DIRECTORS' COMPENSATION. WHAT REALLY MATTERS?

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Abstract. In the current scenario of increasing social inequality, the debate over the compensation received by directors and executives of large listed companies, and its justification, has intensified. Drawing on Agency Theory and Human Capital Theory, a multilevel analytical technique is used in this paper to examine the influence of firm-level variables and director-level variables on the individual compensation of the members of the board. The results obtained for the continental European context (Spain in particular) partially support the Human Capital Theory. Nevertheless, there is no evidence supportive of Agency Theory, as corporate governance mechanisms do not contribute to moderate the compensation of directors and there is no relationship between corporate performance and the compensation of directors. The analyses by subsamples (categories of directors) reveal that non-executive director's compensation seems to be set for a group of individuals as a whole, depending mainly on firm-level characteristics, whereas executive director compensation is more based on the unique characteristics that a particular executive brings to the board.

Keywords: compensation, board of directors, Agency Theory, tenure, experience, multilevel.

JEL Classification: G30, J30, M12, M50.

Introduction

In the current scenario of increasing social inequality, the debate over the compensation received by directors and executives of large listed companies, and its justification, has intensified. On the one hand, the complexity of the functions they perform, the value they bring to the companies they run, and the needs to attract and retain the best talent are often used to justify the amounts they receive. On the other hand, managerial power perspective suggests that managers can exploit their informational advantages in order to extract excessive compensation (see Song and Wan (2019) for a review of these two competing views).

In the academic arena, although there is abundant literature on CEO compensation (for a review of the subject see Finkelstein et al., 2009; Murphy, 2013; Seo, 2015; Aguinis et al., 2018, or Vo & Canil, 2019), little research has been done on the factors that explain the levels

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of compensation of the members of the board of directors since, as some authors point out (Brick et al., 2006, or Andreas et al., 2012), this issue has only begun to attract attention more recently.

One of the main problems when analysing the compensation of the members of the board of directors is the lack of transparency that has traditionally surrounded the information on the compensation of directors. Until recently, public companies were required to disclose only total board compensation but not the compensation of each individual board member. For this reason the majority of the research about the determinants of director's compensation (Hempel & Fay, 1994; Cordeiro et al., 2000; Elston & Goldberg, 2003; Ryan & Wiggins, 2004; Linn & Park, 2005; Farrell et al., 2008; Sanchez et al., 2011; López et al., 2015; Baixauli et al., 2016, among others) uses as dependent variable the total compensation of the board or the average compensation of the members of the board (total board compensation divided by the number of directors in the board).

Although this approach has provided useful insights, it prevents from analysing the influence of director level variables on their compensation, and aspects such as their category in the board (executive, external, independent) or their personal characteristics (experience or education among others) could not be considered. In this way, the papers mentioned above, mainly analyse the influence of variables related to the firm (company size, performance) and its corporate governance mechanisms (ownership structure and the composition of the board of directors) on the average compensation of the board members. The underlying theoretical foundations on which most of these studies are based are found in Agency Theory (Jensen & Meckling, 1976).

As more transparency is being required to public firms about individual director compensation, some recent papers such as Marchetti and Stefanelli (2009), Horton et al. (2012), Bugeja et al. (2016), Chen and Keefe (2018), Ferris et al. (2018) or Fedaseyeu et al. (2018) analyse the influence of director level variables such as their skills or abilities on their compensation, using Human Capital Theory as background for their hypotheses (Becker, 1964; Mincer, 1974).

Taking into account the previous literature, a multidisciplinary approach is used in this paper. Drawing on Agency Theory and Human Capital Theory, the determinants of director compensation in Spanish listed firms are studied. Taking advantage of the information on the individual remuneration of the members of the board of directors currently being published by listed Spanish companies, this paper analyses the influence that variables at company level (size, performance, ownership concentration, composition of the board) and also variables at the director level (education, experience) exert on directors' compensation. To perform the analyses, a multilevel methodology was used, that allows to determine which type of variables (firm-level variables or director level-variables) contribute the most to explain differences in director's compensation. To the best of our knowledge, this is an important contribution to the literature as this study is the first one to perform the analyses of director's compensation using multilevel models[1]. Additionally, most of previous research using individual data on

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[1] Sur et al. (2015) apply a multilevel analytic technique to examine how firm, industry and time levels effects drive CEO compensation in US corporations. Nevertheless, they neither analyze directors' compensation, nor consider individual characteristics of directors.

compensation is focused on Anglo-Saxon context and usually provides evidence for one specific type of directors. This paper also closes this gap in the literature by analysing the determinants of the compensation of the different categories of directors focusing on a continental European country (Spain).

