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Article

Between Legacy and Leadership: How Family Involvement Shapes Ability-Enhancing Human Resource Management Practices in Family Firms

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Abstract

Family-owned firms dominate the corporate landscape in Germany, representing 90% of all companies and employing over half of the workforce. Despite their prevalence, their human resource management (HRM) practices, especially their ability-enhancing HRM (AE-HRM) practices—such as employee selection and development—remain under-researched compared to those of nonfamily businesses. This study investigated the impact of family involvement in top management on the AE-HRM practices of family firms. Using the Linked Personnel Panel (LPP) dataset combined with the German Federal Employment Agency's Institute for Employment Research (IAB) Establishment Panel dataset, we analyzed a comprehensive range of AE-HRM practices through the lens of the Ability, Motivation, and Opportunity framework. Our findings revealed that family involvement in top management positively influences the AE-HRM practices of family firms, such as employee training and development (T&D), but has no impact on other AE-HRM practices, like employee selection, running of assessment centers, and conduct of skill tests. These results provide new insights into the unique HRM dynamics in family firms as the backbone of the German economy and highlight the complex relationship between family management and AE-HRM practices as well as the importance of AE-HRM practices in family firms.

Keywords: human resource management; family firms; employee development; ability-enhancing HRM; family involvement
JEL: M12; J24; L26; D22

1. Introduction

Employee development involves equipping employees with the knowledge, skills, and attitudes they need to perform effectively in order to meet their organizations' dynamic needs (Jiang et al, 2012a). Thus, it is a critical component of ability-enhancing human resource management practices and a cornerstone of organizational competitiveness, performance, and innovation (Peláez-León and Sánchez-Marín, 2023; Rondi et al, 2022), as well as of individual employee outcomes, including job performance, adaptability, and longevity (Aguinis and Kraiger, 2009; Crook et al, 2011). The role of employee development is uniquely significant in family firms, as their long-term viability and performance hinge on their commitment to fostering skills and competencies among employees, particularly in industries that demand continuous innovation and adaptability (Bloom et al, 2012). Moreover, in family firms, where informal relationships and traditions often shape management practices, professional development initiatives can align individual aspirations with organizational goals, enhancing both organizational performance and employee satisfaction (Hernández-Linares et al, 2023; Wright et al, 2003).

Despite the significance of employee development practices in family firms, they are less explored compared to those in nonfamily firms (Cruz et al, 2011; Hoon et al, 2019). Nevertheless, employee development in family firms is particularly intriguing because the unique interplay of familial influence, organizational culture, and long-term orientation in these firms creates distinct challenges and opportunities in implementing structured development practices.

The literature on family firms suggests an ambivalent approach to employee development. On the one hand, the stewardship-oriented management style often observed in these firms encourages investment in long-term skills enhancement and the personal growth of employees (Miller et al, 2008). Family leaders, driven by a sense of responsibility, may prioritize employee development initiatives to ensure the firm's continuity and competitive edge (Eddleston et al, 2012). Thus, structured employee development programs not only address existing skills gaps but also prepare the workforce for future challenges, fostering resilience and sustainability (Snell, 1992). On the other hand, in some family firms, the family's desire to maintain control and avoid potential power shifts to skilled nonfamily employees can lead to a preference for informal, less structured developmental practices (Kotey and Folker, 2007). Such tendencies are further influenced by resource constraints and the idiosyncratic managerial philosophies typical of family firms (Cruz et al, 2011; De Kok et al, 2006). These contrasting findings indicate that an unexplored factor may hold the key to understanding the unique ability-enhancing developmental practices observed in family firms.

