Associating Company-Specific Characteristics with Ownership Structure and Performance: An Analysis of Publicly Listed Firms from Selected Countries in the Eurozone during the 2008 Financial Crisis and Its Aftermath

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Abstract: In this paper, we analyzed data from publicly listed firms from selected countries of the eurozone between 2008 and 2016, a period of high volatility in the global economy and high uncertainty in financial markets. Economic indicators, such as sales volume, debt accumulation, internationalization, and innovative activity, were combined with firm size and ownership structure to examine their impact on economic performance. We first performed a panel data analysis to associate the economic and non-economic company-specific characteristics with performance and growth, while also examining the possible differences between countries. In the second part of the paper, we focused on ownership structure, an issue of great importance in the literature on business and economics. Through structural equation modeling (SEM), we attempted to shape the profiles of closely held companies, and their impact on performance. Our findings confirmed that significant differences exist not only between firms but also between countries relative to performance indicators; however, a common trend was found relative to debt, size, and ownership. Our findings also revealed a more conservative approach of closely held companies relative to long-term commitment and risky investment projects, compared to their non-closely held counterparts.

Keywords: firm performance; closely held companies; financial indicators; publicly listed firms; SEM; panel data

1. Introduction

Over the last 15 years, the Eurozone has faced multiple, severe economic (and non-economic) crises that have seriously questioned the cohesion and sustainability of the euro area. Starting with the global economic crisis (the Great Recession according to Paul Krugman) and continuing to the pandemic of COVID-19 and its aftermath, the common characteristic is macroeconomic volatility and the resulting uncertainty in financial markets and companies’ performances. According to the official macroeconomic data from the World Development Indicators of the World Databank, during the 2008 Great Recession, Europe faced a severe debt crisis that resulted in a reduction in GDP in most countries. A dramatic fall in the GDP growth ratio took place in Southern Europe, with Greece, Portugal, and Spain at the center of the sovereign debt crisis, followed by Italy. Even two of the larger and stronger countries in the Eurozone, France and Germany, faced similar problems (to a larger or smaller degree) [1].

Similar to the macroeconomic conditions was the performance of stock markets in most of the countries examined. Stock markets in all of the countries examined were characterized by large volatility and dramatic losses after 2007–2008 that have not been recovered yet (with France being the only exception) [2]. Furthermore, stock markets seem to be more “sensitive” to external factors and policy measures, relative to the pre-crisis period [3].
Regarding European firms, the economic crisis and the resulting severe economic contraction harmed entrepreneurship. Many companies left the market, while the number of new entries fell after 2008, leading to a dramatic decrease in employment rates, especially in countries that were affected most by the economic crisis. At the same time, the shortages in credit availability deteriorated the overall operation of most companies [4]. Apart from the lack of finance, European firms were also affected by the recession and the austerity measures that led to a considerable fall in demand and a dramatic reduction in global trade (exports). Furthermore, the fall in the exchange rate between the Euro and USD negatively affected the competitiveness of European goods in global markets. According to [5], during the first years of the recession, the trade squeeze was deeper than expected, mostly affecting trade-intensive capital goods and consumer durables. For publicly listed firms, the situation was even more difficult, as the dramatic losses in European markets resulted in extended losses in terms of capital and/or dividends for founders and large investors, and led many firms to exit from the stock markets.

In this paper, we attempt to highlight some company-specific characteristics that may indicate economic performance (and growth) in a particularly volatile economic environment. We analyzed the economic data of publicly listed firms from France, Italy, Spain, Greece, and Portugal, collected from the Thomson Reuters WorldScope Datastream® database, between 2008 and 2016. The specific database is a reliable source of detailed financial statement data and profile data on a large number of public companies globally, and is also used by many researchers in the fields of economics and finance. The period selected includes the beginning of the global financial crisis and its aftermath, a period of uncertainty and instability in the global economy and the financial markets. We chose the countries of Southern Europe that were the most affected by the 2008 economic crisis (Italy included), along with France, the second largest economy in the Eurozone, and a country with different economic characteristics from those of Southern Europe. We focused on two different issues. First, we attempt to associate company-specific characteristics with performance and growth, and then we focus on ownership structure and its impact on performance. More specifically, we highlighted the possible differences in economic performance due to different company-specific characteristics, not only between companies but also between countries (and financial markets) in the euro area for the period examined. Secondly, we focus on ownership structure, attempting to identify the characteristics that shape the profile of closely held companies, an issue of high importance in business and economics literature. Using the analysis of Southern Europe and France as a common sample, we believe that it may reveal interesting differences between countries with different economic profiles, relative to the factors that affect performance and ownership structure, which may result in different approaches to the management of a financial crisis.

