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Organizational Culture and Performance-Based Compensation in Family Firms: Does Family Involvement in Management Matter?

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Abstract

Purpose – This study aims to analyze how different types of organizational culture influence the implementation of performance-based compensation policies in family-owned micro, small and medium-sized enterprises (MSMEs) and whether the presence of the owning family in the management of the firm moderates this relationship.

Theoretical framework – Cameron and Quinn's (2011) typology of organizational culture and empirical evidence in the family business field were used to explain the relationship between organizational culture and performance-based compensation policies.

Design/methodology/approach – Hypotheses were statistically tested using a multiple hierarchical regression analysis with a cross-sectional sample of 315 family MSMEs located in three main cities in Colombia.

Findings – The results obtained suggest that there is no single cultural path for implementing a performance-based compensation policy in family MSMEs, even when the presence of family members in managerial positions moderates this relationship. The clan, adhocratic, and market cultures favor using a performance-based compensation policy in family-owned MSMEs.

Practical & social implications of research – Our results present organizational culture as a key driver of compensation. Researchers, managers, and consultants should consider the characteristics of the organizational culture before suggesting implementing performance-based compensation policies in family firms.

Originality/value – This work contributes to the literature on human resources and family businesses by extending the existing knowledge on the relationship between organizational culture and compensation policies related to performance in family MSMEs. Furthermore, it offers empirical evidence in the Latin American context of a relationship treated mainly from a conceptual approach and in the eastern context and developed countries.

Keywords: Organizational culture, HRM, performance-based compensation policy, family firms, MSMEs.

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1 Introduction

Performance-based compensation is a type of formal pay adopted by organizations to reward employees for outcomes or, more closely, for behavioral performance measures (Gomez-Mejia et al., 2014). Practices such as performance appraisals that assess individual or group performance and link these appraisals with rewards usually form an organization's motivation-enhancing efforts and business performance (Appelbaum et al., 2000). Thus, as part of compensation policies studied in the literature, performance-based compensation has been a prominent HR policy analyzed in emerging countries and the family business field.

In emerging countries, specifically in low-income countries and fragile states, performance-based compensation has attracted much attention to improve effectiveness in achieving specific industry targets (Eldridge & Palmer, 2009). These policies help to solve poor performance and increase employee productivity (Eldridge & Palmer, 2009; Ireland et al., 2011). Similarly, in the family business field, this kind of policy has helped to explain how to achieve the desired firm performance by improving employee results (Lozano-Reina & Sánchez-Marín, 2020; Samara et al., 2021). However, in that field, the results obtained so far are contradictory when explaining the decision to use this type of compensation in family firms.

Several studies have suggested that family firms offer higher performance-based compensation than nonfamily firms (Carrasco-Hernández & Sánchez-Marín, 2007; Chen & Chen, 2015), but others have noted the opposite (Chen et al., 2014; Chrisman et al., 2017; Speckbacher & Wentges, 2012). One possible explanation for these findings is that the owning family's involvement in the business may create a family-specific logic that substitutes formal human resource management (HRM) practices (Alves & Gama, 2020; Daspit et al., 2018). Thus, the values of the owning family, such as entitlement, preferential treatment, and parental altruism, can be positive within the family dynamic (Alves & Gama, 2020). However, these values can be harmful in the use of formal HRM policies (Kidwell et al., 2018).

As the compensation systems in organizations vary a lot depending on the frame of reference that the firm is using (Cruz et al., 2011), several researchers have shown interest in understanding the factors that limit the decision to implement performance-based compensation policies (Carrasco-Hernández & Sánchez-Marín, 2007;

Chrisman et al., 2017; Michiels, 2017). Therefore, different studies have been driven to understand the factors that determine the use of performance-based compensation policies in family firms.

Among the determinants of compensation, organizational culture has been widely studied in the HRM literature, but little is known in the family business context. Although some scholars suggest that the success of performance-based compensation policies is more likely to be influenced by the culture (Du & Choi, 2010), and the distinctiveness of the family business culture has important implications for the design and implementation of HRM policies (Cruz et al., 2011), there are few published studies on performance-based compensation in family businesses in emerging countries that incorporate organizational culture in their analysis. Those that have analyzed organizational culture are approached from a conceptual standpoint, with little empirical evidence and being mostly focused on the eastern context and developed countries (Chang, 2012; Dyer, 1989; Gatfield & Youseff, 2001; Kidwell et al., 2018).

In general, a focus on performance to distribute rewards is most appropriate when the organization's culture emphasizes a performance ethos (Gomez-Mejia et al., 2014). However, different types of organizational cultures can be identified that mark the actions of individuals in the company (Cameron & Quinn, 2011), to the point of influencing the implementation of specific organizational policies (Li & Roloff, 2008; Tosi & Greckhamer, 2004). In the case of compensation policies, the type of cultural orientation drives the decision to implement performance-based compensation (Madhani, 2014; Triguero-Sánchez et al., 2018; Wei et al., 2008; Yeganeh & Su, 2011).

Taking the above into account and utilizing Cameron and Quinn's (2011) typology of organizational culture, this research aims to analyze how different types of organizational culture —clan, adhocracy, market, and hierarchy — influence the implementation of performance-based compensation policies in family firms. Furthermore, we analyze whether the presence of the owning family in the management of the firm moderates this relationship. The existing explanations of how different cultural orientations affect compensation policies do not delve deeper into the participation of the owning family in the management of the company. This participation is critical because the owning family members exert the most significant influence on strategic decisions when they engage more in managerial positions (Chua et al., 1999).

On this basis, we test our hypotheses using a multiple hierarchical regression analysis with a crosssectional sample of 315 family MSMEs in Colombia. We focus on family MSMEs in Colombia for several reasons. First, Colombia offers an appropriate empirical setting for validating our hypotheses since the country presents a lower compensation level in the business field. Furthermore, the country has similar characteristics to other Latin American countries (Ciaschi et al., 2021) and ranks fourth among the most competitive countries in the region (Portafolio, 2022). Second, family firms are the most common form of organization, particularly among MSMEs, throughout the world (Tipu, 2018). In Colombia, family businesses represent 72% of all companies (Gálvez et al., 2017). In this vein, family MSMEs are an important part of the country's progress due to their ability to generate productive opportunities and they provide approximately 85% of employment in Colombia (2021). Third, although most family firms are MSMEs, the compensation levels of MSMEs are still not the best. The average compensation of these types of organizations is 60% less than that of large companies, an aspect related to their organizational performance levels (González-Díaz & Becerra-Pérez, 2021).

This paper offers various contributions to the literature. First, we theoretically and empirically respond to calls regarding the need for additional contributions to better understand organizational culture as a determining factor of compensation policies in family MSMEs. Second, this paper helps to understand how the presence of family members in managerial positions influences the relationship between organizational culture and the implementation of performance-based compensation policies. At this point, this paper responds to the call to analyze the heterogeneity of the family business to move beyond the comparison between family and nonfamily businesses (Chua et al., 2012). Third, it offers empirical evidence in the Latin American context of a relationship treated mainly from a conceptual approach and in the eastern context and developed countries (Tipu, 2018). Finally, from a practical point of view, this work contributes to understanding organizational culture before implementing performance-based compensation policies in the family business context. Understanding how the culture facilitates or inhibits their implementation will allow professionals and consultants to assess whether it is necessary to transform the organizational culture or

adjust the compensation policy before implementing performance-based practices.

This document is structured as follows. The first part defines organizational culture and its relationship with family businesses. Moreover, it offers a brief literature review to support the study hypotheses on the relationship between organizational culture in family firms and performance-based compensation policies. The second part of the document presents the methodology used, detailing the sample and the variables analyzed. The third part shows the results to contrast them against the hypotheses. Finally, the fourth part presents the discussion of the results, followed by the conclusions.