The Ability, Motivation, and Opportunity (AMO) framework provides a robust theoretical lens through which to examine family firms' human resource management (HRM) practices (Appelbaum et al, 2000; Nehles et al, 2006), including their design, implementation, and success factors. This framework is an established way of classifying professional HRM practices into three dimensions, according to their functions: ability-enhancing, motivation-enhancing, and opportunity-enhancing practices. Ability-enhancing HRM (AE-HRM) practices focus on employee recruitment, selection, and training and development (T&D) activities aimed at building the skills and competencies of employees (Jiang et al, 2012b). Research findings on the implementation of AE-HRM practices in family firms are mixed. Some studies suggest that family firms invest significantly in T&D to maintain their competitive edge (Miller et al, 2008; Reid and Harris, 2002). Other studies indicate a reliance on informal approaches, such as on-the-job T&D, particularly in smaller or resource-constrained family firms (Cardinal et al, 2017; Kotey and Folker, 2007). These inconsistencies highlight the need for a multifaceted understanding of the factors that shape the adoption and execution of structured employee development practices and other AE-HRM practices in family firms.

This study sought to address this gap by investigating the specific impact of family involvement in top management on AE-HRM practices in German family firms. We explored the extent to which familial influence in German family firms promotes or hinders the implementation of formal employee selection practices and structured T&D initiatives, to provide actionable insights to guide family firm leaders, policymakers, and HR practitioners in optimizing ability-enhancing strategies while preserving the distinctive identity and legacy of family-owned businesses.

2. Literature Review

2.1 Definition of Family Firms

Most scholars demarcate family firms from other firms based on the involvement of the owning family in the firm. This involvement can be direct, through participation in the firm's governance, or indirect, by merely exercising ownership rights. Accordingly, scholars use the family's participation in the firm's management and the percentage of the family's shares in the firm to define the term "family firm" (Berrone et al, 2012; Bloom and Van Reenen, 2007; Chrisman et al, 2012).

The influence a shareholder can exert in a company is determined not only by the absolute number of shares owned but also by the relative proportion of shares compared to other shareholders. In large companies, a family or individual holding a minority stake can still wield significant control if other shareholders possess even smaller stakes. This concept, often referred to as "de facto control", indicates that a minority shareholder's voting power can exceed what their shareholding size might suggest, particularly in situations where other owners have dispersed or relatively small stakes (Geronimo, 2016). We refer to an owner with the most shares as the principal owner. As the principal owner, a family can control the organization. Hence, we define family firms as those companies that self-identify as family firms by stating "family or founder" as the principal owner. This reflects the organization's perception and communication of itself as a family firm, which plays a key role in how such firms function and manage their internal processes.

2.2 HRM

Jiang et al (2013) understood HRM as a firm's way of managing its employees to maximize its performance by maximizing its employees' abilities, motivation, and opportunities (AMO). They referred to this HRM approach as strategic HRM. Their normative stream of research analyzed the effects of AMO-enhancing activities (i.e., professional HRM practices) on firm performance. These scholars aggregated different HRM practices (including professional HRM, strategic HRM, or high-performance work practices [HPWPs]) to form a unidimensional HRM scale, which they used to demonstrate an effect of HRM on employee and/or firm (including family firm) outcomes, such as employee commitment, satisfaction, job performance, turnover intentions, human capital, and profit margins (Blanco-Mazagatos et al, 2018; Haryono et al, 2020; Li et al, 2019; Hernández-Linares et al, 2023; Mustafa et al, 2018; Nguyen and Bryant, 2004; Pittino et al, 2016; Sánchez-Marín et al, 2019; Wright et al, 2003; Youndt and Snell, 2004).

HRM is also understood as a general activity involving managing people in organizations to ensure these organizations' effective operation. According to Snell (1992), HR practices enable a cybernetic, bureaucratic control system that depends on the complexity of the organization.

HR practices in family firms are particularly important, since family firms face specific HR related challenges: Internal family dynamics, such as conflicts among family members, can have a direct impact on HRM strategies (Kellermanns and Eddleston, 2004). Such conflicts may create a sense of uncertainty among employees, prompting targeted HRM interventions to maintain morale and stability. Additional layers of complexity may arise from aspects such as gender diversity within the family, which can affect leadership dynamics and HRM outcomes—potentially even amplifying internal tensions (Vera and Dean, 2005).

