

# Comparative analysis of export determinants in Italian and Polish firms: The moderating role of non-family management

Marco Pini<sup>1</sup> , Grzegorz Tchorek<sup>2</sup> 

## Abstract

**PURPOSE:** The paper analyses the determinants of exporting from a cross-country perspective, comparing Italy and Poland. It focuses on three objectives: i) investigating if age and size influence the firm's probability to export; ii) if there are differences between family and non-family management; iii) if and how non-family management positively moderates the relationship between age, size, and the firm's probability to export. **METHODOLOGY:** Microeconomic analysis using probit regressions on two surveys carried out in Italy and Poland on representative samples of manufacturing SMEs (1,100 for Italy and 680 for Poland). We control for several factors, such as innovation, geographical location, economic sector, and banks relationship. **FINDINGS:** In both countries, the larger firms have a higher probability to export, with a higher significant effect in Italy than in Poland. Business experience proves to be a factor affecting the likelihood of exporting only in Italy (in a positive sense: older firms are more likely to export) and not in Poland. External (non-family) management is a driver for the internationalization of family-owned firms, especially for younger firms in Italy and for smaller firms in Poland. All these findings are confirmed by robustness check analyses on the subsample of family-owned firms. **IMPLICATIONS:** i) the role of corporate governance can differ between countries with reference to a firm's competitiveness; ii) favoring management openness to external managers for family-owned firms; iii) small firms require greater support in encouraging exporting behavior; iv) the need to consider jointly the issues of innovation, internationalization and corporate governance modes (family/non-family management) in the agenda of the firm's competitiveness. **ORIGINALITY AND VALUE:** The paper contributes to the literature on the determinants of exporting by simultaneously studying some firm's

1 Marco Pini, Senior Economist, Centro Studi delle Camere di Commercio Guglielmo Tagliacarne, P.O. Box Piazza Sallustio, 9, 00187, Rome, Italy, e-mail: marco.pini@tagliacarne.it (ORCID: <https://orcid.org/0000-0003-4249-6932>).

2 Grzegorz Tchorek, Assistant Professor, Faculty of Management, University of Warsaw, P.O. Box 1/3 Szturmowa St., 02-678 Warsaw, Poland, e-mail: tchorek@wz.uw.edu.pl (ORCID: <https://orcid.org/0000-0003-0307-7639>).

Received 21 August 2021; Revised 7 December 2021; Accepted 4 January 2022.

This is an open access article under the CC BY license (<https://creativecommons.org/licenses/by/4.0/legalcode>).

*characteristics related to size and age with others related to corporate governance, which are usually addressed separately. Furthermore, this paper tries to fill a gap concerning a lack of cross-country studies focusing on European countries other than those more advanced.*

**Keywords:** *internationalization, family firms, innovation, SME, export determinants, non-family management*

---

## INTRODUCTION

---

In the era of globalization, export competitiveness is increasingly important and the literature confirms that there is an *export premium*, seen as higher profitability and resilience, for exporting companies in comparison to non-exporting ones (Meliciani & Tchorek, 2018). Moreover, internationalized companies also usually grow more rapidly – the European Commission (2010) found that exporting European SMEs grow more than twice as fast as those who are non-exporting. So what competitiveness features can increase the internationalization of companies and countries?

While for many decades, the traditional trade theory was based on the companies homogeneity assumption, an important strand of the literature based on the “new” new trade theory pointed out that companies’ features are more important than countries’ or industries’ ones as determinants of exporting (Melitz, 2003). Thus, firm heterogeneity allows for understanding a firm’s decision on whether to enter international markets or not, as well as the magnitude of that participation (e.g., Melitz & Redding, 2014). In this regard, some structural characteristics of the firm can influence the export decision, such as size and age (e.g., Williams, 2011; Wagner, 2015), even if so far the findings still remain controversial. Nevertheless, the most extended literature points out that size positively influences export behavior (e.g., Wagner, 2015; Williams, 2011; Cassetta et al., 2020). As well as concerning the age, many studies highlight that the older firms have a greater ability to export than the younger ones (e.g., Wagner, 2015; Sheard, 2014), also considering the absorptive capacity of the startups (Chaparro et al., 2021). In contrast, the born global literature (Madsen & Servais, 2017; Oviatt & McDougall, 1994) argues that age is not a critical factor of firms’ internationalization, even if it often refers only to high-tech startups in services sectors.

The firm heterogeneity also concerns corporate governance, since family firms behave differently as compared to non-family ones (Chua et al., 1999; Miller et al., 2010), including also the internationalization dimension (for a recent review, Casprini et al., 2020). The newest approach indicates that we should focus not only on differences between family and non-family-owned firms, but also recognize differences between separate modes of family

governance, as the family companies group is also heterogeneous (Hillebrand et al., 2020). In this regard, even more important is the management within the family firm, because the presence of family or non-family members in the management may influence its competitiveness (Hennart et al., 2019; Binacci et al., 2016; Carney, 2005). In the international business literature, the largest strand of the literature indicates that family management might discourage internationalization (Hennart et al., 2019), underlining the positive role of non-family management (Binacci et al., 2016).

The aim of the paper is to combine these two strands of the literature, investigating: first, if age and size influence the firm's probability to export (export propensity); second, if there are differences between family (intended as family-owned firms run by family managers) and non-family management (intended as family-owned firms run by external managers); and, third, if and how non-family management positively moderates the relationship between age and size – always with respect to the firm's probability to export.

In this way, the paper contributes to the literature on the determinants of export propensity by studying simultaneously some firm's characteristics related to size and age with others related to corporate governance, which are usually separately addressed (e.g., Williams, 2011; Wagner, 2015; Casprini et al., 2020; Kontinen & Ojala, 2010; Pukall & Calabrò, 2014). And in so doing, we conduct a cross-country analysis increasing the originality of the study. Integrating two countries' databases in one equivalent database, this paper aims to compare one of the most advanced European Union (EU) countries with recognizable trademarks, namely Italy, to one of the most important emerging European countries – Poland. Although those two countries have different economic development levels and paths, they show several similarities related to the issue of this paper: both countries are strongly export-oriented; they have a high presence of manufacturing; and, on the socioeconomic ground, the family is an important institution that affects social and companies' relations. Nevertheless, it is worth noticing that in Italy the structure is much more concentrated on small companies (up to 50 employees); another difference is the general trend of new companies entering the manufacturing sector – a growing trend in Poland and the opposite in Italy.

We investigate these issues through a microeconomic analysis (probit models and calculating the marginal effects), exploring two surveys carried out in 2015 in Italy and Poland on representative samples, and focusing on manufacturing SMEs: 1,100 for Italy and 680 for Poland. We control for several factors, such as innovation, geographical location, economic sector, and banks relationship. Our results suggest that in both countries the larger firms have a higher probability to export, with a higher significant effect in Italy than in Poland. Regarding instead the age, business experience proves to be a factor

affecting the likelihood of exporting only in Italy (in a positive sense: older firms are more likely to export) and not in Poland. Moreover, the results show that external (non-family) management is a driver for the internationalization of family-owned firms, especially for younger firms in Italy (moderation effect on the younger firms) and for smaller firms (moderation effect on the smaller firms) in Poland. This paper fills a gap recently highlighted by some scholars concerning a lack of cross-country studies focusing on European countries other than those more advanced (Hennart et al., 2019). Moreover, studying SMEs is essential for industrial policies, since the main European initiatives in supporting firms' competitiveness refer to small and medium-sized enterprises (e.g., European Commission, 2013).

The remainder of the paper is organized as follows: The following section presents the literature recalled in the order corresponding to different internationalization factors and develops the hypotheses. Then, methodology and methods are described, as well as results and discussion. The paper ends with the conclusion.

## LITERATURE REVIEW

---

In the literature, the impact of firm size and age on exporting has been extensively studied (e.g., Williams, 2011; Wagner 2015). Concerning size, the positive relationship between size and exporting can be explained by the transaction cost approach (Verwaal & Donkers, 2002), which also corresponds to sunk costs (Melitz, 2003). Since internationalization involves high fixed costs related to specific investments to manage the export activities, as well as to a higher level of uncertainty present in foreign markets, larger firms are more able to capture economies of scale than smaller ones. Furthermore, according to the resource-based view, we can argue that a positive relationship exists between company size and export activity. This is because larger firms have greater organizational capabilities, corresponding to the ability to transform financial and physical resources into competences that are "partially analogous to entry barriers" (Wernefelt, 1984, p. 173).