2 Theoretical framework and hypotheses

2.1 Organizational culture and family firms

The organizational culture includes the system of values, beliefs, and principles internalized and shared by members of the organization (Schein, 1992) to the extent that it influences their behaviors (Cameron & Quinn, 2011). In this vein, culture is construed as a source of differentiation between organizations and a key driver of the decisions conducive to attaining competitive advantages (Barney, 1986).

Among the existing proposals to understand organizational culture and its contribution to organizational competitiveness, Cameron and Quinn (2011) propose a general organizational culture model called the *Competing Values Framework* (CVF). This model, widely used in the literature (e.g., De-La-Garza-Carranza et al., 2011; Sánchez-Marín et al., 2016), distinguishes between four types of cultures (see Table 1) based on the organization's approach (internal or external) and its structure (stability or flexibility).

According to this model, any company can reflect values from the four types of culture, but only one can prevail and be the one that drives the management of the organization (Cameron & Quinn, 2011). For example, in family businesses, where a family or group of families exert substantial influence on the strategic and operational decisions of the company (Chua et al., 1999), the clan culture is often the most common in such organizations (Dyer, 1988, 2003; Sánchez-Marín et al., 2016). This attribution is mainly due to the power and authority

Table 1 **Typology of organizational culture by Cameron and Quinn (2011)**

Type of culture	Characteristics
Clan culture	This is characterized by an internal-oriented approach focused on shared values and objectives among members of the organization as if they were a family. It emphasizes cohesion, a sense of belonging and teamwork and demonstrates the commitment of the company to its employees.
Hierarchical culture	This is characterized by the desire for stability and security at work through the clear lines of authority, standards and standardized procedures that characterize a formalized and structured workplace. Control and accountability mechanisms are regarded as the keys to success for this type of cultural approach.
Adhocratic culture	This is characterized by the promotion of flexibility and an orientation to the outside. Power is not centralized, and authority is temporary, which makes it possible to emphasize adaptability and creativity. The main challenge is innovation and the management of new resources.
Market culture	This is characterized by the desire to increase productivity, sales and competitive position by placing a strong emphasis on external positioning and control. The market culture is not designed to generate loyalty, cooperation, or a sense of belonging. Its interest lies in results.

Note: Based on Cameron and Quinn (2011).

concentrated in the owning family, whose culture is rooted in the traditions of the founding family, and its charismatic and paternalistic characteristics may interfere with business decisions (Chirico & Nordqvist, 2010; Dyer, 1988). In this concentration of power, the interests and emotional factors related to the preservation of the family's legacy and the preservation of its well-being permeate the development of the company (Cruz et al., 2011; Gómez-Mejía et al., 2011; Sánchez-Marín et al., 2019) and, consequently, affect the management of the organization (Dyer, 2003).

Although family business scholars recognize the clan culture as the most likely approach in the management of such companies, their cultural orientation may vary depending on the level of participation of the owning family in the business and its cultural patterns (Denison et al., 2004; Habbershon et al., 2003). A clan culture may be more assertive in family businesses where there is greater participation of the family's members in the company's management (Sánchez-Marín et al., 2016). However, the cultural orientation will be determined by the cultural patterns that the family wishes to instill in the organization (Dyer, 1988; Sánchez-Marín et al., 2016). In this case, understanding the organizational culture in family businesses should not only be limited to distinguishing them from non-family-owned businesses. What makes family businesses interesting is their inherent heterogeneity to appreciate their cultural orientation and, consequently, their impact on the decisions that affect the competitiveness of the business (Gómez-Mejía et al., 2011).

Therefore, depending on the participation of the owning family in the company's management, the effect of the organizational culture on one of the human resources

(HR) policies that can lead to the success or failure of an organization is analyzed hereunder: the implementation of performance-based compensation policies. As stated in the literature, compensation is essential for the employee and the company. It represents an expected reward mechanism for the employee based on their effort (Gomez-Mejia et al., 2014) and a complementary element for achieving the organization's strategic objectives (Madhani, 2014). At the same time, it represents one of the most critical costs from which a positive return is expected (Gupta & Jenkins, 1996).

2.2 Organizational culture and compensation in family firms

From the family business literature, a stream of research has shown that HR policies, including performancebased compensation, constitute a concrete manifestation of family influence (Hernández-Linares et al., 2021; Peláez-León & Sánchez-Marín, 2023; Steijvers et al., 2017). More specifically, when there is more of the owning family in management, performance-based compensation policies are better accepted due to the family's desire to express a sense of consistency and fairness for all employees (Steijvers et al., 2017). Furthermore, the family's intention to avoid not achieving its non-financial and emotional goals associated with the firm also influences compensation policies (Firfiray et al., 2018; Peláez-León & Sánchez-Marín, 2022). In this vein, the decision to implement performance-based compensation in a family business is determined not only by the preference for improving business sustainability but also by the owning family's desires (Peláez-León & Sánchez-Marín, 2022, 2023).



From the HRM literature, several studies recognize the effect of culture on corporate compensation practices (Li & Roloff, 2008; Tosi & Greckhamer, 2004; Yeganeh & Su, 2011). A key point in the results of these studies is the directionality and magnitude of the effect of organizational culture on compensation, which can vary from one cultural approach to another (Madhani, 2014; Wei et al., 2008; Yeganeh & Su, 2011). In this sense, the effect that organizational culture can exert on performance-based compensation in family businesses is presented following the typology proposed by Cameron and Quinn (2011).

The first cultural orientation corresponds to the clan culture. This type of culture is characterized by promoting family values, teamwork, and closeness. Under its guidance, the compensation system usually presents a fixed payment proportion (Madhani, 2014). The remaining proportion corresponds to a variable remuneration generally attached to fulfilling group or organizational goals (Madhani, 2014). From there, wage increases are based on collective performance criteria that seek to instill cooperative behavior in members rather than competitive behavior (Kerr & Slocum, 1987).

Regarding family firms, although there are no studies that explicitly link the clan culture to compensation policies, the existing studies did find family businesses highly influenced by the clan culture (Dyer, 1988; Sánchez-Marín et al., 2016). These are companies whose culture is rooted in family values and traditions and bestow power and decisions on the family members, where the founder's values constitute an essential decision-making framework. One aspect to highlight in these firms is rewarding the employees' loyalty, which translates into greater job stability (Bassanini et al., 2013), consistent with the clan-type cultural approach.

In this sense, family businesses could find a favorable scenario to implement performance-based compensation policies under a clan culture orientation. Therefore, if the family business is mainly linked to a clan culture (Dyer, 1988; Sánchez-Marín et al., 2016), and this type of culture might favor salary increases based on performance assessments to promote cooperation (Kerr & Slocum, 1987), it would be expected that:

H1a: A clan culture in family businesses has a positive effect on performance-based compensation policies.

H1b: The greater the owning family's presence in the management of the company, the greater the positive effect of the clan culture on performancebased compensation policies.

Regarding the hierarchical culture, bureaucracy and formalized practices are notable characteristics of this cultural orientation to maintain organizational control (Cameron & Quinn, 2011). Thus, compensation practices under this type of culture focus on maintaining internal control and coordination to regulate the behavior of individuals in the organization (Calderón & Serna, 2009). As for payment preferences, Yeganeh and Su (2011) found that a culture firmly attached to a hierarchical approach is positively associated with implementing fixed pay policies. Generally, cultures that strengthen hierarchy, maintaining control, and internal coordination, promote fixed payment over variable payment (Madhani, 2014; Park & Kim, 2017).