1. Literature review and hypotheses

Although there is abundant literature on CEO compensation, this section refers specifically to papers on director's compensation (a less developed area). Based on the results of these previous studies and using a multidisciplinary approach, the levels of compensation of the members of the board depend on the idiosyncrasies of each company, the mechanisms of control and corporate governance used by the company, and their profile.

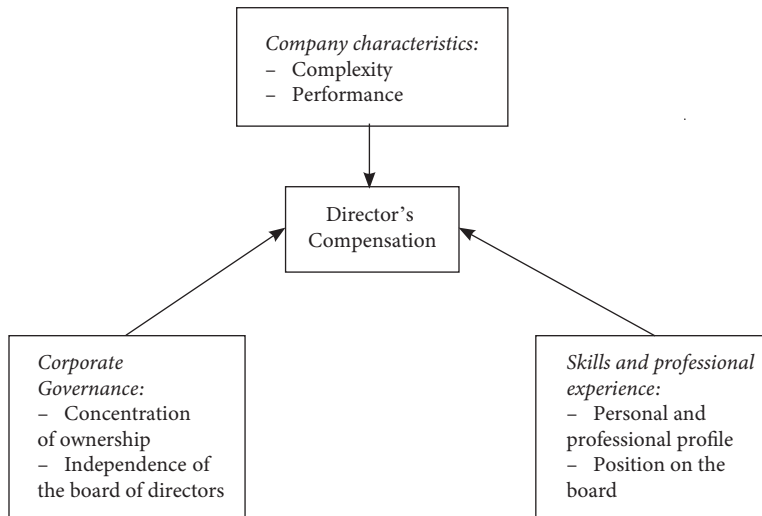Figure 1 is a graphic representation of the hypotheses formulated in the study.

Figure 1. Explanatory factors of director's compensation

1.1. Characteristics of the company

The underlying theoretical foundations on which most of the studies focused on compensation' determinants rely are found in Agency Theory (Jensen & Meckling, 1976). Under Agency Theory, previous empirical studies carried out in different countries indicate that director's compensation is related to the characteristics of the business, especially the size of the company and its performance.

The overall objective of the board of directors is to advise and control senior management and at the same time to protect the interests of the shareholders. The literature shows that more complex companies require higher levels of skills and more effort from their directors, since the need for guidance and control generally increases as the company becomes more complex (Boone et al., 2007; Lehn et al., 2009). Therefore, it is expected to be a positive

relationship between the remuneration of the directors and the complexity of the business, given that the greater the complexity of the company, the greater the difficulty of the tasks performed by the board, and, consequently, the compensation policy should be designed to attract the most well-prepared and productive directors (Linn & Park, 2005).

The size of the firm is the variable that has most often been associated with the complexity of the firm in the literature on corporate governance (Linck et al., 2008; Coles et al., 2008). Larger companies tend to be characterized by greater complexity in terms of organizational structures and geographical dispersion, therefore they require more guidance from, and control by, board members. Several studies have found a positive relationship between the size of the firm and the compensation level of the directors (Ryan & Wiggins, 2004; Adams, 2005; Linn & Park, 2005; Brick et al., 2006; Arrondo et al., 2008; Andreas et al., 2012). Consequently, larger companies tend to be more complex, require more guidance and control, and therefore it is expected these companies to offer higher compensation to their directors.

H1: Firm complexity is positively related to the level of director's compensation

According to Agency Theory, remuneration linked to results will motivate the directors to work more assiduously on behalf of the shareholders rather than aligning themselves with the interests of the managers (Cordeiro et al., 2000). Remuneration linked to corporate results is the central theoretical paradigm of the optimal contracting view which considers that the compensation policies constitute a mechanism of corporate governance to motivate the members of the board to make decisions that are aligned with the interests of the shareholders (Shleifer & Vishny, 1997). In other words, directors of companies that perform better in the market are more likely to receive a higher compensation than those in firms that achieve worse results (Yermack, 2004; Brick et al., 2006).

H2: Corporate performance is positively related to the level of director's compensation

1.2. Elements of corporate governance

The board of directors is the internal body responsible for supervising and controlling managers to prevent them from engaging in opportunistic behavior that is detrimental to the shareholders (Fama & Jensen, 1983). However, directors are the shareholders' delegated supervisors so the traditional agency conflict between shareholders and managers is equally applicable to the relationship between shareholders and directors given that there may be conflicting interests (Jensen, 1993). Assuming that there is no reason to suppose that managers automatically seek to maximize shareholder value, it follows that there is no reason to expect directors to do so either (Bebchuk & Fried, 2004). From this perspective (managerial power perspective), directors, exploiting their informational advantages, can engage in opportunistic behaviors that create a problem of moral hazard that could result in setting extraordinarily high levels remuneration for themselves. The existence of other corporate governance mechanisms such as the presence of large shareholders with sufficient incentives to exercise direct control over managers and directors, or the composition of the board of directors itself, should help mitigate agency conflicts between shareholders and directors and influence the design of remuneration policies for the board members (Andreas et al., 2012).