The rest of the paper is organized as follows: In Section 2, the theoretical background is analyzed relative to the factors that determine performance, and the first model is presented (Section 2.1), along with the findings and the obligatory discussion (Sections 2.2 and 2.3). The second empirical model using SEM and focusing on ownership structure is presented and discussed in Section 3 (Sections 3.1 and 3.2). Finally, the conclusions and the limitations of the research, along with some ideas for future research follow in Sections 4 and 5, respectively.

2. Materials and Methods

2.1. Performance Indicators and Predictors

In the first step of the analysis, we examined the impact of several characteristics and indicators on performance and growth at a company level. It is a rather contentious topic in economic analysis, with a number of indicators to be used in various research. In their review [6], they presented several such indicators and the way they are used in the literature. Measures such as employment growth, assets, sales growth, or profits (expressed as ratios or absolute values) are highlighted as determinants of performance and/or growth. Many researchers are used to focusing specifically on profitability in terms of net revenues, EBIT and EBITDA, while others measure profitability with several indicators such as Return on
Sales (ROS) (see for example [7]), Return On Equity (ROE) [8], and Return On Invested Capital (ROIC) [9]. The most commonly used measure of performance is Return on Assets (ROA), and has been included in various papers [10–12] and more recently [13–16] and for European companies [8,17–21]. However, it is an indicator with large annual fluctuation, especially in periods of economic distress, presenting, very often, extreme annual differences. Things are more complicated in the case of listed firms, and as a result, it is more difficult to have a complete, unbiased dataset. Furthermore, there were a lot of missing data for that indicator for the period examined, which would lead to the exclusion of a large number of firms from our sample. That would bias our analysis and would also cause problems in small countries with an already limited sample, such as Portugal, in our dataset.

Because of all the above, we chose a more representative indicator of performance: sales growth. It is more suitable for our analysis, as it indicates economic performance and profitability (in terms of total revenues and net profits) and as such, has been included in many research papers [9,22–26] and is considered as a reliable measure of performance in firm level [27]. Furthermore, the change in sales volume may imply growth as well, because increased sales usually require higher investment in total asset (fixed and current assets), they result in a larger market share and a higher turnover and, because of that, they imply growth and dynamism [13,28,29].

That measure constitutes the dependent variable in our first model and was included in the analysis, along with several determinants of performance that are presented next. More specifically, we used the logarithmic form of sales growth, a measure also used by [13] in their analysis on the impact of the financial crisis on the performance of Asian publicly listed firms. In their research, [9] also used the natural logarithmic difference in sales volume to analyze the effects of patents and intangible assets in the growth and profitability of European companies. In our dataset, the first value of sales growth is the percentage difference in sales volume between 2008 and 2009.

The first empirical model, with sales growth as the dependent variable (implying economic performance and growth), and several selected indicators as interpreters of performance, is described by Equation (1), and all the variables included are presented below, accompanied by the requisite literature review.

\[
\text{PERF} = a_1 \text{DEBT} + a_2 \text{SIZE} + a_3 \text{INTR} + a_4 \text{INOV} + a_5 \text{OWNP}
\]  

(1)

where \(a_1 – a_5\) are the coefficients of the independent variables (DEBT, SIZE, INTR, INOV, and OWNP) that are discussed below.

\text{PERF} is the dependent variable, implying, as already analyzed, economic performance and growth. It is the annual percentage change in sales growth, in logarithmic form, for the period examined (2008–2016).

\text{DEBT} is a very important factor, as access to external finance is critical for a well-operating company. Findings concerning its impact on performance are, however, contradictory. On the one hand, following the agency cost theory, a higher level of debt may result in lower agency costs, reduced inefficiency, and more strict management, and thereby, an improvement in company performance. Thus, the relation between growth and leverage may be positive. The authors of [30] highlighted also a positive relationship, as more efficient firms choose higher leverage ratios because higher efficiency may lower the cost of bankruptcy and financial distress and, as a result, the access to finance and the cost of debt, and vice versa. A positive impact of debt on firm performance is also underlined by other researchers; see, for example [31,32].