There are also some arguments supporting a greater internationalization of small firms because they are more flexible and faster in recognizing opportunities and in adapting to changes in the environment (Lee et al., 2012). However, the most extended literature highlights that size positively influences export behavior (e.g., Wagner, 2015; Williams, 2011; Cassetta et al., 2020) because a large size allows important economies of scale to be gained (Nooteboom, 1993), in contrast to small firms that have limited resources and higher risk aversion (Bonaccorsi, 1992). Nevertheless, some

---

scholars do not find any effect (Verwaal & Donkers, 2002), and still others find a negative effect (Patiblanda, 1995). In view of all the considerations above, we formulate the following hypothesis:

*H1: The larger firms are more likely to export.*

Concerning age, the born global literature (Madsen & Servais, 2017; Oviatt & McDougall, 1994) underlines that age is not a critical factor of firms' internationalization, highlighting the phenomenon of small startups exporting at inception or in the first years following. According to Knight and Cavusgil (1996, p. 11), born global firms are "[usually] small, technology-oriented companies that operate in international markets from the earliest days of their establishment". This feature of being born internationalized is explained by several factors: i) the ability to operate in specific market niches (especially in high-tech market segments) thanks to distinctive skills; ii) high technological ability in strategic areas (e.g., production, transportation, and communication) that favors the overcoming of many barriers to internationalization; iii) the propensity for global networks and alliances; iv) entrepreneurs-managers who are more skilled in seizing business opportunities worldwide (Rialp-Criado et al., 2010). Nevertheless, it should be specified that the born global literature usually refers to high-technology firms, especially in the service sector, while our analysis is based on the manufacturing sector, including both high and low-technology intensive sectors.

More in general, many studies find a positive relationship between age and export (e.g., Wagner, 2015; Sheard, 2014). The explanation is that a firm acquires more knowledge over time (e.g., Autio et al., 2000) that allows for lowering the fixed costs of entry into new markets (Sheard, 2014) and for overcoming the "liability of foreignness" (Hymer, 1976) and the "liability of newness" (Stinchcombe, 1965), which are the main barriers to internationalization, especially for younger firms (Rhee, 2002). Thus, in line with all the arguments above, we define the following hypothesis:

*H2: The older firms are more likely to export.*

Examining relations between family management modes and export propensity is a relatively new field of study comparing the above-described factors. Meanwhile, family firms are one of the most common types of firm, playing an important role across all economies (La Porta et al., 1999). It was recognized that family firms behave differently from non-family ones (Chua et al., 1999; Miller et al., 2010), with relevant impacts on competitiveness

(Carney, 2005) – taking into account the Socio-Emotional Wealth (Gomez-Mejia et al., 2011; for the Polish case specifically, e.g., Bratnicka-Myśliwiec et al., 2019) – including internationalization (e.g., Daszkiewicz & Wach, 2014).

The literature on family firms' internationalization is receiving increased attention (for an extensive review of the literature, e.g., Casprini et al., 2020; Kontinen & Ojala, 2010; Pukall & Calabrò, 2014), even if so far the findings are still inconsistent (Pukall & Calabrò, 2014). Specifically, the involvement of family or non-family members in management is recognized as one of the main determinants influencing performance in a family firm (Cucculelli et al., 2021; Pini, 2019; Carney, 2005). A large part of the studies finds that family firms are less likely to export than non-family ones (e.g., D'Angelo et al., 2016), while others find the contrary (Minetti et al., 2015). There is also a strand of the literature that finds an inverted-U relationship between family governance and internationalization (Sciascia et al., 2012).

There are different reasons supporting a positive or negative effect of family management on export behavior. The long-term commitment and horizon of family-managed firms (Miller & Lebreton-Miller, 2005) are the main reasons explaining the fact that they are more internationalized, because they are more willing to sustain the upfront fixed costs of exporting to achieve long-term results. The reasons supporting the contrary are essentially two. The first regards the lack of resources of family-managed firms for international growth because of their lower openness to external funding. Internationalization requires extensive financial resources (e.g., for adapting products to foreign customers and to set up production and distribution in various countries) that often need the support of external resources, such as shareholders or venture capitalists. In the face of that, family-managed firms are unwilling to seek outside investors because they want to keep the full authority and control in the hands of the family members (Hennart et al., 2019; Gomez-Mejia et al., 2011). The second reason concerns the lack of managerial skills of the family managers for international openness (Kontinen & Ojala, 2010; Fernández & Nieto, 2014; Pukall & Calabrò, 2014): they have fewer competencies in global competition than non-family managers (e.g., Banalieva & Eddleston, 2011). Family firms mostly prefer to hire family members as managers, also for fear of losing control. This may limit the internationalization process since family managers have less competencies in global competition than non-family managers (e.g., Banalieva & Eddleston, 2011).

This second reason sheds light on the importance of the management issue. Most studies argue that family-managed firms are less likely to export (e.g., Kontinen & Ojala, 2010; Fernández & Nieto, 2014; Pukall & Calabrò, 2014), in contrast to others showing opposite results (e.g., Marinova & Marinov, 2017). Recently, Hennart et al. (2019), analyzing a large sample of four European

countries, found that family-managed SMEs are less internationalized, but those operating in global niches are more internationalized because selling niche products requires fewer resources related to experienced international managers and external capital. Thus, according to the above considerations, we posit the following hypothesis:

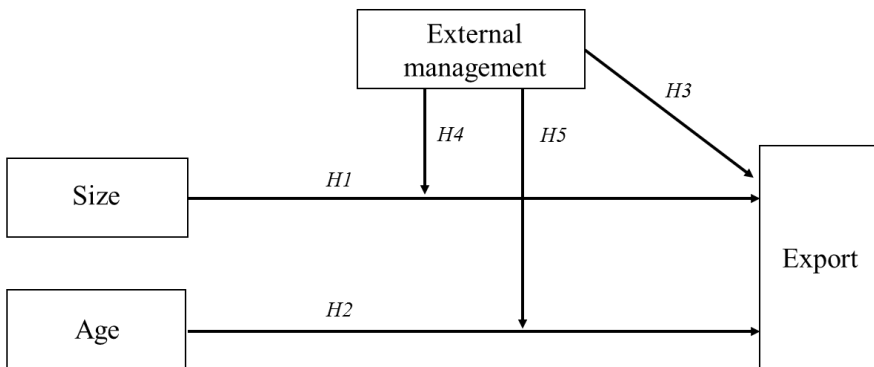
*H3: Family-owned firms run by external managers are more likely to export.*

Furthermore, if H1 and H2 are accepted, we can test if external management exerts a positive role (moderation effect) in supporting the ability to export of the smaller firms on the one hand and of the younger ones on the other hand. Thus, we formulate the following two hypotheses:

*H4: External management positively moderates the relationship between the family-managed firm’s smaller size and the likelihood of exporting.*

*H5: External management positively moderates the relationship between the family-managed firm’s younger age and the likelihood of exporting.*

The hypothesized conceptual model is as follows (Figure 1):



**Figure 1.** Hypothesized conceptual model

## METHODOLOGY

---

### Data

For Poland, the dataset refers to a survey carried out in 2015 among firms with at least 10 employees. The data was collected via the CATI (Computer-Assisted Telephone Interview) method using a questionnaire in line with the EFIGE (European Firms in a Global Economy) questionnaire (Altomonte & Aquilante, 2012). In particular, the EFIGE project was an inspiration for establishing a similar database in Poland within the project “The euro introduction and competitiveness of the Polish enterprises” conducted at the University of Warsaw and financed by the National Science Centre. Thanks to the memorandum of understanding between the Bruegel think-tank and the University of Warsaw, the survey was based on the questionnaire used in the EFIGE survey. Specifically, the Polish survey replicated 50 questions from the EFIGE questionnaire (Altomonte & Aquilante, 2012), choosing those that were “structural” in nature. They cover six areas of firms’ characteristics: structure (ownership, domestic and foreign control, management); workforce (skills, type of contracts, domestic vs. migrant workers, training); investment, technological innovation, R&D (and related financing); export and internationalization processes; market structure and competition; financial structure and bank–firm relationship. The sample is representative in terms of the industrial structure based on the NACE rev.2 classification and at the NUTS 2 regional level. Besides manufacturing sectors, the survey also included some firms operating in wholesale trade.