Regarding the first of these mechanisms, ownership structure, it should be noted that when the ownership of the capital is distributed among a multitude of small shareholders, individually they have little incentive to get involved in the management of the business and monitor the behavior of managers. However large external shareholders, taking into account their vested interest, have greater incentives to be actively involved in the company's management (Shleifer & Vishny, 1986). Cordeiro et al. (2000) indicate that majority external shareholders will try to avoid unnecessary costs, contributing to a greater moderation of board and management remuneration. Research on management compensation provides similar results. Gómez-Mejía and Marín (2006), in a review of the literature, point out that empirical research on executive remuneration shows that a higher concentration of ownership implies more intense supervision and control and, therefore, a more moderate remuneration for the managers[2]. Although there is less evidence regarding the remuneration of board members, some studies also point in the same direction, especially for the countries of continental Europe such as Germany (Elston & Goldberg, 2003; Andreas et al., 2012) or Spain (Arrondo et al., 2008).

H3: Concentration of ownership is negatively related to the level of director's compensation

The other element of corporate governance that may influence the level of compensation is related to the composition of the board of directors. The theoretical viewpoint of the managerial power perspective suggests that there is a risk that directors will side with managers of the firm and pursue their own interests in detriment to those of the shareholders. For example, directors who allow high levels of compensation for managers gain their support to keep their own salaries high (Bebchuk et al., 2002). The possibility that this type of collusion between managers and directors can occur depends on the structure and composition of the board (Barkema & Gómez-Mejía, 1998). One metric commonly used as a proxy for the effectiveness of the control of the board is the percentage of independent directors (Hermalin & Weisbach, 1988; Weisbach, 1988). Independent directors have no direct links to the organization, so they are unlikely to be affected by problems such as a tendency to toe the group line or subordination to the Chief Executive Officer (CEO)'s decisions and they can analyse firm's activities and decisions with more objectivity. Moreover, independents are expected to act on behalf of shareholders (Fama & Jensen, 1983), contributing, for example, to avoid excessive compensation of the board. On the contrary, a board of directors dominated by executive directors represents a severe limitation of their ability to control business policies that are not aligned with the interests of shareholders (Bebchuk & Fried, 2004). The empirical evidence is, nevertheless, unclear regarding the influence of the structure of the board on the compensation of its members (Andreas et al., 2012).

H4: The independence of the board is negatively related to the level of director's compensation

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[2] Regarding ownership structure, recent evidence on CEO compensation (Borisova et al., 2019) indicates that the type of owner (government in particular) also influences the level and structure of executive compensation.

1.3. Professional skills and experience

Up to this point discussion has referred to the influence of variables related to the company and its corporate governance mechanisms on the compensation received by the members of the board of directors. However, to explain the differences in remuneration between individuals, it is necessary to turn to the tenets of Human Capital Theory (Becker, 1964; Mincer, 1974). This theory suggests that managers' compensation should reflect their qualities and abilities, that is, it is necessary to consider other aspects beyond those contemplated in Agency Theory by taking into account human and social capital in the forms of skills, experience, and access to information and knowledge (Kor & Sundaramurthy, 2009).

This approach is particularly appropriate taking into account that the role of the board of directors is, in addition to controlling the management team, guiding it in the decision-making process. Due to the information that directors have about the company and its environment, their experience, knowledge, etc. they enrich the organization's decision-making process. In this sense, Hillman and Dalziel (2003) focus on the concept of board capital which consists of both human capital (experience, expertise, reputation) and relational capital (network of ties to other firms and external contingencies) and affirm that both insiders and outsiders on the board have important human capital that pertains to the provision of advice and counsel. In this sense, scholars have posited that the human and social (relational) capital of individual board members shapes their ability to govern and offer advice to the management team (Hillman & Dalziel, 2003; Kor & Sundaramurthy, 2009). Moreover, in a comprehensive review of the literature, Johnson et al. (2013) indicate that the demographic characteristics, human capital, and social capital of the directors have an important impact on the company's results.

There are very few studies that take the personal and professional profile of the director as an explanatory variable of the remuneration they earn. The difficulty of accessing detailed and individualized information is a barrier to this type of analysis, which is however, very useful in explaining intra-company differences in directors' compensation. Some examples are the studies of Marchetti and Stefanelli (2009) and Horton et al. (2012) which, for the UK, provide evidence consistent with the influence of the human and social capital of the directors on their remuneration or, more recently, the article by Fedaseyeu et al. (2018) in which, for the American case, they find that the more experienced directors receive greater compensation. These results are consistent with the Human Capital Theory. A company that does not adequately compensate its directors for their skills should have more difficulty in attracting and retaining talented board members.