On the other hand, more profitable firms are more likely to finance their growth by retained earnings, whereas less profitable firms use debt financing more, due to the lack of internal sources of capital. A negative effect on performance may arise as well, due to the higher level of debt in the company’s capital structure, as a result of its lower credit rating, and the higher cost of debt, but also due to possible shortages in access to finance in the future [33]. Potential conflicts between debt and equity investors may arise as a result of the higher risk of default. In that case, the amount of debt could significantly worsen
future financial performance [13]. Similar to this are the results of [34–36], highlighting the negative impact of debt on company performance.

Finally, in their research, [22] suggest that the relationship between leverage and efficiency may have the form of a U-shaped curve, switching from positive to negative, at a higher level of leverage. Their research focuses on the years between 2002 and 2005, a period of quite prosperous macro-economic conditions and generally, easier access to finance for most companies in the Euro area. However, things were different in national financial systems after the 2008 financial crisis. The authors of [37], examining the leverage of various companies from different European countries before and after the 2008 economic crisis, found that firms with lower debt ratios experience an increase in leverage, while those with higher ratios experience a decrease in leverage from the pre- to post-crisis period. That could be related either to the need of highly levered firms to reduce their exposure to debt or to their inability to access additional finance as a result of their already burdened capital structure. We examined which of the above trends between debt and performance are confirmed for our dataset, in a period of financial distress and its aftermath. As a measure of debt, we used the ratio of total debt to total assets, a commonly used indicator of debt, reflecting the ability of a firm to serve its debt through its assets [18,38].

The SIZE of a company is a widely used indicator in empirical analysis of performance and growth, either as a dependent or as an explanatory variable. Some common measures of firm size are total assets [39], the number of employees [34,40,41], and total sales [9]. We expected a positive impact on performance and growth, in line with the findings of other researchers (see, for example, [22,38,39]. However, a body of research also exists, concluding in a negative a relationship, especially for SMEs, New Technology-Based Firms, and start-ups.

As a determinant of size, we chose the natural logarithm of sales volume (end year). As already mentioned, sales are directly related to assets, as higher volumes require a larger investment in fixed assets, inventories, raw materials and others, and as a result, more funds to finance those (new) assets. Thus, the larger the sales volume of a company, the larger its size (probably), in order to cope with the process of increased production.

Internationalization (INTR) indicates the presence of a company in foreign markets (in terms of sales). Many researchers conclude in a positive impact of trade openness on performance and growth, through the acquisition of foreign assets or through foreign sales (exports) [42,43]. A positive relationship between the degree of internationalization and company performance is also underlined by [21,44,45]. Some findings alternatively conclude in a negative relationship due to the higher costs and risks that exporting entails. As an indicator of internationalization, we used the ratio of international sales to total sales.

Similar to this are the findings for innovative activity (INOV), as it is also considered to be a factor of dynamism, growth, and profitability at a firm and country level as well. Innovativeness is necessary for profitability and financial success [46,47]. It could be a source of competitive advantage [48] that helps companies to preserve and increase their market share and survive in globalized, competitive markets [49]. Many researchers have pointed out its positive relationship with economic performance [7,21,28]. Furthermore, [50] finds a clear relation between Innovative activity and growth, with the vast majority of fast-growing firms presenting high R&D activity. On the other hand, in most cases, innovative activities require an adequate infrastructure and capital, which may reduce profitability (at least in the short run), deteriorating as a result company performance [39]. Moreover, according to the Schumpeterian view, mostly only larger firms have the necessary resources to implement innovative processes, which is the case in our sample, as listed companies are usually large enough in terms of assets, and have the potential to develop the necessary infrastructure to innovate.

A binary variable is used to indicate innovative activity, taking the value one (1) if the company performs R&D expenditures, or zero (0) if it does not. Firms that present a very low percentage of R&D relative to sales (between 0,1% and 5%) were excluded from the
sample to avoid possible bias in the case of just occasional limited expenditure on R&D, which would not be a part of company’s overall strategy.