For Italy, we used a survey carried out via the CATI method by Unioncamere (Italian Union of Chambers of Commerce) in 2015. The survey refers to a representative sample of firms operating in all economic sectors (agriculture, manufacturing, and services) with a number of employees between 1 and 249. The sampling stratification was based on three dimensions of the firm: i) size class; ii) economic sector according to the NACE rev.2 classification; iii) geographical location at the NUTS 2 regional level. Also, this survey was based on several parts of the EFIGE questionnaire, collecting information on the following themes: ownership and management; export propensity; innovation activities; financial resources and bank–firm relationship. We chose to focus the analysis on small and medium-sized manufacturing firms with a number of employees between 10 and 249 in view of the following reasons: the export issue is more related to manufacturing activities; the Italian survey does not cover large firms (>250 employees); the Polish survey is oversampled for the large firms and it does not cover firms with less than 10 employees. The number of manufacturing SMEs studied is 1,146 for Italy and 683 for Poland.



---

## Variables description

Our dependent variable is a dummy variable measuring the export propensity (*export*): it takes value 1 if the firm exports and 0 if the firm does not export. Concerning the main independent variables, we measured size using the number of employees (*size*), and to capture the business experience, we included the firm's age in terms of the number of years since inception (*age*) (e.g., Caldera 2010; Minetti et al., 2015).

With regard to family firms, in the literature, there are many definitions of family firms (Chua et al., 1999). We consider family firms according to the presence of the family in the capital ownership (Donckels & Lambrecht, 1999). Specifically, family firms are those directly or indirectly controlled by an individual or a family-owned entity: we used the following question present in both questionnaires: "Is your firm directly or indirectly controlled by an individual or family-owned entity?". Among family firms, we considered the presence of the family in the management by differentiating family firms run by family members from family firms run by non-family members (Le Breton-Miller et al., 2011). Thus, using the question "Is the chief executive officer (CEO)/Company Head of your firm...?", we constructed two dummy variables: one valued 1 if the firm answered "the individual who owns or controls the firm or a member of the family that owns/controls it"; another measuring the second typology of management (external managers) valued 1 if the firm answered in other ways ("a manager recruited from outside the firm"). Thus, we considered two different types of family-owned firms: i) family-owned firms run by family managers (*family\_manag\_fam*); ii) family-owned firms run by external managers (*fam\_manag\_external*).

We control for innovation because, in the literature, there is a large consensus on the importance of this factor in supporting firm internationalization (e.g., Cassetta et al., 2020). Specifically, the questionnaires ask each firm: a) "On average in the last three years, did the firm carry out any product innovation?" b) "On average in the last three years, did the firm carry out any process innovation?". In line with other studies on innovation and export (e.g., Caldera, 2010; Gajewski & Tchorek, 2017; Van Beveren & Vandebussche, 2010), we constructed two dummy variables: the first valued 1 if the firm introduced product innovation (*innov\_prod*); the second valued 1 if the firm introduced process innovation (*innov\_proc*).

**Table 1.** Variables description

<b>Variables</b>	<b>Description</b>
<i>Dependent variable</i>	
export	Dummy variable: 1 if the firm exports
<i>Main Independent variables</i>	
size	Continuous variable: number of employees
age	Discrete variable: number of years since inception
fam_manag_fam	Dummy variable: 1 if the firm is controlled by an individual or family-owned entity and run by family members
fam_manag_external	Dummy variable: 1 if the firm is controlled by an individual or family-owned entity and run by non-family members
<i>Control variables</i>	
innov_prod	Dummy variable: 1 if the firm introduced product innovation in the last three years
innov_proc	Dummy variable: 1 if the firm introduced process innovation in the last three years
reg_lessdevelop	Dummy variable: 1 if the firm is located in a less developed region
sector_HT	Dummy variable: 1 if the firm operates in a high/medium-high technology intensive sector
banks	Dummy variable: 1 if the firm has multiple banks

We control for other factors that are likely to influence the export propensity. According to Dunning (1997), Robertson and Chetty (2000), the location advantage – e.g., knowledge-based assets, infrastructure and technology, and more in general, a benign domestic environment – shapes the firm’s competitiveness. Robertson and Chetty (2000) suggested that firms generally perform better when they face a benign domestic environment. In Italy, there are wide differences between Centre-North and South in terms of endowment and quality of infrastructure and the economic development level (e.g., Di Bernardino et al., 2017). Indeed, according to EUROSTAT regional indicators, the GDP per capita of Southern Italy is lower by 50% than the Centre-North. For Poland, the structural and economic differences regard Western and Eastern Poland, in terms of infrastructure, business sector structure (e.g., importance of family-run businesses, intensity of competition), role and size of the economic base (for more details with reference also to export performance, e.g., Gajewski & Tchorek, 2017). In this case, always on the basis of GDP per capita (source: EUROSTAT), the value of Western Poland is higher by 30% than Eastern Poland. Moreover, in both countries, the disadvantages of less developed regions (Southern Italy and Eastern Poland)

regard also the geographical position, since they are farther away from EU markets: Germany, France (the main EU countries of Italian export) in the case of Southern Italy; Germany, the Czech Republic, and the Baltic Sea with its ports in the case of Eastern Poland. Thus, we control for the geographical location, including a dummy variable equal to 1 if the firm is located in a less developed region (*reg\_less\_developed*): corresponding to the south in the case of Italy, and to the east in the case of Poland.

To account for the fact that technology-intensive sectors are more export-oriented according to several scholars (e.g., Zou & Stan, 1998), we included a dummy variable (*high-tech*) taking value 1 if the firm belongs to high/medium-high technology intensive sectors (we used the EUROSTAT classification of manufacturing industries by technological intensity) (Sarra et al., 2019). Although many common questions on the bank–firm relationship issue were not answered, we control for external finance using as a proxy the numbers of banks (*banks*) including a dummy variable equal to 1 if the firm has multiple banks (Bartoli et al., 2014).

### Econometric model

We investigate the determinants of exporting by comparing Italy and Poland. Our dependent variable is the export propensity. As it is a binary variable taking only values 1 and 0, we used a binary response model, since it allows to overcome the two most important disadvantages of the linear probability models: the fitted probabilities can be less than zero or greater than one; the partial effect of any independent variable is constant (Wooldridge, 2016, p. 525). To capture the binary effect of the dependent variable it is possible to use the logit or probit models. Even though they are almost interchangeable, the probit implies a normal distribution of errors, while the logit gives a standard logistic distribution of errors; however, in econometrics, probit models are more popular because economists prefer the normality assumption for  $\mathcal{E}$  (Wooldridge, 2016, p. 527). We used the following probit specification:

$$Prob(EXP = 1)_i = \Phi(\beta_0 + \beta_1 SA_1 + \beta_2 F_1 + \beta_3 C_1 + \varepsilon_i)$$

where *EXP* represents the probability that the firm *i* exports. *SA* is a vector of variables capturing firms' characteristics related to size and age; *F* is a vector of variables capturing the different type of management of family-owned firms (run by family members: *fam\_manag\_fam*; run by external members: *fam\_manag\_external*); *C* is a vector of control variables concerning innovation (*innov\_prod*, *innov\_proc*), geographical location (*reg\_*

*less\_developed*), economic sector (*sector\_HT*), banks relationship (*banks*) (for more details, see Table 1). All variables are binary except for age and size.  $\Phi$  is a standard normal cumulative distribution function, taking only values strictly between zero and one for all values of the parameters and the independent variables. Thus, this ensures that the estimated response probabilities are between zero and one  $0 < \Phi(z) < 1$ . Finally, is the normally distributed random error with zero mean and constant variance  $N(0, \sigma^2)$  that captures any other unknown factors.