H5: The qualifications and experience of the directors is positively related to the level of director's compensation.

2. Sample and variables

2.1. Sample

This database contains information on the individual compensation of 1110 directors of Spanish listed firms in the year 2013. This information was handy collected from the Annual Report on Remuneration of Directors and refers to all board members of 90 different Spanish listed firms.

Company-level data for economic and financial information was obtained from the SABI (System of Analysis of Iberian Balance Sheets) database while the Annual Corporate Governance Reports were used to extract data relating to the board of directors and the ownership structure of the company for each of the companies analysed. Information on demographic profile, education and experience of each director was obtained from Boardex database.

The data on the compensation of the directors refers to the year 2013[3] (the first year for which individualized information is available), while the explanatory variables included in the models have been lagged by one period in order to reduce econometric problems of endogeneity (Brick et al., 2006).

2.2. Variables

2.2.1. Dependent variable

In keeping with authors such as Marchetti and Stefanelli (2009), among others, the dependent variable used is the annual cash compensation of each director (CASHCOMP). Annual cash compensation refers to year 2013 and is calculated as the sum of the following items: salaries, fixed remuneration, attendance fees, short-term variable remuneration, long-term variable remuneration, remuneration for membership on board committees, severance payments, and other items.

Table 1. Cash compensation of the directors: Descriptive statistics

Concept	Frequency (%)	N	Mean	Stand. Dev.
Salary	17.5%	194	502.19	559.16
Fixed Remun.	63.0%	699	89.02	116.24
Attendance	62.3%	691	34.14	32.09
Variable s/t	16.2%	180	482.77	700.39
Variable l/t	1.6%	18	460.83	328.93
Committees	37.9%	421	49.83	61.58
Severance	0.4%	4	707	681.27
Others	19.4%	215	61.72	126.91
Total Remun.	100%	1110	307.92	711.14

Table 1 shows the descriptive statistics of the different concepts that make up the cash remuneration of the directors. For each concept, the frequency indicates the percentage of directors in the sample who perceive the concept and N is the number of directors in the sample who receive it. The values of the mean, standard deviation, percentiles, minimum and maximum are expressed in thousands of euros. The average total cash compensation received by the 1110 directors of the sample amounts to 307,920 euros, although it varies

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[3] Although this information is quite old, it can be considered to properly and reasonably represent the current situation. In this regard, in 2013 the directors and executives of the largest Spanish listed companies earned 75 times more than their employees. These figures are not very different from those for the year 2018, which reveal that the directors and executives of the largest Spanish listed companies earned 79.2 times more than their employees.

greatly. With regards to the elements that make up this compensation, it can be seen that the components most frequently received by the directors are fixed remuneration (63% of the sample's directors), attendance fees (62% of the directors), and remuneration for membership on board committees (38% of the directors). The average fixed remuneration stands at 89,000 euros, attendance fees at 34,140 euros and remuneration for membership on board committees at 49,830 euros.

Apart from severance pay, which is by nature a sporadic concept, salary (502,190 euros), short-term variable remuneration (483,000 euros), and long-term remuneration (461,000 euros) are the major items. These concepts are received by a minority percentage of directors who are normally executives and therefore also perform managerial functions in the company.

Figure 2 shows the percentage breakdown of the cash remuneration for the four categories of directors defined in Spain (executive, independent, proprietary, and other external directors). As can be seen, the composition of the compensation of executive directors is very different from that of the other directors. For executive directors, the most important components of remuneration are salary and short term variable remuneration. For external directors (independent, proprietary, and other external directors) the most important component is fixed remuneration followed by remuneration for committee membership (in the case of independents), attendance fees (in the case of proprietaries) and other items (in the case of other external directors).
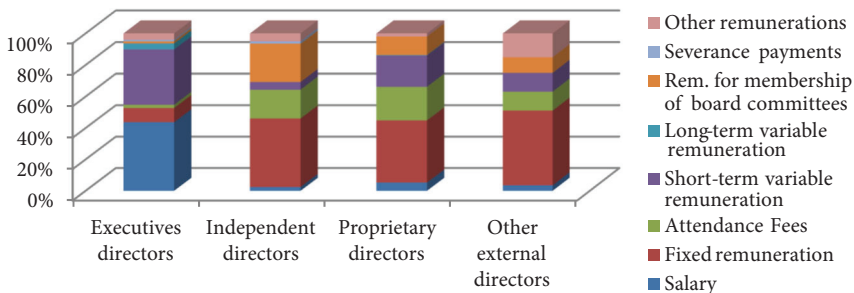

Figure 2. Composition of the cash compensation of the different categories of directors
(source: Prepared by authors)

2.2.2. Independent variables

Independent variables are classified into company and board related variables and personal characteristics of the directors (individual variables).

