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Professionalization as a Factor of Heterogeneity in Family and Nonfamily Firms: Effects on Performance

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ABSTRACT

This study examines the relationship between firm ownership and organizational performance with a focus on heterogeneity in the professionalization of management. Using a comprehensive panel dataset of Spanish manufacturing firms, the study identifies significant ownership- and management model-related differences in productive efficiency. The results reveal that while family firms are marginally less productive than nonfamily firms, professionalized management substantially enhances their performance, putting it above that of professionally managed nonfamily firms. The results indicate that external management effectively addresses agency problems and mitigates asymmetrical altruism issues in family firms while simultaneously leveraging their inherent strengths, such as concentrated ownership and alignment of interests. As such, the best outcomes are achieved by combining family ownership and professionalized management. This conclusion underscores the importance of accounting for both ownership structure and heterogeneity in management models in the study of firm efficiency. Additionally, these insights have practical economic implications, suggesting that the strategic separation of ownership and management could unlock new avenues to improve organizational performance.

1 | Introduction

Research on firm efficiency frequently examines ownership, comparing family-owned and nonfamily-owned firms. Although some studies argue for the superiority of one model over the other, often results are ambiguous, fuelling an ongoing academic debate (Dyer 2006; Fang et al. 2021; Ghalke et al. 2022; Hansen et al. 2020; O'Boyle et al. 2012; Wagner et al. 2015). These inconclusive results may stem from the fact that firms are heterogeneous in terms of the professionalization of their management. Most empirical studies usually compare professionalized versus non-professionalized family firms or compare both versus nonfamily firms, overlooking the degree of professionalization of the latter's management (Barth et al. 2005; Chua et al. 2009; Cucculelli et al. 2014; Garcés-Galdeano and García-Olaverri 2020; Stewart and Hitt 2012).

In the family business literature, the heterogeneity of family-owned businesses is well recognized (Chua et al. 2012; Daspit et al. 2018; Daspit et al. 2021; Memili and Dibrell 2019; Neubaum et al. 2019). However, with few exceptions (Ortiz and Gargallo-Castel 2024), nonfamily firms are often assumed to be large, professionally managed corporations (Barth et al. 2005; Stewart and Hitt 2012). The data, however, do not support this assumption: in Europe, according to OECD, 99.8% of companies have fewer than 250 employees, whereas 75.45% are family-owned. In other words, even if all family businesses were small- to medium-sized enterprises

TABLE 1 | Distribution of family and nonfamily firms by size *(INE-ESEE) and* professionalized family and nonfamily firms.

	% family and nonfamily firms in the INE report and the sample				% family and nonfamily professionalized firms	
	INE (All sectors)		SAMPLE (Manufacturing sector)		SAMPLE (Manufacturing sector)	
Number of employees	Family	Nonfamily	Family	Nonfamily	Family	Nonfamily
Total	82.80	17.20	43.50	56.50		
0 to 10	84.10	15.90	-—	-—		
10 to 49	61.70	38.30	46.10	53.90	16.10	31.82
50 to 199	43.60	56.40	48.30	51.70	38.11	67.64
200 to 999	25.00	75.00	37.00	63.00	61.04	90.05
1000 or more	19.90	80.10	10.80	89.20	65.08	98.06

Source: Own elaboration with INE and ESEE.

(SMEs), which are not the case, 24.35% of nonfamily businesses would still fall under the 250-employees threshold (Table 1). In Spain, for example, 38% of companies with 10 to 49 employees are nonfamily businesses, and 70% of them are owner-managed (INE 2016). Thus, both family and nonfamily firms can be either owner-managed or professionally managed (Dyer 2006).

This research explores heterogeneity in the delegation of decision-making to a third party outside ownership in both family and nonfamily firms, and the effect of this heterogeneity on productive efficiency, specifically through total factor productivity (TFP). We argue that both ownership and management must be taken into account to better understand differences between family and nonfamily firms, addressing the contradictory evidence. For this purpose, the sample is divided into four categories: professionalized and non-professionalized family firms; and professionalized and non-professionalized nonfamily firms.

The theoretical framework for this study is agency theory (Jensen and Meckling 1976), which is widely used to compare family and nonfamily firms. This approach is well suited to analyse differences in productive efficiency, arising from both the agency costs relevant to each of these ownership models and the impact of various approaches to professionalization on these costs. Agency theory is complemented by the socioemotional wealth (SEW) perspective, which offers useful insights to better understand family business preferences.

This study makes theoretical and practical contributions. In terms of theory, to the authors' knowledge, this is the first time selection bias in management delegation to a third party outside ownership for each ownership model is examined, addressing academic debates by considering both ownership and professionalization in management. In practical terms, the results suggest that professionalization can lead to a greater leap in efficiency in family firms than in nonfamily firms, implying that there is considerable room for increased productivity in economies with a large proportion of family firms.

The article is organized as follows: Section 2 reviews the most relevant literature; Section 3 describes the sample and variables used in the study; Section 4 presents the models and empirical results; and Section 5 presents the conclusions.

2 | Theoretical Framework and Hypothesis

2.1 | Ownership

Scholars have extensively discussed how ownership rights are allocated and their implications for firm performance (Blair 1996; Shleifer and Vishny 1997). Family business literature presents extensive theoretical and empirical research, with arguments both for and against the efficiency advantages of family-owned businesses (Dyer 2006; Fang et al. 2021; Ghalke et al. 2022; Hansen et al. 2020; O'Boyle et al. 2012; Wagner et al. 2015).

Agency theory provides a useful framework to approach these issues by analysing which ownership model incur higher (lower) agency costs (Jensen and Meckling 1976). On the one hand, family ownership reduces agency costs, as intrafamily relationships are largely based on altruism, loyalty and trust. This fosters greater operational flexibility, smoother decision-making processes and less opportunism (Chrisman et al. 2004; Pollak 1985; Schulze et al. 2003). Such ties promote information-sharing among family members, reducing asymmetries and increasing the loyalty and commitment of leaders (Van den Berghe and Carchon 2003). Another argument in favour of lower agency costs is based on the essence of family businesses, that is, their willingness to keep ownership within the family. This long-term orientation (Lumpkin and Brigham 2011) fosters lasting relationships inside and outside the firm and facilitates the transfer of tacit knowledge and family social capital (Cabrera-Suárez et al. 2001; Pearson et al. 2008; Verbeke and Kano 2012).