To quantify the effects on the probability success  $P(Y_i=1)$ , we calculated the marginal effects: they indicate “the effect on the conditional mean of  $Y$  of a change in one regressor, that is to say  $x_j$ ” (Cameron & Trivedi, 2010, p. 343). Specifically, for binary independent variables, marginal effects show how  $P(Y=1)$  changes as the independent variable changes from 0 to 1, after controlling for the other variables in the model. For the continuous independent variable, marginal effects show how  $P(Y=1)$  changes as the independent variable changes by 1 unit (Cameron & Trivedi, 2010; Williams, 2012). We used average marginal effects at the means (MEMs). Stata version 15 was used for all the estimates.

## Summary statistics

Table 2 displays the summary statistics. Polish firms are more export oriented: the share of exporting firms is 87.0% compared with 56.4% of Italian firms. Italian firms are older than the Polish ones, showing an average age higher by 12 years (37 vs 25 years), and smaller since the average size is 36 employees versus 66 employees for Poland. In terms of family ownership, the Italian sample shows a higher share of family firms than in the Polish case (91.6% vs 61.2%). However, from the perspective of management, family firms in Poland are more open to external management: 12.2% of Polish family firms are run by non-family managers versus 9.4% in the Italian case. In the case of innovation, Polish firms are more innovative than the Italian ones, both in terms of product innovation (62.5% vs 25.6%) and process innovation (42.3% vs. 18.4%). In less developed regions of each country, almost 20% of firms are located in the Italian case, about 16% for Poland. The share of firms having multiple banks in Italy is higher than in Poland (87.3% vs 71.9%).

The collinearity problem does not emerge since correlation coefficients are all below the critical value of 0.7 (Tabachnick & Fidell, 1996) and the values of Variance Inflation Factor (VIF) are below the critical threshold of 10 (Yoo et al., 2014). Tables of the correlation matrix are available upon request.

**Table 2.** Summary statistics

	Italy				Poland			
	Obs	Mean	Min	Max	Obs	Mean	Min	Max
export	1,146	0.564	0	1	683	0.870	0	1
size	1,146	35.889	10	241	683	66.139	10	249
age	1,146	36.839	7	118	683	25.003	5	118
fam_manag_fam <sup>(a)</sup>	1,146	0.830	0	1	683	0.537	0	1
fam_manag_external <sup>(a)</sup>	1,146	0.086	0	1	683	0.075	0	1
innov_prod	1,146	0.256	0	1	683	0.625	0	1
innov_proc	1,146	0.184	0	1	683	0.423	0	1
reg_lessdevelop	1,146	0.191	0	1	683	0.158	0	1
sector_HT	1,146	0.266	0	1	683	0.199	0	1
banks	1,146	0.873	0	1	683	0.719	0	1

Note: (a) The family-owned firms are 91.6% in Italy and 61.2% in Poland. Among family-owned firms, *fam\_manag\_fam* is 90.2% for Italy and 87.8% for Poland, and *fam\_manag\_external* is 12.2% for Poland and 9.4% for Italy.

## RESULTS

### Main results

Table 3 and Figure 2 report the results. Concerning size, which is the matter of the first hypothesis, in both countries, the larger the firm, the greater the likelihood of exporting, confirming the results obtained by, e.g., Caldera (2010), Bartoli et al. (2014), and Cassetta et al. (2020). More specifically, we find a higher significance of the marginal effect of *size* in the regression for Italy ( $p < 0.01$  vs  $p < 0.05$  for Poland), which could be as a result of the fact that the average size of the Polish firm is higher.

When it comes to verification of the second hypothesis, business experience proves to be a significant determinant of the export propensity only in the Italian case: the marginal effect of the firm’s *age* is significant ( $p < 0.05$ ) and positive, indicating that the older the firm, the greater the probability that the firm exports, in line with, e.g., Minetti et al. (2015) and Wagner (2015); while for Poland we do not find any significant effect.

Regarding corporate governance, for Poland we find a negative significant effect at 10% in the case of family firms run by family members (Column B), confirming the findings obtained by several scholars indicating that this factor can have a constraining effect on export performance (e.g., Kontinen & Ojala, 2010; Pukall & Calabrò, 2014). Based on that, the third hypothesis is confirmed.

While concerning non-family management, combined with the size of the company, which is the subject of the fourth hypothesis, we find a moderation effect of external management in increasing the likelihood of exporting in the case of smaller firms in Poland and in the case of younger firms in Italy. Indeed, in Poland, external management in family firms increases the probability of exporting by reducing the number of employees: namely, the smaller the firm, the greater the probability of exporting if the family firm is run by external managers (the marginal effect of *fam\_manag\_externalXsize* is negative and significant at 5%, Column D).

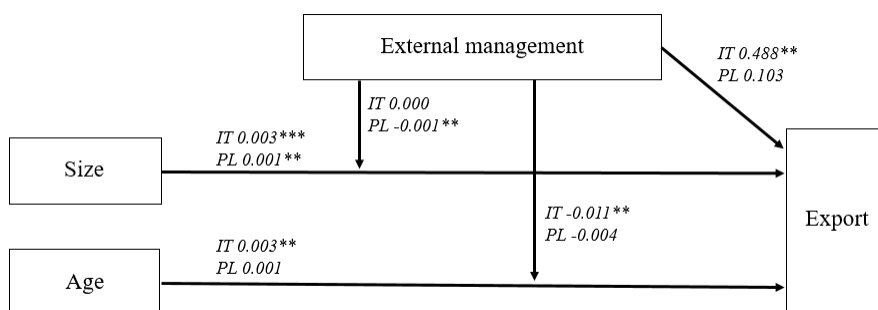


Figure 2. Results of the hypothesized conceptual model

Table 3. Main results: total sample

	Baseline results		The moderating effect of family management on size		The moderating effect of family management on age		Pool DB
	IT	PL	IT	PL	IT	PL	
	(A)	(B)	(C)	(D)	(E)	(F)	(G)
size	0.003*** (0.001)	0.001** (0.000)	0.005*** (0.001)	0.000 (0.000)	0.003*** (0.001)	0.001** (0.000)	0.002*** (0.000)
age	0.003** (0.001)	0.001 (0.001)	0.003** (0.001)	0.001 (0.001)	0.008** (0.004)	0.001 (0.001)	0.002*** (0.001)
fam_manag_fam	0.038 (0.057)	-0.051* (0.026)	0.120 (0.087)	-0.080** (0.037)	0.237 (0.160)	-0.079 (0.058)	-0.032 (0.035)
fam_manag_external	0.075 (0.075)	-0.012 (0.050)	0.079 (0.103)	0.084 (0.077)	0.488** (0.206)	0.103 (0.106)	0.005 (0.050)
fam_manag_famXsize			-0.002 (0.002)	0.001 (0.001)			
fam_manag_externalXsize			0.000 (0.000)	-0.001** (0.000)			
fam_manag_famXage					-0.005 (0.004)	0.001 (0.002)	
fam_manag_externalXage					-0.011** (0.005)	-0.004 (0.003)	
innov_prod	0.244*** (0.038)	0.060** (0.024)	0.244*** (0.038)	0.054** (0.024)	0.246*** (0.038)	0.057** (0.024)	0.175*** (0.025)

	Baseline results		The moderating effect of family management on size		The moderating effect of family management on age		Pool DB
innov_proc	0.029 (0.042)	0.019 (0.024)	0.028 (0.042)	0.022 (0.024)	0.026 (0.042)	0.017 (0.024)	0.032 (0.027)
reg_lessdevelop	-0.135*** (0.040)	-0.037 (0.033)	-0.137*** (0.040)	-0.032 (0.032)	-0.133*** (0.040)	-0.034 (0.033)	-0.099*** (0.029)
sector_HT	0.113*** (0.036)	0.044 (0.032)	0.112*** (0.036)	0.038 (0.032)	0.115*** (0.036)	0.042 (0.032)	0.096*** (0.027)
banks	0.254*** (0.049)	0.089*** (0.026)	0.258*** (0.050)	0.084*** (0.025)	0.257*** (0.050)	0.089*** (0.026)	0.184*** (0.030)
Italy							-0.280*** (0.032)
Obs.	1,146	683	1,146	683	1,146	683	1,289
Wald chi-square	163.38***	41.35***	170.96***	49.25***	168.14***	47.19***	282.32***
Pseudo R <sup>2</sup>	0.132	0.088	0.134	0.102	0.135	0.094	0.191

Note: Dependent variable: exp = 1 if the firm exports, 0 = otherwise. Table displays marginal effects at the means (MEMs). Robust standard errors in parentheses. Wald test of the model specification is reported. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

When it comes to confirmation of the fifth hypothesis, in Italy, management openness to non-family members is even a more important determinant of exporting for family firms, since we find two significant results. The first, family firms run by external managers are more likely to export ( $p < 0.05$ , Column E), in line with Minetti et al. (2015). Second, management openness increases the likelihood of exporting for younger firms: namely, the younger the firm, the greater the probability of exporting if the family firm is run by external managers (the marginal effect of *fam\_manag\_externalXage* is negative and significant at 5%, Column E).

