REVISTA DE CONTABILIDAD

SPANISH ACCOUNTING REVIEW

revistas.um.es/rcsar

The effect of corporate governance factors on the quality of financial reporting in family and non-family firms

João Miguel Capela Borralho[a], Dolores Gallardo-Vázquez[b], Remedios Hernández-Linares[c], Inna Choban de Sousa Paiva[d]

a) Lusofona University, School of Economic Sciences and Organizations; Address: Campo Grande, Lisboa, Portugal.
b) University of Extremadura, Faculty of Economics and Business Studies; Address: Av de Elvas s/n, Badajoz, Spain
c) University of Extremadura, University Center of Mérida; Address: Av Santa Teresa de Jornet 38, Mérida (Badajoz), Spain.
d) Lisbon University Institute (ISCTE-IUL), Business Research Unit (BRU-IUL); Address: Av das Forças Armadas, Lisboa, Portugal.

[a]Corresponding author.
E-mail address: capelaborralho@hotmail.com

ARTICLE INFO

Article history:
Received 15 January 2019
Accepted 25 June 2019
Available online 1 July 2020

JEL classification:
G34
M41

Keywords:
Corporate governance
Family firms
Financial reporting quality
Spain

ABSTRACT

The objective of this study is to explore the quality of financial information of Spanish firms, by comparing family firms with non-family firms, and relating this quality with corporate governance practices. For this purpose, a sample of 650 Spanish firms was analysed during the period 2011-2016. Based on agency theory and socioemotional wealth literature, the results show a higher quality of financial information in family firms, a relationship which is reinforced by corporate governance factors. Our results are consistent with the scant previous research, and with the premises of agency theory, which indicate lower asymmetry of information between owners and managers in the singular context of family firms. Additionally, our work provides evidence that the participation of women on the board boosts the quality of financial information in family firms, contributing to the justification of family firm heterogeneity in terms of earnings management. This study contributes to reducing the gap in the literature on the influence of the family business context and the influence of women on the board on the quality of financial reporting.

El efecto de factores de gobierno corporativo en la calidad de la información financiera en empresas familiares y no familiares

Códigos JEL:
G34
M41

Palabras clave:
Gobierno corporativo
Empresas familiares
Calidad de los informes financieros
España

RESUMEN

El objetivo del estudio consiste en analizar la calidad de la información financiera de las empresas españolas, comparando las empresas familiares y las no familiares, y relacionando dicha calidad con las prácticas de gobierno corporativo. Para alcanzar este objetivo se analizó una muestra de 650 empresas españolas durante el período 2011-2016. Con base en la teoría de la agencia y en la literatura sobre la riqueza socioemocional, los resultados muestran una mayor calidad de la información financiera en las empresas familiares, relación que se ve reforzada por los factores de gobierno corporativo. Nuestros resultados son consistentes con la investigación previa y con las premisas de la teoría de agencia, que indican menores asimetrías de información entre propietarios y gestores en el singular contexto de las empresas familiares. Además, nuestro trabajo proporciona evidencia empírica de que la participación de las mujeres en el consejo de administración contribuye a la mayor calidad de la información financiera en las empresas familiares, contribuyendo a explicar la heterogeneidad de las empresas familiares en términos de gestión del resultado contable. El estudio contribuye a cubrir la brecha que existe en la literatura sobre la influencia del contexto de empresa familiar y la influencia de la presencia de las mujeres en el consejo sobre la calidad de la información financiera.

https://www.doi.org/10.6018/rcsar.358451

1. Introduction

The quality of financial information, taken to be reports on financial performance that are relevant and can be useful in assisting users in decision-making, has been the subject of increasing interest (García-Lara et al., 2017; Gavana et al., 2017). Empirical evidence reveals that the quality of financial reporting depends on the type of firm or the business context (Dechow et al., 2010). Family businesses offer a particularly suitable context for researching this topic. On the one hand, the family involvement in the firm mitigates conflicts of interest between shareholders and managers and, consequently, asymmetries that may undermine the process of financial reporting (e.g., Prencipe et al., 2011b). On the other hand, the family dominance over the governance bodies may lead majority shareholders to increase their benefits to the detriment of minority interests, which may in turn lead to lower-quality accounting information (Chi et al., 2015; Razzaque et al., 2016; Torchia & Calabrò, 2016). The influence of the family firm status on the quality of financial information remains controversial, and constitutes the first research gap that this article tries to cover. Moreover, the quality of financial information can be also influenced by corporate governance, understood as the "system by which organisations are directed, monitored and incentivised, involving relationships between owners, the board of directors, management and supervisory bodies" (Mazzioni et al., 2016, p. 65). The system of governance of family firms also seems to present singular characteristics. For instance, the concentrated position of families and their dominance over governance bodies may lead to more informal governance structures, and lesser independence of the administration as regards the family, which in turn generates uncertainties as to the effective supervision of managers in relation to discretionary accounting (Aguilera & Crespi-Cladera, 2012; Jaggi et al., 2009). However, as a consequence of their long-term orientation (Lumpkin et al., 2010), family firms are more sensitive to image problems and the need to convey an environment of trust and transparency in outside financial reporting. This concern for reputation may influence family firms to adopt singular governance practices and to present higher quality financial information (Liu et al., 2016). These inconsistencies in the corporate governance of family firms constitute the second research gap identified.

To contribute to closing the two research gaps above identified, this study aims to analyse the influence of the family firm status on the quality of financial information, and to research the effect of diverse corporate governance factors (non-duality between the president and CEO of the family firm, board size, proportion of women on the board, and size of the audit firm) on quality of financial reporting of family firms versus non-family firms. To reach these objectives is important for two main reasons. First, family firms, defined as those firms where there is "significant family involvement or support" (Debicki et al., 2009, p. 152), are the dominant business model across the globe, ranging from 75% to 95% of firms in Western Europe (Lank, 1995; Prencipe et al., 2014). In Spain, family businesses account for about 90% of commercial companies and generate about 60% of gross value added (Instituto de la Empresa Familiar – IEF henceforth – 2015). Second, since the crisis of 2008, corporate governance has been the subject of new concerns, as evidenced in codes of conduct, as a way to convey to markets a climate of trust and transparency in financial reporting (OECD, 2016).

Based on the assumptions of agency theory (Jensen & Meckling, 1976) and on the socioemotional wealth (SEW) literature (Gómez-Mejía et al., 2007), this study investigates both the quality of financial information in family versus non-family firms, and the influence of governance mechanisms adopted by these firms on the quality of this information. Our theoretical model is empirically tested with a sample of 650 large Spanish firms. The results show that family firms tend to present better quality financial information than their non-family counterparts, and that adoption of governance practices, such as the existence of non-duality between the president and CEO of the firm and the proportion of women on the board, represents an effective mechanism for family firms in restricting problems of discretionary accounting.

This study makes at least three contributions to the literature. First, it adds to the literature on corporate governance (e.g., Bona-Sánchez et al., 2018), reporting that the adoption of certain practices in governance mechanisms contributes to substantial improvements in the quality of financial reporting in family firms, and that the lower independence of governance bodies in these firms does not appear to hamper this quality. Second, it contributes to the literature on quality of financial information (e.g., Cascino et al., 2010; Prencipe et al., 2011b; Torchia & Calabrò, 2016), showing that, in the context of concentrated ownership, family firms are more likely than non-family firms to restrict earnings management. This often leads to increased confidence for users of financial information when considering how governance bodies affect accounting policies in both family and non-family firms, as well as for firms which are considering the effectiveness of resources applied in the field of governance, namely in the separation of CEO roles, managerial size and gender diversity. Finally, our results also have important theoretical implications for the discussion on the effects of agency and SEW.

The article is structured as follows: after this introduction, we address the theoretical foundations for the quality of accounting information and for corporate governance, and present the research hypotheses. The third section presents the research methods and describes the sample, the variables and the theoretical model. The fourth section presents both the results and robustness analysis. Finally, we discuss the results, present our conclusions, and propose some suggestions for future work.

2. Theoretical Grounding and Definition of Hypotheses

2.1. Quality of financial information and family firms

Agency theory (Jensen & Meckling, 1976) is strictly focused on problems rooted in the separation of ownership and control. According to this theory, conflicts of interest may emerge between owners and managers if the latter act in their own interest to the detriment of shareholders (type I agency problem), as well as between majority and minority owners, since the former can derive benefits at the expense of other interested parties (type II agency problem). The characteristics of family firms seem to increase the likelihood that managers will act in the best interests of shareholders, as families tend to hold a concentrated position in their firms and thus have a strong incentive to control their managers (Demsetz & Lehn, 1985). This reduces the type I agency problems and, in turn, the manipulation of financial reports (Tong, 2007). However, majority family ownership and its domination over the composition of the board of directors can bring private benefits to the family to the detriment of the interests of minority owners, generating the type II agency problems (Paiva et al., 2019).

The literature based on listed firms suggests that type I agency problems are less acute in family firms and result in better quality financial reporting practices in samples from firms in countries such as the United States, Canada, England and Italy (Ali et al., 2007; Cascino et al., 2010; Jiraporn & DaDalt, 2009; Landry et al., 2013; Prencipe et al., 2011b; Wang, 2006). However, some studies conducted in emerging economies, such as Thailand or China, have observed contrasting results, suggesting that family firms face more serious type II agency problems than non-family firms. Majority family control combined with potentially fragile corporate governance structures places founding families in an extraordinarily powerful position for extracting private gains at the expense of other minority owners (Ding et al., 2007, 2011). The discrepancy of results seems to indicate that the interpretation of the quality of financial information in family firms may depend on the country and other characteristics of family firms (Ferramosca & Allegrini, 2018; Gavana et al., 2017; Jara & López, 2014).

Studies based on Italian firms with concentrated ownership have shown that quality financial information occurs at the highest levels of family participation, as at lower levels the family has no power to act opportunistically (Ferramosca & Allegrini, 2018). This quality is reinforced by the moderating role of the family when senior management has experience and knowledge such that interests and benefits are aligned and lead to manager performance benefitting the organisation (Ferramosca & Allegrini, 2018).