Concerning family firms, bureaucracy and formalized practices tend to be less used when the family has most of the ownership and control of the business (Sánchez-Marín et al., 2016). In this vein, family firms tend to avoid giving employees rewards for behavioral performance measures because family owners and managers are more reluctant to act against a relative who is not performing well for fear of damaging family relations, even if the relative's performance is bad for business (De Kok et al., 2006). Hence, there is less use of formal and structured policies to monitor employees (Carrasco-Hernández & Sánchez-Marín, 2007; De Kok et al., 2006). This consideration could explain why various studies suggest that family firms managed mainly by members of the same family are less likely to offer variable compensation based on performance (Carrasco-Hernández & Sánchez-Marín, 2007; Chen et al., 2014; Speckbacher & Wentges, 2012). Therefore, if the owning family favors the hierarchical culture, where fixed pay is selected over variable pay, it would be expected that:

H2a: A hierarchical culture in family businesses has a negative effect on performance-based compensation policies.

H1b: The greater the owning family's presence in the management of the company, the greater the negative effect of the hierarchical culture on performance-based compensation policies. The third cultural approach corresponds to the adhocratic culture. Under this cultural approach, power is not centralized, authority is temporary, and the leader's actions are risk-prone (Cameron and Quinn, 2011). Organizations attached to an adhocratic culture promote innovation and a risk-prone management style (Cameron & Quinn, 2011), suggesting that remuneration should be transparent and with a higher share of variable pay to encourage creativity and innovation (Madhani, 2014; Wei et al., 2008).

Concerning family firms, this type of culture is rarely promoted for the family business (Sánchez-Marín et al., 2016). Family firms' power is centralized, and the authority is permanent for the owning family. They are averse to making strategic decisions that represent a financial benefit to the company but a risk of losing control over the firm (Gómez-Mejía et al., 2007). Furthermore, they are reluctant to undermine non-financial family goals such as preserving good relationships with family members, providing family members with jobs, or maintaining a patriarchal culture with non-family employees (Gómez-Mejía et al., 2011). This behavior would explain why some family firms show lower investment in research, development, and innovation (Chrisman & Patel, 2012) or make variable pay a minor component of the compensation package (Cruz et al., 2011; Gómez-Mejía et al., 2011). The reasoning behind this behavior is that the family's non-financial goals often conflict with economic rationality. This approach is further strengthened when the owning family is highly involved in managing the business. The importance of preserving non-financial family goals increases with more family managers (Memili et al., 2013).

The counterpoint here is that family firms are not necessarily expected to stay very conservative. Many family firms across various industries have achieved a more dynamic stage of innovation and have favored basic salary plus a bonus (Gómez-Mejía et al., 2011). However, family firms are more likely to develop a stronger desire to retain control or preserve good relationships with employees when the family plays a strong role in the business. Therefore, if the adhocratic culture favors the use of variable pay to encourage creativity and innovation, but this culture may diminish in family firms when there is a greater presence of the owning family in managerial positions, it would be expected that:

H3a: An adhocratic culture in family businesses has a positive effect on performance-based compensation policies.

H3b: The greater the owning family's presence in the management of the company, the less the positive effect of the adhocratic culture on performance-based compensation policies.

Finally, the market culture highlights the importance of improving business competitiveness through organizational efficiency, goal setting, and individual performance (Madhani, 2014). Under its guidance, the organization requires compensation mechanisms that help to ratify or modify the employees' behavior to remain competitive. It therefore promotes a control system objectively based on measuring and remunerating results (Kerr & Slocum, 1987; Madhani, 2014), to the point that the employee remuneration structure is given a higher variable component and justifiable use of financial incentives to increase the performance levels (Madhani, 2014). Guzak and Kang (2018), for example, explained how remuneration under this cultural approach should promote performance and develop customer-orientated skills.

Concerning family businesses, the market culture may be present in these types of companies, but to the extent that the participation of the owning family in the management of the company decreases (Sánchez-Marín et al., 2016). By reducing the involvement of the family in managerial positions and increasing the presence of members from outside the owning family, the conservative role in the strategic orientation of the business can diminish, making it possible to replace the family's idiosyncrasy with a more rational and market-oriented approach.

This reasoning fosters goal setting and the use of incentives that promote the fulfillment of those goals and serve as control elements to align the actions of managers with the interests of the owning family (Sánchez-Marín et al., 2016). Therefore, if the hierarchical culture favors the use of a control system based on results, and if this culture may be present in family firms but when there is less presence of the owning family in managerial positions, it would be expected that:

H4a: A market culture in family businesses has a positive effect on performance-based compensation policies.

H4b: The greater the owning family's presence in the management of the company, the less the positive effect of the market culture on performance-based compensation policies.

3 Methodology

3.1 Sample and data collection

To obtain the sample of family MSMEs located in Colombia, firstly, we obtained a record of 500 MSMEs from Cali, Medellín, and Bogotá. Although there is no official list of family businesses in Colombia, we chose these three cities because the greatest number of family firms are concentrated there (Bolaños, 2018). The data on these companies were supplied through the purchase of business records from the Chamber of Commerce of Cali for companies registered in that same city and the Chamber of Commerce of Bogotá for those companies registered in the cities of Medellín and Bogotá. We reached out to the companies to apply a questionnaire via telephone with the CEO of each company between March and November 2017. The completed questionnaires amounted to 493.

Based on the information obtained from the commercial records and questionnaires, the following inclusion criteria were applied: 1) cases with complete data for the main variables in the study (organizational culture, performance-based compensation policy, and the number of managers); 2) companies with four to 250 employees to ensure variability in the implementation of compensation policies in the MSMEs; this includes micro (between four and 10 employees), small (between 11 and 50 employees) and medium-sized enterprises (between 51 and 250 employees); 3) to identify family businesses, compliance with at least one of the following criteria was observed: a) the presence of the owning family in the management of the company, b) the manager recognizes the business as a family business or c) the manager recognizes that a single family owns most of the company (holding over 50%).

By applying the above criteria, a total of 321 family MSMEs were obtained. Subsequently, we proceeded to review extreme cases in both the dependent and independent variables. This procedure excluded six cases, producing a final sample of 315 family MSMEs (Supplementary Data 1 – database).

As the data are cross-sectional and collected via a survey, we followed two steps to alleviate concerns about common variance bias. First, to alleviate social convenience in the collected data, the respondents knew that the survey was meant for research purposes only and that all answers would be strictly confidential (Liang et al., 2014). Secondly, Harman's one-factor test was applied to test for potential bias (Podsakoff et al., 2003). The results of the unrotated factor analysis of all the items in the variables showed that there is no single dominating factor (the variance explained was 29.5%), which suggests that common variance bias is not a severe threat to this study.

3.2 Measures

Performance-based compensation policy. To measure this variable, we use a six-item scale proposed by Jiang et al. (2017). This measure has been used in previous research in family firms (Peláez-León & Sánchez-Marín, 2022). In this scale (see Appendix A), we asked about the extent to which the firm has implemented policies focused on performance assessment (three items, for instance, "have you assessed performance with measurable goals and results") and on remuneration in the last three years (three items, for instance, "have you paid employees on account of performance"). The six items were valued on a Likert scale from "1" (totally disagree) to "7" (totally agree) by the CEO of the company. The analysis used the average of the six items. The Cronbach's alpha for this scale was 0.691, which exceeds the lower limit of 0.60 to accept the scale's reliability (Hair et al., 2006).