Concerning the control variables, in both countries, the firms that carry out product innovation are more likely to export, in line with many scholars (e.g., Van Beveren & Vandenbussche, 2010; Caldera, 2010; Añón Higón & Driffield, 2011), while we do not find any significant effect for process innovation, confirming the findings by Becker and Egger (2013). In particular, the marginal effect of product innovation (*innov\_prod*) for Italy is statistically more significant ( $p < 0.01$  vs.  $p < 0.05$  for Poland) (Columns A-B).

Controlling for the location, our results suggest that operating in a less developed region significantly ( $p < 0.05$ ) decreases the likelihood of exporting in Italy, as also found by Minetti et al. (2015), whereas no effect emerges for Poland.

Regarding the role of banks, our results suggest that firms having multiple banks have a higher probability of exporting ( $p < 0.01$ ) in both countries, confirming the findings by Bartoli et al. (2014): the marginal effect of *banks* is positive and significant at 1% in all models.

Overall, the regression of the entire dataset reveals that Italian firms are less likely to export than Polish ones: the marginal effect of the dummy variable *Italy* is negative and highly significant ( $p < 0.01$ ) (Column G).

## Robustness check

Table 4 reports the robustness check analyses. We carried out estimations on the subsample of family-owned firms to test the robustness of the role played by external management in fostering openness to foreign markets.

**Table 4.** Robustness check: subsample family-owned firms

	Baseline results		The moderating effect of family management on size		The moderating effect of family management on age		Pool DB
	IT	PL	IT	PL	IT	PL	Pool IT-PL
	(A)	(B)	(C)	(D)	(E)	(F)	(G)
size	0.003*** (0.001)	0.001** (0.000)	0.003*** (0.001)	0.001** (0.001)	0.003*** (0.001)	0.001** (0.000)	0.002*** (0.000)
age	0.003** (0.001)	0.001 (0.001)	0.003** (0.001)	0.003 (0.001)	0.003** (0.001)	0.002 (0.002)	0.002*** (0.001)
fam_manag_external	0.039 (0.055)	0.036 (0.054)	-0.026 (0.076)	0.167** (0.085)	0.255* (0.147)	0.200* (0.119)	0.005 (0.050)
fam_manag_externalXsize			0.000 (0.000)	-0.001*** (0.000)			
fam_manag_externalXage					-0.006* (0.003)	-0.006* (0.004)	
<i>+ controls</i>							
Obs.	1,050	418	1,050	418	1,050	418	1,289
Wald chi-square	139.82***	26.94***	144.94***	32.55***	142.09***	32.76***	282.32***
Pseudo R <sup>2</sup>	0.120	0.094	0.121	0.116	0.122	0.103	0.191

Dependent variable: *exp* = 1 if the firm exports, 0 = otherwise. Table displays marginal effects at the means (MEMs). Robust standard errors in parentheses. Wald test of the model specification is reported. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$ .

The results confirm the following issues: i) the positive effect of external management (*fam\_manag\_external*) in increasing the likelihood of exporting both for Italian firms (column E, marginal effect: 0.255  $p < 0.10$ ) and Polish ones (column D, marginal effects: 0.167  $p < 0.05$ ; column E, marginal effect: 0.200  $p < 0.10$ ); ii) the moderator role of external management for smaller firms in Poland (the coefficient of *fam\_manag\_externalXsize* is negative and significant at 1%, column D) and for younger firms in Italy (the coefficient of *fam\_manag\_externalXage* is negative and significant at 10%, column E) – in respect of results on the total sample, we also found this effect for the Poland case (column E); iii) the positive and significant effect of size for both countries and of age only for Italy.



---

## DISCUSSION

---

The results show that in both countries size is a critical factor affecting the export propensity, confirming Hypothesis 1 (*H1: The larger firms are more likely to export*). Nevertheless, the higher significance level for Italy ( $p < 0.01$  vs.  $p < 0.05$  for Poland) may depend on the fact that the average size of Italian firms is much lower (35 vs. 66 employees for Poland), leading to a greater importance of size in the probability of exporting: namely, since size is a critical determinant of exporting, the lower dimension of Italian firms emphasizes the importance of this factor in this country.

However, Hypothesis 2 (*H2: The older firms are more likely to export*) is valid only in the Italian case and not for the Polish one: this supports the idea that working in an internationally more open environment like that of Poland – shows a higher integration in global value chains (GVC) (OECD, 2017) and export propensity than Italy (export-to-GDP 44% vs. 26%) – may also help younger firms to overcome the barriers to internationalization (empirical studies for Poland demonstrated that working in GVC increases a firm's competitiveness, e.g., Ratajczak-Mrozek, 2012). For Poland, an important factor can also be the fact of joining the EU in 2004 with the increasing population of young companies that are export oriented.

Results on corporate governance underline that non-family management positively affects the probability of exporting in both countries, confirming Hypothesis 3 (*H3: Family-owned firms run by external managers are more likely to export*): this supports the idea that external managers can foster the firm's international openness providing more skills in global competition (e.g., Pukall & Calabrò, 2014; Banalieva & Eddleston, 2011).

Related to this, the results confirm Hypothesis 4 (*H4: External management positively moderates the relationship between the family-owned firm's smaller size and the likelihood of exporting*) for Poland and Hypothesis 5 (*H5: External management positively moderates the relationship between the family-owned firm's younger age and the likelihood of exporting*) for Italy. The latter suggests that in Italy, young family firms may lack several elements – e.g., skills and experience – for starting to export, and external managers become determinant in filling these voids. Furthermore, the low spread in Italy of exporting firms may not help young family firms to benefit from external spillovers (skills, knowledge, etc.) often generated by the presence of exporters in the surrounding environment.

Finally, concerning control variables, the higher impact (higher marginal effect with a higher level of significance) of product innovation in Italy on the export propensity could be explained by the fact that the Italian export is strictly related to the originality of the final goods produced – from which the

term “Made in Italy” comes – which requires constant and intense product innovation. While, the evidence that the location in the less developed region negatively influences the probability to export only for Italy, could also be explained by the fact that in Italy the gap between the less developed region and the more advanced one, is higher than in Poland; in the case of Poland, its poorer regions also strongly benefit from structural funds that increase companies’ competitiveness and internationalization.

## CONCLUSION

---

This paper analyzed the determinants of exporting, focusing on age and size, and studied if external management (non-family members) matters in playing a moderating role in increasing the likelihood of exporting for the firms often less prone to sell abroad (the smaller firms and the younger ones). By comparing Italian and Polish manufacturing SMEs, this addresses a recently pointed out gap in the literature regarding a lack of cross-sectional analysis that includes other European countries besides the main more advanced ones (Hennart et al., 2019).

We found that size increases the probability of exporting in both countries, with a higher significance in Italy than in Poland. Older firms are more likely to export in Italy, while in Poland the firm’s age is not a determinant of exporting. Concerning family firms and management, external (non-family) management increases the likelihood of exporting for younger family firms in Italy and for smaller family firms in Poland. These results are robust when also considering (instead of the whole sample) the subsample of family-owned firms.

Furthermore, the results show that: i) product innovation is a driver of exporting in both countries, with a higher effect in Italy than in Poland; ii) geographical location (being located in less or more developed regions) affects the probability of exporting in Italy but not in Poland.