As in other countries from Continental Europe (Cascino et al., 2010; Prencipe et al., 2011b; Torchia & Calabrò, 2016), in Spain, both family and non-family firms have a concentrated ownership structure (Claessens & Tzioumis, 2006). Therefore, the type I agency problem may be attenuated in family firms given the lower agency costs between shareholders and managers. Moreover, this ownership concentration is often linked to higher stability in management positions, mostly assigned to the family or to its trusted representatives (Prencipe & Bar-Yosef, 2011a). This seems to benefit the long-term interests of the family business and its different stakeholders (minority shareholders included), mitigating type II agency problems (Ferramosca & Allegrini, 2018; Torchia & Calabrò, 2016) and thus enabling a higher quality of accounting information. In addition, unlike non-family firms, family businesses are willing to sacrifice part of their financial wealth in favour of maintaining their SEW, defined as those "non-financial aspects of the firm that meet the family's affective needs, such as identity, the ability to exercise family influence, and the perpetuation of the family dynasty" (Gómez-Mejía et al., 2007, p. 106). Family firms tend to be concerned for the long-term value of their companies, and for maintaining their reputational capital. Hence, they tend to avoid earnings management practices, since such practices could be considered detrimental to the future of the company (Martin et al., 2016). All the above arguments lead us to propose that family firm status boosts the quality of financial information. We formally propose the following hypothesis:

> *H1: Family firm status is positively associated with the quality of financial information compared to non-family firms.*

2.2. Quality of financial information and corporate governance

The literature on listed firms reports that dispersed ownership structure and other government measures positively influence the quality of financial information (Alves, 2011, 2014; Bona-Sánchez et al., 2018; Callao-Gastón et al., 2008). However, this topic is under-researched in the family business context. Hence, we propose researching how different factors related to corporate governance influence the quality of accounting financial information in family firms. In particular, we focus on studying four corporate governance-related factors: the existence of non-duality between the president and CEO of the family firm, the board size, the proportion of women on the board, and the size of the audit firm.

In corporate governance, the board of directors is the ultimate decision-making body and is the liaison for guiding and supervising management's relationship with stakeholders, including the financial reporting process (CNMV, 2015; Cohen et al., 2002; Torchia & Calabrò, 2016). Consequently, it constitutes a key mechanism for aligning interests between shareholders and managers, by reducing information asymmetries and improving the quality of financial information (Callao-Gastón et al., 2008; Monterrey-Mayoral & Sánchez-Segura, 2008; Torchia & Calabrò, 2016). To complement these studies, and considering that family governance differs from non-family firms' governance (Aguilera & Crespi-Cladera, 2012; Jaggi et al., 2009; Liu et al., 2016), we first analyse to what extent accounting information is influenced by CEO non-duality. CEO non-duality consists of separating the CEO's responsibility for strategic functions from those of the board of directors. The fact that the same person exercises the functions of CEO and president leads to a concentration of power and thus the level of supervision of the administration tend to be reduced, due to the accumulation of duties and significant influence on the administrative bodies, which impedes the effectiveness of control mechanisms in alignment of interests (Torchia & Calabrò, 2016). In this scenario, effective supervision by the board may be compromised in view of the CEO's ability to dominate and restrict information from the board, and single leadership may create constraints on the remaining board members' ability to raise difficult or critical issues or make correct judgments (Liu et al., 2016). Some studies have argued that duality may contribute to lower quality financial information (Dunn, 2004; Monterrey-Mayoral & Sánchez-Segura, 2008), whether related to earnings management (Davidson et al., 2004) or in information dissemination indexes (Liu et al., 2016; Torchia & Calabrò, 2016). All these arguments lead us to believe that the separation of the CEO's functions from those of the chairman of the board of directors contributes to higher quality financial information in family firms. Hence, we formally propose the following hypothesis:

> *H2a: The existence of non-duality between the president and CEO of the firm is positively associated with the quality of financial information in family firms.*

The size of the board can also cause constraints on financial reporting (Monterrey-Mayoral & Sánchez-Segura, 2008), since a smaller size will not allow adequate management supervision and a larger size may create inhibitions regarding strategic decisions (Caravaca-Sánchez et al., 2012). The smaller size of the board may lead to better quality financial information, given the low level of dispersion of responsibilities regarding management control (Torchia & Calabrò, 2016). However, contrary arguments consider that the size of the board will be directly related to the size of the firm, since a larger size of company may generate greater complexity, leading to the requirement of a larger board, with its members having some specialisation with a view to facilitating supervisory mechanisms. Based on these arguments, Monterrey-Mayoral & Sánchez-Segura (2008) found a posit-

ive association between board size and the quality of financial information. Thus, in line with previous studies, we state a new corporate governance-related hypothesis as follows:

H2b: The size of the board of directors is positively associated with the quality of financial information in family firms.

Gender diversity is one of the most recent concerns of the Code of Conduct in Spain after the change in 2015, which is mandatory for listed firms. However, the link between the presence of women on board and quality of financial information remains controversial (Arun et al., 2015; Damak, 2018; Gallego-Álvarez et al., 2010). Literature reports that women are more professionally ethical and less likely to act immorally, because they are more sensitive to the risk of loss of reputation and of lawsuits (Gull et al., 2018). On the basis of these arguments, gender complementarity would lead to better quality financial reporting in firms which have greater representation of women on the board of directors (Arun et al., 2015; Damak, 2018; Gull et al., 2018). In addition, lower levels of earnings management were found in firms in countries where concern with the theme of gender diversity is highest (Kyaw et al., 2015). Thus, the representation of women on the board of directors may be associated with better governance practices, aspects which may influence internal control systems and consequently the quality of financial information (Adams & Ferreira, 2009; Caravaca-Sánchez et al., 2012; Gallego-Álvarez et al., 2010; García-Lara et al., 2017; Pucheta-Martínez et al., 2018). In line with the above arguments, the following research hypothesis can be formally stated:

H2c: The proportion of women on the board of directors is positively associated with the quality of financial information in family firms.

In the field of external monitoring, research reports that larger auditors (Big 4 – KPMG, EY, PWC, and Deloitte) are more likely to restrict earnings management in listed firms as a way of maintaining their independence (Jara & López, 2007; Kim et al., 2003). However, for unlisted firms, it is considered that larger auditors lower the risk of litigation and loss of reputation (Cano-Rodríguez et al., 2016), and therefore are not associated with higher audit quality in these firms (Park, 2015). Although the results of research remain inconclusive, empirical evidence seems to show that earnings management in unlisted firms happens in clients of both Big 4 companies and non-Big 4 clients (Cano, 2007) and that the higher audit quality carried out by the Big 4 will be more likely to occur when litigation risk increases, which is associated with publicly traded companies and with dispersed shareholder ownership (Tendeloo & Vanstraelen, 2008). Thus it is expected that the risk of litigation will be lower in family firms, given the concentration of ownership. Therefore, in line with other studies (Aguilera & Crespi-Cladera, 2012; Desender et al., 2014), we do not associate higher quality financial information with larger audit firms, leading to the formulation of the following research hypothesis:

H2d: The size of the audit firm is negatively associated with the quality of financial information in family firms.

2.3. Quality of financial information and corporate governance: family firms vs. non-family firms

The commitment of families with their wealth invested in the firm leads to relationships based on trust being established, bonds of loyalty being created among employees and a collective culture based on family values which allows them to obtain competitive advantages in identifying and satisfying the needs of their clients (Samara & Arenas, 2017; Zahra et al., 2004). Family firms are more sensitive to aspects of corporate reputation because of the closer association of the firm with the family name, especially in the case of incorporated or inherited firms compared to acquired firms (Pazzaglia, et al., 2013; Stockmans et al., 2013). In addition, family firms are often concerned with the perpetuation of the family dynasty (Gómez-Mejía et al., 2007), which implies transferring a healthy firm to the family's heirs, and constitutes an additional reason for caring about outside visibility and reputation (Deephouse & Jaskiewicz, 2013; Paiva et al., 2019), given that reputation constitutes an intangible asset associated with value creation, which is expected to yield better returns (Gómez-Mejía et al., 2014; Villalonga & Amit, 2010). Corporate reputation is influenced by the information provided by firms to the outside, the effect of which may harm the firm's image if the information is considered unethical, driving away the interest of investors and backers and increasing the vigilance of authorities (Brammer & Pavelin, 2004; Yang, 2010). However, if the information is considered to be of higher quality, this reduces asymmetries with stakeholders, increasing interested parties' confidence levels and bringing potential beneficial effects for the firm and markets (García-Sánchez & Martínez-Ferrero, 2016). Therefore, considering the long-term perspective of family firms and the need for reputation as a way of transmitting wealth to future generations (Chen et al., 2008), and bearing in mind that family and non-family firms have different governance practices (Aguilera & Crespi-Cladera, 2012) with family taking a role in decision-making bodies, we propose the following research hypothesis:

H3: The relationship between characteristics of corporate governance and the quality of financial information is stronger in family firms than in non-family firms.

3. Methods

3.1. Population and sample

The population for our study was selected from the SABI (Sistema de Análisis de Balances Ibéricos – System of Iberian Balance Sheets) database, which has been used by other family business studies (e.g., Hernández-Linares et al., 2018a; Terrón-Ibáñez et al., 2019). Our target firms were limited to large firms, similar to other studies (Arnedo et al., 2007), and in particular to firms with a business volume of more than € 100,000,000 in 2015. Of the firms selected, we eliminated those related to the financial and insurance sector, as is common in this type of studies (Cascino et al., 2010; González & García-Meca, 2014; Pazzaglia et al., 2013), as well as firms that do not have values for all indicators in the model. A total of 3,887 observations (1,427 family firm and 2,460 non-family firm observations) were finally obtained (9% of them corresponding to listed firms), in the 6-year period of analysis, from 2011 to 2016.