Company and board variables (level 2):
  – Firm size (SIZE): This variable is defined as the logarithm of the total assets of the company.
  – Firm performance (ROE): Return on Equity, calculated as the year's result divided by equity, has been used as a measure of the company's performance.
  – Concentration of ownership (BLOCK): The variable Blockholders represents the sum of all significant participations in the capital of the company (in percentage).
  – Board Independence (INDEP): Measured as the proportion of independent directors on the board of directors of the company.

Individual variables (level 1):
 – Gender (GENDER): A dummy variable that takes on the value of 1 if the director is female and 0 otherwise.
 – Nationality (FOREIGN): A dummy variable that takes on the value of 1 if the director is a foreigner and 0 otherwise.
 – Masters Education (MASTER): A dummy variable that takes on the value of 1 if the director holds a Master's degree or MBA and 0 otherwise.
 – Doctoral Education (PhD): A dummy variable that takes on the value of 1 if the director has a doctorate and 0 otherwise.
 – International Education (INTTRAIN): A dummy variable that takes on the value of 1 if the director has studied in a foreign country and 0 otherwise.
 – Tenure (TIMEBOARD): The length of time the director has been on the board has been used as a measure of experience. This variable is expressed in years.
 – Interlocking (QUOTEDB): To gauge the impact of the director's membership on the boards of directors of other companies, a variable has been used that reflects the number of boards of listed companies that the director has served on.
 – Executive (EXEC): A dummy variable that takes on the value of 1 for executive directors and 0 for the rest.

Table 2 shows the descriptive statistics of the explanatory variables for the entire sample. Panel A includes the level 2 variables (company and board), while Panel B includes the level 1 variables (individual).

With regards to the company variables, it is interesting to note the average value of the variable BLOCK (51.2%), which represents a high degree of ownership concentration of the companies in the sample; a characteristic of Spanish listed companies. The average percentage of independent members on the boards of the companies in the sample is 35.7%, and therefore very close to the one-third recommended by the Good Governance Code in force at the time.

Regarding the variables related to the demographic profile of the directors, the data shows that only 12% of the directors are women, a proportion identical to that of directors of foreign nationalities. As for the variables related to education, 41% have a master's degree, 17% are doctors and 36% have an international education. Regarding their experience and relationships, the average tenure on the board is 7 and a half years and on average they have been on the boards of 3 listed companies.

Table 2. Characteristics of the companies and the directors: Descriptive statistics

Panel A: Firm and board variables				
Variable	Mean	Median	Standard Deviation	Number observations
SIZE	14.219	13.894	2.039	90
ROE	0.0435	0.072	0.4925	90
BLOCK	0.5123	0.5477	0.2301	90
INDEP	0.3569	0.3333	0.1769	90

Panel B: Director Characteristics				
Variable	Mean	Median	Standard Deviation	Number observations
GENDER	0.12	0.00	0.33	1108
FOREIGN	0.12	0	0.32	996
MASTER	0.41	0	0.49	892
PHD	0.17	0	0.38	892
INTTRAIN	0.36	0	0.48	884
EXEC	0.17	0	0.37	1110
TIMEBOARD	7.52	5.80	7.30	990
QUOTEDB	2.93	2.00	2.84	990

3. Methodology and results

3.1. Multilevel analysis

This research includes variables measured in different levels: variables at the individual level (related to the profile of the directors) and variables at the company (or board) level. As individuals (directors) can be grouped into firms (boards), it means a hierarchical structure.

One of the characteristics of hierarchical structures (Aguinis et al., 2013; Shen, 2016) is that individuals of the same group (in this case the directors of the same company or board) are expected to be more similar to each other than the individuals of the other groups. This implies that subjects belonging to the same group are not very likely to be independent of one another, which constitutes a serious breach of a basic assumption of the general linear model: independence between observations. The multilevel nature of the data requires that the dependence between the observations be treated both conceptually and analytically (Snijders & Bosker, 2012). One way to solve this is the use of multilevel models that allow these types of hierarchical structures to be approached taking into account the dependency that exists between the subjects of the same group (Pardo et al., 2007).

The following equation (for the sake of simplification only one explanatory variable is included) reflects the general model where subscript i refers to each individual and subscript j refers to each one of the groups in which those individuals are grouped (in this case i and j refer to individuals and companies/boards respectively).

$$Y_{ij} = \beta_{0j} + \beta_{1j}x_{ij} + e_{ij}, \tag{1}$$

where Y is the dependent variable (in this case, cash director's compensation measured in logarithms); β_{0j} is the constant or intersection; β_{1j} represents the slope of the regression line, i.e. the change in the dependent variable (Y) that the model predicts for each unit that the independent variable (x) increases; x_{ij} is the independent variable, that can be measured at any level (individual or company). Finally, e_{ij} represents the error related to each individual

prediction, that is, the difference between each individual's actual compensation, and that predicted by the model.