A lack of effective power delegation prior to generational transitions—for instance, when senior family members are reluctant to cede control—can result in employee demotivation (Bammens et al, 2011). Even in the absence of overt conflict, the involvement of the next generation in the business during succession phases can shape employee commitment and retention (Sharma et al, 2003).

Promotion management presents another critical area where HRM in family firms may face scrutiny. Preferential treatment of family members in advancement decisions may compromise perceptions of fairness and meritocracy, thereby negatively affecting employee performance and satisfaction (Burkart et al, 2003).

In this study, we apply Appelbaum et al's (2000) AMO framework and analyze how family firm specific characteristics — such as family involvement and stewardship over employees — influence AMO dimensions. Davis et al (1997), describe stewardship over employees as a managerial orientation rooted in trust, collectivism, and intrinsic motivation that affects HR practices in family firms. Stewardship behavior affects, for instance, the design of T&D programs that are not merely skill-oriented but also emphasize long-term career paths, intergenerational knowledge transfer, and employee empowerment.

In the domain of opportunity-enhancing practices, stewardship over employees can be seen in the willingness to involve employees in decision-making, the implementation of participatory feedback systems (e.g., regular employee surveys), and flexible career opportunities, even for non-family employees.

Moreover, in contrast to more transactional agency HRM logics, stewardship-driven firms prioritize informal performance monitoring through relational and loyalty-based mechanisms, which can lead to superior performance outcomes (Afonso Alves et al, 2021), when it comes to motivation-enhancing practices. This contrasts with transactional agency based HRM systems, which rely on formal evaluations. Commitment-oriented HRM systems, aligned with stewardship principles, enhance organizational commitment and sustainability, offering a compelling alternative to traditional agency-focused methods (Gambi et al, 2022; Hauff et al, 2014; Kim and Shin, 2019). This leads to HRM systems that rely more on interpersonal trust and less on transactional mechanisms. In this way, stewardship over employees in family firms becomes a guiding principle for how HR practices are selected, implemented, and communicated. It shapes not only whether a firm adopts formal practices, but also how these practices are adapted to fit the firm's relational and cultural context.

However, we focused on AE-HRM practices as they are fundamental to equipping employees with the skills and competencies needed for effective performance (Aguinis and Kraiger, 2009; Jiang et al, 2012a). As already stated, these practices are particularly relevant in family firms due to their long-term orientation and the importance placed on human capital development (Kotey and Folker, 2007; Miller et al, 2008). Moreover, AE-HRM practices such as T&D are more directly tied to measurable outcomes, thereby aligning with this study's objective of providing actionable insights. While motivation- and opportunity-enhancing practices are essential, they fall outside the scope of this study's analysis and remain areas for future investigation.

Nevertheless, in this chapter we briefly discuss the influence of family involvement on motivation- and opportunity-enhancing practices. In the motivation-enhancing domain—especially regarding performance and reward management—a reduced need for organizational control, fewer agency problems, stronger stewardship orientation, the desire to maintain family control and influence, and limited education and experience regarding professional HRM practices among family-owner-managers suggest a negative association with family involvement. Formal motivation systems are often seen as unnecessary or even threatening in family firms. From a stewardship perspective, intrinsic motivation and relational commitment reduce the need for extrinsic incentives and bureaucratic control. From a control perspective, informal management styles substitute for formal mechanisms (Cardinal et al, 2017). The desire to maintain influence and the lack of formal HRM expertise further limit the use of structured performance systems (Michiels, 2017). Additionally, low agency risks in owner-managed firms reduce the perceived value of performance and reward management tools (Chrisman et al, 2005).

In contrast, the expected influence of family involvement on opportunity-enhancing practices—such as employee participation, surveys, or diversity strategies—is more ambivalent. Reduced need for organizational control, the desire to maintain family control and influence, and limited experience regarding professional HRM practices among family-owner-managers suggest restrictive effects: the preference for informality, a lack of experience with participatory methods, and a desire to protect the family's influence. However, stewardship orientation may counteract these tendencies by promoting employee participation, inclusion, and empowerment.