Conversely, the same features that promote trust among family firm co-owners can make them excessively tolerant of opportunistic behaviour and/or lead to privilege family members (Chua et al. 2009; Pollak 1985), potentially leading to adverse selection and limiting access to skilled external candidates. Another argument points to potential conflicts of interest between family members or the conflicts inherent to succession (Cabrera-Suárez et al. 2001), which can also hinder effective

collaboration and exchange of information (Van den Berghe and Carchon 2003). Additionally, the desire to keep the business in family hands leads to the prioritization of noneconomic goals, such as perpetuating the family dynasty, employing family members and preserving family values and interfamily ties, as highlighted by the SEW approach (Gomez-Mejia et al. 2007). This can limit access to external capital, reduce resources and increase risk aversion (De Massis et al. 2015) for fear of compromising family wealth. Consequently, decisions may avoid riskier long-term investments, such as internationalization and diversification (Shleifer and Vishny 1986), resulting in suboptimal investments in areas such as R&D, which could otherwise benefit long-term shareholder value (Carney et al. 2015; Purkayastha et al. 2022).

This variety of theoretical arguments is reflected in the empirical results. Some studies find no differences in performance or report mixed results (Chirico and Bau 2014; Minichilli et al. 2010). O'Boyle et al. (2012), in a meta-analysis of 78 articles, find no differences, whereas Wagner et al. (2015), in a meta-analysis of 380 studies, report that over half argue for higher performance in family-owned firms. For instance, Galve-Górriz and Salas-Fumás (1996, 2011) reported greater efficiency—measured by TFP—in family firms in a sample of large Spanish listed companies. Similar results were obtained by Martikainen et al. (2009) for S&P 500 manufacturing firms. In contrast, Kotey and O'Donnell (2002) and Kotey (2005) reported lower efficiency in family firms than in nonfamily firms in a sample of medium-sized firms and in firms of different sizes, respectively, and Morikawa (2013) provided evidence of lower labour productivity and TFP growth in Japanese family firms.

Following the above, the following hypothesis is proposed:

Hypothesis 1. *Differences in performance between family and nonfamily firms depend on the ownership model.*

2.2 | Professionalization

The professionalization of management, that is, hiring external managers, can affect family and nonfamily firm performance differently (Sciascia and Mazzola 2008; Hiebl and Li 2020; Waldkirch 2020). This is often considered a necessary step in Chandlerian industrial development (Chandler 1990) to improve efficiency through efficient risk-sharing and specialization (Gedajlovic et al. 2004; Kaehr and Thiel 2019). However, the separation between owners and managers also introduces new agency costs due to diverging interests and information asymmetries (Jensen and Meckling 1976). Agency theory explains these potential problems of adverse selection and moral hazard and their impact on performance (Eisenhardt 1989; Fama and Jensen 1983; Jensen and Meckling 1976; Shleifer and Vishny 1997) in both family and nonfamily firms (Chua et al. 2009).

2.2.1 | Adverse Selection

Professionalization addresses the skills shortcomings of firm owners by allowing companies to hire more capable and talented external professional managers (Bennedsen et al. 2007; Chirico 2008; Carney 2005; Sirmon and Hitt 2003). External managers often have more formal training and broader experience, grounding decisions on rational analysis (Block 2011; Dyer 1989). Although the owners' lack of managerial skills may affect any owner-managed company, family firms may, in addition, select owner-managers on the basis of socioemotional rather than merit-based criteria (Miller and Le Breton-Miller 2021), leading to 'honest incompetence' (Hendry 2002).

Family ownership may lead to adverse selection and limit recruitment options if external managers foresee nepotism-related issues, such as favouritism toward family members (Fang et al. 2021; Schulze et al. 2001); career growth limitations (Barnett and Kellermanns 2006; Lubatkin et al. 2007; Sirmon and Hitt 2003); and demands to achieve complex noneconomic goals with which they are less familiar and from which they are unlikely to benefit (Chua et al. 2009). However, the very decision to hire external managers, even if it reduces family control, is perhaps the most visible sign of a family firm's commitment to economic goals (Naldi et al. 2013; Jaskiewicz et al. 2017; Wong and Chen 2018).

On the other hand, the goal to preserve and expand reputational and socioemotional endowments in the long-term (Christensen-Salem et al. 2021) gives family firms opportunities to send positive signals into the managerial market, as this leads to a more caring workplace, greater job security and lower staff turnover in family firms than in nonfamily firms (Bassanini et al. 2013; Carrasco-Hernandez and Sánchez-Marín 2007). Finally, SEW concerns may encourage family firms to invest more effort into identifying suitable managers, addressing adverse selection (Miller and Le Breton-Miller 2006).

2.2.2 | Moral Hazard

The need to control and motivate external managers also adds to the costs of professionalization (Ang et al. 2000; Fama and Jensen 1983; Jensen and Meckling 1976; Shleifer and Vishny 1997). In turn, internal governance mechanisms, including monitoring and incentives, help reduce moral hazard risks (Chrisman et al. 2004). Heterogeneity in the exposure to and management of these problems leads to differences in efficiency between family and nonfamily firms.

2.2.3 | Monitoring and Control

Family-owned firms tend to monitor external managers more closely due to concentrated ownership and the strong link between firm and family wealth (Anderson and Reeb 2003; Ang et al. 2000; Galve-Górriz and Salas-Fumás 2005; Fama and Jensen 1983; Purkayastha et al. 2022). In addition, family-owned firms accumulate tacit knowledge over time, enhancing monitoring efficiency and reducing agency costs in the relationship between managers and owners (Anderson and Reeb 2003). Moreover, separating ownership from management allows family firms to moderate principal-principal agency problems, as nonfamily managers are wary of favouritism, limiting the family's capacity to

misappropriate minority shareholder wealth without restrictions (Bednar et al. 2015; Purkayastha et al. 2022; Singla et al. 2014).