Table 1 shows the main characteristics of the sample. The weight of family firms in the sample is 36.7%, which is con-

sistent with previous studies (e.g., 39.15% reported by Claessens & Tzioumis, 2006), but is lower than the most recent data published by the IEF (2015). This difference may be associated with the larger size of the firms included in our sample.

Table 1
Observations by activity sector

Observations by activity sector	Total sample				Listed	Unlisted	Family	Non- family
	No.	%	Average volume of business (10^6 €)	Average age (in years)	No.	No.	No.	No.
Agriculture and food (SIC 1)	487	13%	1,248	32.5	48	439	221	266
Industry (SIC 2 and 3)	938	24%	1,232	32.7	102	836	272	666
Construction and commerce (SIC 4 and 5)	1,367	35%	910	30.2	102	1,265	517	850
Services (SIC 6,7 and 8)	1,095	28%	820	24.9	96	999	417	678
Total	3,887	100%	1,005	29.6	348	3,539	1,427	2,460
%					9%	91%	37%	63%

3.2. Variables

3.2.1. Dependent variable

We used the discretionary accruals metric, laid out in the models of Jones (1991) and Kothari et al. (2005), as a measure of earnings management, a notion introduced by Schipper (1989) and developed by García-Osma et al. (2005). This is a question of any deliberate practice by managers with opportunistic and/or informative purposes in presenting the level of desired results; thus, by an inverse process we obtain an approximation of the quality of accounting information, in line with other studies (Stockmans et al., 2013). We chose the discretionary accruals method as it is more consistent with the accruals method, on which managers can exercise discretionary accounting (Pereira & Alves, 2017). The aim of the models used is to separate the expected component of accounting results that have not yet resulted in cash flow from the unexpected component, which is interpreted as earnings management (Dechow et al., 1995; Jara & López, 2007).

3.2.2. Independent variables

Family firm (FAMILY). Given the absence of a database of family firms in Spain, we classified family firms based on the information available in the SABI database. We adopted the procedure defined by Rojo-Ramírez et al. (2011), and corroborated as effective by several studies (e.g., Diéguez-Soto & López-Delgado, 2018; López-Delgado & Diéguez-Soto, 2015). This procedure establishes two requirements: (1) a concentration of capital of more than 50% belonging to a family, natural person or legal entity; and (2) the same surname among members of the board of directors or majority shareholders. Thus, the variable FAMILY is a binary variable that assumes values of 1 or 0, according to whether the firm is classified as family or not (Ali et al., 2007; Sue et al., 2013; Vieira, 2016).

Non-duality of the CEO (N-DUAL). This variable identifies whether the CEO's functions are separate from those of the chairman of the board of directors. Thus, if these functions are performed by different people, the N-DUAL variable assumes a value of 1, and 0 otherwise (Monterrey-Mayoral & Sánchez-Segura, 2008).

Size of the board (SIZE-B). This variable is calculated by dividing the number of managers by the logarithm of the total assets (Anderson & Reeb, 2003; Monterrey-Mayoral & Sánchez-Segura, 2008), which allows us to consider the size of the firm along with the number of board members.

Gender. This variable corresponds to the representation of women on the board of directors, and is measured by dividing the number of women by the total number of members of this body (Gull et al., 2018; Kyaw et al., 2015).

Audit quality (AUD). This quality is analysed via the size of the audit firm (Big 4), with the variable is assigned a value of 1 if the firm is audited that year by a Big 4 company rather than other auditors, in which case the variable is coded as a value of 0 (Jara & López, 2007).

3.2.3. Control variables

First, we controlled for the size (SIZE), because larger firms are subject to greater regulation and control by the scrutiny of financial analysts and are expected to have more advanced internal control systems, which reduces the possibility of earnings management practices (Paiva et al., 2019; Sánchez-Ballesta & García-Meca, 2007). We used the asset logarithm to measure this variable (Cascino et al., 2010; Paiva et al., 2019). Second, we controlled for indebtedness (LEV), because the most indebted firms are subject to rigorous analysis by creditors, and therefore have a greater propensity to report higher quality financial information (Pazzaglia et al., 2013), as well as a higher propensity to manipulate unexpected accounting results in order to avoid disclosure to backers (González & García-Meca, 2014; Paiva et al., 2019). Specifically, indebtedness is measured as the ratio of total liabilities to total assets. We then controlled for return on assets (ROA), measured as the quotient between operating result and total assets, because low levels of profitability seem to be associated with higher levels of earnings management (Ali et al., 2007; Kothari et al., 2005). This, however, may not be the case, either because the desired level of performance has already been achieved or because managers wish to convey improvements in performance (Leuz et al., 2003). Fourth, we controlled for cash flow from operations (CFO), establishing the relationship between this variable and total assets, because firms with higher levels of cash flow and greater variability in accounting results are more likely to carry out earnings management (Paiva et al., 2019). The fifth control variable is the age of firm (Age), measured as the number of years from its inception to the year of observation (Hernández-Linares et al., 2018a; Michelon & Parbonetti, 2012). We controlled for this variable because literature has suggested that earning management might depend on firm age (e.g., Stockmans et al., 2013). Sixth, we controlled for the intensity of intangible assets (INTANG), via the relation between the value of intangible assets and the total assets (Cascino et al., 2010; Moura et al., 2014). According to these authors, the fact that firms seek greater competitiveness leads to assets associated with greater information requirements being intensified, given the greater risk associated with this undertaking. In addition, we controlled the effect of being a listed or a non-listed firm (Listed), through a binary variable that has a value of 1 if the firm is listed and 0 otherwise. The greater demand on listed firms in their financial information leads to the belief that they present higher quality financial information (Arnedo et al., 2007). Eighth, we controlled for the effect of the 2008 crisis period in Europe on earnings management, introducing a dummy variable (Crisis) for the period of 2011 and 2012 (Miralles-Quirós et al., 2017). Given the acute economic and financial crisis experienced in this period in the Iberian Peninsula, a positive relationship with discretionary accruals can

be expected. Finally, and in line with other researches on the quality of financial information (Cascino et al., 2010; Paiva et al., 2019), we controlled for the activity sector effect via binary variables (Industry) which have a value of 1 if the observation belongs to a given sector and 0 otherwise.

3.3. Measurement of the quality of financial information

We used discretionary accruals as an approximate measure of the quality of financial information (Cascino et al., 2010; Gavana et al., 2017; Mazzioni et al., 2016; Moura et al., 2014; Silva & Costa, 2017) measured by Jones' modified model (Dechow et al., 1995) in its cross-section version, which is estimated by activity sector and year. This model has been used in recent studies (Arun et al., 2015; Ferramosca & Allegrini, 2018; García-Lara et al., 2017). The application of the model, presented in equation (1), consists of calculating total accruals via the difference between the result of the period before outstanding items and cash flow from operations for each firm-year. Thus, in the absence of earnings management, the increases/decreases in net current assets will correspond to the part of the period result which has not yet originated cash flow:

$$TA_{i,t}/AST_{i,t-1} = \alpha/AST_{i,t-1} + \beta(\Delta SALES_{i,t} - \Delta CLIENTS_{i,,t})/AST_{i,t-1} + \mu INVEST_{i,,t}/AST_{i,t-1} + \varepsilon_{i,t} \quad (1)$$

Where i = number of firms (1 to 650); t = year (2011 to 2016); TA = total accruals (period results – cash flow from operations); ΔSALES - ΔCLIENTS = change in turnover (turnover t - turnover t-1), deducted from the change in clients (clients t - clients t-1); INVEST = tangible and intangible fixed assets; AST = assets from the previous year; and finally i,t = residues of firm i, in period t, which represent discretionary accruals.

In order to corroborate the results obtained, we also applied Jones' modified model adjusted for ROA (Kothari et al., 2005), which is estimated by equation (2), by year and activity sector. This model corresponds to a modification put forward by Kothari et al. (2005) to Jones' modified model (Dechow et al., 1995), based on the assumption that discretionary accruals are correlated with the firm's current and past performance. Reguera-Alvarado et al. (2015) analysed the model and observed that it is effective in the context of Spanish firms, reducing the potential specification problems of Jones' modified model (Dechow et al., 1995) for firms with extreme financial performance.

$$TA_{i,t}/AST_{i,t-1} = \alpha/AST_{i,t-1} + \beta(\Delta SALES_{i,t} - \Delta CLIENTS_{I,,t})/AST_{i,t-1} + \mu INVEST_{i,,t}/AST_{i,t-1} + wROA_{i,t}/AST_{i,t-1} + \varepsilon_{i,t} \quad (2)$$

To control variable heteroscedasticity problems, we proceeded to the determination of discretionary accruals, dividing all the values of the variables of equations (1) and (2) by the corresponding value of the previous year's assets.

3.4. Research model

We tested the hypotheses defined by using a multiple linear regression (ordinary least squares – OLS) (Cascino et al., 2010; Paiva et al., 2019; Prencipe et al., 2011b), where the dependent variable is the discretionary accruals module as an inverse measure of the quality of financial information, and the independent variables are family, non-duality (N-DUAL), size of board of directors (SIZE-B), gender and size of the auditing firm (AUD). The variables of firm size (SIZE), indebtedness (LEV), profitability (ROA), cash flow (CFO), age, asset intangibility (INTANG), being listed, crisis years (Crisis) and sector (Industry) are control variables, as shown in the following model:

$$DA = \alpha + \beta_1 FAMILY + \beta_2 N-DUAL + \beta_3 SIZE-B + \beta_4 Gender + \beta_5 AUD + \beta_6 SIZE + \beta_7 LEV + \beta_8 ROA + \beta_9 CFO + \beta_{10} Age + \beta_{11} INTANG + \beta_{12} Listed + \beta_{13} Crisis + \beta_{14} Industry + \varepsilon \quad (3)$$

The relationship between the dependent variable and the type of firm allows us to see if family firms present higher quality information compared to non-family firms (Hypothesis 1), while the association between the same dependent variable and the variables related to corporate governance aim to ascertain if governance-related factors lead to reinforcing that quality, in the first phase in family firms (Hypotheses 2a to 2d) and finally, in the second phase comparing family and non-family firms (Hypothesis 3).