In the multilevel model, the parameters β_{0j} and β_{1j} are not interpreted as fixed constants but as variables whose values can change from one company to another.

$$\beta_{0j} = \beta_0 + u_{0j}; \tag{2}$$

$$\beta_{1j} = \beta_1 + u_{1j}, \tag{3}$$

where β_0 is the mean intersection for the set of companies and u_{0j} represents the variability of each company with respect to that mean. Similarly, the term β_{1j} is composed of a fixed part, which is the mean slope for the set of companies (β_1) and a random part (u_{1j}) that reflects the variability of the slopes between the different companies.

It is necessary to mention that for coefficient β_0 (the constant or intersection) to have a precise meaning it is normal to re-scale the values of the independent variables, which is done by subtracting from each value of each independent variable, its mean, i.e. using the differential or centered scores instead of direct scores. Thus, the coefficient β_0 becomes the mean of the dependent variable. Following these recommendations, centered independent variables are used in the estimated models, with the exception of the dummy variables which are included un-centered.

Substituting expressions (2) and (3) in (1), the general expression of the multilevel model is obtained:

$$Y_{ij} = \beta_0 + \beta_1 x_{ij} + u_{0j} + u_{1j} x_{ij} + e_{ij}. \tag{4}$$

As it can be seen in equation (4) what distinguishes this function from the standard linear regression models is the presence of more than one residual, that is, the key is in the structure of the random part of the model ($u_{0j} + u_{1j} x_{ij} + e_{ij}$). This particularity implies the need to use special procedures for estimating the parameters (Goldstein, 1995). In the fixed part of the model, the variables can be measured at any level (individual or company).

3.2. Results

Tables 3 and 4 show the results of the different multilevel models estimated for the total sample as well as for the subsamples of executive directors, external directors, proprietary directors and independent directors. Although the arguments exposed in the previous section and the hypotheses formulated apply to all members of the board, the differences in their compensation indicate that it is more appropriate to estimate separate regressions for each category of directors. The first one (Model 1) is the so-called unconditional or null model which is the simplest possible multilevel model and it is obtained by eliminating everything related to the independent variables, incorporating only the constant. The following model (Model 2) incorporates only the level 2 (company and board) explanatory variables and Model 3 incorporates level 1 (individual) and level 2 (company and board) explanatory variables. Specifically, the "mixed" procedure in SPSS 22 is used to perform the multilevel analyses

(for an excellent overview of the use of SPSS to estimate multilevel models, see Pardo et al. (2007)). Multicollinearity is tested by calculating Variance Inflation Factors (VIFs). As no VIF is above 2 (well below the accepted maximum of 10) it is verified that multicollinearity does not affect the results. As a measure of goodness of fit of the models the pseudo-R^2 (Snijders & Bosker, 2012) are provided. Pseudo-R^2 is computed as the reduction in total variance achieved by a model with respect to the null model.

For the total sample, and with regards to the null model, Table 3 shows the estimated value of the constant, which is the only fixed effects parameter incorporated in this model and it is an estimate of the mean of the population of the dependent variable (LNCASHCOMP). The truly informative aspect of this model is the estimation of the covariance of the parameters. For the analysis of the entire sample, the inter-company variance (0.604) indicates how much the compensation of the directors varies between companies, while the variance of the residuals indicates how much the compensation varies within each company (1.015). To contrast that variance components are different from zero, the Wald Z statistic has been calculated.

The variability among firms represents [0.604/(1.015 + 0.604)] = 0.3731 (37.31%) of the total variability of director compensation. This coefficient (37.31%) is the intraclass correlation coefficient (ICC).

As there is a significant variation between companies, in the next step level 2 variables (variables related to the company) are used in order to analyse the extent to which they can explain this variability. Once introduced level 2 variables in the model, only the influence of the size of the company is statistically significant. Several studies have documented that the size of the company is the most important variable in explaining the level of director's compensation (Ryan & Wiggins, 2004; Adams, 2005; Linn & Park, 2005; Brick et al., 2006; Arrondo et al., 2008; Andreas et al., 2012).

As shown in the table, the variation between companies is substantially reduced when the level 2 explanatory variables are taken into consideration, dropping from 0.604 to 0.3618.

In order to explain the variability of the compensation received by the directors of the same company, it is necessary to introduce level 1 variables. When the level 1 variables are introduced, only some of them are seen to be statistically significant. Specifically, the results indicate that the position of the director (executive vs external), their domestic nature, their tenure, and their experience in other boards significantly influence the compensation they receive. Contrary to what would be expected, there is no significant influence of any of the variables related to the director's education.