2.3 Influence of Family Involvement in Top Management on AE-HRM Practices

The literature on AE-HRM practices in family firms presents five explanations for the idiosyncratic AE-HRM practices in such firms. These explanations include three core factors—the limited resources of small and midsized family firms, their preference for informal management systems, and the desire of their owner-managers to maintain their family's influence and control over the firm—and two additional factors: family firms' reduced requirements for organizational control (Cardinal et al, 2017) and their owner-managers' lack of education and experience in AE-HRM practices (Golhar and Deshpande, 1997; Michiels, 2017). Each of these explanatory approaches are based on family involvement in the firm, which is a key characteristic of family firms and has an important effect on their management practices (Berrone et al, 2012; Bloom and Van Reenen, 2007).

Family members' involvement in family firms takes the form of ownership, governance, and management, but the combination of ownership and management is arguably the most distinctive of these forms (Klein et al, 2005). If family involvement in top management increases, the validity of the five described explanations also increases. For example, if family members' desire to maintain their influence and control of the firm leads them to perceive the T&D of their nonfamily employees as a threat, then family involvement in top management negatively affects the likelihood of applying formal T&D practices.

According to the literature, there are three ways in which family involvement in top management can affect employee selection practices in family firms. First, Cardinal et al (2017) found that an informal and culture-driven management style fosters informal employee selection practices, such as those found in owner-managed family firms, which prioritize cultural alignment and personal impressions over structured, objective criteria in hiring. This aligns with the findings of Chatman et al (2014) and Lepak and Snell (1999) that culture-focused family firms often favor flexible, relational processes to ensure that their employees fit shared values and norms. Second, according to Golhar and Deshpande (1997) and Michiels (2017), owner-managers in family firms are often less educated and experienced in professional HRM practices, which affects the firms' formal employee selection practices. If owner-managers in family firms are less educated and experienced in selection practices such as skill-, performance-, and personality tests or assessment centers, it is less likely that they will make use of these employee selection practices. Third, Klein et al (2005) and Zellweger et al (2010) found that family members' desire to control the company drives them to perceive competent nonfamily employees as threats, which influences formal employee selection practices at higher hierarchical stages. This influence manifests in prioritizing loyalty and alignment with family interests over objective criteria such as skills and experience. Consequently, selection practices are adapted or limited to reinforce family control and mitigate perceived risks associated with empowering nonfamily employees.

Therefore, we hypothesize as follows:

H1: Family involvement in top management negatively influences the adoption of formal employee selection practices.

Aside from employee selection practices, studies have found that family involvement in top management can affect T&D practices in family firms in three ways.

First, according to Cardinal et al (2017), an informal and culture-driven management style replaces formal T&D practices. Indeed, family firms with such management style often replace formal T&D with social learning and cultural assimilation. Family members emphasize mentoring, on-the-job learning, and informal knowledge sharing, as these align with their flexible, relationship-focused approach (Ployhart and Moliterno, 2011). Chatman et al (2014) argued that these methods reinforce cultural cohesion, as employees learn behaviors and values directly from their peers and leaders, fostering a shared identity. Second, Golhar and Deshpande (1997) and Michiels (2017) found that owner-managers in family firms are often less educated and experienced in professional HRM practices, which affects the application of formal T&D practices. If owner-managers in family firms are less educated and experienced in formal T&D practices such as formal employee development plans and the promotion of measures that enable employees to obtain a formal education or T&D qualifications such as retraining, professional requalification, further training to master craftsmen, technician certifications, postgraduate programs, MBAs or doctorates through time off or cost sharing, it is less likely that they will make use of these T&D practices. Third, Klein et al (2005) and Zellweger et al (2010) discovered that family members' desire to control the company drives them to perceive their competent nonfamily employees as threats, which decreases the propensity to apply formal T&D practices at higher hierarchical stages. However, this contrasts with Miller et al's (2008) finding that family influence in top management increases the family's stewardship behavior, and thus, increased family involvement in top management should result in more formal T&D.