4. Results

4.1. Descriptive statistics

The quantitative variables used in the research are presented in Table 2, which shows that the measurements of dependent variable values, discretionary accruals determined by Jones' modified model (Dechow et al., 1995) – DA (J) and Jones' modified model for ROA (Kothari et al., 2005) – DA (K) are lower for family firms than non-family, and had statistically significant difference in the means. In the remaining variables, there are also differences, and it should be noted that family firms are smaller, have higher average seniority and have lower levels of cash flow from operations.

Table 2
Descriptive statistics for dependent and independent variables

	N	DA (J)	DA (K)	SIZE B	Gender	SIZE
Sample	3,887					
Mean		0.069	0.065	6.648	0.137	5.413
Median		0.046	0.043	5	0.071	5.292
Standard deviation		0.073	0.068	4.842	0.182	0.649
Difference in means (t-stat.)						
- Family vs.	1,427	-0.010***	-0.011***	-0.017	0.048***	-0.149***
- Non-family	2,460					
	N	**LEV**	**ROA**	**CFO**	**AGE**	**INTANG**
Sample	3,887					
Mean		29.024	5.350	6.788	29.591	0.082
Median		25.895	4.627	6.467	24	0.020
Standard deviation		22.898	8.859	19.907	20.932	0.146
Difference in means (t-stat.)						
- Family vs.	1,427	-0.704	0.539*	-0.007	2.702***	-0.010**
- Non-family	2,460					

***p < 0.01; **p < 0.05; *p < 0.1

The frequency of the qualitative variables is presented in Table 3, where, essentially, the distribution between family firms (36.7%) and non-family firms (63.3%) can be seen, as well as the greater expression of CEO duality at the level of family firms, which have a larger proportion of smaller auditors.

Table 4 shows the correlation matrix, which reveals that the degree of correlation between the independent variables is not high, since the coefficients obtained are lower than 0.6, under the recommended threshold of 0.65 (Tabachnick & Fidell, 2012).

Table 3
Frequency of qualitative variables

Variables	No (0)	%	Yes (1)	%	Total	Diff. in Means (t-stat.)
Family/ Non-family (FAMILY)	2,460	63.3	1,427	36.7	3,887	
Dummy DA (K)	2,546	65.5	1,341	34.5	3,887	
Non-Duality	1,759	45.3	2,128	54.7	3,887	-0.055***
Family	694	48.6	733	51.4	1,427	
Non-family	1,065	43.3	1,395	56.7	2,460	
Big 4 Auditors	1,056	27.2	2,831	72.8	3,887	-0.225***
Family	591	41.4	836	51.6	1,427	
Non-family	465	18.9	1,995	81.1	2,460	
Crisis	2,591	66.7	1,296	33.3	3,887	-0.001

$^{***}p < 0.01$; $^{**}p < 0.05$; $^{*}p < 0.1$

4.2. Multivariate analysis

The results of linear regression are shown in Table 5. Initially we only analysed the control variables for the whole sample (column 1) and then the significance of the family variable also for the whole sample (column 2). Subsequently, we separated the sample into the family (columns 3 and 4) and non-family firms (columns 5 and 6), with the respective results presented for control variables and for variables related to governance.

As can be seen, the model is significant for an acceptance level of 0.05, with a low degree of explanation when the total sample is analysed only with the control variables (6.7%). This is substantially increased in family firms with the control variables (14.4%) and when governance variables are introduced (16.9%). Other research that followed this model obtained close or lower levels of explanation (Cascino et al., 2010; Paiva et al., 2019).

As can be seen from the results in column 2, the family variable has a strong negative statistical association with the quality of financial information (β = -1.228, $p < 0.01$), leading to lower discretionary accruals in family firms. This result confirms the first research hypothesis, showing evidence of better quality financial information in family firms than non-family. Our results are in line with previous literature (Cascino et al., 2010; Jara & López, 2014; Prencipe et al., 2011b; Stockmans et al., 2010).

Regarding the research hypotheses related to governance mechanisms, the results show a negative significance between earnings management and the CEO non-duality variable (β = -0.970, $p < 0.01$), supporting hypothesis 2a, which proposed that the existence of non-duality between the president and CEO of the firm would be positively associated with the quality of financial information in family firms. Our results indicate that management independence and supervision lead to better quality financial information, consistent with previous studies (Alves, 2011, 2014; García-Osma, 2008; Monterrey-Mayoral & Sánchez-Segura, 2008). However, hypothesis 2b, which proposed that the board size would be positively associated with the quality of financial information in family firms, was not supported (β = -0.200; n.s.) although the sign of the variable is consistent with our initial expectations. Although bigger boards seem to promote the quality of financial information (Alves, 2011; Monterrey-Mayoral & Sánchez-Segura, 2008), and considering that the mean size of boards in family and non-family firms are very similar (6.64 and 6.65 members, respectively), we think that in the family business context, this effect may be neutralized by the higher sensitivity of family firms to aspects of corporate reputation (Berrone et al., 2010; Martin et al., 2016). In family firms there is a lower proportion of external members on boards than in their non-family counterparts (Jaggi et al., 2009; Prencipe & Bar-Yosef, 2011a; Stockmans et al., 2013), and although the bigger board size allows the company to include more family members on the board, this may not influence the quality of their accounting information. That is, given that family members often represent a high proportion of the board members both in bigger and smaller boards, the concern of family for avoiding damage to the corporate reputation may not be higher in companies with bigger board size. Despite this, the size of the board of directors revealed a positive statistical association with the quality of financial information in non-family firms, similar to findings from Monterrey-Mayoral & Sánchez-Segura (2008). Hypothesis H2c proposed that the proportion of women on the board of directors would be positively associated with quality of financial information in family firms. Our results support this hypothesis (β = -0.028, $p < 0.01$). This result seems to corroborate that women are associated with best practices in corporate governance (García-Lara et al., 2017) and that the presence of women on the board of directors of Spanish firms favours correctness and good governance practices, with a positive effect on the quality of financial information (Caravaca-Sánchez et al., 2012). Finally, the variable of the size of auditor shows a positive statistical significance (β = 1.227, $p < 0.01$), supporting hypothesis 2d, which established that the size of the audit firm would be negatively associated with the quality of financial information in family firms. Our results, hence, reveal that non-Big 4 audit firms are associated with a higher quality of financial information. This result is contrary to the idea that the Big 4 are often associated with a higher quality of auditing (Jara & López, 2007), due to their higher resources and their higher independence as a consequence of their broader client portfolio, although this will depend on reputational and litigation risk (Cano, 2007; Tendeloo & Vanstraelen, 2008). This risk seems to be lower in non-listed companies (Tendeloo & Vanstraelen, 2008) and especially in family firms due to the smaller asymmetries of information and smaller agency costs (Prencipe et al., 2011b). Our results, hence, are consistent with the size in the sample of unlisted firms (Cano, 2007; Tendeloo & Vanstraelen, 2008) given that smaller conflicts of interest occur in these family firms (Ali et al., 2007; Cascino et al., 2010; Jiraporn & DaDalt, 2009; Landry et al., 2013; Prencipe et al., 2011b; Wang, 2006) and there will be less motivation for hiring a Big 4 audit firm. Indeed, the Big 4 are hired by the 51.6% of family firms versus 81.1% of non-family firms, a difference that has been pointed out by previous studies (Kvaal et al., 2012).

To examine hypothesis 3, and in line with other studies (e.g., Zahra et al., 2004), we used the Chow test (Chow, 1960) to determine the significance of the differences between sub-samples of family (column 4) and non-family firms (column 6). The result obtained from this test supports hypothesis 3, which established that the relationship between the characteristics of corporate governance and the quality of financial information would be stronger in family firms (change of 2.5% in R^2) compared to non-family (change of 0.7% in R^2). We also compared the coefficients of governance variables for each pair of equations and found that the statistical significance of the non-duality variable was stronger in family firms ($p < 0.01$) than in non-family ($p < 0.05$), while the variables of gender and size of auditor are significant in family firms ($p < 0.01$), but not in non-family. The exception concerns the variable of the size of the board, which is only significant in non-family firms ($p < 0.05$). In general, our results support hypothesis 3.

Table 4
Correlations

Var.	1 DA (J)	2 DA (K)	3 FAMILY	4 N-DUAL	5 SIZE-B	6 Gender	7 AUD	8 SIZE	9 LEV	10 ROA	11 CFO	12 Age	13 INTANG	14 Listed	15 Crisis
1 DA (J)	1														
2 DA (K)	-	1													
3 FAMILY	-0.078***	-0.084***	1												
4 N-DUAL	-0.069***	-0.073***	-0.061***	1											
5 SIZE-B	-0.135***	-0.158***	0.019	0.291***	1										
6 Gender	-0.052***	-0.047***	0.124***	0.068***	0.069***	1									
7 AUD	0.007	0.002	-0.248***	0.069***	0.026	0.006	1								
8 SIZE	-0.212***	-0.189***	-0.118***	0.008	0.185***	-0.042**	0.286***	1							
9 LEV	0.027*	0.030*	-0.006	-0.005	0.042**	0.032**	0.071***	0.248***	1						
10 ROA	0.012	0.048***	0.030*	0.046***	-0.043***	-0.021	-0.047***	-0.028*	-0.284***	1					
11 CFO	0.021	0.052***	-0.060***	0.028*	-0.025	-0.020	0.046***	0.017	-0.202***	0.531***	1				
12 Age	-0.115***	-0.112***	0.062***	0.114***	0.220***	0.014	0.027*	0.193***	-0.023	-0.037**	-0.015	1			
13 INTANG	-0.076***	-0.087***	-0.031*	0.049***	0.151***	-0.033**	0.161***	0.216***	0.206***	-0.021	0.039**	-0.072***	1		
14 Listed	-0.161***	-0.200***	-0.009	0.090***	0.355***	-0.008	0.168***	0.426***	0.100***	-0.018	-0.013	0.286***	0.228***	1	
15 Crisis	0.031*	-0.005	-0.006	0.002	0.005	0.000	0.003	-0.010	0.052***	-0.037**	-0.039**	-0.060***	0.013	0.013	1

***p < 0.01; **p < 0.05; *p < 0.1

The control variables are generally significant, showing that size has a negative association with the discretionary accruals (β = -2.145, p < 0.01), while indebtedness (β = 0.032, p < 0.01) and cash flow from operations (β = 0.027, p < 0.05) are positively associated with discretionary accruals. Firm age (β = -0.022, p < 0.01) and intangibility of assets (β = - 0.024, p < 0.01) are negatively associated with discretionary accruals, which implies that firms that are older and have larger intangible investments have higher quality financial reports. A similar result was found for listed firms (β = -1.683, p < 0.01), reporting that these firms are subject to higher requirements in their accounting information. The variable of profitability showed a significant negative sign when the sample was separated into family (β = 0.222, p < 0.01) and non-family firms (β = -0.059, p <0.01), which may be due to lower pressure attributed to the former on their short-term financial performance.