Organizational culture. We adapted the Organizational Culture Assessment Instrument (OCAI) proposed by Cameron and Quinn (2011) to measure organizational culture (see Appendix A). The 24 items of this instrument were used and grouped into six dimensions that measure the orientation of the company towards different organizational culture aspects (i.e., type of organization, leadership, management style, shared values, strategic orientation, and key aspects for the success of the company). Each dimension has four items (a, b, c, d) that were assessed on a scale from "1" (totally disagree) to "7" (totally agree) by the CEO. In each dimension, items "a" correspond to the clan culture, items "b" to the adhocratic culture, items "c" to the market culture, and items "d" correspond to the hierarchical culture. After assessing the reliability of the scales for each type of culture, only the Cronbach's alpha values for "clan culture" ($\alpha = 0.881$),

"market culture" (α = 0.686), and "hierarchical culture" (α = 0.619) passed the lower limit to accept the reliability of each scale (Hair et al., 2006). Although the "adhocratic culture" has a low-reliability coefficient (α = 0.542), Deshpandé et al. (1993) suggest keeping this construct in the analysis for theoretical purposes since it is part of the conceptual framework described above. Finally, the average of the items in each scale is used for the analysis to identify the four types of cultural orientation

Family involvement in management. To measure this variable, we calculated the percentage of family members in managerial positions in the company as the result of the total number of managers and the number of those managers who were members of the owning family; the CEO provided both pieces of data in the survey.

Control variables. According to the literature, we included four control variables considering their possible influence on the formal adoption of compensation policies attached to performance in family businesses. These are the sector to which the company belongs, the company's size, the presence of an HR area, and the tenure of the CEO in the company. We obtained the information about the sector to which the companies belong from the information provided by the Chamber of Commerce. In contrast, we obtained the remaining three variables from the survey. A categorical variable measured the sector to differentiate between family companies belonging to the primary (=0), secondary (=1), and tertiary (=2) sectors. The company's size was measured using the natural logarithm of the total number of employees (Tsao et al., 2016). The presence of an HR area was measured through

a dichotomous variable to indicate whether the company has an HR area (=1) or not (=0) (De Kok et al., 2006). Finally, the CEO's seniority was operationalized through the natural logarithm of the years the CEO has managed the company (Young Baek & Fazio, 2015).

4 Results

Descriptive statistics and the correlations for each of the variables included in the analysis are presented in Table 2. In the sample of family MSMEs analyzed, 197 firms belong to the tertiary sector (62.5%), 88 firms to the secondary sector (27.9%), and 30 firms to the primary sector (9.5%). On average, these firms have 54 employees, and 83% have an HR area or department. The average time the CEO has been managing the firm is 20.4 years, and members of the owning family hold 58% of managerial positions. As we expected, there are significant and positive correlations between a compensation-based policy and the clan (r = 0.223, p < 0.001), adhocratic (r = 0.171, p < 0.001), and market (r = 0.165, p < .01) culture variables. Concerning the percentage of family managers, our results suggest a negative and significant relationship with a compensationbased policy (r = -0.17, p > 0.10).

Several multiple hierarchical regression analyses were carried out to test the hypotheses, where the performance-based compensation policy was the dependent variable (Supplementary Data 2 – SPSS output). The independent variables (clan, hierarchical, adhocratic, and market culture) and the moderator (family involvement in management) were centered on the mean before using

Table 2 **Descriptive results and correlations**

Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10
1. Compensation	5,096	.720										
2. Clan culture	5,410	.846	.223***	-								
3. Hierarchical culture	5,044	.892	.086	.840***	-							
4. Adhocratic culture	5,190	.745	.171**	.824***	.761***	-						
5. Market culture	5,208	.825	.165**	.820***	.802***	.752***	-					
6. Family managers (%)	.580	.322	170**	393***	320***	330***	357***	-				
7. Firm industry ^a	1,530	.664	.168**	.007	.013	018	.035	117*	-			
8. Firm size ^b	3,616	.948	.159**	.255***	.141*	.263***	.203***	375***	.021	-		
9. HR department ^c	.830	.380	.137*	204***	237***	216***	192**	045	011	.288***	-	
10. CEO tenure ^d	2,759	.801	010	.041	.020	006	050	.169**	132*	071	088	-

Note: n=315. SD: standard deviation. Compensation and cultural orientation (clan, hierarchical, adhocratic, and market) variables derive from averaging the corresponding scale items. ^aCategorical variable: 2= tertiary sector; 1= secondary sector, 0= primary sector; ^bThe natural logarithm of total employees; ^cDummy variable: 1= family firms with an HR department; 0= otherwise; ^dThe natural logarithm of years the CEO has managed the family firm. *p < .05; **p < .05; **p < .01; ***p < .001.



them in the regression analysis to minimize the effects of multicollinearity (Aiken & West, 1991). Furthermore, due to the high correlation in organizational culture variables, we estimated four models, individually including each of the independent variables (clan, hierarchical, adhocratic, and market culture) interacting with the percentage of family managers. Also, the variance inflation factor (VIF) was calculated to verify whether multicollinearity was a serious issue in estimating the regressions (Supplementary Data 2 – SPSS output). The VIF values (the largest value is 1.377) were lower than the critical value of 10 (Hair et al., 2006). Therefore, multicollinearity did not represent a significant concern for the analysis.

Table 3 presents the results to contrast them with hypothesis H1. The M1 model included the control variables. This model shows a significant and positive effect of the company's sector (β = 0.170, p < 0.01), which indicates that family firms in the tertiary sector have more performance-based compensation policies. There was also a positive and significant effect of the size of the company (β = 0.127, p < 0.05), and when the main effects (organizational culture variables) were included, a positive and significant effect was obtained due to the presence of an HR area (β = 0.179, p < 0.01), indicating that family businesses increase the use of performance-based compensation policies when the company has a higher number of employees and when it has an area or department in charge of HR.

Concerning hypothesis H1a, the main independent variables were added in the M2 model, which resulted in the clan culture having a positive and significant effect on implementing performance-based compensation policies (β = 0.247, p < 0.001). Therefore, hypothesis H1a is confirmed. Contrary to our expectations, although the moderating effect associated with the ratio of family members in managerial positions is positive in the relationship between the clan culture and performance-based compensation policies, this effect is not significant. Therefore, hypothesis H1b is rejected.

With regards to our analysis of hypothesis H2 (see Table 4), we found a positive but not significant effect on implementing performance-based compensation policies (β = 0.100, p > 0.10). Hypothesis H2a is therefore rejected. Furthermore, when the moderating effect associated with the ratio of family members in managerial positions was analyzed, we obtained a negative but not significant effect on implementing performance-based compensation policies. Therefore, hypothesis H2b is rejected.