These findings involve several policy implications. The first message that we can put forward for policy makers concerns the need to favor management openness to external managers for family-owned firms, which can lead to an important change of mentality in terms of the firm’s competitiveness. While Italian and Polish companies differ in some aspects, they also have many important features in common. Both societies are Catholics with a very privileged role of the family. Despite the fact that one country is developed and the second is developing, they might face similar problems in the area of family management issues.

---

Since size is a strong determinant of export propensity, in particular in Italy, the second message that emerges is that small firms require greater support from the institutions in encouraging exporting behavior. This proves to be an important role of the trade promotion organizations that should focus specifically on smaller firms.

In Italy, Chambers of Commerce have a dedicated function (defined by law) to sustain firms' internationalization. For instance, the "*Progetto SEI*" ("*SEI Project - Support to Export of Italy*") operated by Unioncamere (Italian Union of Chambers of Commerce) is aimed at increasing exporting firms (especially among those smaller) by focusing on the potential exporters, on one hand, and strengthening the presence of the sporadic exporters in foreign markets, on the other hand, through services of information, training, and assistance (e.g., check-up of firm's needs, best markets identification, strategy definition for entering the markets identified as targets, web mentoring, accompanied missions to export markets).

While in Poland, the Polish Agency for Enterprise Development (PARP) provides financial instruments to help SME internationalization (in particular in Eastern Poland) and help small and young companies gather capital and finance investments in management skills. Moreover, other important support is provided by the Polish Investments and Trade Agency (PAIH) through several projects and services aimed at favoring the foreign expansion of start-ups and SMEs with high potential.

Finally, the third message concerns the need to consider jointly the issues of innovation, internationalization and family management modes in the agenda of the firm's competitiveness. In this regard, policy innovation should also concentrate on product innovation and not only on process innovation; the latter is very important with a more incremental character increasing competitiveness but with a less direct effect on entering foreign markets.

While size is one of the most obvious and important determinants of export activity, the public support should be directed at stimulating company growth. Taking into account that a sequential internationalization mode is in force (companies start to operate on the local market and then go abroad), critical action should be provided to conduct favorable conditions for firms' operation. Allowing companies to grow and support their survival, assures a larger population of those ready to be a part of the self-selection race, increasing overall efficiency in export activity.

As the Doing Business 2020 measures reveals, obstacles to growth in both countries are related to institutional factors. The main drawbacks of the Polish economy are those related to starting business procedures, registering property, paying taxes, getting electricity, while in the case of Italy, the main problems are rooted in construction permits, getting credit, paying taxes,

and enforcing contracts. Removing obstacles to growth might demand an individual, sectoral and microeconomic approach, addressing the most current and profitable fields of critical changes in the particular country. In both cases, more organizational and ecosystem resilience is needed, based on local clusters and valleys creating conditions for competition, cooperation, and common market goals. It should be accompanied by more openness to the internationalization of management, R&D activity, and attraction for foreign companies, technologies, and solutions. An interesting field of study is cultural opening in the context of immigrants' inflow in both countries and their entrepreneurial activity.

While concentrating on high growth company segments, it can be a profitable strategy for companies' competitiveness to upgrade, grow and survive. Usually, it demands industrial policy that is able to identify and support industries with latent comparative advantages that can boost the country's economic development. It seems that in the post-Covid environment, the role of macroeconomic and industrial policy should be reconfigured towards challenges related to the new megatrends – e.g., green and competitive energy production, environmental protection and digitalization. In such new, structurally important sectors, the government can become a player not only in shaping the market on the regulatory and supply side, but also in increasing demand incentives and reducing the transaction costs of economic activity. At the early stage of market development, a pragmatic interference of the government in the market mechanism in line with market laws should be welcomed.

The main limitation of this study is related to comparing imperfectly aligned surveys. Future efforts should be based on overcoming this limitation. This exercise shows that there considerable scope for combining international research, not only in the current studies but mainly in future ones. This analysis represents only a first step towards future lines of research, as others could focus on several themes, such as global value chains (GVC) with regard to the issue of internationalization; women ownership and management concerning corporate governance; the Triple Helix concerning the moderator factors in improving firms' openness to export.

## **Acknowledgments**

We are extremely grateful to Valentina Meliciani for her inspiration and valuable comments to research agenda. We would like to thank Giovanni Ferri and Michał Brzozowski for their valuable suggestions. Marco Pini would also like to extend a special thanks to Tiziana Pompei and Alessandro Rinaldi

for supporting his visiting period at the University of Warsaw, during which it was possible to prepare this article.

## Disclosure

The views expressed by the Authors do not necessarily reflect those of the institutions to which they belong.

## References

- Altomonte, C., & Aquilante, T. (2012). *The EU-EFIGE/Bruegel-unicredit dataset* (Bruegel working Paper No. 2012/13). Retrieved from <https://www.bruegel.org/2012/10/the-eu-efigebruegel-unicredit-dataset/>
- Añón Higón, D., & Driffield, N. (2011). Exporting and innovation performance: Analysis of the annual Small Business Survey in the UK. *International Small Business Journal*, 29(1), 4–24. <https://doi.org/10.1177/0266242610369742>
- Autio, E., Sapienza, H. J., & Almeida, J. G. (2000). Effects of age at entry, knowledge intensity, and imitability on international growth. *Academy of Management Journal*, 43(5), 909–924. <https://doi.org/10.5465/1556419>
- Banalieva, E. R., & Eddleston, K. A. (2011). Home-region focus and performance of family firms: The role of family vs non-family leaders. *Journal of International Business Studies*, 42(8), 1060–1072. <https://doi.org/10.1057/jibs.2011.28>
- Bartoli, F., Ferri, G., Murro, P., & Rotondi, Z. (2014). Bank support and export: Evidence from small Italian firms. *Small Business Economics*, 42(2), 245–264. <https://doi.org/10.1007/s11187-013-9486-8>
- Becker, S. O., & Egger, P. H. (2013). Endogenous product versus process innovation and a firm's propensity to export. *Empirical Economics*, 44(1), 329–354. <https://doi.org/10.1007/s00181-009-0322-6>
- Binacci, M., Peruffo, E., Oriani, R., & Minichilli, A. (2016). Are all non-family managers (NFM) equal? The impact of NFM characteristics and diversity on family firm performance. *Corporate Governance: An International Review*, 24(6), 569–583. <https://doi.org/10.1111/corg.12130>
- Bonaccorsi, A. (1992). On the relationship between firm size and export intensity. *Journal of International Business Studies*, 23(4), 605–635. <https://doi.org/10.1057/palgrave.jibs.8490280>
- Bratnicka-Myśliwiec, K., Wronka-Pośpiech, M., & Ingram, T. (2019). Does socioemotional wealth matter for competitive advantage? A case of Polish family businesses. *Journal of Entrepreneurship, Management and Innovation*, 15(1), 123–146. <https://doi.org/10.7341/20191515>
- Caldera, A. (2010). Innovation and exporting: evidence from Spanish manufacturing firms. *Review of World Economics*, 146(4), 657–689. <https://doi.org/10.1007/s10290-010-0065-7>