4.3. Robustness analysis

With a view to assessing the validity and robustness of the evidence obtained, Table 6 shows the results obtained by the multiple logistic regression that associates the quality of the financial information, as an inverse measure of discretionary accruals determined by Kothari et al. (2005) model, with the independent and control variables presented in the previous model. Following the procedure put forward by Prior et al. (2008), we converted the discretionary accruals variable into a binary variable that has a value of 1 if the amount of that variable is greater than or equal to the average of the observations by sector and year, and 0 otherwise.

From the variables considered, this model allows an estimation of the probability of a firm presenting quality financial information or not, distinguishing variables with statistical significance (Wald test). We employed this model, which has been used by several authors (Callao-Gastón et al., 2008; García-Osma, 2008; Prior et al., 2008), as it does not require strict compliance with multivariate normality assumptions (López-Iturriaga & Zarza-Herranz, 2010). The capacity of the model is evaluated by its explanatory power R^2, the interpretation of which is similar to the coefficient of determination of classic regression.

The model is significant for an acceptance level of 0.05, with levels of explanation higher than with linear regression – 12.8% for the whole sample when considering the control variables and 20.1% in family firms. Other research that followed this model obtained close or lower explanatory levels (11% reported by García-Osma, 2008; 8% reported by Prior et al., 2008; and 16.6% by Callao-Gastón et al., 2008).

As can be seen, there is no change in results in the statistical relation between the discretionary accruals and the family and non-family firms, which allows us to corroborate the results obtained by the multiple linear regression. Regarding the variables of governance, CEO non-duality, representation of women in the board, size of the board of directors and size of the auditor, all variables have significance close to that obtained in linear regression. The results obtained for the control variables, in general, are also confirmed.

5. Conclusions and future research directions

This study investigates the quality of financial reporting via evidence of earnings management in family versus non-family firms, and analyses whether this relationship depends on the effect of good corporate governance practices. The results show that family firms in Spain manipulate the accounting information less than their non-family counterparts. This result is in line with other researches, mainly focused on listed firms (Cascino et al., 2010; Prencipe et al., 2011b) and with the premises of agency theory which indicate low asymmetry of information between owners and managers. In family firms, the governance factors analysed (non-duality of the CEO, size of the board of directors, gender diversity on the board and auditor size) seem to contribute to attenuating potential conflicts of interest in agency relationships (Paiva et al., 2016).

The aforementioned mechanisms of governance revealed a significant relationship with the quality of financial information in family-owned firms, corroborating the results obtained in other studies (Alves, 2011, 2014; Callao-Gastón et al., 2008; Caravaca-Sánchez et al., 2012). Thus, many of these firms require better governance systems as a way to outwardly exhibit procedures of transparency and trust in the eyes of stakeholders (Ariff et al., 2007), showing that family members are concerned with reputation, particularly in the case of unlisted firms where the recommendations of the Code of Conduct are not mandatory. This claim is evidenced by the separation of functions of the CEO and the chairman of the board of directors, which has a strong statistical relationship with the quality of financial information in family firms.

The less stringent requirements explained by agency theory regarding governance of corporations with concentrated ownership show significant changes compared to family

Table 5
Linear regression regarding quality of financial information

	Total Sample		Family		Non-Family	
	Dependent Variable: DA (J)					
	C1	C2	C3	C4	C5	C6
Independent Variables	**Coef./SE**	**Coef./SE.**	**Coef./SE**	**Coef./SE.**	**Coef./SE**	**Coef./SE**
Constant	18.349***	20.839***	18.946***	18.946***	19.725***	2.115***
	(1.085)	(1.113)	(1.752)	(1.752)	(1.373)	(1.409)
SIZE	-2.145***	-2.506***	-2.090***	-2.330***	-2.359***	-2.514***
	(0.209)	(0.214)	(0.336)	(0.346)	(0.264)	(0.272)
LEV	0.032***	0.034***	0.042***	0.043***	0.030***	0.030***
	(0.006)	(0.005)	(0.008)	(0.008)	(0.007)	(0.007)
ROA	0.009	0.020	0.222***	0.222***	-0.059***	-0.057***
	(0.016)	(0.018)	(0.026)	(0.026)	(0.019)	(0.020)
CFO	0.027**	0.012	-0.177***	-0.181***	0.091***	0.089***
	(0.013)	(0.012)	(0.020)	(0.020)	(0.016)	(0.016)
Age	-0.022***	-0.014**	-0.024**	-0.023***	-0.019**	-0.012***
	(0.006)	(0.006)	(0.009)	(0.009)	(0.008)	(0.008)
INTANG	-0.024***	-0.024***	-0.007	-0.007	-0.032***	-0.030***
	(0.009)	(0.009)	(0.013)	(0.013)	(0.011)	(0.011)
Listed	-1.683***	-1.237**	-0.686	-0.664	-2.077***	-1.472**
	(0.495)	(0.509)	(0.710	(0.718)	(0.646)	(0.672)
Crisis	0.360	0.366	0.134	0.125	0.550	0.561*
	(0.244)	(0.241)	(0.335	(0.330)	(0.323)	(0.322)
Industry	s.s.	s.s.	s.s	s.s.	n.s.	n.s.
FAMILY		-1.228***				
		(0.249)				
N-DUAL		-0.777***		-0.970***		-0.769**
		(0.243)		(0.341)		(0.328)
SIZE-B		-0.402***		-0.200		-0.549**
		(0.158)		(0.217)		(0.216)
Gender		-0.019***		-0.028***		-0.013
		(0.006)		(0.008)		(0.010)
AUD		0.988***		1.227***		0.508
		(0.280)		(0.346)		(0.415)
R^2	6.7%	7.6%	14.4%	16.9%	8.4%	9.2%
R^2 Adjusted	6.4%	7.3%	13.8%	15.9%	7.9%	8.6%
Sig. Change in R^2		0.9%		2.5%		0.7%
	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***
Sig. Change		0.000***		0.000***		0.000***
N	3,887		1,427		2,460	

***p < 0.01; **p < 0.05; *p < 0.1; s.s. – significant; n.s. – non-significant;
SE – Standard error (in brackets).

Table 6
Logistic regression regarding the quality of financial information

	Total sample		Family		Non-Family	
	Dependent variable: DA (K)					
	C1	C2	C3	C4	C5	C6
Independent variables	**Coef./SE**	**Coef./SE.**	**Coef./SE**	**Coef./SE.**	**Coef./SE**	**Coef./SE**
Constant	2.138***	2.949***	2.420***	2.778***	2.695***	3.201***
	(0.375)	(0.389)	(0.820)	(0.848)	(0.445)	(0.460)
SIZE	-0.536***	-0.646***	-0.735***	-0.761***	-0.593***	-0.645***
	(0.071)	(0.073)	(0.156)	(0.162)	(0.084)	(0.086)
LEV	0.010***	0.010***	0.023***	0.024***	0.007***	0.007***
	(0.002)	(0.002)	(0.003)	(0.003)	(0.002)	(0.002)
ROA	0.005	0.008	0.062***	0.062***	-0.004	-0.004
	(0.005)	(0.005)	(0.011)	(0.011)	(0.005)	(0.005)
CFO	0.014***	0.011***	-0.028***	-0.029	0.020***	0.020***
	(0.004)	(0.004)	(0.008)	(0.011)	(0.004)	(0.004)
Age	-0.005***	-0.002	-0.013***	-0.013***	-0.002	0.000
	(0.002)	(0.261)	(0.004)	(0.004)	(0.002)	(0.002)
INTANG	-0.009***	-0.009	-0.003	-0.002	-0.012***	-0.011***
	0.003	(0.003)	(0.006)	(0.006)	(0.002)	(0.004)
Listed	-20.007	-19.821	-2.468***	-2.456***	-20.101	-19.833
	(2.299)	(2.282)	(0.737)	(0.741)	(2.835)	(2.822)
Crisis	-0.035	-0.025	-0137	-0.140	-0.006	0.002
	(0.076)	(0.077)	(0.137)	(0.139)	(0.094)	(0.095)
Industry	n.s.	n.s.	n.s.	n.s.	n.s.	s.s.
FAMILY		-0.351***				
		(0.080)				
N-DUAL		-0.175**		-0.039***		-0.109
		(0.078)		(0.146)		(0.097)
SIZE-B		-0.201		-0.089		-0.278***
		(0.054)		0.096		(0.000)
Gender		-0.004*		-0.010***		-0.003
		(0.002)		(0.003)		(0.003)
AUD		0.298***		0.325**		0.176
		(0.087)		(0.142)		(0.118)
R^2	12.8%	15.2%	17.6%	20.1%	14.8%	16.2%
Sig.	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***
N	3,887		1,427		2,460	

***p < 0.01; **p < 0.05; *p < 0.1; s.s. – significant; n.s. – non-significant;
SE – Standard error (in brackets).

firms, as these firms aim for good governance practices as a means of conveying confidence in the relationships they have with minority shareholders and other stakeholders (Aguilera & Crespi-Cladera, 2012; Liu et al., 2016). These firms are motivated to find mechanisms that are in accordance with accepted norms in the codes of conduct, which is explained by the SEW perspective, according to whose arguments, family firms can imitate the actions of the firms with dispersed capital to increase their legitimacy and reputation (Berrone et al., 2010; Miller et al., 2013).