Additionally, agency theory argues that family businesses incur unique agency costs, which arise from altruistic and relational dynamics specific to family firms (Chrisman et al. 2004; Kallmuenzer 2015; Purkayastha et al. 2022; Schulze et al. 2001). Professionalization can improve the efficiency of family businesses by reducing costs, such as those related to family conflicts or succession issues, and encouraging less emotionally driven decisions (Grote 2003; Sonfield and Lussier 2009). Although family ties foster loyalty, trust and altruism (Corbetta and Salvato 2004), this may hinder disciplinary actions and the effective monitoring of family managers, as a result of both asymmetrical altruism and the potential spillover effects of such actions on family relationships inside and outside the firm (Schulze et al. 2001). Asymmetrical altruism between family owners and managers in favour of the latter biases managerial performance assessment (Chua et al. 2009); encourages lenient monitoring of family managers (Cruz et al. 2010); limits control by family owners (Dyer 2006; Lubatkin et al. 2005; Schulze et al. 2003); and hinders the enforcement of contracts when managers act opportunistically (Chrisman et al. 2004; Chrisman et al. 2007; Karra et al. 2006; Schulze et al. 2001, 2003). Although family firms can apply unique disciplinary measures, such as 'expulsion' from the family for extreme misbehaviour, these threats are unlikely to discourage small-scale opportunistic behaviours (Galve-Górriz and Salas-Fumás 2003).

2.2.4 | Incentives

Besides control mechanisms, incentives such as compensation schemes align external manager actions with ownership interests (Chrisman et al. 2017). However, SEW preferences, such as maintaining family control to guarantee the firm's legacy to future generations (Gomez-Mejia et al. 2001), limit stock-based incentives in family firms (Chua et al. 2009). Instead, family firms often rely on seniority and nonmonetary rewards, like job security or implicit long-term employment contracts, as alternatives (Chrisman et al. 2017).

At the empirical level, the differences outlined in the previous paragraphs can be expected to be translated into differences in efficiency between professionalized and non-professionalized family and nonfamily firms. Although studies explicitly addressing heterogeneity in professionalization in both groups are lacking, some studies provide some valuable insights. For instance, Barth et al. (2005) found that family firms in Norway are generally less productive than nonfamily firms owing to the management models adopted; when managed by external professionals, they are as productive as nonfamily firms in terms of added value and TFP, likely as a result of the skill gap between family and professional managers. Similarly, Cucculelli et al. (2014) observed that family management negatively impacts the productivity of Italian manufacturing firms compared to that of nonfamily firms—presumably managed by external managers—in terms of TFP, whereas the differences between external managers and family managers disappear when only family firms are considered.

In view of the above, the following hypothesis is put forth:

Hypothesis 2. *Differences in performance between family and nonfamily firms depend on the decision to delegate management to a nonowner manager.*

3 | Empirical Model and Variables

3.1 | Model Specifications

To test the hypotheses formulated in the preceding section, a model was designed to identify differences or common patterns in productive efficiency—measured as TFP—between family and nonfamily firms, depending on whether management had been delegated to professionals outside the ownership.

The model is structured in two successive stages. First, TFP is calculated using the estimation method proposed by Levinsohn and Petrin (2003), which derives TFP from the following expression:

$$TFP_{it} = f\left(V_{it}, L_{it}, \phi\left(K_{it}\right), \omega_{it}\right) \quad (1)$$

where subscripts i and t are firm and time period, respectively; V is added value; L is labour (in this instance, effective hours worked); $\phi(K_{it})$ is a function of capital that corrects for the correlated bias in inputs dependent on capital stock; and ω is a statistical disturbance uncorrelated with the productive factors of the firm. This estimator has been used in earlier studies on TFP (Arnold et al. 2011; Martín-Oliver et al. 2013, etc.).

TFP is adopted as the representative performance variable both because of its widespread use in the evaluation of family firms (Barth et al. 2005; Cucculelli et al. 2014; Galve-Górriz and Salas-Fumás 2011; Martikainen et al. 2009, inter alia) and because productivity is considered a more reliable performance measure than profitability indicators.

A relevant methodological aspect of using TFP is that adjustment costs in the availability of resources generate rigidities in production. As such, firms must try to adjust their productive capacity to keep it relatively constant regardless of aggregate demand. For this reason, the computation of TFP must relate output over a given period to the resources effectively used in production, which implies incorporating effective hours worked and the capital actually used, thereby obtaining a more accurate measure of productive capacity (Geroski and Machin 1992).

In the present study, in order to meet the criteria outlined above, effective hours worked (a variable included in the dataset) and effective capital utilized—reflected as volume of intermediate inputs effectively consumed (also available in the ESEE)—were used as independent variables.

Likewise, the use of added value as the output variable captures the firm's real contribution to value creation, regardless of the effect that input prices may have on the final price of the product.

In the second stage, the analysis of the effect of professionalization/not professionalization on the estimated TFP requires a model capable of capturing the bias that this predetermined variable introduces into the sample.

The Heckman correction (Heckman 1979) was used to control for this bias, where the selection variable takes a value of 1 if the firm is professionalized and of 0 if otherwise; the variable under study in this stage is TFP. This methodology was used by Hernández-Trasobares and Galve-Górriz (2017) in their study of Spanish family firms, although for different purposes. The selection variable divides the sample between firms that meet (selection variable = 1) and do not meet (selection variable = 0) the differentiating condition, and the effect of this on the dependent variable—TFP in this instance—is examined in each subsample.

