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# Human resource practices and organizational human capital in the family firm: The effect of generational stage

Virginia Blanco-Mazagatos\*, Esther de Quevedo-Puente, Juan Bautista Delgado-García

*Departamento de Economía y Administración de Empresas, Facultad de CC.EE. y Empresariales, C/Parralillos s/n, 09001 Burgos, Spain*

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## ABSTRACT

Organizational human capital (OHC) is considered a source of sustainable competitive advantage. However, research has scarcely analyzed what drives its development in family firms. We analyze the effect of formal human resource (HR) practices for family and non-family employees—namely, skill-enhancing practices (entry requirements and training programs) and motivational practices (internal promotion systems and compensation and incentive plans)—on family firms' OHC. Further, generational stage is one important source of heterogeneity among family firms. We contribute to the literature on heterogeneity among family firms by testing the moderating role of generational stage in the relationship between HR practices and OHC. We analyze 707 unlisted Spanish family firms and conclude that both family and non-family employees' skill- and motivation-enhancing practices have a positive effect on their OHC. Our results also show that the positive influence of motivational HR practices for family employees on OHC is more intense as generations advance.

## 1. Introduction

Many authors have expressed that organizational human capital (OHC) is a key source of sustainable competitive advantage for businesses (Pennings, Lee, & Van Witteloostuijn, 1998), including family firms (Habbershon & Williams, 1999; Sirmon & Hitt, 2003). Thus, scholars have been interested in analyzing the factors that affect OHC, especially in family firms (Chrisman, Kellermanns, Chan, & Liano, 2010).

A particularly unique aspect of family firms is the coexistence of family and non-family employees. In this context, family (e.g., ensuring income and security for all family members and maintaining the family's social status) and economic (e.g., merit) criteria coexist in the management of human resources. The family firm literature has suggested that this duality of criteria has both advantages (e.g., the transmission of tacit knowledge between generations) and disadvantages (e.g., difficulty in attracting and retaining high-skilled employees) for the development of OHC within family firms (Habbershon & Williams, 1999; Sirmon & Hitt, 2003).

Human resource (HR) practices are criteria and methods to manage employees in a firm (Barnett & Kellermanns, 2006; Jiang, Lepak, Hu, & Baer, 2012). These formal practices emphasize economic criteria (e.g., merit) in the management of human resources. The implementation of these practices influences OHC through the acquisition and development of employee skills (Huselid, 1995; Jiang et al., 2012).

Since OHC decline is a frequent cause of family firm failure (Kidwell, Eddleston, & Kellermanns, 2017), analyzing the effects of HR practices on OHC is becoming particularly relevant in the family business field. The literature on family firms has usually focused on comparing family firms' implementation of HR practices with that of non-family firms (De Kok, Uhlaner, & Thurik, 2006; Reid & Adams, 2001). However, little is known about differences in HR practices among family firms and their influence on OHC. This scarce literature has directly linked HR practices to firm performance (Carlson, Upton, & Seaman, 2006; León-Guerrero, McCann, & Haley, 1998). Specifically, these studies have shown that the implementation of HR practices that favor the regulation of labor relations with economic criteria improves family firm success. Our paper responds to calls to analyze the influence of HR practices, particularly skill- and motivation-enhancing practices on family firms' OHC (Astrachan & Kolenko, 1994; Daspit, Madison, Barnett, & Long, 2017; Tsao, Chen, Lin, & Hyde, 2009).

Recent studies have suggested that heterogeneity among family firms might be even greater than the heterogeneity between family and non-family firms (Chua, Chrisman, Steier, & Rau, 2012). One of the most important sources of heterogeneity among family firms is generational stage (Gomez-Mejia, Cruz, Berrone, & De Castro, 2011). Generational stage reduces the strength of family ties, which may affect the importance that family members place on family and economic objectives (Sciascia, Mazzola, & Kellermanns, 2014). As generation advances, family employees' identification and commitment tends to weaken (Le

\* Corresponding author.

*E-mail addresses:* [vblanco@ubu.es](mailto:vblanco@ubu.es) (V. Blanco-Mazagatos), [equiev@ubu.es](mailto:equiev@ubu.es) (E. de Quevedo-Puente), [jbdelgado@ubu.es](mailto:jbdelgado@ubu.es) (J.B. Delgado-García).

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Breton-Miller & Miller, 2013), which may affect family employees' motivation. We test the moderation effect of generational stage in the relationship between HR practices, skill- and motivation-enhancing practices, and OHC in family firms. Filling this gap contributes to the literature on the causes and consequences of family firm heterogeneity based on generational stage (Chrisman, Sharma, & Taggar, 2007).

This article is structured as follows. The following section develops our hypotheses. Hypotheses 1 and 2 refer to the influence of skill- and motivation-enhancing HR practices for family and non-family employees on OHC. Hypotheses 3 and 4 analyze the moderation effect of generational stage in the relationship between these HR practices and OHC. The third section describes the empirical research, and the fourth section reports the results. The fifth section discusses these results and presents our principal conclusions.

## 2. Theoretical background and hypotheses

### 2.1. Organizational human capital

Human capital theory (Schultz, 1971) emphasizes that human capital is a central driver of competitive advantages over competitors, especially high-quality and organization-specific human capital (Jiang et al., 2012; Wright, McMahan, & McWilliams, 1994). Human capital refers to the knowledge, skills, and abilities embodied in people (Coff, 2002), and it has been measured at both the individual and collective level. Individual human capital is measured as employees' education, training, and experience (Becker, 1964), whereas collective human capital has been measured at the top management team level as executive experience (Combs & Ketchen, 1999) or at the organizational level as the knowledge, skills, and capabilities of organizational members (Cabello-Medina, López-Cabrales, & Valle-Cabrera, 2011; Crook, Todd, Combs, Woehr, & Ketchen, 2011; Yang & Lin, 2009). We focus on human capital at the organizational level. Since OHC aggregates the knowledge, skills and capabilities of a firm's employees (Pennings et al., 1998; Subramaniam & Youndt, 2005; Youndt & Snell, 2004), it cannot be easily imitated.