OWNP is the last (but not least) determinant of performance in our model. It is the company’s ownership structure, a factor of high interest, as closely held corporations are vitally important to the economy, according to studies for the US, GB, Japan, Germany, and France (see indicatively [51]). By the term ownership, the empirical approaches found in literature examine either family versus non-family firms, or firms with top management composed of family members or founders versus firms with external executives as top managers. The impact of ownership on performance is not clear due to the different measures of performance and ownership (see [52], p. 322, for a brief literature review) as well as because most of the researchers examine those factors mainly from a managerial and more qualitative point of view.

Some of them highlight a positive relationship, as a more concentrated ownership results in more efficient monitoring and operational management, and, because of that, in a positive impact on performance [11,53]. Similar to this are the findings of [54], in their analysis of Greek listed firms, concluding that a less diffused ownership implies higher profitability. According to [52], a significant relationship exists between company performance and ownership, as closely held companies present improved decision-making processes, which results in higher earnings and dividends for the shareholders. The authors of [55], comparing the performance of family and non-family businesses in Japan, confirmed that the former succeed in achieving a better performance than the latter, and the level of (family) control strongly influences performance.

On the other hand, other empirical findings have concluded that less concentrated ownership reduces shareholders’ power to take action for their benefit at the expense of the company. Thus, a more concentrated ownership may adversely affect performance, raising the cost of capital. The authors of [56], in their analysis of East European EU member states, Russia and China, found that closely held companies (with the State being one of the larger shareholders) present a negative relationship with performance, while the presence of a large number of outside investors positively affects firm performance. However, the linkage between ownership and performance seems to be rather weak. The authors of [57] argued that concentrated ownership may be associated with lower performance, however, the empirical results may vary across industries. Some studies also exist that conclude no relation at all (see, for example, [58] in a survey on the relationship between ownership structure and performance of Slovenian joint-stock companies, or the findings of [59]). Because findings in the literature are rather contradictory, it would be interesting to examine the impact of ownership structure in specific countries of the Eurozone, with different characteristics and economic structures, during a rather uncertain and volatile period for the European economy. We measured ownership by the percentage of closely held shares (from a small number of shareholders) to total shares, as provided by Thomson Reuters Worldscope Datastream® Database.

2.2. Results

All the factors presented in Section 2.1 were subsequently tested for their ability to interpret performance. A panel data analysis was performed using STATA®, vers.14, for each country separately between 2008 and 2016. We tested both the random effect and fixed effect models for each country and then we used the Hausman test in order to check which of them was more appropriate. The results for all countries confirm that the fixed effects model was suitable for our analysis. Table 1 summarizes the output of the fixed effect panel for each country. The first line for each country includes the value of the coefficients (a1–a5) for each variable, along with the sign (the relation with the dependent variable) and the significance.
Table 1. Summarized results of the panel data analysis for empirical model 1.

| Country    | DEBT   | SIZE    | INTR    | INOV    | OWNP    |
|------------|--------|---------|---------|---------|---------|
| France     | −0.0203158 *** | 0.0506182 *** | −0.0000731 * | 0.060701 | 0.0001382 *** |
| N = 213    | t = −2.98 | t = 12.74 | t = −1.81 | t = 0.38 | t = 2.82 |
| R−sq: 0.09–0.26 |       |         |         |         |         |
| Al−Bd      | −0.038467 *** | 0.0887946 *** | −0.0001143 ** | 0.0018233 | 0.000199 ** |
| Italy      | −0.0242731 ** | 0.0708218 *** | −0.0001706 ** | −0.0208181 | 0.0002766 *** |
| N = 77     | t = −2.54 | t = 12.98 | t = −2.60 | t = −0.40 | t = 2.97 |
| R−sq: 0.08–0.27 |       |         |         |         |         |
| Al−Bd      | −0.0251555 *** | 0.1428166 *** | −0.000213 *** | −0.0025999 | 0.0002432 *** |
| Spain      | −0.0478305 *** | 0.1232196 *** | −0.0001297 | −0.0009934 | 0.0003176 *** |
| N = 70     | t = −3.51 | t = 14.25 | t = −0.88 | t = −0.25 | t = 2.83 |
| R−sq: 0.06–0.32 |       |         |         |         |         |
| Al−Bd      | 0.0155907  | 0.1036978 *** | −0.000177 | 0.0009888 | 0.0005549 *** |
| Greece     | −0.006768 *** | 0.0426191 *** | −0.00000168 | −0.0050464 | 0.0003994 *** |
| N = 136    | t = −2.90 | t = 7.14  | t = −0.79 | t = −0.28 | t = 2.83 |
| R0sq: 0.09–0.20 |       |         |         |         |         |
| Al−Bd      | 0.0029733  | 0.1823281 *** | −0.00000973 | −0.0059231 | 0.000248 |
| Portugal   | 0.0094011  | 0.0711816 *** | −0.0000535 | −0.0600754 *** | 0.0002531 *** |
| N = 36     | t = 0.85  | t = 11.88 | t = −0.57 | t = −2.88 | t = 2.12 |
| R−sq: 0.1–0.44 |       |         |         |         |         |
| Al−Bd      | 0.0125255  | 0.1227538 *** | 0.0000119 | 0.0148668 | 0.0005151 *** |