The model is expressed as follows:

$$P_{it}(PF) = \alpha_0 + \alpha_1 FO + \alpha_2 CO_{it} + \alpha_3 S_{it} + \alpha_4 WS + \alpha_5 EC_t + \alpha_6 CV_{it} + \alpha_7 DS_{it} + \epsilon_{it} \quad (2)$$

where i and t are firm and year subscripts, respectively; PF is a binary variable equal to 1 if the firm is professionalized and to 0 if otherwise; $P_{it}(PF)$ represents the probability that $PF = 1$; FO is a binary variable equal to 1 if the firm is family-owned and to 0 if otherwise; CO is a vector of variables related to ownership complexity, comprising the following: number of non-CEO family owners employed in the firm; whether the firm is a domestic parent company; whether the firm is a domestic subsidiary; whether the firm is partly owned by foreign capital; and whether the firm is publicly listed; S represents firm size; WS is a vector of workforce structure variables; EC captures macroeconomic conditions, specifically, the evolution of aggregate demand; CV is a vector of control variables; DS is a sectoral dummy; and ε is the random disturbance term.

Wooldridge (2002) argued that the vector of explanatory variables in the outcome equation must be a strict subset of the vector of explanatory variables in the selection equation. Therefore, the equation used in this study is

$$TFP = \alpha_0 + \alpha_1 FO + \alpha_2 CO'_{it} + \alpha_3 S_{it} + \alpha_4 WS + \alpha_5 EC_t + \alpha_6 CV_{it} + \alpha_7 DS_{it} + \varphi_{it} \quad (3)$$

where $CO' \in CO$ is a subset of the ownership complexity variables, restricted in this case to the number of non-CEO family owners employed in the firm; φ_it is the random disturbance term; and the remaining vectors are the same as in Equation (2). The same model is replicated using non-professionalization as the selection variable.

3.2 | Definition of Variables

In the context of this study, it is especially important to establish what is understood as a family and a professionalized firm. As noted, there is a certain lack of uniformity in academic literature concerning both concepts. In this paper, given the formulation of the variables in the database used, these variables are defined as follows:

- Family firm (*FF*): a categorical variable with a value of 1 if a family group is actively involved in control and/or management and of 0 if otherwise.
- Professionalized firm (*PF*): categorical variable with a value of 1 if ownership and management are in nonowner hands and of 0 otherwise.

The combination of these variables leads to four groups, all of which are regarded as categorical variables with a value of 1 if the required characteristic is met and of 0 if otherwise: Professionalized family firms; Non-professionalized family firms; professionalized nonfamily firms; non-professionalized nonfamily firms.

TFP is adopted as the representative performance variable, as explained in Section 3.1. The explanatory variable vectors, also described in the previous section, are clearly defined in each of the result tables.

3.3 | Sample

The source of the data used in this study is the Spanish Survey on Business Strategies ('Encuesta sobre Estrategias Empresariales', ESEE), an institutional database with information containing a representative sample of the Spanish manufacturing sector (firms with 10 employees or more). The information presented by the ESEE is subject to strict validity and consistency controls.[1]

The sample comprises an incomplete panel with 1094 firms for a period of 10 years (the number of firms considered each year is specified in Table A1), 2007–2016 inclusive. This long-time interval allows not only to study the variables defined above but also to consider the effects of the economic cycle on both types of firms (annual evolution of the Spanish GDP in Table A1).

Table 1 distributes family and nonfamily firms in the sample by size and compares them to Spanish firms in general. According to the National Statistics Institute of Spain (INE 2016), family firms account for 83% of all firms and 84.1% of all firms with fewer than 10 employees. They account for 74.1% of the manufacturing sector.

The sample includes a comparatively high proportion of nonfamily firms, and the size of these firms is significantly larger than the average. This could be seen as a limitation of this study, although it does not substantially affect the results, insofar as the professionalization of firms appears to be directly related to size, as shown in Table 1 and as pointed out by Meroño Cerdan and Carrasco Hernández (2013) in their study of family firms.

4 | Results

4.1 | Descriptive Analysis

The first conclusion that results from the calculation of TFP is that Spanish manufacture is labour intensive (coefficient of effective labour hours = 0.702; coefficient of effective stock capital = 0.126); in addition, the aggregate of these coefficients

TABLE 2 | TFP per year, using Levinsohn and Petrin's (2003) calculation method.

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total firms	16.29	16.12	15.37	15.06	14.81	13.99	14.41	15.24	15.77	16.32
Family firms	15.45	15.48	15.20	14.59	14.53	13.29	14.14	14.57	15.13	15.45
Nonfamily firms	16.91	16.61	15.51	15.42	15.04	14.55	14.62	15.77	16.27	16.98
Professionalized family firms	18.62	17.36	17.29	16.98	16.38	14.92	16.61	17.10	17.52	17.59
Professionalized nonfamily firms	18.80	17.98	17.45	17.35	17.00	16.25	16.45	18.35	18.74	19.67
Non-professionalized family firms	14.08	14.70	14.13	13.47	13.72	12.55	12.98	13.34	13.92	14.33
Non-professionalized nonfamily firms	13.71	14.15	12.70	12.13	11.99	11.74	11.56	11.71	12.58	13.24

Source: Own elaboration with ESEE.

(0.828), which is less than 1, suggests diminishing returns during the period under consideration.

Second, although added value in the sample decreased by as much as 36% between 2012 and 2016 (as shown in Table A2), the average variation of TFP was −6.5%, peaking in 2012 with −14% (Table 2), which suggests that firms are generally able to efficiently adjust resources to keep productivity fairly constant.

Third, the widely accepted procyclical behaviour of TFP means that the adjustment of demand and resources used, no matter how efficient, is hampered by the associated costs, especially labour costs, in terms of both temporal synchronization and number of units produced.

The data presented in Table 2 suggest that, during the period under consideration, the TFP of nonfamily firms was, on average, 6.7% higher than that of family firms, and that of professionalized firms was 32.7% higher, on average, than that of non-professionalized firms.

Within the subset of professionalized firms, the differences between family and nonfamily firms narrowed to 4.5%, although these differences widened with the early signs of economic recovery in 2014. This is due to three convergent factors: First, the added value resulting from the upward turn of the economic cycle increased by 4.82% in family firms and by 9.63% in nonfamily firms; second, family firms grew 6.77% on average, whereas nonfamily firms grew −1.99%, that is, job losses continued; and finally, the use of capital stocks increased by 1.39% in family firms and by 2.15% in nonfamily firms.