The uniqueness of family business human capital comes from the integration of family and economic relationships (Habbershon & Williams, 1999; Sirmon & Hitt, 2003). Labor relationships are based not only on strictly economic criteria (i.e., merit) but also on family criteria (ensuring income and security for all family members and equal treatment whatever their individual contributions). This relationship duality increases complexity in labor relationships and creates a unique context for OHC development (both negative and positive) in family firms compared to non-family firms (Cabrera-Suárez, De Saá-Pérez, & García-Almeida, 2001; Sirmon & Hitt, 2003). Some family practices, such as the selection of management team members from a restricted family labor pool and managerial entrenchment derived from family control, can limit the quality of human capital at the top of the firm (Gomez-Mejia, Núñez-Nickel, & Gutiérrez, 2001; Levie & Lerner, 2009). This restricted human capital in the management team may spawn a cascade effect in the firm's lower levels that prejudices the quality of OHC in the family firm (Bloom & Van Reenen, 2007) since non-family employees may have limited career opportunities as preference is given to family members (Schulze, Lubatkin, & Dino, 2002).

However, the literature has shown that family firms also have advantages in terms of developing OHC. Skills and tacit knowledge that may be difficult to acquire in other firms are naturally transmitted from parents to their children (Cabrera-Suárez et al., 2001; Gedajlovic & Carney, 2010). Successors may grow up listening to management strategies, in turn acquiring deep and broad knowledge of the specific ways to “get things done” in the firm. Inside the firm, the common language that family members share facilitates knowledge transfer (Patel & Fiet, 2011). Moreover, since family members are the actual or psychological firm owners, they may be encouraged to develop specific human capital because they do not fear potential

expropriation (Chirico, 2008; Milgrom & Roberts, 1992). These circumstances help family firms develop valuable human capital for the organization.

Despite its importance, our knowledge about the factors that might lead to the development of OHC in the specific context of the family firm is scarce. Scholars have shown that utilizing HR practices is crucial for developing valuable organizational skills that may lead to competitive advantage over competitors (Wright et al., 1994; Wright, McCormick, Sherman, & McMahan, 1999). However, research dealing directly with HR practices in family-owned firms is scarce and fragmented (Cruz, Firfiray, & Gomez-Mejia, 2011). Our study fills this gap by exploring how the implementation of HR practices affects OHC within family firms.

### 2.2. Implementation of HR practices and human capital

HR practices are criteria and methods to manage employees in a firm (Jiang et al., 2012). The human capital perspective suggests that HR practices affect OHC by influencing the knowledge, skills, and abilities of employees (Cabello-Medina et al., 2011; Yang & Lin, 2009; Youndt & Snell, 2004). In this article, we focus on HR practices that enable family firms to establish merit as economic criteria to manage human resources that conflict with family criteria based on loyalty and equity (Kidwell et al., 2017).

HR practices are rarely used in isolation because they involve a combination of practices in a bundle that ultimately shapes interactions among employees (Cruz et al., 2011; Jiang et al., 2012). HR practices can be grouped into three dimensions: skill-enhancing HR practices, motivation-enhancing HR practices, and opportunity-enhancing HR practices (Cruz et al., 2011; Jiang et al., 2012). We focus on the first and second dimensions because previous research has shown that they are most relevant in the development of human capital in organizations (Jiang et al., 2012). Skill-enhancing practices include recruitment and training practices. One of the most obvious ways firms may enhance OHC is through the individuals they hire (Lepak & Snell, 1999). Thus, recruitment practices help identify workers with specific skills who enhance OHC. In addition to recruitment, organizations invest in OHC through the internal development of their employees' human capital. Indeed, previous studies have shown that training practices enhance OHC (Minbaeva, Pedersen, Bjorkman, Fey, & Park, 2003). Motivation-enhancing practices include compensation plans, incentives, and promotion. Competitive internal and external compensation plans are crucial to retaining and developing OHC (Roos, Fernstrom, & Pike, 2004; Terpstra & Honoree, 2003). Incentives motivate employee behavior and drive employees' to develop the knowledge, skills, and capabilities the firm needs. Similarly, the development of promotion plans within the company enhances OHC (Cabello-Medina et al., 2011).

The scarce literature on HR practices in the family firm has mainly focused on comparing HR practices in family and non-family firms (De Kok et al., 2006; Reid & Adams, 2001). Research has argued that family firms might lean toward less complex and informal practices compared to non-family firms. In terms of recruitment practices, family firms tend to avoid clear criteria in order to employ family members (Aldrich & Langton, 1997; Cruz, Justo, & De Castro, 2012). Research has also pointed out that family businesses implement fewer training activities than non-family firms (Kotey & Folker, 2007; Matlay, 2002). Related to remuneration and incentive practices, research has shown that pay level and incentives are lower in family firms than in non-family firms (Bassanini, Breda, Caroli, & Rébérioux, 2013; Carrasco-Hernandez & Sánchez-Marín, 2007). Further, Fiegner, Brown, Prince, and File (1996) found that non-family firms tend to base promotion decisions on experience and formal education to a higher extent than family firms.

Research on HR practices within the family firm is also scarce and has looked into differences between family and non-family employees (Cruz et al., 2011). Perry, Ring, Matherne, and Markova (2015) showed

that family firms do not usually implement professional HR practices in order to favor family employees. Astrachan and Kolenko (1994) revealed that HR practices are used more frequently for non-family employees than for family employees. Further, Barnett and Kellermanns (2006) argued that HR practices reduce perceptions of inequality among non-family employees. Some studies have revealed the positive effect of implementing professional HR practices on several family firm outcomes including performance and firm survival through generations (Carlson et al., 2006; León-Guerrero et al., 1998).

Research has shown that the use of skill- and motivation-enhancing HR practices fosters OHC (Cabello-Medina et al., 2011; Yang & Lin, 2009). As we mentioned previously, the specificity of labor relations in family firms is that family employees maintain family and economic relationships whereas non-family employees only maintain economic relationships. As a result, family and non-family employees are likely to have different human capital in terms of quantity and quality as well as different motivations. Indeed, the goal of employing family members could lead to lower OHC (Habbershon & Williams, 1999). However, family relations benefit from the transmission of tacit knowledge between generations (Cabrera-Suárez et al., 2001). Even more, family relations may encourage family employees to increase OHC to fulfill the organization goals (Davis, Schoorman, & Donaldson, 1997; Eddleston & Kellermanns, 2007). For this reason, it is interesting to isolate the effect that HR practices (i.e., skill- and motivation-enhancing practices) for family and non-family employees has on OHC in the family firm.