Therefore, as far as qualifications are concerned, it seems that aspects related to experience, such as tenure and interlocking, are positively valued in terms of compensation. This evidence is consistent with other papers such as Goh and Gupta (2016) and Ferris et al. (2018) and indicates that directors' ability to contribute to board decision-making and their set of resources are valued by the firm.

Finally, the results for the total sample indicate that by controlling for all the explanatory variables simultaneously, a high percentage of independent members on the board positively influences the compensation of directors, which contradicts the hypothesis formulated. However, similar results have been observed by authors such as Ryan and Wiggins (2004), Adams (2005), Andreas et al. (2012) or Andrés et al. (2017).

Table 3. Multilevel models for the total sample, executive directors and external directors

Level and Variable	TOTAL SAMPLE			EXECUTIVE DIRECTORS			EXTERNAL DIRECTORS		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Intercept	4.780***	4.840***	4.495***	6.583***	6.601***	6.734***	4.372***	4.439***	4.783***
Level 2									
SIZE		0.245***	0.219***		0.284***	0.233***		0.238***	0.217***
BLOCK		0.112	0.072		0.021	−0.032		0.092	0.173
INDEP		0.592	0.863*		0.602	0.510		0.523	0.842*
ROE		0.057	0.045		−0.078	−0.043		0.107	0.070
Level 1									
EXEC			2.147***						
GENDER			−0.100			−0.328			−0.052
FOREIGN			−0.173**			−0.048			−0.165**
MASTER			−0.011			0.041			−0.009
PHD			−0.281			−0.211			0.002
INTTRAIN			0.040			−0.060			0.056
TIMEBOARD			0.016***			0.003			0.019***
QUOTEDB			0.030***			0.113***			0.024***
Variance Components									
Within–firm (L1) variance	1.015***	1.010***	0.303***	0.820***	0.796***	0.624***	0.269***	0.274***	0.198***
Intercept(L2) variance	0.604***	0.362***	0.288***	0.460***	0.110	0.068	0.634***	0.420***	0.380***
ICC	37.31%	26.36%	48.68%	35.68%	12.12%	9.87%	70.22%	60.50%	65.70%
N	1052	1052	811	183	183	143	867	867	667
−2log Likelihood	3184.45	3010.39	1574.25	550.22	491.44	386.15	1596.78	526.26	1088.26
Pseudo R²		0.152	0.635		0.292	0.459		0.231	0.360

Significance levels: *** Indicates $p < 0.01$; ** Indicates $0.01 < p < 0.05$; * Indicates $0.05 < p < 0.1$.

Table 4. Multilevel models for proprietary directors and independent directors

Level and Variable	PROPIETARY DIRECTORS			INDEPENDENT DIRECTORS		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Intercept	4.270***	4.354***	4.393***	4.429***	4.480***	4.536***
Level 2						
SIZE		0.235***	0.192***		0.218***	0.205***
BLOCK		0.051	0.052		0.022	0.101

End of Table 4

Level and Variable	PROPIETARY DIRECTORS			INDEPENDENT DIRECTORS		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
INDEP		0.062	0.483		0.651	0.951**
ROE		0.074	−0.010		0.101	0.060
Level 1						
EXEC						
GENDER			−0.078			−0.086
FOREIGN			−0.170			−0.217**
MASTER			0.009			−0.031
PHD			−0.012			−0.004
INTTRAIN			0.132*			0.042
TIMEBOARD			0.019***			0.020***
QUOTEDB			0.034**			0.017**
Variance Components						
Within-firm (L1) variance	0.315***	0.317***	0.230***	0.149***	0.158***	0.126***
Intercept(L2) variance	0.635***	0.492***	0.428***	0.551***	0.333***	0.273***
ICC	66.85%	60.86%	65.03%	78.71%	67.83%	68.33%
N	414	414	303	402	402	326
-2log Likelihood	878.71	865.85	605.83	620.54	580.83	475.70
Pseudo R^2		0.148	0.307		0.298	0.430

Significance levels: ***Indicates $p < 0.01$; **Indicates $0.01 < p < 0.05$; *Indicates $0.05 < p < 0.1$.

The covariance of the estimated parameters indicate that the incorporation of level 1 explanatory variables reduced intra-company variability from 1.015 to 0.303, that is, by 70%.

Once the results for the total sample are obtained, the model was estimated for each of the two main categories of directors, that is executive and external (see Table 3) as well as for the two main categories of external directors, that is proprietary and independent (see Table 4). Some interesting results emerge from these analyses. Similar to total sample, firm size and the membership of the director on the boards of other companies positively affect compensation for all categories of directors. Nevertheless, the percentage of independents on the board, tenure in the board and nationality of the director are only significant for external directors.