Finally, among non-professionalized firms, TFP was 10.13% higher in family firms than in nonfamily firms. These differences could be a direct reflection of size.

Table 3 presents the average values of the most significant among the remaining variables. Notably, professionalized firms present higher capital intensity per worker (97.55% on average); 27.45% of non-professionalized firms have non-CEO employees who also share in the ownership of the firm, versus 2.4% of professionalized firms (within the subset of family firms, this applies to 31.46% and 4.91% of firms, respectively); the participation of foreign capital is much greater among professionalized firms, especially among nonfamily firms (43.15% versus 15.81%); in fact, nearly 77% of professionalized nonfamily firms belong to a larger group; gross margins are greater (approximately 1%) among family firms; and the debt/passive ratio is fairly similar across all four categories, which contradicts the generalized view that family firms are more reluctant to use credit (Mishra and Mcconaughy 1999; Gallo et al. 2004).

4.2 | Econometric Results

4.2.1 | TFP Analysis

First, before the results of the models controlling for selection bias are analysed, a model that simultaneously includes the explicative variables 'family firm' and 'professionalized firm' is presented. Wooldridge's, modified Wald's and Breusch–Pagan's tests reveal problems of serial correlation, heteroscedasticity and contemporaneous correlation, respectively, which leads to the conclusion that OLS models do not yield unbiased coefficients. As a result, econometric models that correct these problems, such as Feasible Generalized Least Squares (FGLS) and Panel Corrected Standard Errors (PCSE), must be used. We have used PCSE, after Beck and Katz (1995) demonstrated that PCSE offers more precise standard errors than FGLS.

Table 4 shows that, controlling for the rest of the variables, the coefficient of the variable 'Family firm' is negative and significant ($p < 0.05$), whereas that of the variable 'Professionalized' is positive and significant ($p < 0.01$). It is noted that family firms yield lower TFP than nonfamily firms, and professionalized firms yield higher TFP than non-professionalized firms. The rest of the results obtained are not discussed here, as they do not differ much from those that will be discussed below in the analysis of the models with selection bias.

The results of the two selection-biased models that analyse the effect of ownership, that is, being a family or nonfamily firm, on TFP for both professionalized and non-professionalized firms are presented below. Significant λ values in the model that studies TFP for both professionalized and non-professionalized firms indicate that selection bias exists, although the sign, positive for professionalized and negative for non-professionalized firms, indicates that professionalized firms yield higher TFP than non-professionalized firms.

TABLE 3 | Average values of other significant variables.

	Age	N° non-CEO fam.	Mother company	National subsidiary	Majority foreign capital	Listed	Gross margin	% of debt in passive	Capital stock per employee	% used of capital stock	Added value
	Years	%	%	%	%	%	%	%	€	%	Thousands €
Total number of firms	32.50	14.87%	7.07%	23.33%	18.39%	2.73%	6.84%	16.43%	73,435	75.50%	19,201
Family firms	33.80	22.11%	8.56%	26.91%	6.35%	1.46%	7.50%	16.66%	70,213	74.25%	9866
Nonfamily firms	31.45	9.15%	5.89%	20.50%	27.90%	3.73%	6.32%	16.25%	75,978	76.49%	26,567
Professionalized family firms	35.13	4.91%	11.98%	44.28%	15.81%	3.10%	8.13%	17.37%	97,904	74.91%	18,544
Professionalized nonfamily firms	31.03	1.37%	7.37%	26.29%	43.15%	5.32%	7.20%	16.32%	98,520	76.77%	40,932
Non-professionalized family firms	33.17	31.46%	6.96%	18.75%	1.90%	0.70%	6.59%	16.42%	57,204	73.93%	5789
Non-professionalized nonfamily firms	27.27	21.79%	3.48%	11.10%	3.12%	0.71%	5.87%	15.98%	39,322	76.04%	3215

Source: Own elaboration with ESEE.

TABLE 4 | Panel corrected standard errors regression.

	TFP		
Observations	10,267		
Firms	1090		
R^2	0.7212		
Wald chi^2	2827.25		
Prob > chi^2	0		
	Coef.		Std. Err.
Ownership			
1 if family firm, 0 if otherwise	−0.023	**	0.012
1 if the firm is professionalized, 0 if otherwise	0.052	***	0.013
N° non-CEO family members	−0.015	*	0.008
Size			
Log turnover	0.133	***	0.005
Workforce structure			
% of indirect labour	−0.006		0.036
% of university graduates	0.230	***	0.041
% of temporary employees	−0.098	**	0.041
Economic cycle			
% GDP variation rate	0.427	***	0.117
Control variables			
Log capital stock per employees	0.000		0.000
1 if the firm exports, 0 if otherwise	−0.002		0.014
Logarithm of age	0.040	***	0.013
Gross margin in t-1			
% Debts in passive	−0.250	***	0.039
Constant	0.098		0.093
20 sector dummies	Included		

Note: Results for the 20 sectors are not presented.
***Significant coef. $p < 1\%$.
**Significant coef. $p < 5\%$.
*Significant coef. $p < 10\%$.

Under the subtitle main equations, Table 5 shows that, controlling for the remaining variables, professionalized firms are more productive than non-professionalized firms (positive and significant coefficient of the 'family' categorical variable, $p < 0.01$). Among non-professionalized firms, family firms are less productive than nonfamily firms (negative and significant coefficient of the 'family' categorical variable, $p < 0.01$).

Family firms have been described as less efficient as a consequence of the increased agency costs related to altruism, adverse selection,

TABLE 5 | Calculation of TFP using Heckman's bias selection model.