Regarding family employees, in terms of skill-enhancing practices, recruitment practices for family employees ensure adequate qualifications among family employees and even prevent unqualified family members from obtaining certain positions. Family firms may also provide training aimed at increasing specific skills among family employees to develop their OHC. Regarding motivational HR practices for family employees, compensation and incentive practices encourage family employees to develop OHC because they will be economically rewarded according to their capabilities and not their family status. Similarly, promotion focused on employee merit motivates family employees to develop firm-specific skills. Even more, non-family employees and highly qualified family employees are likely to appreciate these family-employee-centered practices because they guarantee that the achievement of family objectives will not cause harm in their labor relations. Indeed, if family firms do not implement motivational HR practices, they may face moral hazard problems because of the use of family criteria in their labor relations. For example, when using family criteria, family firms may imply that they would promote a non-qualified family member instead of a qualified non-family member or would promote family members without considering their capabilities. The above argument leads to our first hypothesis:

**Hypothesis 1.** HR practices for family employees have a positive influence on family firms' OHC.

**Hypothesis 1a.** Skill-enhancing HR practices for family employees have a positive influence on family firms' OHC.

**Hypothesis 1b.** Motivation-enhancing HR practices for family employees have a positive influence on family firms' OHC.

With respect to skill-enhancing practices for non-family employees, recruitment practices make family firms appear more professional, which may attract non-family employees with relevant skills and abilities and in turn increase OHC. Implementing motivation-enhancing practices for non-family employees is an informational signal about the criteria employed to assess and pay non-family employees. Thus, non-family employees will be incentivized to acquire knowledge and skills that are more valuable for the family firm. As we mentioned before, if family firms do not implement motivational HR practices, they may face moral hazard problems. Indeed, they may experience shirking or motivation problems among non-family employees because they may be uncertain about whether their effort will be fairly rewarded. The

above argument leads to our second hypothesis:

**Hypothesis 2.** HR practices for non-family employees have a positive influence on family firms' OHC.

**Hypothesis 2a.** Skill-enhancing HR practices for non-family employees have a positive influence on family firms' OHC.

**Hypothesis 2b.** Motivation-enhancing HR practices for non-family employees have a positive influence on family firms' OHC.

### 2.3. The moderating role of family firms' generational stage

Recent studies have recognized that heterogeneity among family firms is even greater than variations between family and non-family organizational forms (Chua et al., 2012). One important source of heterogeneity among family firms is generational stage (Eddleston, Kellermanns, Floyd, Crittenden, & Crittenden, 2013; Sonfield & Lussier, 2004) because ties among family members weaken with each succession (Gomez-Mejia, Haynes, Núñez-Nickel, Jacobson, & Moyano-Fuentes, 2007).

The literature on HR practices has indicated that a family firm's generational stage is positively related to the level of professionalization of its HR practices (Astrachan & Kolenko, 1994; Dekker, Lybaert, Steijvers, Depaire, & Mercken, 2012; Flamholtz & Randle, 2007; Gomez-Mejia et al., 2011). Such research has generally argued that as firms evolve through the organizational lifecycle, the complexity of firm operations increases as well as the demand for more sophisticated management and organizational systems. We advance this literature by focusing on the intensity of the effect of HR practices on the level of OHC in family firms of different generational stages.

The literature has shown that as generations advance, family employees will be less committed to the family firm (Le Breton-Miller & Miller, 2009; Miller, Le Breton-Miller, & Scholnick, 2008). Indeed, in the first generation, family employees tend to behave in ways that go beyond economic rationality (Davis et al., 1997; Donaldson & Davis, 1991). They strive to do an excellent job to contribute to OHC even in the absence of pecuniary rewards (Mayer & Schoorman, 1992). In this stage, family employees are usually focused on getting the required knowledge, skills, and abilities to achieve family goals even without skill-enhancing practices. Similarly, family employees are also motivated to use their skills to achieve family goals even without motivation-enhancing practices. As such, the implementation of either skill- or motivation-enhancing HR practices may not have an intense influence on OHC. As the generations advance, family ties become weaker among family employees, and family members' identification with the family firm may decrease (Cruz et al., 2011), which negatively affects family employees' level of commitment (Gedajlovic, Lubatkin, & Schulze, 2004; Tsui-Auch, 2004). Thus, family employees may develop their knowledge, skills, and abilities according to their personal interests instead of developing the OHC the family firm needs. Likewise, family employees will place greater value on pecuniary rewards, which will be enjoyed by their own family branches. Thus, the implementation of skill- and motivation-enhancing HR practices for family employees that link pecuniary rewards to required knowledge, skills, and abilities may have a greater influence on family firms' OHC as generations advance. This leads to our next hypothesis:

**Hypothesis 3.** Generational stage positively moderates the relationship between HR practices for family employees and OHC.

**Hypothesis 3a.** Generational stage positively moderates the relationship between skill-enhancing HR practices for family employees and OHC.

**Hypothesis 3b.** Generational stage positively moderates the relationship between motivation-enhancing HR practices for family employees and OHC.

Labor relationships with non-family employees are regulated only by economic criteria (Lubatkin, Schulze, Ling, & Dino, 2005) irrespective of the family firm generation. Recruitment practices will enable family firms to identify the most appropriate non-family employees using economic objectives (merit) no matter the generational stage of the firm. Similarly, training for non-family employees tends to be based on the firm's human capital needs regardless of the generational stage of the family firm. Furthermore, non-family employees are often paid and promoted according to their contributions to the family firm (economic criteria). Thus, the positive effect that skill- and motivation-enhancing HR practices have on non-family employees' attitudes toward the development of OHC will be independent of the generational stage of the family firm. Based on these arguments, we hypothesize the following:

**Hypothesis 4.** Generational stage does not moderate the relationship between HR practices for non-family employees and OHC.

**Hypothesis 4a.** Generational stage does not moderate the relationship between skill-enhancing HR practices for non-family employees and OHC.

**Hypothesis 4b.** Generational stage does not moderate the relationship between motivation-enhancing HR practices for non-family employees and OHC. Our research model is shown in Fig. 1.

### 3. Methods

#### 3.1. Measure of the family firm

In our empirical analysis, we used a reasonably broad definition of the family firm (Westhead & Cowling, 1998). A firm is usually considered to be a family firm when > 50% of its equity is owned by a family and the family has a presence in the firm's management and governance. Moreover, as the essence differentiating family firms from other firms is cross-generational sustainability (Chua, Chrisman, & Sharma, 1999), we considered family firms to be those whose managers reported an intention of transferring the firm to the next generation. Thus, we avoided including family firms without the intention of continuity.