The greater participation of women in the management of family firms is also associated with higher quality financial information. This result seems to corroborate the idea that the participation of women has an effect close to that of independent representatives as they become involved less often in practices of manipulation or fraud and benefit the firm's performance, with characteristics of correctness and good practice (Caravaca-Sánchez et al., 2012) and also because they are associated with better systems of governance (García-Lara et al., 2017). The literature indicates that gender complementarity fosters dialogue in firms, reducing information asymmetries with the outside and promoting transparency in financial reporting; the result obtained thus being consistent with previous studies on listed firms (Damak, 2018; Gull et al., 2018).

Also for the audit function, as an external and independent control of the firm, the results obtained showed an association with quality financial information in family firms, as opposed to non-family. As this result is not associated with larger audit firms, it is assumed that family firms may be more compliant with audit recommendations, a result that is consistent with studies carried out on unlisted firms (Cano, 2007).

Considering the stronger role of the family in decision-making processes in family firms, we analysed whether good governance practices have a stronger relationship with the quality of financial information in these firms compared to non-family firms. The results obtained were robust for three of the four variables analysed regarding corporate governance. While family firms are associated with less formal management and control procedures and are considered less compliant with codes of conduct (Aguilera & Crespi-Cladera, 2012; Liu et al., 2016), the adoption of good practices in governance mechanisms contributes to substantial improvements in reducing earnings management. The evidence obtained contributes to the literature on the quality of financial information, showing that family firms have specific characteristics that favour the alignment of interests and accounting information. Thus, we support the continued debate on interaction between family and accounting (Miller & Le Breton-Miller, 2006), showing that the effects of good governance practices reinforce that quality. In addition, our study contributes to the literature by providing new evidence to support the increasingly accepted view that women in high-level positions help improve accounting information (Arun et al., 2015; Damak, 2018; Gull et al., 2018). The results obtained are relevant for information users and regulators, taking the effect of good corporate governance practices into account, as well as for auditors and firms, considering audit risk and the effectiveness of implementing appropriate monitoring

and internal control systems.

Our work is not free of limitations and some of them constitute directions for future lines of research. By focusing the sample on listed and unlisted firms, we are faced with the limitations of the SABI database regarding the availability of information for a wide range of listed firms, so our results may not be wholly generalizable to these firms. Thus, we call on scholars to replicate this analysis on listed firms, given the functioning of the capital market and the lower concentration of capital and from the perspective of comparison of results with previous research. We also call for research into the relationship between corporate social responsibility and quality of financial information. We believe in the legitimacy of this analysis given that new concerns emerge due to external pressures that firms face in this area, which have effects on the quality of financial information (Miralles-Quirós et al., 2017). On the other hand, as SABI does not classify the firms as family and non-family, we undertook this classification following the procedure proposed by Rojo-Ramírez et al. (2011) and later validated by several studies (Diéguez-Soto & López-Delgado, 2018; López-Delgado et al., 2015). However, given that there is a multitude of definitions of the concept of the family firm (Hernández-Linares et al., 2017, 2018b), it would be useful to verify the consistency of our results by adopting other methods of identification.

Our work was carried out in the context of listed and unlisted Spanish firms that apply, inter alia, international accounting standards or accounting standards adapted to these firms, so the results may be different in other contexts (Pereira & Alves, 2017). In addition, Spain has broad experience in applying codes of conduct in the field of corporate governance, and future research may determine relations with the quality of financial information in different legal and cultural environments, in family and non-family firms, as well as the effects of different generations of families (Jara & López, 2014). Another approach lies in verifying the effect of independent managers and the supervisory and monitoring activities of the board of directors in the context of these firms, in view of the possible effect of greater informality on governance structures in family firms (Liu et al., 2016).

Funding

This research did not receive any specific grant from funding agencies in the public, commercial or not-for-profit sectors.

Conflict of interests

The authors declare no conflict of interests.

6. References

Adams, R., & Ferreira, D. (2009). Women in the boardroom and their impact on governance and performance. *Journal of Financial Economics*, 94(2), 291-309. https://doi.org/10.1016/j.jfineco.2008.10.007

Aguilera, R., & Crespi-Cladera, R. (2012). Firm family firms: Current debates of corporate governance in family firms. *Journal of Family Business Strategy*, 3(2), 66–69. https://doi.org/10.1016/j.jfbs.2012.03.006

Ali, A., Chen T., & Radhakrishnan, S. (2007). Corporate disclosure by family firms. *Journal of Accounting and Economics*, 44(1-2), 238-286. https://doi.org/10.2139/ssrn.897817

Alves, S. (2011). The effect of the board structure on erarnings management: evidence from Portugal. *Journal of Financial Reporting & Accounting*, 9(2), 141-160. https://doi.org/10.1108/19852511111173103

Alves, S. (2014). The effect of board independence on the earnings quality: Evidence from Portuguese listed companies. *Australasian Accounting, Business and Finance Journal*, 8(3), 23-44. https://doi.org/%5B10.14453/aabfj.v8i3.3

Anderson, R., & Reeb, D. (2003). Founding-family ownership and firm performance. Evidence from the S&P 500. *The Journal of Finance*, 58(3), 1301-1328. https://doi.org/10.1016/S0304-405X(03)00067-9

Ariff, A., Ibrahim, M., & Othman, R. (2007). Determinants of firm level governance: Malaysian evidence. *Corporate Governance,* 7(5), 562-573. https://doi.org/10.1108/14720700710827158

Arnedo, L., Lizarraga, F., & Sánchez, S. (2007). Does public/private status affect the level of earnings management in code-law contexts outside the United States? A study based on the Spanish case. *The International Journal of Accounting*, 42(3), 305-328. https://doi.org/10.1016/j.intacc.2007.06.004

Arun, T., Almahrog, Y., & Aribi, Z. (2015). Female directors and earnings management: Evidence from UK companies. *International Review of Financial Analysis*, 39(C), 137–146. https://doi.org/10.1016/j.irfa.2015.03.002

Berrone, P., Cruz, C., Gómez-Mejía, L., & Larraza-Kintana, M. (2010). Socioemotional wealth and corporate responses to institutional pressures. *Administrative Science Quarterly,* 55(1), 82–113. https://doi.org/10.2189/asqu.2010.55.1.82

Bona-Sánchez, C., García-Meca, E., & Pérez-Alemán, J. (2018). Earnings informativeness and institutional investors on the board. *Spanish Accounting Review,* 21(1), 73-81. https://doi.org/10.1016/j.rcsar.2017.09.001

Brammer, S., & Pavelin, S. (2004). Building a good reputation. *European Management Journal*, 22(6), 704-713. https://doi.org/10.1016/j.emj.2004.09.033

Callao-Gastón, S., Gasca-Galán, M., & Jarne-Jarne, J. (2008). Gobierno corporativo y deficiencias de la información contable. *Spanish Accounting Review*, 10(1), 133-155. https://revistas.um.es/rcsar/article/view/388961

Cano, M. (2007). Tamaño del auditor y calidad de auditoría en las empresas españolas no cotizadas. *Spanish Journal of Finance and Accounting / Revista Española de Financiación y Contabilidad,* 36(135), 481-507. https://doi.org/10.1080/02102412.2007.10779627

Cano-Rodríguez, M., Sánchez-Alegría, S., & Arenas-Torres, P. (2016) The influence of auditor's opinion and auditor's reputation on the cost of debt: evidence from private Spanish firms. *Spanish Journal of Finance and Accounting / Revista Española de Financiación y Contabilidad*, 45(1), 32-62. https://doi.org/10.1080/02102412.2015.1111096

Caravaca-Sánchez, P., Sánchez-Ballesta, J., & García-Meca, E. (2012). Factores explicativos del buen gobierno en la empresa española. *Revista de Contabilidad*, 15(2), 237-255. https://doi.org/10.1016/S1138-4891(12)70044-4

Cascino, S., Pugliese, A., Mussolino, D., & Sansone, C. (2010). The influence of family ownership on the quality of accounting information. *Family Business Review,* 23(3), 246-265. https://doi.org/10.1177/0894486510374302

Chen, S., Chen, X., & Cheng, Q. (2008). Do family firms provide more or less voluntary disclosure? *Journal of Accounting Research*, 46(3), 499-536. https://doi.org/10.