	Selection equation			Main equations					
				Profesio.			Non-profesio.		
Observations				10,267			10,267		
Selected				4989			5278		
Firms				1090			1090		
Wald chi^2				1344.01			2113.18		
Prob > chi^2				0			0		
λ				0.1004***			−0.3308***		
	dy/dx		Std. err.	Coef.		Std. err.	Coef.		Std. err.
Ownership									
1 if family firm, 0 if otherwise	−0.156	***	0.008	0.042	**	0.020	−0.094	***	0.017
Ownership complexity									
N° non-CEO family members	−0.124	***	0.008	−0.017	*	0.025	−0.044	***	0.011
Mother company	0.165	***	0.017						
National subsidiary	0.231	***	0.011						
Participation of foreign capital	0.438	***	0.015						
Listed	0.100	***	0.033						
Size									
Log turnover.	0.030	***	0.004	0.104	***	0.006	0.186	***	0.007
Workforce structure									
% of indirect labour	−0.117		0.024	0.104	**	0.045	0.003		0.037
% of university graduates	−0.051		0.032	0.324	***	0.053	0.262	***	0.050
% of temporary employees	0.003		0.024	−0.150	***	0.044	−0.185	***	0.041
Economic cycle									
% GDP variation rate	−0.166		0.131	0.724	***	0.217	0.278	*	0.194
Control variables									
Log capital stock per employee	0.000	***	0.000	0.000	***	0.000	0.000		0.000
1 if the firm exports, 0 if otherwise	0.019	*	0.011	0.000		0.023	−0.004		0.016
Log age	0.013	*	0.008	0.042	***	0.012	0.002		0.013
Gross margin in t-1	−0.071	***	0.025						
% debts in passive	−0.023		0.029	−0.333	***	0.046	−0.349	***	0.049
Constant				0.542	***	0.122	−0.276	***	0.098
20 sector dummies	Included			Included			Included		

Note: Results for the 20 sectors are not presented. The statistical significance ($p < 0{,}01$) of λ confirms the existence of selection bias.
***Significant coef. $p < 1\%$.
**Significant coef. $p < 5\%$.
*Significant coef. $p < 10\%$.

inefficient control systems or simply nepotism involving the presence of family members in the company (Chirico 2008; Schulze et al. 2001). This study shows that this effect is also found in non-family firms since, controlled by the variable 'family firm', the coefficient of the variable 'number of non-CEO owners' is negative and significant in both professionalized and non-professionalized firms ($p < 0.05$ and $p < 0.01$, respectively).

The positive correlation between size and TFP was noted by Galve-Górriz and Salas-Fumás (2011) and Musolesi and Huiban (2010). Similar conclusions have been put forward concerning capital intensity (Masso and Vahter 2008; Muinelo 2012); workforce training (Chudnovsky et al. 2006; Duguet 2006); the procyclical nature of TFP (Field 2010; Schmöller and Spitzer 2020); and the association between greater debt and lower TFP (Anderson and

Raissi 2018; Coricelli et al. 2012). Concerning the remaining variables, it is worth noting that firms with a greater proportion of temporary employees yield a lower TFP, probably in relation to factors such as working experience (Diaz-Mayans and Sanchez 2004) and negative attitudes (Bentolila and Dolado Lobregad 1993); and Broschak and Davis-Blake (2006) even noted a contagion effect that negatively affects the behaviour of permanent employees. Dolado et al. (2016); and Du and Temouri (2015), among others, find a positive correlation between TFP and the age of the firm. Cucculelli et al. (2014) conclude that, in family firms, this correlation only applies to firms that have left the management of the firm in the hands of external managers, which agrees with our results.

4.2.2 | Selection Equation: Professionalized Firms

The academic literature has insisted on the need for firms to become professionalized. Levinson (1971) stated 'In general, the wisest course for any business, family or nonfamily, is to move to professional management as quickly as possible' (p. 97). This is especially the case for family firms (Martínez et al. 2007; Sciascia and Mazzola 2008; Stewart and Hitt 2012). However, few studies have addressed the reasons that lead companies, beyond political decisions, to follow that course. The replacement of the firm's founder (Gersick et al. 1997); the increase in the size and complexity of the firm (González-Cruz and Cruz-Ros 2016; Fang et al. 2016; Vandekerkhof et al. 2015); the firm's performance (Fang et al. 2016; Fang et al. 2017; Fang et al. 2021); the firm's innovativeness and internationalization (Vandekerkhof et al. 2015); and sector (Fang et al. 2017) have been suggested as reasons that contribute to push firms toward professionalization. However, these factors have not been considered jointly, especially in nonfamily businesses. This section delves into the endogenous causes that lead companies to delegate management to an outsider, regardless of ownership model.

As illustrated by the part of the model that addresses the results of the selection equation (Table 5), controlling for the rest of the variables, the likelihood of professionalization is lower among family firms than among nonfamily firms, which is in line with Fang et al.'s (2017) results with US SMEs. Especially relevant is that a smaller gross margin in a given year increases the likelihood of professionalization in the following years, which suggests that professionalization is regarded as a tool to attract additional talent to improve poor results (Chang and Shim 2015; Fang et al. 2016; Fang et al. 2021). In addition, there seems to be a positive correlation between professionalization and size, as noted by González-Cruz and Cruz-Ros (2016) and Fang et al. (2016). Factors related to organizational complexity also appear to contribute to professionalization (Polat 2020), for instance, membership of a larger corporate group (as mother company or domestic subsidiary, although in the latter this could be related to the exhaustion of the resources of the owner family), and foreign participation in the company's capital, which may result in the imposition of external managers, either independently sourced or coming from the structure of the foreign partner. External stakeholders may contribute to the professionalization of firms (Parada et al. 2010; Zhang and Ma 2009), as regulatory or shareholder demands may force the owners to delegate the management of the company to a third party if control measures in place are deemed to fall short of requirements.

Exporting and capital-intensive firms are also more likely to become professionalized, as these factors introduce management complexities that are beyond the owners' management skills (Zhang and Ma 2009). Additionally, Barth et al. (2005) indicate that owner management is less likely in firms with more capital. Finally, older firms are more likely to become professionalized, which may be related to the need to replace the firm's founder over time, as noted by Gersick et al. (1997).