- Cameron, A. C., & Trivedi, P. K. (2010). *Microeconometrics Using Stata*. College Station, TX, USA: Stata press.
- Carney, M. (2005). Corporate governance and competitive advantage in family-controlled firms. *Entrepreneurship Theory and Practice*, 29(3), 249–265. <https://doi.org/10.1111/j.1540-6520.2005.00081.x>
- Casprini, E., Dabic, M., Kotlar, J., & Pucci, T. (2020). A bibliometric analysis of family firm internationalization research: Current themes, theoretical roots, and ways forward. *International Business Review*, 29(5), 1–18 <https://doi.org/10.1016/j.ibusrev.2020.101715>
- Cassetta, E., Monarca, U., Dileo, I., Di Bernardino, C., & Pini, M. (2020). The relationship between digital technologies and internationalisation. Evidence from Italian SMEs. *Industry and Innovation*, 27(4), 311–339. <https://doi.org/10.1080/13662716.2019.1696182>
- Chaparro, X. A. F., Kozesinski, R., & Júnior, A. S. C. (2021). Absorptive capacity in startups: A systematic literature review. *Journal of Entrepreneurship, Management and Innovation*, 17(1), 59–95. <https://doi.org/10.7341/20211712>
- Chua, J. H., Chrisman, J. J., & Sharma, P. (1999). Defining the family business by behavior. *Entrepreneurship Theory and Practice*, 23(4), 19–39. <https://doi.org/10.1177/104225879902300402>
- Cucculelli, M., Dileo, I., & Pini, M. (2021). Filling the void of family leadership: institutional support to business model changes in the Italian Industry 4.0 experience. *The Journal of Technology Transfer*, Online publication. <https://doi.org/10.1007/s10961-021-09847-4>
- D’Angelo, A., Majocchi, A., & Buck, T. (2016). External managers, family ownership and the scope of SME internationalization. *Journal of World Business*, 51(4), 534–547. <https://doi.org/10.1016/j.jwb.2016.01.004>
- Daszkiewicz, N., & Wach, K. (2014). Motives for going international and entry modes of family firms in Poland. *Journal of Intercultural Management*, 6(2), 5–18, <https://doi.org/10.2478/joim-2014-0008>
- Di Bernardino, C., Mauro, G., Quaglione, D., & Sarra, A. (2017). Structural change and the sustainability of regional convergence: Evidence from the Italian regions. *Environment and Planning. C: Government & Policy*, 35(2), 289–311. <https://doi.org/10.1177/0263774X16655800>
- Donckels, R., & Lambrecht, J. (1999). The re-emergence of family-based enterprises in East Central Europe: What can be learned from family business research in the Western world?. *Family Business Review*, 12(2), 171–188. <https://doi.org/10.1111/j.1741-6248.1999.00171.x>
- Dunning, J. H. (1998). Location and the multinational enterprise: A neglected factor?. *Journal of International Business Studies*, 29(1), 45–66. <https://doi.org/10.1057/palgrave.jibs.8490024>
- European Commission. (2013). *Entrepreneurship 2020 Action Plan*. COM(2012) 795 final 9.1.2013. Brussels, Belgium: European Commission. Retrieved from <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2012:0795:FIN:en:PDF>

- European Commission. (2010). *Internationalisation of European SMEs*. Brussels, Belgium: European Commission.
- Fernández, Z., & Nieto, M. (2014). Internationalization of family firms. In L. Melin, M. Nordqvist, & P. Sharma (Eds.), *The Sage Handbook of Family Business* (pp. 403-423). Los Angeles: Sage.
- Gajewski, P., & Tchorek, G. (2017). What drives export performance of firms in Eastern and Western Poland?. *European Planning Studies*, 25(12), 2250–2271. <https://doi.org/10.1080/09654313.2017.1355890>
- Gomez-Mejia, L. R., Cruz, C., Berrone, P., & De Castro, J. (2011). The bind that ties: Socioemotional wealth preservation in family firms. *Academy of Management Annals*, 5(1), 653–707. <https://doi.org/10.5465/19416520.2011.593320>
- Hennart, J. F., Majocchi, A., & Forlani, E. (2019). The myth of the stay-at-home family firm: How family-managed SMEs can overcome their internationalization limitations. *Journal of International Business Studies*, 50(5), 758–782. <https://doi.org/10.1057/s41267-017-0091-y>
- Hillebrand, S., Teichert, T., & Steeger, J. (2020). Innovation in family firms: An agency and resource-based lens on contingencies of generation and management diversity. *British Journal of Management*, 31(4), 792–810. <https://doi.org/10.1111/1467-8551.12375>
- Hymer, S. H. (1976). *International Operations of National Firms*. Cambridge, MA: MIT Press.
- Kontinen, T., & Ojala, A. (2010). The internationalization of family businesses: A review of extant research. *Journal of Family Business Strategy*, 1(2), 97–107. <https://doi.org/10.1016/j.jfbs.2010.04.001>
- Knight, G., & Cavusgil, S. T. 1996. The born global firm: A challenge to traditional internationalization theory. In S. T. Cavusgil & T. Madsen (Eds.), *Advances in International Marketing* (Vol.8, pp. 11–26). Greenwich, CT: JAI Press.
- La Porta, R., Lopez-de-Silanes, F., & Shleifer, A. (1999). Corporate ownership around the world. *The Journal of Finance*, 54(2), 471–517. <https://doi.org/10.1111/0022-1082.00115>
- Le Breton-Miller, I., Miller, D., & Lester, R. H. (2011). Stewardship or agency? A social embeddedness reconciliation of conduct and performance in public family businesses. *Organization Science*, 22(3), 704–721. <https://doi.org/10.1287/orsc.1100.0541>
- Lee, Y., Shin, J., & Park, Y. (2012). The changing pattern of SME's innovativeness through business model globalization. *Technological Forecasting and Social Change*, 79(5), 832–842. <https://doi.org/10.1016/j.techfore.2011.10.008>
- Marinova, S., & Marinov, M. (2017). Inducing the internationalisation of family manufacturing firms from a transition context. *European Business Review*, 29(2), 181–204. <https://doi.org/10.1108/EBR-07-2016-0085>
- Madsen, T. K., & Servais, P. (2017). The internationalization of born globals: An evolutionary process?. In P. J. Buckley (Ed.), *International Business* (pp. 421–443). London, England: Routledge.

- Meliciani, V., & Tchorek, G. (2018). Internationalization strategy, financial constraints and assets (in) tangibility. A study of euro area countries after the 2008 crisis. *The Journal of International Trade & Economic Development*, 28(2), 161–188. <https://doi.org/10.1080/09638199.2018.1514065>
- Melitz, M. J. (2003). The impact of trade on intra-industry reallocations and aggregate industry productivity. *Econometrica*, 71(6), 1695-1725. <https://doi.org/10.1111/1468-0262.00467>
- Melitz, M. J., & Redding, S. J. (2014). Heterogeneous firms and trade. In G. Gopinath, E. Helpman, & K. Rogoff (Eds.), *Handbook of International Economics* (Vol. 4, pp. 1–54). Amsterdam, Netherlands: Elsevier.
- Miller, D., Le Breton-Miller, I., & Lester, R. H. (2010). Family ownership and acquisition behavior in publicly-traded companies. *Strategic Management Journal*, 31(2), 201–223. <https://doi.org/10.1002/smj.802>
- Miller, D., & Le Breton-Miller, I. (2005). *Managing for the Long Run: Lessons in Competitive Advantage from Great Family Businesses*. Boston, MA: Harvard Business Press.
- Minetti, R., Murro, P., & Zhu, S. C. (2015). Family firms, corporate governance and export. *Economica*, 82(s1), 1177–1216. <https://doi.org/10.1111/ecca.12156>
- Nooteboom, B. (1993). Firm size effects on transaction costs. *Small Business Economics*, 5(4), 283–295. <https://doi.org/10.1007/BF01516249>
- OECD (2017). *OECD skills outlook 2017: Skills and global value chains*. Paris, France: OECD Publishing. Retrieved from [https://www.skillsforemployment.org/edmsp1/groups/skills/documents/skpcontent/ddrf/mtg5/~edisp/wcmstest4\\_189297.pdf](https://www.skillsforemployment.org/edmsp1/groups/skills/documents/skpcontent/ddrf/mtg5/~edisp/wcmstest4_189297.pdf)
- Oviatt, B. M., & McDougall, P. P. (1994). Towards a theory of international new ventures. *Journal of International Business*, 25(1), 45–64. [https://doi.org/10.1016/0883-9026\(94\)90017-5](https://doi.org/10.1016/0883-9026(94)90017-5)
- Patibandla, M. (1995). Firm size and export behaviour: An Indian case study. *The Journal of Development Studies*, 31(6), 868–882. <https://doi.org/10.1080/00220389508422394>
- Pini, M. (2019). Family management and Industry 4.0: Different effects in different geographical areas? An analysis of the less developed regions in Italy. *Journal of Entrepreneurship, Management and Innovation*, 15(3), 73–102. <https://doi.org/10.7341/20191533>
- Pukall, T. J., & Calabro, A. (2014). The internationalization of family firms: A critical review and integrative model. *Family Business Review*, 27(2), 103–125. <https://doi.org/10.1177/0894486513491423>
- Ratajczak-Mrozek, M. (2012). Global business networks and cooperation within supply chain as a strategy for high-tech companies' growth. *Journal of Entrepreneurship, Management and Innovation*, 8(1), 35–51.
- Rhee, J. H. (2002). An exploratory examination of propensity and performance in new venture internationalization. *New England Journal of Entrepreneurship*, 5(1), 51–66.