Within the subsample of external directors there are also differences between proprietary and independent directors. It is worthwhile to note that the positive influence of board independence on compensation is only significant for the sub-sample of independent directors, which can suggest more entrenchment of this category of directors.

Apart from differences in the significant variables, the covariance parameter estimates indicate that intra-company variability (within variance L1) is much higher for executive directors than for outsiders. Opposite is true for inter-company variance (L2), which is higher for outsider directors. As intra-company variability must be explained by director level variables and inter-company variability is explained by firm level variables, these results suggest that firms set out the compensation of each executive director by taking into account the unique characteristics that this particular executive brings to the board, whereas non-executive director's compensation seems to be set in the firm for a group of individuals as a whole (depending on the characteristics of the firm). These results are consistent with different roles played by each category of directors.

Conclusions

The compensation of executives and directors of large listed companies has generated intense debate in practice and in the economic literature. In the academic field, although there is a large body of literature on CEO remuneration, few studies have been carried out on the factors that explain the levels of compensation of the members of the boards of directors and furthermore, few of these studies use individualized information on board members. This paper closes this gap in the literature by analyzing the determinants of the compensation of the different categories of directors and including individualized information on the board members, focusing on the Spanish context.

This research is grounded in Agency Theory and Human Capital Theory, contrasting the influence that variables at company level and also variables at the individual level exert on compensation. To perform the contrasts, multilevel analysis was used.

Using a sample of 1,110 observations at the director level (corresponding to 90 Spanish listed companies), evidence indicates that the level of directors' compensation is determined by both company-related factors and the demographic characteristics of the individuals.

The results show that the size of the company is the variable that most explains the differences in compensation between companies. With regard to the profile of directors, tenure and experience are the key factors in determining the compensation of directors. However, contrary to what would be expected, other personal characteristics such as education, for example, do not appear to be decisive in the compensation of any of the categories of directors. Therefore, companies seem to value primarily the directors' experience, either within the same company or on the boards of other companies.

Summarizing, the results obtained for the continental European context (Spain in particular) partially support the Human Theory of Capital. Nevertheless, evidence is not supportive of Agency Theory, as corporate governance mechanisms do not contribute to moderate the compensation of directors and there is no relationship between corporate performance and the compensation of directors.

Furthermore, it is worth highlighting the analyses by different categories of directors whose results reveal some differences that are not disclosed when an analysis of the total sample is performed. The findings by subsamples indicate that intra-company variability is much higher for executive directors than for outsider directors. This evidence is consistent

with the idea that non-executive director's compensation seems to be set for a group of individuals as a whole, whereas executive director compensation is more based on the unique characteristics that a particular executive brings to the board.

As for the academic implications of the study it is necessary to consider that the results obtained imply the need for more in-depth research using multilevel methodology with the aim of analysing which type of variables are those that determine, to a large degree, the compensation of the directors. In this way, this paper suggests that firm level variables are more important in determining non-executive director's compensation, whereas executive director compensation seems to be more dependent on the individual level variables. It has been found that experience (inside and outside the firm) is highly valued, but it is necessary to find other transferable abilities of board members which are "priced" in the managerial labor market.

On the other hand, as for the practical implications for society, it must be taken into account that the compensation of board members is a controversial topic in society. This research sheds some light on this issue, although more studies are needed to delve deeper into this topic. Likewise, it is important to note that the positive effect of the presence of independent directors on the directors' compensation is the opposite to what was expected. These results could be justified from two different perspectives: a) on the one hand, independent directors may be using their greater power or weight on the board to increase their own remuneration (entrenchment by independent directors); b) on the other hand, higher remuneration granted to independent directors as their weight on the board increases could be interpreted as a way to limit their independence and their supervisory role. In either case, it would be interesting to look deeper into this aspect since it challenges the recommendations included in the good governance codes concerning the proper weight of independent directors on the board of directors and their presence on the delegated committees.

In the end this paper constitutes an initial effort to shed some light on the determinants of directors' compensation by taking advantage of the new, individualized information that Spanish listed companies are required to publish in an Annual Report on Remuneration of Directors. The paper presents several contributions. On the one hand, the scarce previous evidence on this topic is focused on Anglo-Saxon countries. On the other hand, this study uses a multilevel methodology which is an innovation in this field and provides evidence on the determinants of director compensation for each category of directors. However, the study also has some limitations. In the first place, the use a cross-sectional design prevents from exploring patterns over time. Likewise, the sample is focused on the Spanish context, a country with an institutional context which is similar to that of other countries in Europe, but very different from Anglo-Saxon countries. Also, the information available on the personal characteristics of directors is limited. Future research that incorporates a greater number of periods and considers new explanatory variables will allow a deeper analysis of this question and clarify the rationality (or the lack of rationality) of directors' compensation.

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