5 | Discussion

5.1 | Discussion

The results obtained from the Panel Corrected Standard Errors regression show a negative and significant effect of the variable 'being a family business' on TFP, which confirms Hypothesis 1 regarding the role that the ownership model plays in the differences in performance between family and nonfamily firms. As Schulze et al. (2001) and Chrisman et al. (2007) noted, asymmetric altruism, adverse selection and inefficient control mechanisms in family firms can lead to agency problems that undermine efficiency. Another possible factor that may lead to lower efficiency compared to nonfamily firms is the inclusion of noneconomic aims among their goals, such as the perpetuation of the family dynasty, the employment of family members or the preservation of family values and good interfamily relations (Gomez-Mejia et al. 2007).

Likewise, the results for the variable 'being a professionalized business' indicate that companies whose management has been delegated to a third party outside ownership present greater productive efficiency, measured as TFP. As noted by Bennedsen et al. (2007), Chirico (2008) and Sirmon and Hitt (2003), the incorporation of external managers, who tend to have greater experience (Dyer 1989), makes it possible to overcome potential shortcomings in the management skills of the owners. In addition, by using suitable controls to reduce bias in the results, the idiosyncratic features of family firms in combination with the skills and knowledge of professional managers seem to increase productive efficiency, in terms of TFP, above the values yielded by professionalized nonfamily firms.

This may be because in family firms, by their very definition, ownership is concentrated in a specific family group with common interests, which allows greater control over the agent and lower agency costs than in nonfamily firms, in which capital is more fragmented and each individual partner faces greater problems to control the agent. As for the problem of adverse selection in family firms, removing the restriction that management be vested in a family member puts them on an equal footing with nonfamily firms in terms of their ability to attract talent. Thus, family ownership with professional management leads to more efficient management practices, reduces the effect of possible asymmetrical altruism, fosters less infighting within the family (Lubatkin et al. 2005), contributes to the attraction of talent and helps to reduce the risk of decisions being made on the basis of family ties (Grote 2003; Sonfield and Lussier 2009).

However, among non-professionalized firms, family firms are less productive than nonfamily firms, which could be due to inferior managerial skills among family owners, agency problems related to asymmetrical altruism in favour of other family member-owners (Chrisman et al. 2004; Chua et al. 2009; Schulze et al. 2001) and even to the private use of business assets. Moreover, in non-professionalized nonfamily businesses, ownership is in the hands of a group of individuals who have decided to associate, probably based on the complementary nature of their resources and skills, which provides them with a greater stock of resources than family businesses that have to select the agent from a restricted pool of family members, a choice that is further limited by socioemotional constraints.

The results obtained by introducing selection bias support Hypothesis 2, which explains differences in performance between family and nonfamily firms based on delegation/nondelegation of management to external, nonowner managers. Beyond the direct effects identified above, when the interaction between ownership and professionalization is considered, the results reveal different patterns across the four governance combinations under analysis. Professionalized family firms present higher TFP than professionalized nonfamily firms, whereas among non-professionalized firms, family firms display lower productivity than their nonfamily counterparts. This suggests that ownership effects are conditional upon managerial structure, rather than being uniform across all firms. Beyond their immediate implications for efficiency, these different productivity patterns may also have relevant long-term implications. In particular, persistent differences in TFP across various governance combinations could imply that certain ownership–management models are better positioned to support continuity and long-term firm survival.

As noted by Poutziouris et al. (2015), these results, which take different approaches to professionalization into account, are not valuable in themselves but help to understand the empirical disparities and even contradictions laid bare by the literature. For instance, Galve-Górriz and Salas-Fumás (2011) find a higher TFP in Spanish family firms than in their nonfamily counterparts in a group of large listed companies, which are presumably professionalized. Similarly, Stewart and Hitt's (2012) review of earlier literature suggests that performance gaps in favour of family firms compared to nonfamily firms are wider in listed firms than in nonlisted firms, which are presumably not as intensively professionalized. Kotey and O'Donnell (2002) find lower levels of efficiency among family firms than among nonfamily (and presumably less professionalized) firms in a sample of mid-sized firms.

On the other hand, the results suggest that family firms are less likely to delegate management to a third party outside the ownership and that greater size and organizational complexity increase the likelihood of professionalization, in line with Ortiz (2021). In this regard, although the percentage of professionalized family businesses increases with size, these proportions are still lower than those in nonfamily businesses, so there seem to be limiting factors to the effect of size in family businesses, such as the fear of losing control over family wealth or the desire to preserve the social ties formed around the family business. A greater reluctance to delegate management to a third party could be justified by arguments such as the pursuit of noneconomic family goals (Chrisman et al. 2014) and the desire to keep management within the nuclear family to preserve SEW (Chang and Shim 2015; Fang et al. 2017). Finally, it is also unsurprising that a high number of employees with ownership rights, even if they do not hold CEO positions, decreases the likelihood of professionalization, which is consistent with the desire to maintain the emotional links between the firm and ownership; this, however, is not exclusive of family firms, as shown by the descriptive statistics in Table 3, although the literature has tended to focus on family firms (Gomez-Mejia et al. 2007; Pollak 1985).

5.2 | Implications

Although the literature on family business has increasingly insisted on the need to better understand the sources of heterogeneity among family firms, nonfamily businesses are still perceived, when compared to family businesses, as large conglomerates run by professionals external to the ownership. To the authors' knowledge, this study is the first to address the differences triggered, in both family and nonfamily firms, by the transfer of management to a third party outside the ownership.

The double dichotomy used suggests that no major differences exist among professionalized firms, regardless of ownership, nor among non-professionalized firms when ownership is considered in isolation. As such, differences in productive efficiency are better explained if management approaches (professionalized vs. non-professionalized) are taken into account than by considering ownership model alone.

This contributes to the literature by emphasizing the need to incorporate heterogeneity in management models to the analysis of both family and nonfamily firms, while stressing the need for further research. In the future, research will have to establish whether simply comparing family and nonfamily firms is asking the right question or whether it is not more appropriate, in addition to distinguishing between professionalized and non-professionalized firms, to compare four categories instead of only two. As noted by Purkayastha et al. (2022), it is critically important to comprehensively consider all the variables that might affect a given phenomenon (in this instance, the effects of both ownership and management on efficiency in family and nonfamily firms) to work with better outlined research models and reach valid conclusions.