With regards to the adhocratic culture (see Table 5), our results show positive and significant evidence on the effect that this cultural approach has on compensation policy in the family firms analyzed (β = 0.195, p < 0.01). Therefore, hypothesis H3a is confirmed. However, concerning the moderating effect of the percentage of family managers in the relationship between the adhocratic culture and performance-based compensation policy,

Table 3 **Hierarchical regression analysis to test hypotheses 1**

37 11	Performance-based compensation policy						
Variables —	M0	M1	M2	M3			
Control variables							
Firm industry	.170** (.060)	.170** (.059)	.166** (.059)	.168** (.059)			
Firm size	.127* (.044)	.042 (.045)	.030 (.047)	.027 (.047)			
HR department	.105 (.109)	.179** (.111)	.178** (.111)	.182** (.112)			
CEO tenure	.031 (.050)	.021 (.049)	.028 (.050)	.033 (.053)			
Main effects							
Clan culture		.247*** (.049)	.232*** (.106)	.230*** (.053)			
Family managers (%)			045 (.140)	043 (.141)			
Interaction terms							
Clan culture x family managers				.029 (.151)			
Adjusted R ²	.051	.100	.099	.097			
\mathbb{R}^2	.063	.115	.116	.117			
ΔR^2		.052***	.001	.001			
F-value	5,192***	8,007***	6,748***	5,808***			

Notes: Standardized regression coefficients shown (standard errors in parentheses). n=315 family firms. *p < .05; **p < .01; ***p < .001



Table 4 Hierarchical regression analysis to test hypotheses 2

37 + 11	Performance-based compensation policy						
Variables —	M1	M2	M3				
Control variables							
Firm industry	.170** (.060)	.160** (.060)	.157** (.060)				
Firm size	.104 (.045)	.071 (.047)	.074 (.047)				
HR department	.135* (.114)	.134* (.113)	.126* (.113)				
CEO tenure	.030 (.050)	.045 (.050)	.029 (.051)				
Main effects							
Hierarchy culture	.100 (.047)	.072 (.049)	.084 (.049)				
Family managers (%)		103 (.141)	017 (.140)				
Interaction terms							
Hierarchical culture x family managers			-,093 (,144)				
Adjusted R ²	,057	,062	,067				
R^2	,072	,080	,088				
ΔR^2	,009	,008	,008				
F-value	4,782***	4,456***	4,228***				

Notes: Standardized regression coefficients shown (standard errors in parentheses). n=315 family firms. *p < .05 **p < .01 ***p < .001.

Table 5
Hierarchical regression analysis to test hypotheses 3

37 . 11	Performance-based compensation policy					
Variables —	M2	M3	M4			
Control variables						
Firm industry	.176** (.059)	.168** (.058)	.167** (.060)			
Firm size	.058 (.046)	.002 (.047)	.040 (.048)			
HR department	.169** (.111)	.167** (.113)	.164** (.113)			
CEO tenure	.020 (.049)	.044 (.050)	.036 (.051)			
Main effects						
Adhocratic culture	.195** (.057)	.174** (.059)	.184** (.060)			
Family managers (%)		080 (.138)	081 (.138)			
Interaction terms						
Adhocratic culture x family managers			046 (.174)			
Adjusted R ²	.080	.082	.081			
R^2	.095	.099	.101			
ΔR^2	.032**	.005	.002			
F-value	6,450***	5,668***	4,944***			

Notes: Standardized regression coefficients shown (standard errors in parentheses). n=315 family firms. **p < .01; ***p < .001.

our results show a negative but not significant effect. Hypothesis H3b is therefore rejected. One aspect that is important to point out in these results is that our evidence must be interpreted carefully, considering that the scale's reliability for the adhocratic culture did not obtain the acceptable minimum values.

Finally, with regards to the market culture (see Table 6), there is positive and significant evidence on

the effect that this cultural approach has on compensation policy in the family firms analyzed (β = 0.174, p < 0.01). Therefore, hypothesis H4a is confirmed. However, concerning the moderating effect of family managers, our results show a negative but not significant moderating effect in the relationship between market culture and performance-based compensation policy. Hypothesis H4b is therefore rejected.



Table 6
Hierarchical regression analysis to test hypotheses 4

37 • 11	Performance-based compensation policy						
Variables —	M2	M3	M4				
Control variables							
Firm industry	.167** (.059)	.160** (.060)	.158** (.060)				
Firm size	.079 (.045)	.055 (.047)	.057 (.047)				
HR department	.153** (.112)	.153* (.112)	.151* (.112)				
CEO tenure	.040 (.050)	.050 (.050)	.042 (.051)				
Main effects							
Market culture	.174** (.050)	.152* (.053)	.163* (.055)				
Family managers (%)		078 (.140)	077 (.140)				
Interaction terms							
Market culture x family managers			036 (.155)				
Adjusted R ²	.075	.077	.075				
R^2	.090	.094	.095				
ΔR^2	.027**	.005	.001				
F-value	6,088***	5,344***	4,624***				

Notes: Standardized regression coefficients shown (standard errors in parentheses). n=315 family firms. *p < .05; **p < .01; ***p < .001.

5 Discussion of the results

According to our results, we partially confirmed what we expected. Overall, the results show that there is no single cultural path for implementing a performancebased compensation policy, similar to other strategic decisions (Cherchem, 2017). In this vein, although the cultural orientation that favors this type of compensation policy more strongly in family MSMEs is the clan culture, adhocratic and market cultural orientations also do so. The favorable orientation of the clan culture is because its characteristics and values encourage cooperation among the organizational members to forge a greater sense of belonging, cohesion, and commitment. To strengthen these values, family MSMEs might find it feasible to use performance-based compensation policies to support these values. In the case of the positive relationship between the adhocratic culture and compensation policies in family MSMEs, this is related to previous research that points out that this cultural orientation makes sense mainly in micro and small organizations (Chandler et al., 2000). Thus, the decision to implement a performance-based compensation policy in family MSMEs is motivated by group values and participative leadership (exercised through the family members) with less bureaucracy. And concerning the relationship between the market culture and compensation policies in family businesses, our evidence debates previous results that point out that the orientation towards a market culture could be low in

family-owned and managed firms (Sánchez-Marín et al., 2016). Like the adhocratic orientation, this cultural marker follows an external orientation more associated with entrepreneurship and smaller firms (Zahra et al., 2004). Thus, family MSMEs' performance-based compensation policies may correspond to a rational model of objectives based on productivity, goals accomplishment, achievement, and competitiveness (Cameron & Quinn, 2011).

Second, contrary to what we expected to find with the hierarchical culture, the results were not significant. These results could be attributed to the fact that the hierarchical culture is oriented to reinforce control mechanisms that are inflexible and oriented to individuality. Family firms are less oriented towards hierarchy values considering the tight control exerted by the family (Sánchez-Marín et al., 2016). As the hierarchical culture is defined, its formal, rigid and standardized values are not permeated by the values of the family. So, a hierarchical culture orientation is less likely in family MSMEs because the family is always influencing business decisions, including remuneration policies.

Concerning the moderating role of the owning family's presence in the management of the company, our results show that there are no outstanding differences between the cultural orientations of family MSMEs and the use of performance-based compensation policies, even when moderated by the presence of family members in managerial positions. One potential explanation for these results may be the high level of ownership concentration in family

MSMEs, which results in adopting similar goal preferences and decision making (Sánchez-Marín et al., 2016).

6 Conclusions

This study applied a survey to managers of 315 Colombian family MSMEs to meet two objectives. The first objective was to analyze how the organizational culture, based on the Cameron and Queen model (2011), influences the decision to implement performance-based compensation policies in family businesses. The second objective was to analyze whether the owning family's presence in the management of the company moderates the relationship between organizational culture and performance-based compensation policies.

This study broadly confirms organizational culture as an intangible and strategic resource for family firms (Sánchez-Marín et al., 2016; Zahra et al., 2004) since it helps explain the decision to implement such a key formal HR policy as a performance-based compensation policy. Furthermore, this work contributes to the literature on human resources and family businesses by extending the existing knowledge on the relationship between organizational culture and compensation policies related to performance in family MSMEs. As performance-based compensation is presumably considered one of the most important determinants not only of the employees' performance but also of critical results in the company (Gupta & Shaw, 2014), our results present organizational culture as a key driver of compensation. This could help in understanding the difficulty faced by family MSMEs when implementing this type of policy focused on variable pay (Chrisman et al., 2017; Memili et al., 2013).