- Rialp-Criado, A., Galván-Sánchez, I., & Suárez-Ortega, S. M. (2010). A configuration-holistic approach to born-global firms' strategy formation process. *European Management Journal*, 28(2), 108-123. <https://doi.org/10.1016/j.emj.2009.05.001>
- Robertson, C., & Chetty, S. K. (2000). A contingency-based approach to understanding export performance. *International Business Review*, 9(2), 211–235. [https://doi.org/10.1016/S0969-5931\(99\)00037-2](https://doi.org/10.1016/S0969-5931(99)00037-2)
- Sarra, A., Di Bernardino, C., & Quaglione, D., (2019). Deindustrialization and the technological intensity of manufacturing subsystems in the European Union. *Economia Politica*, 36(1), 205–243. <https://doi.org/10.1007/s40888-018-0112-8>
- Sciascia, S., Mazzola, P., Astrachan, J. H., & Pieper, T. M. (2012). The role of family ownership in international entrepreneurship: Exploring nonlinear effects. *Small Business Economics*, 38(1), 15–31. <https://doi.org/10.1007/s11187-010-9264-9>
- Sheard, N. (2014). Learning to export and the timing of entry to export markets. *Review of International Economics*, 22(3), 536–560. <https://doi.org/10.1111/roie.12132>
- Stinchcombem, A. L. (1965). Social structure of organization. In J. M. March (Ed.), *Handbook of Organization* (pp 142–193). Chicago, IL: Rand McNally.
- Tabachnick, B. G., & Fidell, L. S. (1996). *Using Multivariate Statistics* (3rd ed.). New York, NY: Harper Collins.
- Van Beveren, I., & Vandenbussche, H. (2010). Product and process innovation and firms' decision to export. *Journal of Economic Policy Reform*, 13(1), 3–24.
- Verwaal, E., & Donkers, B. (2002). Firm size and export intensity: Solving an empirical puzzle. *Journal of International Business Studies*, 33(3), 603–613. <https://doi.org/10.1057/palgrave.jibs.8491035>
- Wagner, J. (2015). A note on firm age and the margins of exports: First evidence from Germany. *The International Trade Journal*, 29(2), 93-102. <https://doi.org/10.1080/08853908.2014.984796>
- Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic Management Journal*, 5(2), 171–180. <https://doi.org/10.1002/smj.4250050207>
- Williams, D. A. (2011). Impact of firm size and age on the export behaviour of small locally owned firms: Fresh insights. *Journal of International Entrepreneurship*, 9(2), 152–174. <https://doi.org/10.1007/s10843-011-0073-2>
- Williams, R. (2012). Using the margins command to estimate and interpret adjusted predictions and marginal effects. *The Stata Journal*, 12(2), 308–331. <https://doi.org/10.1177/1536867X1201200209>
- Wooldridge, J. M. (2016). *Introductory Econometrics* (6th ed.). Boston, MA: Cengage Learning.

Yoo, W., Mayberry, R., Bae, S., Singh, K., He, Q. P., & Lillard Jr, J. W. (2014). A study of effects of multicollinearity in the multivariable analysis. *International Journal of Applied Science and Technology*, 4(5), 9-19.

Zou, S., & Stan, S. (1998). The determinants of export performance: A review of the empirical literature between 1987 and 1997. *International Marketing Review*, 15(5), 333-356. <https://doi.org/10.1108/02651339810236290>

### Abstrakt

**CEL:** W artykule dokonano analizy determinant eksportu w ujęciu międzynarodowym porównując Włochy i Polskę. Analiza jest skoncentrowana na trzech celach: i) zbadaniu, czy wiek i wielkość firmy wpływają na prawdopodobieństwo eksportu; ii) czy istnieją różnice między zarządzaniem firm rodzinnych a nierodzinnych; iii) czy i w jaki sposób kierownictwo spoza rodziny pozytywnie moderuje związek między wiekiem a wielkością firmy w kontekście umiędzynarodowienia. **METODYKA:** Analiza mikroekonomiczna z wykorzystaniem regresji probitowych na zintegrowanej bazie dwóch badań przeprowadzonych we Włoszech i w Polsce na reprezentatywnych próbach MŚP (1100 dla Włoch i 680 dla Polski). Kontrolujemy kilka czynników, takich jak innowacyjność, położenie geograficzne, sektor gospodarczy i relacje z bankami. **WYNIKI:** W obu krajach większe firmy mają rosnące prawdopodobieństwo eksportu, z wyższym efektem we Włoszech niż w Polsce. Doświadczenie biznesowe okazuje się czynnikiem wpływającym na prawdopodobieństwo eksportu tylko we Włoszech (w sensie pozytywnym: starsze firmy częściej eksportują), a nie w Polsce. Zarządzanie poprzez osoby z zewnątrz (nierodzinne) jest siłą napędową umiędzynarodowienia firm rodzinnych, zwłaszcza młodszych firm we Włoszech i mniejszych firm w Polsce. **IMPLIKACJE:** i) rola ładu korporacyjnego może różnić się w poszczególnych krajach w kontekście konkurencyjności przedsiębiorstw; ii) sprzyjanie otwartości kierownictwa na menedżerów zewnętrznych w firmach rodzinnych; iii) małe firmy wymagają większego wsparcia w zachęcaniu do działań eksportowych; iv) zasadne jest wspólne rozważanie kwestii innowacji, internacjonalizacji i ładu korporacyjnego (zarządzanie rodzinne/nierodzinne) w programach wspierania konkurencyjności firm. **ORYGINALNOŚĆ I WARTOŚĆ:** Artykuł stanowi wkład do nurtu literatury dotyczącej determinant eksportu, badając jednocześnie cechy firm związane z wielkością i wiekiem oraz ładem korporacyjnym, które zwykle są rozpatrywane oddzielnie. Ponadto artykuł próbuje wypełnić lukę związaną z brakiem badań międzynarodowych skupiających się na krajach UE, innych niż te bardziej zaawansowane.

**Słowa kluczowe:** umiędzynarodowienie, firmy rodzinne, innowacje, MSP, determinanty eksportu, zarządzanie w firmach nierodzinnych

### Biographical notes

**Marco Pini** is senior economist at Centro Studi delle Camere di Commercio Guglielmo Tagliacarne (the Research center of the Italian Union of Chambers of Commerce, Rome, Italy). He has been a Visiting Researcher at the Department of Management of Warsaw University (Poland), at the Department of Human

---

Geography and Planning of Utrecht University (Netherlands), and at the Department of Management of University of Turin (Italy). He works on several research projects at the Italian institutional level (Ministry of Economic Development, Government agencies). He is Adjunct Professor in Industrial Dynamics at LUISS Guido Carli University, Rome, Italy. He has published articles in several international peer-reviewed journals (e.g., *Industry and Innovation*, *Journal of Technology Transfer*, *Technovation*, *Regional Studies*) on the field of innovation, digitalization, Industry 4.0, internationalization, family firms, environmental sustainability, and entrepreneurship.

**Grzegorz Tchorek** graduated from the Faculty of Management, University of Warsaw and received his M.A. degree in Business Management in 2001 and a Ph.D. degree in Economics in 2007 at the same University. His research and scientific activity focus on the economic aspects of monetary integration and internationalization of enterprises, competitiveness and innovation, value chains of various sectors of the economy, challenges of the energy and climate transformation, and industrial policy. Since 2017, his research and publishing activity has been in the field of low and zero-emission solutions and technologies. He is the initiator and head of the Research Center on Energy Transition, Mobility and Climate Change at the Faculty of Management. As well as being a member of the State Council for Environmental Protection at the Minister of Climate and Environment he is also Chairman of the team of experts on hydrogen at the Chamber of the Natural Gas Industry.

### **Conflicts of interest**

The authors declare no conflict of interest.

### **Citation (APA Style)**

Pini, M., Tchorek, G. (2022). Comparative analysis of export determinants in Italian and Polish firms: The moderating role of non-family management. *Journal of Entrepreneurship, Management and Innovation*, 18(2), 41-67. <https://doi.org/10.7341/20221822>