Likewise, from a managerial viewpoint, taking these variables into account leads to a better understanding of the implications of decisions that concern governance structure. In addition, the low proportion of professionalized family businesses in all size ranges, in combination with evidence that suggests that professionalized firms are more efficient, points to the conclusion that there is ample room for improvement for family businesses in terms of productive efficiency, moving toward the separation of ownership and management. From a sustainability perspective, these results suggest that professionalization may foster stronger long-term performance prospects, particularly for family firms. In this sense, professionalization can be understood not only as a managerial choice but also as a strategic decision with implications for the firm's sustained development over time. Conversely, nonfamily

businesses should incorporate some of the values embedded in family businesses, such as long-term orientation, commitment to the company and closer relationships between members.

It is worth encouraging governments to reduce obstacles to growth (Huerta and Salas 2014), both because of the direct effect of the intangible factors brought by size and because size fosters the professionalization of firms.

5.3 | Limitations and Future Directions

The literature has highlighted that there are multidimensional approaches to define professionalization beyond the binary definition of the 'presence/absence of a non-owner manager' (Dekker et al. 2015; Polat 2020). Regrettably, the database used does not provide data to explore this further, which would have led to more robust conclusions; future studies should address this issue. At any rate, the incorporation of external managers is key for professionalization, owing to their ability to initiate, execute and disseminate the principles of professional management (Hiebl and Li 2020; Fang et al. 2012), and for this reason, their presence has been regarded as a primary variable to define professionalization (Chang and Shim 2015; Chittoor and Das 2007; Lin and Hu 2007; Zhang and Ma 2009).

Similarly, it can be argued that the study of TFP does not consider relevant variables such as technological capital. However, our aim was not to exhaustively analyse the determinants of TFP but to emphasize the need to consider the heterogeneity that professionalization brings to the study of the differences between family and nonfamily firms, and TFP was used here as a mere tool for this.

Finally, future studies will have to analyse whether the professionalization of firms, whether family-owned or otherwise, affects other dimensions of the firm, such as the returns of R&D investment and the volume of exports. As noted, future research will also have to address other approaches to the notion of professionalization or examine why family firms are less likely than nonfamily firms to delegate management to external managers, since the evidence strongly suggests that this contributes to increasing productive efficiency.

6 | Conclusions

The aim of this study was to analyse the effect of ownership and the separation of ownership and management on performance. To this end, family and nonfamily firms were first compared as aggregate groups and subsequently disaggregated according to whether management is retained by the firms' owners or delegated to external managers.

After controlling for potential selection bias, the results show that family firms are, on average, marginally less productive than nonfamily firms in terms of TFP. However, this aggregate comparison conceals important nuances. Once the governance model is taken into account, some results remain similar, but others vary substantially. Among firms with separate ownership and management, family firms outperform nonfamily firms. The combination of the specific traits of family firms and the expertise of external managers appears to lead to higher productivity levels than those observed in professionalized nonfamily firms. Conversely, among non-professionalized firms, family firms display lower productivity than nonfamily firms.

Therefore, four main conclusions emerge. First, professionalization is positively associated with TFP. Second, within professionalized firms, family ownership combined with external management leads to better performance. Third, within non-professionalized firms, family ownership is associated with lower productivity. Fourth, ownership effects are therefore conditional upon managerial delegation, rather than having a uniform effect across all firms.

These results highlight the importance of moving beyond simple family versus nonfamily comparisons and incorporating managerial heterogeneity into empirical analyses. By identifying how different ownership–management combinations are associated with distinct productivity trajectories, this study presents a more nuanced understanding of firm performance and its implications for long-term organizational sustainability.

Author Contributions

The two authors contributed to the manuscript equally.

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Ethics Statement

This study did not involve human participants, animal subjects, or any procedures requiring ethical approval. Consequently, informed consent was not required.

Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

The data that support the findings of this study are available from SEPI Foundation. Access to the data is restricted and subject to a provision fee.

Endnotes

[1] See https://www.fundacionsepi.es/investigacion/esee/en/spresentacion.asp for further details.

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Appendix A

Annual Evolution of Several Variables.

TABLE A1 | Annual evolution of several variables.

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
GDP variation in %[a]	4.49	−0.96	−4.65	−0.66	−3.82	−4.81	−3.92	0.76	4.78	1.51
Unemployment rate in %	8.57	13.80	18.66	20.11	22.56	25.77	25.73	23.70	20.09	18.63
Total number of firms	901	976	1094	1094	1094	1094	1094	1094	1094	1024
Number of family firms	384	427	485	481	492	489	489	484	476	442
Number of nonfamily firms	517	549	609	613	602	605	605	610	618	582
Average number of employees per firm	296	278	244	238	239	233	229	231	234	243
Average number of employees per family firm	165	149	137	134	137	121	122	129	137	141
Average number of employees per nonfamily firm	394	378	328	317	322	327	292	302	310	308

Source: Own elaboration with ESEE.
[a]GDP variation rate is based on data provided by the Statistical National Institute (INE), whose values were updated to constant euros in 2016.

TABLE A2 | Evolution of value added in thousands of euros.

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total	25.410	23.124	18.209	17.697	17.189	16.137	16.482	18.395	20.161	22.432
Family firms	12.107	10.685	10.079	8.899	8.556	7.419	9.004	10.000	9.536	12.371
Nonfamily firms	34.203	30.666	24.684	24.600	24.244	23.291	22.527	25.080	27.341	29.034
Professionalized family firms	25.259	18.144	17.849	16.616	17.166	15.462	17.461	18.593	17.981	20.908
Professionalized nonfamily firms	51.987	45.412	36.426	37.229	38.168	36.207	34.663	39.101	43.268	46.859
Non-professionalized family firms	6.393	7.598	6.109	5.265	4.743	3.791	5.042	5.810	5.274	7.866
Non-professionalized nonfamily firms	4.221	4.072	3.130	3.091	2.467	1.899	2.283	3.038	3.643	4.310

Source: Own elaboration with ESEE.