This study also has important implications for practitioners. Managers and consultants interested in developing remuneration policies in family MSMEs must consider the company's characteristics in terms of its culture. They must know how to identify the company's culture, understand it, and take advantage of the effects that can be obtained from such resources. Studying it would allow the family to know their degree of influence in the company and assess whether that influence is favorable or not to the desired compensation policies.

Finally, this work is not free of limitations that may result in future research work. First, it is identified that the compensation policy is based only on performance; therefore the different practices and policies related to compensation should be considered in the future. Second,

due to not finding significant moderation by family influence (in terms of family managers) in the relationship between organizational culture and performance-based compensation, future research could include the role of the family's generation. Some studies have examined the moderating role of generational involvement that shapes the nexus between organizational culture and strategic decision-making (Cherchem, 2017). However, in the absence of information regarding which generation controls the company, the effect that the founder or subsequent generations may have on the formation of the organizational culture and, consequently, on remuneration policies, is unknown. Third, as the sample is formed of MSMEs, it does not permit a comparative analysis with large family-owned companies; future research could include large-sized family firms and non-family firms to develop comparisons between similar characteristics and differences between them. Finally, since our sample comes from only one country, which does not allow for a comparative analysis between cultures, and because these characteristics may influence future results, a cross-cultural analysis could be carried out to identify differences.

References

AIKEN, L. S., & WEST, S. G. (1991). *Multiple regressions: Testing and interpreting interactions*. Atlanta: Sage.

ALVES, C. A., & GAMA, A. P. (2020). Family business performance: A perspective of family influence. *Revista Brasileira de Gestão de Negócios*, 22(1), 163-182. http://dx.doi.org/10.7819/rbgn.v22i1.4040.

APPELBAUM, E., BAILEY, T., BERG, P., & KALLENBERG, A. L. (2000). *Manufacturing advantage: Why high-performance work systems pay off.* Ithaca: Cornell University Press.

BARNEY, J. B. (1986). Organizational culture: Can it be a source of sustained competitive advantage? *Academy of Management Review*, *11*(3), 656-665. http://dx.doi.org/10.2307/258317.

BASSANINI, A., BREDA, T., CAROLI, E., & REBÉRIOUX, A. (2013). Working in family firms: Paid less but more secure? Evidence from French matched employeer-employee data. *Industrial & Labor Relations Review*, 66(2), 433-466. http://dx.doi.org/10.1177/001979391306600206.



BOLAŃOS, L. F. (2018, 6 de junio). Estás son las principales cinco fallas que le ponen fin a una empresa familiar. La República.

CALDERÓN, G., & SERNA, H. (2009). Relaciones entre recursos humanos y cultura organizacional: Un estudio empírico. *Acta Colombiana de Psicologia*, *12*(2), 97-114.

CAMERON, K. S., & QUINN, R. E. (2011). *Diagnosing and changing organizational culture: Based on the competing values framework* (3rd ed.). Reading: Addison-Wesley.

CARRASCO-HERNÁNDEZ, A., & SÁNCHEZ-MARÍN, G. (2007). The determinants of employee compensation in family firms: Empirical evidence. *Family Business Review*, *20*(3), 215-228. http://dx.doi.org/10.1111/j.1741-6248.2007.00096.x.

CHANDLER, G., KELLER, C., & LYON, D. (2000). Unraveling the determinants and consequences of innovation-supportive culture. *Entrepreneurship Theory and Practice*, *25*(1), 59-76. http://dx.doi.org/10.1177/104225870002500106.

CHANG, S.-I. (2012). Study on human resource management in Korea's chaebol enterprise: A case study of Samsung Eectronics. *International Journal of Human Resource Management*, 23(7), 1436-1461. http://dx.doi.org/10.1080/09585192.2011.579922.

CHEN, C.-J., HSU, C.-Y., & CHEN, Y.-L. (2014). The impact of family control on the top management compensation mix and incentive orientation. *International Review of Economics & Finance*, *32*, 29-46. http://dx.doi.org/10.1016/j.iref.2014.01.005.

CHEN, Y.-L., & CHEN, C.-J. (2015). Family firms and the incentive contracting role of accounting earnings. *Asia-Pacific Journal of Accounting & Economics*, 22(4), 384-405. http://dx.doi.org/10.1080/16081625.2014. 995769.

CHERCHEM, N. (2017). The relationship between organizational culture and entrepreneurial orientation in family firms: Does generational involvement matter? *Journal of Family Business Strategy*, 8(2), 87-98. http://dx.doi.org/10.1016/j.jfbs.2017.04.001.

CHIRICO, F., & NORDQVIST, M. (2010). Dynamic capabilities and transgenerational value creation in family

firms: The role of organizational culture. *International Small Business Journal*, 28(5), 487-504. http://dx.doi.org/10.1177/0266242610370402.

CHRISMAN, J. J., DEVARAJ, S., & PATEL, P. C. (2017). The Impact of Incentive Compensation on Labor Productivity in Family and Non-family Firms. *Family Business Review*, *30*(2), 119-136. http://dx.doi.org/10.1177/0894486517690052.

CHRISMAN, J. J., & PATEL, P. C. (2012). Variations in R&D investments of family and non-family firms: Behavioral agency and myopic loss aversion perspectives. *Academy of Management Journal*, *55*(4), 976-997. http://dx.doi.org/10.5465/amj.2011.0211.

CHUA, J. H., CHRISMAN, J. J., & SHARMA, P. (1999). Defining the family business by behavior. *Entrepreneurship Theory and Practice*, *23*(4), 19-39. http://dx.doi.org/10.1177/104225879902300402.

CHUA, J. H., CHRISMAN, J. J., STEIER, L. P., & RAU, S. B. (2012). Sources of heterogeneity in family firms: An Introduction. *Entrepreneurship Theory and Practice*, *36*(6), 1103-1113. http://dx.doi.org/10.1111/j.1540-6520.2012.00540.x.

CIASCHI, M., GALEANO, L., & GASPARINI, L. (2021). Estructura productiva y desigualdad salarial: Evidencia para América Latina. *El Trimestre Economico*, 88(349), 77-106. http://dx.doi.org/10.20430/ete.v88i349.1078.

Colombia, Ministerio del Trabajo. (2021). *Tercer congreso* de seguridad y salud en el trabajo de la pequeña y mediana empresa. MiPymes.

CRUZ, C., FIRFIRAY, S., & GÓMEZ-MEJÍA, L. R. (2011). Socioemotional wealth and human resource management (HRM) in family-controlled firms. *Research in Personnel and Human Resources Management*, *30*, 159-217. http://dx.doi.org/10.1108/S0742-7301(2011)0000030006.

DASPIT, J. J., MADISON, K., BARNETT, T., & LONG, R. G. (2018). The emergence of bifurcation bias from unbalanced families: Examining HR practices in the family firm using circumplex theory. *Human Resource Management Review*, *28*(1), 18-32. http://dx.doi.org/10.1016/j.hrmr.2017.05.003.



DE-LA-GARZA-CARRANZA, M. T., GUZMÁN-SORIA, E., & MUELLER, C. B. (2011). Organizational culture profile of service and manufacturing businesses in México. *Innovar*, 21(40), 81-92.

DE KOK, J. M. P., UHLANER, L. M., & THURIK, A. R. (2006). Professional HRM practices in family owned-managed enterprises. *Journal of Small Business Management*, 44(3), 441-460. http://dx.doi.org/10.1111/j.1540-627X.2006.00181.x.

DENISON, D., LIEF, C., & WARD, J. L. (2004). Culture in family-owned enterprises: Recognizing and leveraging unique strength. *Family Business Review*, *17*(1), 61-70. http://dx.doi.org/10.1111/j.1741-6248.2004.00004.x.