1111/j.1475-679X.2008.00288.x

Chi, C., Hung, K., Cheng, H., & Lieu, P. (2015). Family firms and earnings management in Taiwan: influence of corporate governance. *International Review of Economics & Finance*, 36(1), 88-98. https://doi.org/10.1016/j.iref.2014.11.009

Claessens, S., & Tzioumis, K. (2006). Ownership and financing structures of listed and large non-listed corporations. *Corporate Governance: An International Review*, 14(4), 266-276. https://doi.org/10.1111/j.1467-8683.2006.00506.x

Chow, G. (1960). Tests of equality between sets of coefficients in two linear regressions. *Econometrica*, 28(3), 591-605. https://doi.org/10.2307/1910133

Cohen, J., Krishnamoorthy, G., & Wright, A. (2002). Corporate governance and the audit process. *Contemporary Accounting Research*, 19(4), 573-94. https://doi.org/10.1506/983M-EPXG-4Y0R-J9YK

CNMV (2015). *Codigo de buen gobierno de las sociedades cotizadas*. Edison 4, Madrid. https://www.cnmv.es/docportal/publicaciones/codigogov/codigo/_buen/_gobierno.pdf

Davidson, R., Goodwin-Stewart, J., & Kent, P. (2004). Internal governance structures and earnings management. *Accounting and Finance,* 45(2), 241-267. https://doi.org/10.1111/j.1467-629x.2004.00132.x

Damak, S. (2018). Gender diverse board and earnings management: Evidence from French listed companies. *Sustainability Accounting, Management and Policy Journal*, 9(3), 289-312. https://doi.org/10.1108/SAMPJ-08-2017-0088

Debicki, B. J., Matherne, C. F., Kellermanns, F. W., & Chrisman, J. J. (2009). Family business research in the new millennium: An overview of the who, the where, the what, and the why. *Family Business Review,* 22(2), 151–166. https://doi.org/10.1177/0894486509333598

Dechow, M., Sloan, R., & Sweeney, A. (1995). Detecting earnings management. *The Accounting Review,* 70(2), 193-225. https://www.jstor.org/stable/248303

Dechow, P., Ge, W., & Schrand, C. (2010). Understanding earnings quality: A review of the proxies, their determinants and their consequences. *Journal of Accounting and Economics,* 50(2-3), 344-401. http://dx.doi.org/10.1016/j.jacceco.2010.09.001

Deephouse, D., & Jaskiewicz, P. (2013). Do family firms have better reputations than non-family firms? An integration of socioemotional wealth and social identity theories. *Journal of Management Studies,* 50(3), 337–360. https://doi.org/10.1111/joms.12015

Demsetz, H., & Lehn, K. (1985). The structure of corporate ownership: Causes and consequences. *Journal of Political Economy*, 93(6), 1155-1177. http://www.jstor.org/stable/1833178

Desender, K., Aguilera, R., LopezPuertas-Lamy, M., & Crespi-Cladera, R. (2014). A clash of governance logics: Foreign ownership and board monitoring. *Strategic Management Journal*, 37(2), 349-369. https://doi.org/10.1002/smj.2344

Diéguez-Soto, J., & López-Delgado, P. (2018). Does family and lone founder involvement lead to similar indebtedness? *Journal of Small Business Management*. https://doi.org/10.1111/jsbm.12422

Ding, Y., Qu, B., & Zhuang, A. (2011). Accounting properties of Chinese family firms. *Journal of Accounting, Auditing and Finance*, 26(4), 623-640. https://doi.org/10.1177/0148558X11409147

Ding, Y., Zhang, H., & Zhang, J. (2007). Private vs state ownership and earnings management: Evidence from Chinese listed companies. *Corporate Governance: An International Review*, 15(12), 223-238. https://doi.org/10.1111/j.1467-8683.2007.00556.x

Dunn, P. (2004). The impact of insider power on fraudulent financial reporting. *Journal of Management*, 30(3), 397-412. https://doi.org/10.1016/j.jm.2003.02.004

Ferramosca, S., & Allegrini, M. (2018). The complex role of family involvement in earnings management. *Journal of Family Business Strategy,* 9(2), 128-141. https://doi.org/10.1016/j.jfbs.2018.01.001

Gallego-Álvarez, I., García-Sánchez, I. M., & Rodríguez-Domínguez, L. (2010). The influence of gender diversity on corporate performance. *Spanish Accounting Review,* 13(1), 53-88. https://doi.org/10.1016/S1138-4891(10)70012-1

García-Lara, J., García-Osma, B., Mora, A., & Scapin, M. (2017). The monitoring role of female directors over accounting quality. *Journal of Corporate Finance*, 45 (August), 651-668. https://doi.org/10.1016/j.jcorpfin.2017.05.016

García-Osma, B., Albornoz-Noguer, B., & Gisbert-Clemente, A. (2005). La investigación sobre earnings management. *Spanish Journal of Finance and Accountig,* 34(127), 1001-1034. https://doi.org/10.1080/02102412.2005.10779570

García-Osma, B. (2008). Board independence and real earnings management: The case of R&D expenditure. *Corporate Governance: An International Review*, 16(2), 116-131. https://doi.org/10.1111/j.1467-8683.2008.00672.x

García-Sánchez, I., & Martínez-Ferrero, J. (2016). Corporate reputation as a consequence of financial reporting quality. *International Management of Economics Frontiers,* 1(1), 45-63.

Gavana, G., Gottardo, P., & Moisello, A. (2017). Earnings management and CSR disclosure. Family vs. non-family firms. *Sustainability*, 9, 2327. https://doi.org/10.3390/s91u22327

Gómez-Mejía, L., Cruz, C., & Imperatore, C. (2014). Financial reporting and the protection of socioemotional wealth in family-controlled firms. *European Accounting Review*, 23(3), 387-402. https://doi.org/10.1080/09638180.2014.944420

Gómez-Mejía, L., Haynes, K., Núñez-Nickel, M., Jacobson, K., & Moyano-Fuentes, J. (2007). Socioemotional wealth and business risks in family-controlled firms: Evidence from Spanish olive oil mills. *Administrative Science Quarterly*, 52(1), 106-137.

González, J., & García-Meca, E. (2014). Does corporate governance influence earnings management in Latin American markets?. *Journal of Business Ethics*, 121(3), 419–440. https://doi.org/10.1007/s10551-013-1700-8

Gull, A., Nekhili, M., Nagati, H., & Chtioui, T. (2018). Beyond gender diversity: How specific attributes of female directors affect earnings management. *The British Accounting Review*, 50(3), 255-274. https://doi.org/10.1016/j.bar.2017.09.001

Hernández-Linares, R., Kellermanns, F. W., & López-Fernández, M. C. (2018a). A note on the relationship between learning, market, and entrepreneurial orientations in family and nonfamily firms. *Journal of Family Business Strategy,* 9(3), 192-204. https://doi.org/10.1016/j.jfbs.2018.08.001

Hernández-Linares, R., Sarkar, S., & Cobo, M. J. (2018b). Inspecting the Achilles heel: A quantitative analysis of 50 years of family business definitions. *Scientometrics,* 115(2), 929–951. https://doi.org/10.1007/s11192-018-2702-1

Hernández-Linares, R., Sarkar, S., & López-Fernándezc, M. C. (2017). How has the family firm literature addressed its heterogeneity through classification systems? An integrated

analysis. *European Journal of Family Business,* 7(1-2), 1-13. https://doi.org/10.1016/j.ejfb.2017.06.003

Instituto de la Empresa Familiar (2015). *La Empresa Familiar en España (2015)*, Madrid. ISBN 978-84-608-2119-9.

Jaggi, B., Leung, S., & Gul, F. (2009). Family control, board independence and earnings management: Evidence based on Hong Kong firms. *Journal of Accounting Public Policy*, 28(4), 281–300. https://doi.org/10.1016/j.jaccpubpol.2009.06.002

Jara, M., & López, F. (2007). Auditoría y discrecionalidad contable en la gran empresa no financiera española. *Spanish Journal of Finance and Accountig,* 36(135), 569-594. https://doi.org/10.1080/02102412.2007.10779630

Jara, M., & López, F. (2014). Earnings management and the contest to the control: An international analysis of family-owned firms. *Spanish Journal of Finance and Accounting*, 43(4), 355-379. https://doi.org/10.1080/02102412.2014.965922

Jensen, M., & Meckling, W. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Jounal of Financial Economics,* 3(4), 305-360. https://doi.org/10.1016/0304-405X(76)90026-X

Jiraporn, P., & DaDalt, P. (2009). Does founding family control affect earnings management? *Applied Economics Letters*, 16(2), 117-124. https://doi.org/10.1080/17446540701720592

Jones, J. (1991). Earnings management during import relief investigations. *Journal of Accounting Research,* 29(2), 193-228. Doi:10.2307/2491047.

Kim, J., Chung, R., & Firth, M. (2003). Auditor conservative, asymmetric monitoring and earnings management. *Contemporary Accounting Research*, 20(2), 323-359. https://doi.org/10.1506/J29K-MRUA-0APP-YJ6V

Kothari, S., Leone, A., & Wasley, C. (2005). Performance matched discretionary accrual measures. *Journal of Accounting and Economics,* 39(1), 163-197. doi.org/10.1016/j.jacceco.2004.11.002

Kvaal, E., Langli, J. C., & Abdolmohammadi, M. (2012). Earnings management priorities of private family firms. Available at SSRN: http://ssrn.com/abstract=1532824 or http://dx.doi.org/10.2139/ssrn.1532824 (25 de Enero de 2019).

Kyaw, K., Olugbode, M., & Petracci, B. (2015). Does gender diverse board mean less earnings management? *Finance Research Letters*, 14(C), 135–141. https://doi.org/10.1016/j.frl.2015.05.006

Lank, A. (1995). *Key Challenges Facing Family Entreprise*. Lausanne, Switzerland: *IMD Publication*. ISBN 0 85199 808 9.

Landry, S., Deslandes, M., & Fortin, A. (2013). Tax aggressiveness, corporate social responsibility and ownership structure. *Journal of Accounting, Ethics and Public Policy*, 14(3), 611-645. http://dx.doi.org/10.2139/ssrn.2304653

Leuz, C., Nanda, D., & Wysocki, P. (2003). Earnings management and investor protection: An international comparison. *Journal of Financial Economics*, 69(3), 505-527. http://dx.doi.org/10.1016/S0304-405X(03)00121-1

Liu, Y., Valenti, A., & Chen, Y. (2016). Corporate governance and information transparency in Taiwan's public firms. The moderating effect of family ownership. *Journal of Management & Organization,* 22(5), 662–679. https://doi.org/10.1017/jmo.2015.56

López-Delgado, P., & Diéguez-Soto, J. (2015). Lone founders, types of private family businesses and firm performance. *Journal of Family Business Strategy*, 6(2), 73-85. https://doi.org/10.1016/j.jfbs.2014.11.001

López-Iturriaga, F., & Zarza-Herranz, C. (2010). Corporate governance and determinants. *Spanish Journal of Finance and Accounting / Revista Española de Financiación y Contabilidad*, 39(147), 521-549. https://doi.org/10.1080/02102412.2010.10779690

Lumpkin, G. T., Brigham, K. H., & Moss, T. W. (2010). Long-term orientation: Implications for the entrepreneurial orientation and performance of family businesses. *Entrepreneurship and Regional Development*, 22(3-4), 241-264. https://doi.org/10.1080/08985621003726218

Martin, G., Campbell, J., & Gómez-Mejía, L. (2016). Family control, socioemotional wealth and earnings management in publicly traded firms. *Journal of Business Ethics*, 133(3), 435-469. https://doi.org/10.1007/s10551-014-2403-5

Mazzioni, S., Pugol, V., Moura, G., & Klann, R. (2016). Influence of corporate governance and capital structure on earnings management. *Revista Contemporânea de Contabilidade*, 12(27), 61-86.