* Sig. in 10%, ** Sig. in 5%, *** Sig. in 1%. Source: Own elaboration.

We also checked for the robustness of our model, performing, in addition to the static model, a dynamic panel (see for similar approach [60]), and the Arellano–Bond coefficients for each variable used are presented by the values in lines named “Al–Bd”. In most cases, it is in the line of the fixed effects’ outcome.

The observations for Portugal were limited, due to the small amount of available data in the database. After excluding the many missing values in some of the variables examined, we surmised that this could be a problem for model performance and the overall results for that country. However, we decided to present them in the analysis in order to capture at least a trend. Therefore, we used them in step two in the common sample with all firms from the countries examined.

2.3. Discussion

For all countries (except Portugal), a strongly significant, negative impact of debt on performance seems to be confirmed. It is an expected outcome, as we analyzed a period of financial distress in the Eurozone, with limited access to debt finance and most firms trying to deleverage. Size is also positively (and strongly significant for all countries examined) related to performance. Thus, the findings indicate that, during a period of uncertainty and financial volatility, the better performing companies were large (in terms of total sales) with less debt burden, irrespective of the country examined.

Internationalization seems to have a significant impact on performance only for France and Italy, as expected, due to the size of those countries and their exporting orientation. The negative correlation may imply (but should be further analyzed) the difficulties that even dynamic exporters may face during a period of financial distress because of the decrease in global demand, or due to the fall in the exchange rate of the Euro relative to the USD and other currencies (a problem that many exporting firms in the Euro area faced during the period examined).

Innovation does not seem to have a significant impact for almost all countries examined, apart (again) from Portugal. However, the negative tendencies for all countries could probably imply that the period examined did not encourage investment in new products and services. It should be mentioned that this specific indicator had a lot of missing values (relative to R&D expenditures) in the raw data from the database.
Finally, ownership is positively related to performance and strongly significant for all countries examined. This clear trend in the overall sample indicates that, in a period of economic instability, firms that were in the “hands” of a small group of people (founders, managers, and/or investors) seem to have achieved a more efficient management and faster growth rates relative to their less concentrated counterparts. The overall impact of ownership structure on company characteristics and performance is further examined from a different point of view in the next section, as it is an issue of high importance in the business and economics literature.

3. Beyond the Performance

3.1. Associating Ownership Structure with Specific Characteristics, and Performance

Up to this point in the analysis, we examined specific indicators as predictors of performance at a company level. The next step in our analysis was to focus on ownership, due to its significant impact on performance, as highlighted by recent research in business and economics (and was also confirmed by the first model). We attempted not only to examine the factors that may be affected by ownership structure, but also to associate those factors, along with ownership itself, with performance. We utilized Structural Equation Modeling (SEM), which we believe is appropriate for the approach followed. The structure of the model is presented in Figure 1.

![Figure 1. The structure of the SEM approach. Source: Own elaboration.](image)

SEM provided us the opportunity to examine in depth for possible relations between variables. As the arrows indicate, we firstly examined the impact that ownership structure may have on specific company characteristics and indicators, and then, the impact of those variables (including ownership) on performance. In other words, we attempted, starting from the results of the first model, to determine the characteristics that affect ownership, which was confirmed to strongly affect performance.

The model includes two of the variables used as interpreters of performance in the first model (innovation and internationalization), along with two quite similar to those of the first model, but not exactly the same (debt and size). We tried to use a type of measure more appropriate relative to ownership for each one. The justification for the use of each variable is presented below, following the structure of SEM in Figure 1.