DESHPANDÉ, R., FARLEY, J. U., & WEBSTER Jr, F. E. (1993). Corporate culture, customer orientation, and innovativeness in japanese firms: A quadrad analysis. *Journal of Marketing*, *57*(1), 23-37. http://dx.doi.org/10.1177/002224299305700102.

DU, J., & CHOI, J. N. (2010). Pay for performance in emerging markets: Insights from China. *Journal of International Business Studies*, 41(4), 671-689. http://dx.doi.org/10.1057/jibs.2009.40.

DYER Jr, W. G. (1988). Culture and continuity in family firms. *Family Business Review*, *I*(1), 37-50. http://dx.doi. org/10.1111/j.1741-6248.1988.00037.x.

DYER Jr, W. G. (2003). The family: The missing variable in organizational research. *Entrepreneurship Theory and Practice*, *27*(4), 401-416. http://dx.doi.org/10.1111/1540-8520.00018.

DYER Jr, W. G. (1989). Integrating professional management into a family owned business. *Family Business Review*, *2*(3), 221-235. http://dx.doi.org/10.1111/j.1741-6248.1989.00221.x.

ELDRIDGE, C., & PALMER, N. (2009). Performance-based payment: Some reflections on the discourse, evidence and unanswered questions. *Health Policy and Planning*, *24*(3), 160-166. http://dx.doi.org/10.1093/heapol/czp002. PMid:19202163.

FIRFIRAY, S., CRUZ, C., NEACSU, I., & GOMEZ-MEJIA, L. R. (2018). Is nepotism so bad for family

firms? A socioemotional wealth approach. *Human Resource Management Review*, 28(1), 83-97. http://dx.doi.org/10.1016/j.hrmr.2017.05.008.

GÁLVEZ, E. ., RESTREPO, R. ., & HERNÁNDEZ, F. (2017). *Estructura del tejido empresarial en Colombia*. Colombia: Aldea Global, Business School CEIPA.

GATFIELD, T., & YOUSEFF, M. (2001). A critical examination of and reflection on the Chinese Family Business Unit and the Chinese Business Clan. *Family Business Review*, *14*(2), 153-158. http://dx.doi.org/10.1111/j.1741-6248.2001.00153.x.

GOMEZ-MEJIA, L. R., BERRONE, P., & FRANCO-SANTOS, M. (2014). *Compensation and organizational performance: Theory, research, and practice* (1st ed.). London: Routledge. .. http://dx.doi.org/10.4324/9781315705477.

GÓMEZ-MEJÍA, L. R., CRUZ, C., BERRONE, P., & DE CASTRO, J. (2011). The bind that ties: Socioemotional wealth preservation in family firms. *The Academy of Management Annals*, *5*(1), 653-707. http://dx.doi.org/10.5465/19416520.2011.593320.

GÓMEZ-MEJÍA, L. R., HAYNES, K. T., NÚŃEZ-NICKEL, M., JACOBSON, K. J., & MOYANO-FUENTES, J. (2007). Socioemotional wealth and business risks in family-controlled firms: Evidence from Spanish olive oil mills. *Administrative Science Quarterly*, *52*(1), 106-137. http://dx.doi.org/10.2189/asqu.52.1.106.

GONZÁLEZ-DÍAZ, R. R., & BECERRA-PÉREZ, L. A. (2021). PYMES en América Latina: Clasificación, productividad laboral, retos y perspectivas. *CIID Journal*, *2*(1), 570-608. http://dx.doi.org/10.46785/ciidj.v1i1.100.

GUPTA, N., & JENKINS Jr, G. D. (1996). The politics of pay. *Compensation and Benefits Review*, *28*(2), 23-30. http://dx.doi.org/10.1177/088636879602800204.

GUPTA, N., & SHAW, J. D. (2014). Employee compensation: The neglected area of HRM research. *Human Resource Management Review*, 24(1), 1-4. http://dx.doi.org/10.1016/j.hrmr.2013.08.007.

GUZAK, J., & KANG, E. (2018). Culture, competencies, and compensation: A framework for pay for performance incentives. *American Journal of Management*, *18*(8), 219-227.



HABBERSHON, T. G., WILLIAMS, M., & MACMILLAN, I. C. (2003). A unified systems perspective of family firm performance. *Journal of Business Venturing*, *18*(4), 451-465. http://dx.doi.org/10.1016/S0883-9026(03)00053-3.

HAIR, J. F., BLACK, W. C., BABIN, B. J., ANDERSON, R. E., & TATHAM, R. L. (2006). *Multivariate data analysis* (Vol. 6). Upper Saddle River: Pearson Prentice Hall.

HERNÁNDEZ-LINARES, R., LÓPEZ-FERNÁNDEZ, M. C., MEMILI, E., MULLINS, F., & PATEL, P. C. (2021). High-performance work practices, socioemotional wealth preservation, and family firm labor productivity. *Business Research Quarterly*. In press. http://dx.doi.org/10.1177/23409444211002521.

IRELAND, M., PAUL, E., & DUJARDIN, B. (2011). Can performance-based financing be used to reform health systems in developing countries? *Bulletin of the World Health Organization*, 89(9), 695-698. http://dx.doi.org/10.2471/BLT.11.087379. PMid:21897491.

JIANG, K., HU, J., LIU, S., & LEPAK, D. P. (2017). Understanding employees' perceptions of human resource practices: Effects of demographic dissimilarity to managers and coworkers. *Human Resource Management*, *56*(1), 69-91. http://dx.doi.org/10.1002/hrm.21771.

KERR, J., & SLOCUM, J. (1987). Managing corporate culture: Through reward systems. *The Academy of Management Executive*, *1*(2), 99-108.

KIDWELL, R. E., EDDLESTON, K. A., & KELLERMANNS, F. W. (2018). Learning bad habits across generations: How negative imprints affect human resource management in the family firm. *Human Resource Management Review*, 28(1), 5-17. http://dx.doi.org/10.1016/j.hrmr.2017.05.002.

LI, L., & ROLOFF, M. E. (2008). Organizational culture and compensation system. *The International Journal of Organizational Analysis*, *15*(3), 210-230. http://dx.doi.org/10.1108/19348830710880910.

LIANG, X., WANG, L., & CUI, Z. (2014). Chinese private firms and internationalization: Effects of family involvement in management and family ownership. *Family Business Review*, *27*(2), 126-141. http://dx.doi. org/10.1177/0894486513480885.

LOZANO-REINA, G., & SÁNCHEZ-MARÍN, G. (2020). Say on pay and executive compensation: A systematic review and suggestions for developing the field. *Human Resource Management Review*, *30*(2), 100683. http://dx.doi.org/10.1016/j.hrmr.2019.01.004.

MADHANI, P. M. (2014). Aligning compensation systems with organization culture. *Compensation and Benefits Review*, 46(2), 103-115. http://dx.doi.org/10.1177/0886368714541913.

MEMILI, E., MISRA, K., CHANG, E. P. C., & CHRISMAN, J. J. (2013). The propensity to use incentive compensation for non-family managers in SME family firms. *Journal of Family Business Management*, *3*(1), 62-80. http://dx.doi.org/10.1108/20436231311326490.

MICHIELS, A. (2017). Formal compensation practices in family SMEs. *Journal of Small Business and Enterprise Development*, 24(1), 88-104. http://dx.doi.org/10.1108/JSBED-12-2015-0173.

PARK, J., & KIM, S. (2017). Pay dispersion and organizational performance in Korea: Curvilinearity and the moderating role of congruence with organizational culture. *International Journal of Human Resource Management*, 28(9), 1291-1308. http://dx.doi.org/10.1080/09585192.2015.1126331.