Michelon, G., & Parbonetti, A. (2012). The effects of corporate governance on sustainability disclosure. *Journal of Management and Governance*, 16(3), 477-509. https://doi.org/10.1007/s10997-010-9160-3

Miller, D., & Le Breton-Miller, I. (2006). Family governance and firm performance: Agency, stewardship, and capabilities. *Family Business Review*, 19(1), 73–87. https://doi.org/10.1111/j.1741-6248.2006.00063.x

Miller, D., Le Breton-Miller, I., & Lester, R. H. (2013). Family firm governance, strategic conformity and performance: Institutional versus strategic perspectives. *Organization Science*, 24(1), 189–209. http://dx.doi.org/10.1287/orsc.1110.0728

Miralles-Quirós, M., Miralles-Quirós, J., Sánchez-Hernández, M. I., & Guia-Arraiano, I (2017). Sustainability, reporting in Europe: Differences in terms of legislation and valuation. R-LEGO - *Revista Lusófona de Economia e Gestão das Organizações*, 5, 105-120.

Monterrey-Mayoral, J., & Sánchez-Segura, A. (2008). Gobierno corporativo y calidad de la información contable. Evidencia empiríca española. *Spanish Accounting Review*, 11(1), 67-99. https://revistas.um.es/rcsar/article/view/384361

Moura, G., Theiss, V., & Cunha, P. (2014). Ativos intangíveis e gerenciamento de resultados: Uma análise em empresas brasileiras listadas na BM&FBovespa BASE. *Revista de Administração e Contabilidade da UNISINOS*, 11(2), 111-122. https://doi.org/10.4013/base.2014.112.02

OECD (2016). *Principios de Gobierno Corporativo de la OCDE y del G20*. OCDE. https://doi.org/10.1787/9788485482726-es

Paiva, I., Lourenço, I., & Branco, M. (2016). Earnings management in family firms: Current state of knowledge and opportunities for future research. *Review of Accounting and Finance,* 15(1), 85-100. https://doi.org/10.1108/RAF-06-2014-0065

Paiva, I., Lourenço, I., & Curto, J. (2019). Earnings management in family versus non-family firms: the influence of analyst coverage. *Spanish Journal of Finance and Accounting / Revista Española de Financiación y Contabilidad*, 48(2), 113-133. https://doi.org/10.1080/02102412.2018.1463764

Park, B. (2015). Client importance and earnings quality: An analysis of the moderating effect of managerial incentives for target beating versus auditors' incentives to avoid reputational losses and litigation. *Spanish Journal of Finance and Accounting / Revista Española de Financiación y Contabilidad*, 44(1), 427-457. https://doi.org/10.1080/02102412.

2015.1076634

Pazzaglia, F., Mengoli, S., & Sapienza, E. (2013). Earnings quality in acquired and non-acquired family firms: A socioemotional wealth perspective. *Family Business Review*, 4(26), 374-386. https://doi.org/10.1177/0894486513486343

Pereira, A., & Alves, M. (2017). Earnings management and European regulation 1606/2002: Evidence from non-financial Portuguese companies listed in Euronext. *Spanish Accounting Review*, 20(2), 107–117. https://doi.org/10.1016/j.rcsar.2017.05.002

Prencipe, A., & Bar-Yosef, S. (2011a). Corporate governance and earnings management in family-controlled companies. *Journal of Accounting, Auditing, and Finance,* 26(2), 199-227. https://doi.org/10.1177/0148558X11401212

Prencipe, A., Bar-Yosef, S., Mazzola P., & Pozza, L. (2011b). Income smoothing in family firm-controlled companies: Evidence from Italian listed companies. *Corporate Governance: An International Review,* 19(6), 529-546. https://doi.org/10.1111/j.1467-8683.2011.00856.x

Prencipe, A., Bar-Yosef, S., & Dekker, H. (2014). Accounting research in family firms: Theoretical and empirical challenges. *European Accounting Review*, 23(3), 361-385. https://doi.org/10.1080/09638180.2014.895621

Prior, D., Surroca, J., & Tribó, J. (2008). Are socially responsible managers really ethical? Exploring the relationship between earnings management and corporate social. *Corporate Governance: An International Review*, 16(3), 160-177. https://doi.org/10.1111/j.1467-8683.2008.00678.x

Pucheta-Martínez, M., Bel-Oms, I., & Olcina-Sempere, G. (2018). The association between board gender diversity and financial reporting quality, corporate performance and corporate social responsibility disclosure: A literature review. *Academia Revista Latinoamericana de Administración*, 31(1), 177-194. https://doi.org/10.1108/ARLA-04-2017-0110

Razzaque, R., Ali, M., & Mather, P. (2016). Real earnings management in family firms: Evidence from an emerging economy. *Pacific-Basin Finance Journal*, 40(PartB), 237–250. https://doi.org/10.1016/j.pacfin.2015.12.005

Reguera-Alvarado, N., Laffarga-Briones, J., & Fuentes-Ruiz, P. (2015). Modelos de gestión de resultados: Un estudio transnacional. *Spanish Accounting Review*, 18(1), 11-19. https://doi.org/10.1016/j.rcsar.2014.01.001

Rojo-Ramírez, A., Diéguez-Soto, J., & López-Delgado, P. (2011). Importancia del concepto de empresa familiar en investigación: Utilización de la base de datos SABI para su clasificación. *Revista de Empresa Familiar*, 1(1), 53-67. http://dx.doi.org/10.24310/ejfbejfb.v1i1.5034

Salvato, C., & Moores, K. (2010). Research on accounting in family firms: Past accomplishments and future challenges. *Family Business Review*, 3(16), 160-177. https://doi.org/10.1177/0894486510375069

Samara, G., & Arenas, D. (2017). Practicing fairness in the family business workplace. *Business Horizons*, 60(5), 647-655. https://doi.org/10.1016/j.bushor.2017.05.008

Sánchez-Ballesta, J., & García-Meca, E. (2007). Ownership structure, discretionary accruals and the informativeness of earnings. *Corporate Governance: An International Review*, 15(4), 677-691. https://doi.org/10.1111/j.1467-8683.2007.00596.x

Schipper, K. (1989). Commentary on earnings management. *Accounting Horizons,* 3(4), 91-102. https://doi.org/10.12691/jfa-3-3-3

Silva, G., & Costa, F. (2017). Quality of accountig information and sustainability in Brazilian companies listed on BM&FBovespa. *Journal of Administrative Sciences*, 23(1), 103-127. E-ISSN: 2318-0722.

Stockmans, A., Lybaert N., & Voordeckers, W. (2010). Socioemotional wealth and earnings management in private family firms. *Family Business Review,* 23(3), 280-294. https://doi.org/10.1177/0894486510374457

Stockmans, A., Lybaert, N., & Voordeckers, W. (2013). The conditional nature of board characteristics in constraining earnings management in private family firms. *Journal of Family Business Strategy*, 2(4), 84-92. https://doi.org/10.1016/j.jfbs.2013.01.001

Sue, S., Chin, C., & Chan, A. (2013). Exploring the causes of accounting restatements by family firms. *Journal of Business Finance & Accounting*, 9-10(40), 1068-1094. https://doi.org/10.1111/jbfa.12040

Tabachnick B., & Fidell, S. (2012). *Using Multivariate Statistics*, 6th Edition, Pearson Education, Boston. ISBN-13: 978-0205849574.

Tendeloo, B., & Vanstraelen, A. (2008). Earnings management and audit quality in Europe: Evidence from the private client segment market. *European Accounting Review,* 17(3), 447-469. https://doi.org/10.1080/09638180802016684

Terrón-Ibáñez, S., Gómez-Miranda, M. E., Miras-Rodríguez, M. M., & Rodríguez-Ariza, L. (2019). Economic and financial snapshot of small Spanish family firms. *Spanish Accounting Review,* 22(1), 21-31. https://doi.org/10.6018/rc-sar.22.1.354281

Tong, Y. (2007). Financial reporting practice of family firms. *Advances in Accounting*, 23(1), 231-261.

Torchia, M., & Calabrò, A. (2016). Board of directors and financial transparency and disclosure. Evidence from Italy. *Corporate Governance*, 16(3), 593-608. https://doi.org/10.1108/CG-01-2016-0019

Yang, S. (2010). The impact of controlling families and family CEOs on earnings management. *Family Business Review*, 3(23), 266-279. https://doi.org/10.1177/0894486510374231

Vieira, E. (2016). Earnings management in public family firms. *Australian Accounting Review*, 77(26), 190-207. https://doi.org/10.1111/auar.12096

Villalonga, B., & Amit, R. (2010), Family control of firms and industries. *Financial Management*, 39(3), 863-904. https://doi.org/10.1111/j.1755-053X.2010.01098.x

Wang, D. (2006). Founding family ownership and earnings quality. *Journal of Accounting Research*, 44(3), 619-656. https://doi.org/10.1111/j.1475-679X.2006.00213.x

Yang, S. (2010). The impact of controlling families and family CEOs on earnings management. *Family Business Review*, 23(3), 266-279. https://doi.org/10.1177/0894486510374231

Zahra, S., Hayton, J., & Salvato, C. (2004). Entrepreneurship in family vs. non-family firms: A resource-based analysis of the effect of organizational culture. *Entrepreneurship Theory and Practice,* 28(4), 363-381. https://doi.org/10.1111/j.1540-6520.2004.00051.x