OWNP is the ownership structure of the company, measured by the ratio of closely held shares to total shares, and the percentage of shares held by a small number of shareholders. It is the same ratio that was used as an interpreter of performance in the first model.
DEBT is the ratio of long-term debt to total assets, a measure also used by [39] in their research on identifying financially successful companies. Long-term debt was selected instead of total debt (in model 1), as we believe it is more appropriate in indicating an overall attitude towards long-term commitment between closely held and non-closely held companies, as a part of their overall financial planning. Ownership structure may have either a positive or a negative impact on the amount of long-term debt accumulated in a firm’s leverage. The authors of [22] concluded that a more concentrated ownership is generally associated with more debt in a firm’s capital structure. Owners may also be unable to issue new equity and thus opt to fund growth opportunities with leverage (Ref. [61] and Giannetti 2003 in [22] (p. 626)). The same holds in the case of family-owned firms, where a large commitment by the owners may result in a lower cost of debt and, thus, a higher leverage.

On the other hand, it is possible for firms with less concentrated shareholders’ equity to carry more debt in their capital structure, due to the higher agency cost between the owners and the shareholders [62]. Firms that are not closely held may have incentives to generate wealth for managers and shareholders, choosing risky investments with higher expected returns that are financed by leverage. A negative relationship between ownership and debt is also suggested by [63]. They found that firms that are controlled by a small number of (family) members have more favorable operating ratios relative to other firms, and choose a capital structure that involves less risk. As a result, they concluded that firms which are highly controlled by the founding family are operated more efficiently and carry less debt than other firms. The aversion to the risk of losing control motivates the owners to use less debt. The authors of [64] found that there is significantly greater family involvement in corporate operations of all-equity firms than in leveraged firms, implying a negative relation too.

SIZE is the second differentiated variable relative to the first model. As a measure of size, we chose this time the number of employees (in logarithmic form), as we believe it is more suitable, instead of total sales, which was included in the first model, to indicate the impact (if any) of ownership structure on company policy in regard to employment. Employment is included as an indicator of growth or size in various empirical researches (see [34,38,50]). More concentrated firms may develop closer relations with their employees, and are less willing to proceed to dramatic changes in the human capital of their company by reducing employment. However, a negative relationship could also be possible, as the owners may not be so susceptible to increasing employment due to the fear of higher costs that would shrink profits. Thus, a more conservative approach could be associated with more closely held companies.

INOV indicates innovative activity, represented by the same binary variable that was included in the first model, relative to whether the company performs continuous R&D expenditures or not, and INTR is the (as in the first model) ratio of foreign sales to total sales, implying a presence in global markets. The relationship of both factors with ownership structure could be positive due to their impact on performance, as we discussed in the previous section, or negative, as closely controlled corporations may be more conservative, and thus, not so receptive to new ideas and expansion in foreign markets and in general, to costly, and uncertain investments as innovative ones usually are [56,57], especially in the overall climate of economic uncertainty during the period examined.

In our model, we included the total sample of all countries, and because of that, we also added a new variable, CNTR, country, in order to identify possible differences the impact of ownership structure between different countries has. Thus, a binary variable is used, taking values from 1 to 5, relative to the average GDP per capita PPP (in constant values during 2017, from the world databank), for the period examined. Following that measure, France took the value 1 as the country with the largest average GDP per capita, with Italy to follow (no. 2), Spain no. 3, Portugal no. 4, and Greece no. 5, with values for the last two being very close. The variable country (CNTR) has two arrows to both
performance and ownership, as we wanted to examine whether it may imply differences in ownership profile and/or in overall performance.

3.2. Results and Discussion

The main findings of the estimation process using the SEM approach are presented in Table 2.