PELÁEZ-LEÓN, J. D., & SÁNCHEZ-MARÍN, G. (2022). Socioemotional wealth and human resource policies: Effects on family firm performance. *International Journal of Entrepreneurial Behaviour & Research*, 28(1), 109-135. http://dx.doi.org/10.1108/IJEBR-05-2021-0404.

PELÁEZ-LEÓN, J. D., & SÁNCHEZ-MARÍN, G. (2023). High-performance work systems in family firms: A mixed gamble approach. *Journal of Business Research*, *156*, 113532. http://dx.doi.org/10.1016/j.jbusres.2022.113532.

PODSAKOFF, P. M., MACKENZIE, S. B., LEE, J. Y., & PODSAKOFF, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *The Journal of Applied Psychology*, 88(5), 879-903. http://dx.doi.org/10.1037/0021-9010.88.5.879. PMid:14516251.

Portafolio. (2022). *Colombia, entre los países más competitivos de América Latina*. https://www.portafolio.co/economia/



finanzas/imd-colombia-entre-los-paises-mas-competitivos-de-america-latina-567082

SAMARA, G., JAMALI, D., & PARADA, M. J. (2021). Antecedents and outcomes of bifurcated compensation in family firms: A multilevel view. *Human Resource Management Review*, *31*(1), 100728. http://dx.doi.org/10.1016/j.hrmr.2019.100728.

SÁNCHEZ-MARÍN, G., CARRASCO-HERNÁNDEZ, A., DANVILA-DEL-VALLE, I., & SASTRE-CASTILLO, M. (2016). Organizational culture and family business: A configurational approach. *European Journal of Family Business*, *6*(2), 99-107. http://dx.doi.org/10.1016/j.ejfb.2017.05.002.

SÁNCHEZ-MARÍN, G., MEROÑO-CERDÁN, L. Á., & CARRASCO-HERNÁNDEZ, A. J. (2019). Formalized HR practices and firm performance: An empirical comparison of family and non-family firms. *International Journal of Human Resource Management*, 30(7), 1084-1110. http://dx.doi.org/10.1080/09585192.2017.1289547.

SCHEIN, E. H. (1992). Organizational culture and leadership (2nd ed.). Jossey-Bass.

SPECKBACHER, G., & WENTGES, P. (2012). The impact of family control on the use of performance measures in strategic target setting and incentive compensation: A research note. *Management Accounting Research*, *23*(1), 34-46. http://dx.doi.org/10.1016/j.mar.2011.06.002.

STEIJVERS, T., LYBAERT, N., & DEKKER, J. (2017). Formal human resource practices in family firms. *Journal of Family Business Management*, 7(2), 151-165. http://dx.doi.org/10.1108/JFBM-07-2016-0016.

TIPU, S. A. A. (2018). What have we learned? Themes from the literature on organizational culture in family firms. *European Business Review*, *30*(6), 660-675. http://dx.doi.org/10.1108/EBR-02-2017-0042.

TOSI, H. L., & GRECKHAMER, T. (2004). Culture and CEO Compensation. *Organization Science*, *15*(6), 657-670. http://dx.doi.org/10.1287/orsc.1040.0099.

TRIGUERO-SÁNCHEZ, R., PEŃA-VINCES, J., & GUILLEN, J. (2018). How to improve firm performance through employee diversity and organizational culture. *Revista Brasileira de Gestão de Negócios*, *20*(3), 378-400. http://dx.doi.org/10.7819/rbgn.v20i3.3303.

TSAO, C.-W., NEWMAN, A., CHEN, S.-J., & WANG, M.-J. (2016). HRM retrenchment practices and firm performance in times of economic downturn: Exploring the moderating effects of family involvement in management. *International Journal of Human Resource Management*, 27(9), 954-973. http://dx.doi.org/10.108 0/09585192.2015.1072098.

WEI, L., LIU, J., ZHANG, Y., & CHIU, R. (2008). The role of corporate culture in the process of strategic human resource management: Evidence from Chinese enterprises. *Human Resource Management*, 47(4), 777-794. http://dx.doi.org/10.1002/hrm.20244.

YEGANEH, H., & SU, Z. (2011). The effects of cultural orientations on preferred compensation policies. *International Journal of Human Resource Management*, 22(12), 2609-2628. http://dx.doi.org/10.1080/09585 192.2011.588036.

YOUNG BAEK, H., & FAZIO, P. L. (2015). The effect of family ownership and control on equity-based compensation: Evidence from S&P SmallCap firms. *Journal of Family Business Management*, *5*(1), 55-72. http://dx.doi.org/10.1108/JFBM-04-2014-0008.

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



Appendix A

Summary of scale items

Summary of scale items

Performance-based compensation policy

- 1. The firm has assessed employees' performance based on objective and quantifiable results
- 2. The firm has assessed employees' performance based on multiple sources
- 3. The firm has given feedback to employees based on their performance appraisals
- 4. The firm has paid employees based on their performance
- 5. The firm has guaranteed pay equity
- 6. The firm has provided incentives based on the results achieved

Clan Culture

- 1. The organization is a very personal place. It is like an extended family. People seem to share a lot of themselves.
- 2. The leadership in the organization is generally considered to exemplify mentoring, facilitating, or nurturing.
- 3. The management style in the organization is characterized by teamwork, consensus, and participation.
- 4. The glue that holds the organization together is loyalty and mutual trust. Commitment to this organization runs high.
- 5. The organization emphasizes human development. High trust, openness, and participation persist.
- 6. The organization defines success on the basis of the development of human resources, teamwork, employee commitment, and concern for people.

Hierarchical culture

- 1. The organization is a very controlled and structured place. Formal procedures generally govern what people do.
- 2. The leadership in the organization is generally considered to exemplify coordinating, organizing, or smooth-running efficiency.
- 3. The management style in the organization is characterized by security of employment, conformity, predictability, and stability in relationships.
- 4. The glue that holds the organization together is formal rules and policies. Maintaining a smoothly running organization is important.
- 5. The organization emphasizes permanence and stability. Efficiency, control, and smooth operations are important.
- 6. The organization defines success on the basis of efficiency. Dependable delivery, smooth scheduling, and low-cost production are critical.

Adhocratic culture

- 1. The organization is a dynamic and entrepreneurial place. People are willing to stick their necks out and take risks.
- 2. The leadership in the organization is generally considered to exemplify entrepreneurship, innovation, or risk taking.
- 3. The management style in the organization is characterized by individual risk taking, innovation, freedom, and uniqueness.
- 4. The glue that holds the organization together is commitment to innovation and development. There is an emphasis on being on the cutting edge.
- 5. The organization emphasizes acquiring new resources and creating new challenges. Trying new things and prospecting for opportunities are valued.
- 6. The organization defines success on the basis of having unique or the newest products. It is a product leader and innovator.

Market culture

- 1. The organization is very results oriented. A major concern is with getting the job done. People are very competitive and achievement oriented.
- 2. The leadership in the organization is generally considered to exemplify a no-nonsense, aggressive, results-oriented focus.
- 3. The management style in the organization is characterized by hard-driving competitiveness, high demands, and achievement.
- 4. The glue that holds the organization together is the emphasis on achievement and goal accomplishment.
- 5. The organization emphasizes competitive actions and achievement. Hitting stretch targets and winning in the marketplace are dominant.
- 6. The organization defines success on the basis of winning in the marketplace and outpacing the competition. Competitive market leadership is key.



Supplementary Material

Supplementary material accompanies this paper.

Supplementary Data 1 – database

Supplementary Data 2 – SPSS output

Supplementary data to this article can be found online at https://doi.org/10.7910/DVN/GD4VXE



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