#### 3.2. Sample and information sources

Our dataset was based primarily on CEOs' responses to a questionnaire we developed. We also employed the SABI<sup>1</sup> database to obtain financial information for each family firm. Finally, we selected only unlisted firms because in listed firms, the stock market's control restricts the firms' ability to apply family criteria when managing employees.

The questionnaire was pilot tested using four family firms. A total of 9545 questionnaires were sent by post to the CEOs, whose names were also obtained from the SABI database. After two rounds, 1056 questionnaires were returned, which represents a response rate of 11.06%. This response rate is similar to rates in previous studies of privately held firms (Dennis, 2003; Schulze, Lubatkin, & Dino, 2003). We rejected 349 questionnaires that were incomplete or represented firms that did not qualify as family firms, leaving a total of 707 usable questionnaires, of which 292 were first-generation, 291 were second-generation, and 124 were third- and later-generation family firms. A total of 669 CEOs who responded to the questionnaire were family members, and 38 were not family members. We found no differences between family firms included in the sample and those excluded in either performance ( $p > 0.10$ ) or size ( $p > 0.10$ ). We also found no differences in reported OHC ( $p > 0.10$ ) between early and late respondents, suggesting no response bias. We repeated these analyses for each possible generational subsample, and our results suggest that there was no non-

response bias in any possible generational subsample.

#### 3.3. Variables

##### 3.3.1. Dependent variable: organizational human capital

The questionnaire served as the information source for constructing the OHC variable. Drawing on Becker's (1964) definition of human capital, Unger, Rauch, Frese, and Rosenbusch (2011) suggested differentiating two distinct conceptualizations and types of measures of human capital: human capital investments versus outcomes of human capital investments. Human capital investments include experiences like education and work experience that may or may not lead to knowledge and skills (Unger et al., 2011; 343). The outcomes of human capital investments are acquired knowledge and skills. In competitive terms, the quality of OHC is more relevant than the number of degrees a firm's employees have. Therefore, we focus on OHC and use a definition that deviates from the literature measuring human capital from the perspective of education and experience (Hitt, Bierman, Shimizu, & Kochhar, 2001; Pennings et al., 1998), drawing instead on the literature that considers skills and abilities (Nahapiet & Ghoshal, 1998; Snell & Dean, 1992; Subramaniam & Youndt, 2005). We measured OHC using a scale developed by Subramaniam and Youndt (2005). Following the original scale, we asked the CEOs to respond to the questionnaire, who are likely one of the best sources of information about human resources (Collins & Clark, 2003), especially in our sample composed of small and medium size enterprise. Thus, our variable of OHC is related to the perceived quality of OHC. The five items included in the scale are shown in Table 1 and were measured using a five-item Likert-type measure anchored at 1 = strongly disagree and 5 = strongly agree. We conducted an overall principal component analysis (PCA) on the two main variables in the study: OHC quality and HR practices. PCA showed a three-factor structure—OHC quality, HR practices for non-family employees, and HR practices for family employees—via complementary criteria: eigenvalue and screen plot. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and the Bartlett sphericity test confirmed the appropriateness of PCA (Table 1). The Cronbach's alpha is 0.87, which is above the 0.7 cutoff. To validate the scale, we used confirmatory factor analysis (CFA). Fit indices were all within acceptable ranges (chi-square = 3.985, 78 degrees of freedom, NNFI = 0.908, CFI = 0.931, RMSEA = 0.078), and all paths were significant at  $p < 0.05$ . The measure of OHC used in the analyses was the factor score of the PCA with varimax rotation.

##### 3.3.2. Independent variables

To measure the generational stage of the firm, we constructed an ordinal scale with the information taken from the questionnaire. The scale measured whether the family firm was a first- (coded as 1), second- (coded as 2), or third- and later-generation (coded as 3) firm. When the CEO was a family member, we considered the firm to belong to the generation to which the CEO belongs. If the CEO was not a family member, we considered the family firm to be in the oldest of the different generations of members participating in the firm's management (Davis & Harveston, 1998).

We conducted an extensive review of the HR literature to determine how to measure HR practices (Cruz et al., 2011; Jiang et al., 2012). We developed an eight-item scale about the firm's level of implementation of entry requirements, training programs, internal promotion systems, and compensation and incentives plans with merit criteria for both family and non-family employees. Each item was measured on a scale anchored at 1 = non-existent HR practice; 2 = they are known by the management team but not formalized; 3 = they are known by the whole organization but not formalized, and to 4 = documented HR practice. We asked the CEOs to respond to this scale because CEOs are a good source of information about Human Resources (Collins & Clark, 2003).

As we mentioned previously, we conducted an overall PCA on the

<sup>1</sup> This database is prepared by INFORMA S.A. and provides general and financial information from official registers for > 190,000 Spanish firms.