Table 2. Summarized results of Structural Equation Modelling.

| OWNP     | SIZE      | INTR      | INOV      | CNTR       |
|----------|-----------|-----------|-----------|------------|
| DEBT     | 0.0009725*** | -0.007132 *** | -0.009612 *** | -0.0011881 *** |
| Std.Err  | 0.0001071 | 0.0005066 | 0.1465749 | 0.0003167 |
| z        | -7.40     | -14.08    | -1.37     | -3.73      |
| PERF     | 0.0000726*** | 0.0071424 *** | 0.0002707 | -0.00000155 |
| Std.Err  | 0.0000202 | 0.0026255 | 0.0005745 | 0.0000021  |
| z        | 3.60      | 2.72      | 0.47      | -0.74      |

As the findings show, ownership negatively and significantly affects debt exposure, confirming the part of the literature suggesting that more closely controlled firms are more conservative relative to long-term commitment in accumulation of long-term finance, even though it seems to positively affect performance.

A more conservative approach with regard to employment also appears for most of the closely held companies in the sample, as they seem to employ less personnel compared to other firms. The same holds for innovative activity and internationalization (even though it is slightly non-significant, however, with a negative sign). Thus, more cautious management seems to appear in a period of large fluctuations in the financial system and the overall economy, instead of implementing high R&D expenditures, or trade openness. Furthermore, it could be the result of the large fall in domestic and global demand, which did not provide motives to companies for openness in new markets, and/or for the development of new products.

Finally, country seems to affect positively both performance and ownership, with smaller economies having more closely held companies, as expected, due to the more limited market and opportunities that may encourage more concentrated management, even for publicly listed firms.

The second part of Table 2 shows the other part of the model, confirming that performance is affected by ownership, debt (long term), and innovation, and negatively by country as expected, because listed firms in larger economies, such as France, Italy, and Spain, have more opportunities to achieve better performance and vice versa. It is interesting that the signs are opposite to those of the first model, for SIZE and DEBT; however, it should be kept in mind that different measures of both variables were used in each model. Especially the difference between long-term debt and total debt (long-term plus short-term debt) in overall performance should be further analyzed in future research.

4. Conclusions

In this paper, we examined the impact of company-specific characteristics on performance, focusing on ownership structure. The analysis covers economic data for publicly listed firms from the countries of the European South and France, between 2008 and 2016, the beginning of the economic crisis and its aftermath. We used two steps in the empirical analysis: a panel data model and, then, structural equation modelling. The findings from the panel data analysis strongly indicate that, during a notably volatile economic environment, the better-performing companies were large, with less total debt, and a less diffused ownership, irrespective of the country examined. Internationalization and innovation do not seem to have a clear impact on performance in most cases; however, they may indicate that most of the better performing companies were obliged or just decided not to perform
expenditures concerning R&D and trade openness, due to the rather uncertain economic environment. Analyzing more thoroughly the ownership structure and its relationship with specific characteristics, using Structural Equation Modeling, we concluded in a rather conservative approach of closely held companies concerning the accumulation of long-term debt. That could also be the result of the liquidity shortages in the period examined for most companies in the Eurozone, but it probably needs to be further examined. A more conservative approach also appeared regarding employment, affecting most of the closely held companies in the sample, while there were no significant results in regard to internationalization. Innovation seems to positively affect performance but closely held companies fall behind on that. Finally, firms from stronger and larger economies seem to perform better than their counterparts in smaller and more vulnerable countries. That may also be confirmed by the positive relationship between country and ownership, implying that more concentrated firms exist in less dynamic markets (and countries).

5. Limitations and Future Work

This is a part of a broader survey, analyzing performance and ownership structure in different economic conditions. In this paper, only the period of the 2008 economic crisis and its aftermath were analyzed, and we only performed comparisons between countries and not between different periods. It would be interesting to compare the findings with those of the COVID-19 pandemic that recently severely affected economies as well. A critical issue that we had to manage in this paper was the many missing values, mainly in specific indicators, which led to the obligatory exclusion of several firms from our sample. Furthermore, the listed firms were dramatically affected by the economic crisis, especially in the first years, with many of them forced to leave the market, change management, merge with others, and so on. In this case, too, the result was an incomplete dataset for all of them. That phenomenon was more intense in smaller countries of southern Europe, such as Portugal, where we had to also cope with the small number of observations in the empirical analysis. The problem of missing data is unfortunately quite common in large datasets. Finally, the performance of the empirical models was not large enough, however, this is a common phenomenon in similar studies, due to the already mentioned inefficiencies in the dataset, along with the many different formats of the indicators used (logarithmic, form, percentage changes, ratios, and binary variables), resulting in quite a low R-square value. Despite these challenges, an overall trend can be indicated from the results.

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