**	**19/20/21**	**22**
C	0,183 (***)	0,289 (***)	0,170 (***)	0,097 (**)	0,047 (*)	0,211 (***)	0,297 (***)	0,138 (**)	0,010	0,230 (***)
EXPEU	0,002	0,014	0,019 (***)	0,006	0,008	0,002	0,072 (***)	0,038 (**)	0,023 (**)	0,012 (***)
EXPRW	0,037 (**)	-0,014	0,015	-0,017	0,011	0,015	-0,025	0,022	0,013	0,013
AGE	-0,015 (***)	-0,008 (**)	-0,018 (***)	-0,026 (***)	-0,021 (***)	-0,015 (***)	-0,024 (***)	-0,018 (***)	-0,012 (**)	-0,010 (***)
SIZ	0,002	-0,009 (**)	0,006 (**)	0,013 (***)	0,009 (***)	-0,001	-0,002	0,005	0,013 (***)	-0,002
TD	-0,140 (***)	-0,108 (***)	-0,133 (***)	-0,166 (***)	-0,162 (***)	-0,110 (***)	-0,181 (***)	-0,131 (***)	-0,149 (***)	-0,133 (***)
EXC	-0,050 (***)	-0,036 (***)	-0,082 (***)	-0,052 (***)	-0,000	-0,040 (***)	-0,047 (***)	-0,041 (***)	-0,038 (***)	-0,050 (***)
Overall R^2	0,15	0,16	0,14	0,16	0,21	0,17	0,27	0,15	0,28	0,24
	23	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**
C	0,154 (***)	0,166 (**)	0,213 (***)	0,312	0,350 (***)	0,208 (***)	0,522 (**)	0,295 (*)	0,239 (***)	0,358 (***)
EXPEU	0,012 (**)	0,046 (***)	0,013 (***)	-0,014	-0,006	0,028 (***)	0,002	-0,063 (**)	0,018 (***)	0,011
EXPRW	0,033 (***)	0,024	0,015 (***)	-0,076 (*)	0,036 (*)	0,030 (***)	-0,091 (**)	0,017	0,021 (*)	0,064 (***)
AGE	-0,025 (***)	-0,028 (***)	-0,023 (***)	-0,007	-0,018 (***)	-0,019 (***)	-0,038 (***)	-0,011	-0,025 (***)	-0,026 (***)
SIZ	0,006 (**)	0,005	0,002	-0,009	-0,005	0,001	0,000	-0,000	0,002	-0,005
TD	-0,096 (***)	-0,106 (***)	-0,137 (***)	-0,173 (***)	-0,167 (***)	-0,093 (***)	-0,323 (***)	-0,081 (**)	-0,134 (***)	-0,182 (***)
EXC	-0,079 (***)	-0,060 (***)	-0,051 (***)	-0,002	-0,069 (**)	-0,069 (***)	-0,136 (***)	-0,122 (**)	-0,078 (***)	-0,055 (**)
Overall R^2	0,13	0,16	0,19	0,18	0,18	0,15	0,50	0,10	0,17	0,21

Notes: Standard-deviations presented in brackets.* $p < 0,10$; ** $p < 0,05$; *** $p < 0,01$.

sidering a representative sample, it is used an unbalanced panel data of 4,133 Portuguese industrial SMEs for the period from 2010 to 2016. A set of control variables were used namely firm age, size, debt, intangible assets, advertising expenditures and the exchange rate.

Our results support the hypothesis that firm performance is positively related to internationalization, in particular, when this variable is measured in terms of export intensity and distance. Nevertheless, that positive relationship is not linear, with some interesting differences between international efforts focused on the EU versus the rest of the world markets. The sigmoid relationship between internationalization and performance differs between those two markets being evidenced the higher costs brought up by the "liability of foreignness" and the psychic distance as well as the higher costs of managing and coordinating international activities when the firm attains an advanced stage of internationalization. Thus, this non-linear nature of the relationship between internationalization and financial performance calls for major attention to these effects by managers who must acknowledge that internationalization brings dysfunctional consequences for firm performance, especially at intermediate levels of internationalization. Possibly, some of the differences found in this paper are due to the fact that several previous papers focused on small firms at very early stages of their life or large listed firms and used different measures of performance and internationalization. The hypotheses tested in this paper have been tested in other different sectors and country samples, being this paper, to our knowledge, the first one to test them for SMEs in the Portuguese context.

Some limitations of this study should be mentioned. Firm performance is affected by many variables that were not considered (e.g., managerial labour and product markets, political and economic factors or even the personality of shareholders and managers), meaning that the results should be treated with caution. For instance, as stressed by Pangarkar (2008), we focus on the overall (firm-level) performance implications of internationalization but do not consider the performance attained by individual initiatives such as ventures in particular markets. Also, we did not control for several firm characteristics such as the prior experience of top managers in internationalization. Our study is focused on a sample of Portuguese firms, enabling us to control for the characteristics of the home market. To generalize our findings, scholars may seek to test our hypotheses in other home countries and consider inter-industry heterogeneity of internationalization effects. Although different samples may exhibit distinctive patterns of internationalization, our theory is not specific to the Portuguese context, so the predicted shape of the performance function is likely to be preserved. The limitations of the internal market and the small size of firms are characteristics also present in other countries, so our conclusions could perfectly be applied elsewhere. The measures of performance and internationalization used in the literature differ widely, leaving us with the question whether our results are dependent on the measures used. Due to data availability, this paper was focused on profitability measures, but firm performance can be studied in different perspectives (financial indicators, employee satisfaction, innovation levels, etc.)

Regarding future developments, we can study at a "case-study" level the effect on profitability of external alliances between firms. It is crucial to further study the profitability effects of other strategic options for international growth. As suggested by the literature, strategic aliances allow SMEs to overcome many of the aforementioned managerial resources constraints to international growth (Oviatt & McDougall, 2005).We can also perform cross-country analysis of the internationalization-performance relationship, instead of using a single country sample (some recent examples are de Jong & van Houten, (2014) and Vithessonthi, (2016). This includes studying the different impacts on performance coming from internationalization to specific markets, namely the differences brought up by the choice between near and distant markets. Finally, one can examine prior experience with international expansion and uncover inter-firm heterogeneity in firms' abilities to benefit from internationalization. That is, besides studying the distinctive implications of the firm's own international experience and the international experience of its peers, future research may examine a subtler typology of learning from rivals versus non-rivals. As scholars develop a more fine-grained understanding of different types of experience, they may be able to suggest how a firm can leverage particular types of experience to improve specific aspects of internationalization.

This papers' main contribution is to distinguish between export intensity, export diversity and export distance, facilitating the interpretation of their different effects on firm profitability. In summary, the results allow us to conclude that financial performance is influenced not only by firm-specific characteristics, such as age, size or leverage, but also by the internationalization level and type. Due to SMEs relevance in the majority of the economies, our results and its implications can be generalized to other countries and we hope this study stimulates future research on this still unexplored topic of performance determinants.

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