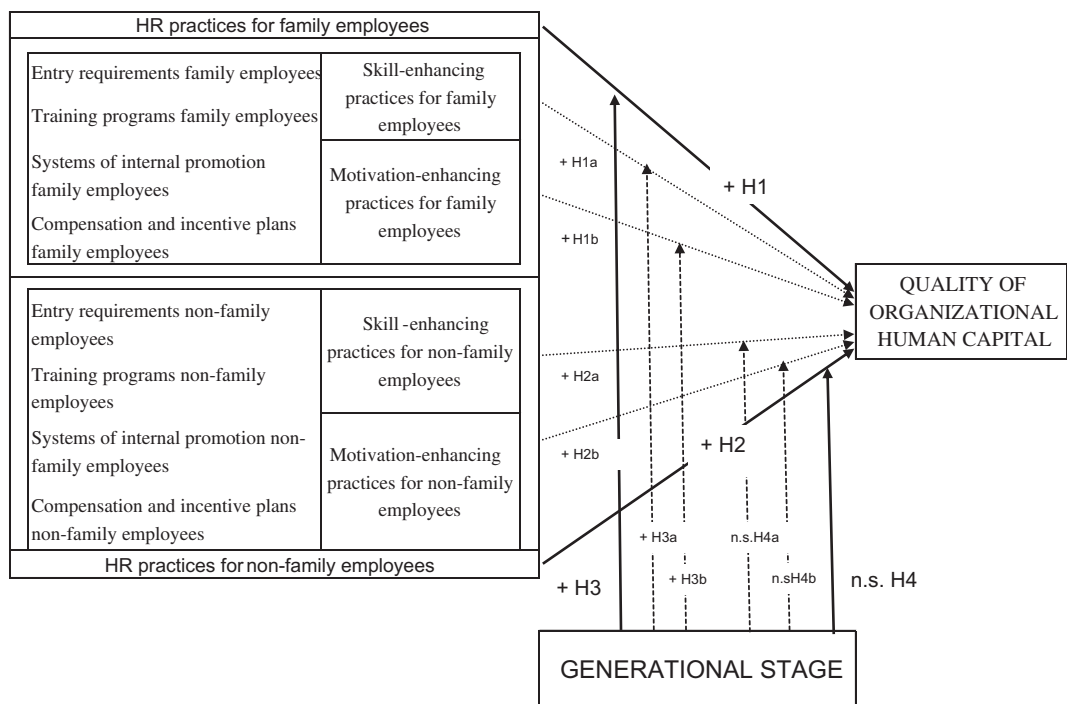


Fig. 1. Research model.

Table 1  
Principal component analysis for the dependent variable organizational human capital and for the independent variable HR practices.

	Component 1	Component 2	Component 3
	Organizational human capital quality	HR practices for family employees	HR practices for non-family employees
In comparison with our competitors, our employees are highly skilled.	<b>0.808</b>	0.070	0.148
In comparison with our competitors, our employees are widely considered the best in our industry.	<b>0.821</b>	0.086	0.153
In comparison with our competitors, our employees are creative and bright.	<b>0.825</b>	0.123	0.064
In comparison with our competitors, our employees are experts in their particular jobs and functions.	<b>0.780</b>	0.060	0.104
In comparison with our competitors, our employees develop new ideas and knowledge	<b>0.757</b>	0.118	0.167
Entry requirements for family employees	0.076	<b>0.821</b>	0.078
Entry requirements for non-family employees	0.128	0.386	<b>0.509</b>
Training programs for family employees	0.107	<b>0.831</b>	0.169
Training programs for non-family employees	0.115	0.433	<b>0.565</b>
Systems of internal promotion for family employees	0.107	<b>0.632</b>	0.195
Systems of internal promotion for non-family employees	0.171	0.108	<b>0.658</b>
Compensation plans and incentives for family employees	0.067	<b>0.434</b>	0.517
Compensation plans and incentives for non-family employees	0.161	0.014	<b>0.875</b>
Goodness of fit measures			
Eigenvalues	3307	2345	2205
% variance	25,440	18,038	16,965
% accumulated variance		43,479	60,443
Kaiser-Meyer-Olkin measure of sampling adequacy			0.787
Bartlett test of sphericity			4384.891
df			78
Sig.			0.000

Loads of each factor appear in bold.

OHC quality and HR practices variables (Table 1). The PCA shows one component for the OHC quality variable and two components for the HR practices variables (second and third components). The second component maintains the highest loads in the measurement of HR practices for family employees except for compensation plans and incentives programs for family employees. The third component maintains the highest loads in the measurement of HR practices for non-family employees. Cronbach's alpha was 0.74 for family HR practices and 0.71 for non-family HR practices, both of which are above the 0.7

cutoff. We used the factor scores to measure family HR practices and non-family HR practices. As argued above, the results of PCA shows three factors, one factor related with the dependent variable human capital and two more related with the HR practices for family and non-family employees. Thus, these results do not allow for testing the sub-hypotheses, which are focused on skill- and motivation-enhancing practices. Thus, in order to test the subhypotheses, we followed an alternative methodology frequently used in the literature on skill- and motivation-enhancing practices (Appelbaum, Bailey, Berg, & Kalleberg,

2000; Batt, 2002; Youndt, Snell, Dean, & Lepak, 1996). Specifically, we followed Batt (2002) and used additive indexes.

### 3.3.3. Control variables

As control variables, we used firm size, performance, and age as well as industry dummy variables—all taken from the SABI. Previous research has argued and shown that larger firms and more profitable firms are better able to attract and retain employees with high skills (i.e., OHC) (e.g., Turban & Greening, 1997). Regarding firm age, the literature has suggested that as firms age, they amass human capital (Pennings et al., 1998). Firm size was measured as the total number of employees, firm performance was measured as return on assets (ROA), and firm age was measured as the number of years from each firm's foundation date. We also controlled for industry because OHC investments may systematically differ across industries (Youndt, Subramaniam, & Snell, 2004). We employed eight dummy variables (agriculture; livestock and fishing; mining industries; chemical industries; manufacturing industries; construction; commerce; transport; and property, renting, and business services) using the first digit of the National Classification of Economic Activities (*Clasificación Nacional de Actividades Económicas*) (CNAE-1993 Revised).

### 3.4. Analyses

We used hierarchical multiple regression analyses to test our hypotheses and evaluate the relevance of our independent and moderator variables separately.

To minimize the effects of multicollinearity, we performed the regression analyses with standardized independent variables. The values for the variance inflation factors (VIFs) are all below 10 and thus within acceptable limits.

## 4. Results

Table 2 shows the descriptive statistics and correlation matrix for the variables under analysis.

We ran mean difference tests between HR practices for family employees and HR practices for non-family employees, and all were significant ( $p < 0.01$ ), indicating that HR practices for non-family employees are more formal than HR practices for family employees.

A hierarchical regression was used to test hypotheses. Control variables (i.e., firm size, firm industry, firm age, and ROA) were entered in Step 1; HR practices for family and non-family employees were entered in Step 2; the family firm's generation was entered in Step 3; and interactions between HR practices and generation were entered in Step 4. We ran three different models: Model 1 analyzed the effect of HR practices for family employees and their interaction with generational stage on OHC; Model 2 analyzed the effect of HR practices for non-family employees and their interaction with generational stage on OHC;

**Table 2**  
Descriptive statistics and Pearson correlation matrix.

	M	SD	1	2	3	4	5	6	7	8	9	10	11
1. HR practices fam	0,02	1.01	1										
2. HR practices non-fam	0.01	0.99	0.00	1									
3. Skill-enhancing HRP fam	0.72	1.35	0.78**	0.35*	1								
4. Motivation-enhancing HRP fam	1.37	1.26	0.56**	0.59**	0.49**	1							
5. Skill-enhancing HRP non-fam	1.45	1.36	0.26**	0.83**	0.53**	0.48**	1						
6. Motivation-enhancing HRP non-fam	2.10	1.34	0.32**	0.76**	0.35**	0.86**	0.55**	1					
7. Generational stage	1.77	0.74	0.02	-0.03	-0.02	0.03	-0.04	0.04	1				
8. Size	65.80	142.78	0.11**	0.16**	0.11**	0.16**	0.15**	0.21**	0.06	1			
9. ROA	0.05	0.09	0.02	-0.02	0.00	-0.09	-0.02	-0.01	-0.01	0.33	1		
10. Age	28.98	12.68	-0.04	-0.02	-0.03	-0.01	-0.03	-0.02	0.35**	0.11**	0.02	1	
11. OHC quality	0.02	0.965	0.16**	0.30**	0.21**	0.30**	0.30**	0.29**	-0.10**	0.06	0.06	-0.03	1

\*  $p < 0.05$ .

\*\*  $p < 0.01$ .

and Model 3 analyzed the effect of HR practices for family and non-family employees and interactions on OHC. The results for these models show very similar findings, so we will refer to the results for Models 1 and 2. The results are reported in Table 3.

As can be seen in Table 3, Model 1, the addition of Step 2 ( $\Delta F = 13.90$ ,  $p < 0.01$ ), Step 3 ( $\Delta F = 3.98$   $p < 0.05$ ), and Step 4 ( $\Delta F = 5.46$   $p < 0.05$ ) significantly increases the variance explained in OHC. Thus, HR practices for family employees, generational stage, and the interaction effects play a role in predicting OHC. In support of Hypothesis 1, the results for Step 2 indicate that HR practices for family employees ( $\beta = 0.14$ ,  $p < 0.01$ ) are significantly positively related to OHC. Step 3 shows a negative and significant effect of generational stage on OHC ( $\beta = -0.08$ ,  $p < 0.05$ ). The interaction between generational stage and HR practices for family employees ( $\beta = 0.23$ ,  $p < 0.05$ ) is positively significantly related to OHC. This result supports Hypothesis 3. At Step 4, predictors explained 6% of the variance of OHC in family firms. Regarding the control variables, the results show only a marginal positive effect for the size variable in Step 1, indicating that firm size positively affects OHC.

Regarding Model 2 in Table 3, the addition of Step 2 ( $\Delta F = 64.63$ ,  $p < 0.01$ ) and Step 3 ( $\Delta F = 3.17$ ,  $p < 0.1$ ) significantly increases the variance explained in OHC, but this is not the case with Step 4 ( $\Delta F = 0.54$ ,  $p > 0.10$ ). Thus, HR practices for non-family employees and generational stage play a role in predicting OHC. In support of Hypothesis 2, the results for Step 2 indicate that HR practices for non-family employees ( $\beta = 0.29$ ,  $p < 0.01$ ) are significantly positively related to OHC. Step 3 shows a negative and significant effect of generational stage on OHC ( $\beta = -0.07$ ,  $p < 0.10$ ). The interaction between generational stage and HR practices for non-family employees ( $\beta = 0.23$ ,  $p < 0.05$ ) is non-significantly related to OHC. This result supports Hypothesis 4. At Step 4, predictors explained 11% of the variance of OHC in family firms. Again, regarding the control variables, the results show only a marginal positive effect for the size variable in Step 1, indicating that firm size positively affects OHC.

To test the different effects of skill- and motivation-enhancing HR practices for family and non-family employees on OHC, we performed additional hierarchical regression analyses, as reported in Table 4. Model 4 reports the findings for the effect of skill- and motivation-enhancing HR practices for family employees and their interaction effect with generational stage on OHC. Model 5 reports the findings for the effect of skill- and motivation-enhancing HR practices for non-family employees and their interaction with generational stage on OHC. In Table 4, we did not analyze the joint effect of skill- and motivation-enhancing practices for both family and non-family employees due to the high correlation between the variables, which may imply problems of multicollinearity in the model.

As can be seen in Table 4, Model 4, the addition of Step 2 ( $\Delta F = 31.22$   $p < 0.01$ ), Step 3 ( $\Delta F = 4.88$ ,  $p < 0.05$ ), and Step 4 ( $\Delta F = 5.50$ ,  $p < 0.05$ ) significantly increases the variance explained



Table 3 (continued)

Predictor	Dependent variable: quality of organizational human capital			
	Model 3 (HR practices for family and non-family employees)			
Step 1	Step 2	Step 3	Step 4	
$\Delta R^2$	$\Delta R^2$	$\Delta R^2$	$\Delta R^2$	$\beta$
0.02 <sup>†</sup>	42.30**	4.15 <sup>†</sup>	4.62 <sup>†</sup>	$\beta$
0.02 <sup>†</sup>	0.13**	0.14**	0.15**	$\beta$
707	707	707	707	$\beta$
$\Delta F$				$\beta$
Total $R^2$				$\beta$
N				$\beta$

<sup>†</sup>  $p < 0.10$ .  
<sup>\*</sup>  $p < 0.05$ .  
<sup>\*\*</sup>  $p < 0.01$ .

in OHC. Thus, skill- and motivation-enhancing HR practices for family employees, generational stage, and the interaction effects play a role in predicting OHC. In support of Hypotheses 1a and 1b, the results for Step 2 indicate that skill- ( $\beta = 0.08$ ,  $p < 0.05$ ) and motivation-enhancing ( $\beta = 0.24$ ,  $p < 0.01$ ) HR practices for family employees are significantly positively related to OHC. Step 3 shows a negative and significant effect of generational stage on OHC ( $\beta = -0.09$ ,  $p < 0.05$ ). In terms of the effects of the interactions, the interaction between generational stage and motivation-enhancing HR practices for family employees ( $\beta = 0.33$ ,  $p < 0.05$ ) is positively significantly related to OHC. However, the interaction between generational stage and skill-enhancing HR practices for family employees ( $\beta = 0.05$ ,  $p > 0.10$ ) is non-significantly related to OHC. These results support Hypothesis 3b but not support Hypothesis 3a. At Step 4, predictors explained 13% of the variance of OHC in family firms.

Regarding Model 5 in Table 4, the addition of Step 2 ( $\Delta F = 40.25$ ,  $p < 0.01$ ) and Step 3 ( $\Delta F = 3.74$ ,  $p < 0.10$ ) significantly increases the variance explained in OHC. Step 4 ( $\Delta F = 1.73$ ,  $p > 0.10$ ) did not show a significant increase in variance explained. Thus, skill- and motivation-enhancing HR practices for non-family employees and generational stage play a role in predicting OHC. In support of Hypotheses 2a and 2b, the results for Step 2 indicate that skill- ( $\beta = 0.20$ ,  $p < 0.01$ ) and motivation-enhancing ( $\beta = 0.17$ ,  $p < 0.01$ ) HR practices for non-family employees are significantly positively related to OHC. Step 3 shows a negative and significant effect of generational stage on OHC ( $\beta = -0.07$ ,  $p < 0.10$ ). In terms of the effects of interactions, the interaction between generational stage and skill- ( $\beta = 0.04$ ,  $p > 0.10$ ) and motivation-enhancing HR practices for non-family employees ( $\beta = 0.16$ ,  $p > 0.10$ ) are non-significantly related to OHC. These results do support Hypotheses 4a and 4b. At Step 4, predictors explained 13% of the variance of OHC in family firms.

5. Conclusion and discussion

Our results find support for the positive influence of skill- and motivation-enhancing HR practices for family and non-family employees on OHC in the context of the family firm. Regarding skill-enhancing HR practices, as in any type of firm, entry requirements and training programs benefit OHC by increasing the quality of employees' human capital. In the case of family firms, one possible reason for this positive effect is because these HR practices reinforce family employees' incentives to get the knowledge, skills, and capabilities they need to help achieve family goals and prevent the recruitment of non-qualified family employees. This professionalization may also favor the attraction of qualified non-family candidates. Regarding motivational HR practices, economic rewards reinforce family employees' efforts and encourage non-family employees to acquire new knowledge, skills, and capabilities that enhance OHC.

Our results also show that generational stage affects the intensity of the influence of family employee HR practices on OHC. Our results show support for a positive moderation effect of generational stage in the relationship between HR practices for family employees and OHC. However, when we disaggregate HR practices for family employees into skill- and motivation-enhancing practices, the positive moderation effect of generational stage is only significant for motivation-enhancing practices. Contrary to our hypothesis, the intensity of the effect of skill-enhancing practices on OHC does not increase as generations advance. However, the positive effect of motivation-enhancing practices for family employees is higher as the generations advance.

As generations advance, not only is family employees' commitment toward the firm less intense but the family firm's commitment toward family employees is also less intense (Sciascia et al., 2014; Van Gils, Voordeckers, & van den Heuvel, 2004). Since the family firm is less engaged to hiring every family candidate and there is a growing restricted family labor market (Gersick, Davis, Hampton, & Lansberg, 1997; León-Guerrero et al., 1998), competition among family



**Table 4**  
Hierarchical regression analyses with skill- and motivation-enhancing HR practices for family and non-family employees as independent variables.

Predictor	Dependent variable: quality of organizational human capital												
	Model 4 (skill and motivation-enhancing HR practices for family employees)				Model 5 (skill and motivation-enhancing HR practices for non-family employees)								
	Step 1	Step 2	Step 3	Step 4	Step 1	Step 2	Step 3	Step 4	Step 1	Step 2	Step 3	Step 4	
	$\Delta R^2$	$\Delta R^2$	$\Delta R^2$	$\Delta R^2$	$\Delta R^2$	$\Delta R^2$	$\Delta R^2$	$\Delta R^2$	$\Delta R^2$	$\Delta R^2$	$\Delta R^2$	$\Delta R^2$	$\Delta R^2$
	$\beta$	$\beta$	$\beta$	$\beta$	$\beta$	$\beta$	$\beta$	$\beta$	$\beta$	$\beta$	$\beta$	$\beta$	$\beta$
Step 1													
Age	-0.03	-0.02		0.01	0.01								
Size	0.06 <sup>†</sup>	0.02		0.02	0.01								
Performance	0.00	0.00		0.00	0.00								
Industry	Yes	Yes		Yes	Yes								
Step 2		0.08		0.08	0.05								
Skill-enhancing HR practices family employees										0.10			
Motivation-enhancing HR practices family employees				0.24 <sup>**</sup>	-0.03								
Skill-enhancing HR practices non-family employees													
Motivation-enhancing HR practices non-family employees													
Step 3													
Generational stage													
Step 4													
Skill-enhancing HR practices family employees × Generational stage													
Motivation-enhancing HR practices family employees × Generational stage													
Skill-enhancing HR practices non-family employees × Generational stage													
Motivation-enhancing HR practices non-family employees × Generational stage													
$\Delta F$		31.22 <sup>**</sup>		4.88 <sup>*</sup>	5.50 <sup>†</sup>					40.25 <sup>**</sup>			
Total R <sup>2</sup>	0.02 <sup>†</sup>	0.11 <sup>**</sup>		0.12 <sup>**</sup>	0.13 <sup>**</sup>					0.12 <sup>**</sup>			
N	707	707		707	707					707			

<sup>†</sup> p < 0.10.  
\* p < 0.05.  
\*\* p < 0.01.

candidates to get a position in the firm increases. This increasing competition pushes family members to obtain more skills and knowledge than other family candidates even without skill-enhancing practices. However, once the candidates enter the firm, their family membership entitles them for higher compensations or promotions because of the different criteria family firms use for family and non-family employees. In turn, this feeling of entitlement erodes family employees' motivation to put forth effort. Further, these different feelings of entitlement before and after getting a position in the family firm may explain why skill-enhancing human practices do not have a more intense effect as generations advance but motivation-enhancing human practices do.

Furthermore, our findings do not support the moderation effect of generational stage in the positive relationship between HR practices for non-family employees and OHC. Similarly, when we analyzed skill- and motivation-enhancing practices for non-family employees separately, results showed that the intensity of the positive effects of skill- and motivation-enhancing HR practices for non-family employees on OHC are not affected by the changes that generational stage produces in the dynamic of family firms. The labor relationship between family firms and non-family employees is driven by economic criteria irrespective of family firm generation: family firms try to identify the most appropriate non-family employees using economic objectives (i.e., merit) across the generations. Additionally, economic remuneration and promotion drive non-family employees' behavior with the same intensity irrespective of the family firm generation. Thus, the positive effect that skill- and motivation-enhancing HR practices have on non-family employees' desire to contribute to the development of OHC will be independent of the family firm's stage.

It is also interesting to point out the results for our descriptive statistics, which show that HR practices for non-family employees are more formal than HR practices for family employees within family firms. The results of our factor analyses show that OHC loads onto one factor and that HR practices load onto two factor groupings: one for family employees and one for non-family employees. These findings are in line with our descriptive results of the lower implementation of HR practices for family employees compared to non-family employees. In fact, both results are consistent with previous literature (Cruz et al., 2011) and show that family firms manage family employees' and non-family employees' labor relations using different criteria. Using different criteria may have the underlying goal of favoring family employees over non-family employees. Another interesting result is the negative effect of generation stage on family firms' OHC. This result supports the literature suggesting that human capital decline is a frequent cause of family firm failure (Pérez-González, 2006; Smith & Amoako-Adu, 1999).

Our study contributes to the previous literature on family firms and to the management of these firms. The literature has indicated that family firms have advantages and disadvantages in terms of developing OHC. However, it is also valuable to understand the factors that lead to the development of OHC. Specifically, our study extends the literature on HR practices in family firms (Astrachan & Kolenko, 1994; De Kok et al., 2006) by showing when the implementation of skill- and motivation-enhancing HR practices for family and non-family employees favors the development of OHC. It seems that HR practices reduce dysfunctional behaviors originating from the use of family criteria to regulate labor relations, which in turn helps family firms increase OHC. Even more, our results show that the advantages in OHC created by motivation-enhancing HR practices for family employees are higher for family firms in higher generations. Our descriptive results also show that HR practices are underdeveloped for family employees compared to non-family employees. Thus, family managers may reinforce their OHC by implementing OHC practices for both family and non-family employees. These results are in line with the literature arguing the necessity of professionalizing the family firm as it advances in generational stage (Dekker et al., 2012; Flamholtz & Randle, 2007; Gomez-

Mejia et al., 2011).

Our study also complements Ensley, Pearson, and Sardeshmukh's (2007) finding that the implementation of compensation practices based on merit may undermine cohesion and harmony among family management teams. Our study extends their findings at the organization level by showing that motivation-enhancing practices (including compensation practices) benefit OHC. It seems that by implementing HR practices, family firms shift from focusing on family objectives, such as generating jobs for family members, to increasing OHC to obtain economic objectives.

Furthermore, our results support previous arguments that generational stage is the main cause of heterogeneity in family firms (Eddleston et al., 2013; Sonfield & Lussier, 2004). Specifically, our results are in line with family business research suggesting that family firms are heterogeneous in term of economic and family goals (Chrisman, Sharma, Steier, & Chua, 2013; Kotlar & De Massis, 2013). These studies have recognized that the relative importance of family goals may vary (Chrisman & Patel, 2012) among first-generation firms, which are more oriented toward family objectives, and later-generation firms, which are more likely to focus on economic objectives (Sciascia et al., 2014). Indeed, with a lower emphasis on family objectives in later generational stages, economic considerations become more important for family members (Gomez-Mejia et al., 2011). Further, these results may also indirectly support research from the family firm literature that tries to identify stewardship and agency relationships (Chrisman et al., 2007; Corbetta & Salvato, 2004). This discussion has mainly focused on differences in individuals' behavior based on the economic rationality of agency theory and the organizational behavior of stewardship theory. Our results support recent studies (Miller, Minichilli, & Corbetta, 2013; Sciascia et al., 2014) suggesting that family members can behave as either stewards or agents depending of the generational stage of the family firm. In first-generation family firms, the strong family ties between family members motivate family employees' cooperative behavior. The dilution of family ties over generations, however, leads family members to be less motivated by family objectives and more interested in economic objectives.

In addition to providing our contributions, we must acknowledge the limitations of our study. First, our data were collected at a single point in time. Thus, a longitudinal study could provide evidence of the evolution of OHC in family firms over the course of generations. However, the time required to study the evolution of family firms over the course of generations was too great in our case, so we chose to perform a cross-sectional study. Second, we did not measure the general and specific OHC developed by family firms; we only measured total human capital. Because family firms seem to have disadvantages in developing general human capital and advantages in developing specific human capital, it would be interesting for future research to analyze the effect of HR practices on general and specific OHC separately. Finally, although our sample is representative of the population, the large proportion of small and medium enterprises suggests that our results may not always apply to large family firms. In the case of large firms, the proportion of family employees among total employees is usually lower, thus reducing both the negative and positive effects of family relations on the development of OHC. Research focusing on a sample of listed and large family firms would thus complement our results. Another direction for future research would be to analyze the perspectives of both family and non-family employees since their perceptions of HR practices and OHC may be different from those of the CEO. Similarly, we measured OHC taking into account perceptions—that is, as the perceived quality of OHC. Although several studies have followed this approach to measure OHC, future studies may analyze the influence of HR practices on other measures of OHC in family firms, such as employees' average level of education or experience. Another interesting extension of our research would be to analyze the effect of the family system's structure (e.g., family cohesion and flexibility) on the relationship between HR practices and OHC (Daspit et al., 2017).

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**Virginia Blanco Mazagatos** is a lecturer at the University of Burgos, Spain, from which she received her PhD. Her research interests include family firms, entrepreneurship and corporate governance. She has published papers in *Family Business Review*, *International Journal of Entrepreneurship and Small Business*, *International Journal of Management Reviews*, and *Journal of Family Business Strategy*, among other journals.

**Esther de Quevedo Puente** is a tenured lecturer at Department of Business Management in the University of Burgos (Spain). Her research topics are family firm, managerial cognition and antecedents and consequences of corporate reputation, reputational risk and the relationship between corporate social responsibility and corporate reputation. Within family firm topic, her research interests are on the peculiarities that family ties introduce in the firm dynamic and how this evolves along generations. She has published papers in *British Journal of Management*, *Corporate Governance: An International Review*, *Corporate Reputation Review*, *Family Business Review*, *International Journal of Entrepreneurship and Small Business*, *International Journal of Management Reviews* and *Journal of Family Business Strategy* among other journals.

**Juan Bautista Delgado García** is an Associate Professor at the University of Burgos. He received his PhD from the University of Burgos. His research interests centre on the role of affects in the cognitions and emotions of the entrepreneur and CEOs, corporate governance and family firms. He has published papers in *British Journal of Management*, *Corporate Governance: An International Review*, *International Business Review*, *International Journal of Management Reviews*, *Journal of Family Business Strategy*, *Journal of Small Business Management* and *Strategic Management Journal*, among other journals.