Therefore, we hypothesize as follows:

H2: Family involvement in top management negatively influences the adoption of employee T&D practices.

H3: The interaction between family involvement and stewardship over employees positively influences the adoption of employee T&D.

3. Methodology

3.1 Data and Sample

To test our hypotheses, we utilized data from the Linked Personnel Panel (LPP), combined with data from the German Federal Employment Agency's Institute for Employment Research (IAB) Establishment Panel (IAB-BP). The LPP is a dataset from a panel survey of a randomly drawn representative sample of German companies across all industries and their employees, focused on their HRM practices and organizational characteristics (Jirjahn and Mohrenweiser, 2019; Kampkötter et al, 2016; Ruf et al, 2022). The IAB has conducted the survey every two years since 2012. In this study, we analyzed the fourth wave, collected in 2018, since it is the only wave that includes information about family involvement in top management. Between June 28 and November 26 of that year, interviewers asked 1035 company managers to participate in the survey by telephone and in writing, from which 685

Table 1. Distribution of family firm types and sizes.

No. of employees	Nonfamily Firms	Types of family firms			Total
		Owner-managed	Professionally managed	Mixed-managed	
0–49	4	12	6	2	24
50–99	50	121	52	20	243
100–249	73	66	53	43	235
249–499	42	20	36	21	119
500 or more	29	5	18	12	64
Total	198	224	165	98	685

Table 2. Rotated factor loadings (blanks represent loadings <0.3).

Variable (HR-Practice)	Factor 1 (S-HRM-Scale)	Factor 2 (T-HRM-Scale)	Factor 3 (Motivation)	Factor 4 (Opportunity)	Uniqueness
Recruitment through social media			0.49		0.72
Recruitment private recruitment agency					0.62
Assessment centers	0.60	0.54			0.58
Intelligence or skills tests	0.73				0.47
Personality or behavioral tests	0.72				0.46
Qualification measures for unskilled Employees		0.59			0.61
Qualification measures for skilled employees		0.78			0.37
Development plans		0.34	0.37	0.43	0.55
Appraisal interviews			0.71		0.44
Target agreements			0.61		0.50
Performance appraisal			0.76		0.41
Variable remuneration			0.54		0.67
Employee surveys			0.32	0.56	0.56
Promotion of diversity and equal opportunities				0.79	0.34
Increase of women in management as goals				0.61	0.55

S-HRM-Scale, Selection HRM Measures Scale; T-HRM-Scale, T&D HRM Measures Scale; HRM, human resource management; T&D, Training and Development.

evaluable surveys were generated. To access further information on organizational characteristics that would enable us to adequately identify the influence of family involvement in top management on family firms' AE-HRM practices, we linked the LPP data to the IAB-BP data based on surveys of almost 15,000 companies annually.

Of the 685 evaluable companies, 487 were family firms, and 198 were nonfamily firms. Of these 487 family firms, 224 were family-owned and -managed firms (i.e., firms with only members of the owning family in the top management); 165 were professionally managed family firms (i.e., with only nonfamily members in the top management); and 98 were mixed-managed family firms (i.e., with both family and nonfamily members in the top management).

Table 1 shows the distribution of family firm types and sizes in this study.

A potential threat to analyzing survey data is common method bias (CMB), which can harm the validity of behavioral research. It refers to the systematic variance in responses that is attributable to the measurement method itself rather than to the constructs being measured (Podsakoff et al, 2024). CMB can arise due to various factors, such as the use of the same response format or rating scale across all measures, the same source (e.g., self-report) for both independent and dependent variables, or the same time and place of data collection. CMB can lead to inflated correlations, reduced model fit, and biased parameter estimates. To mitigate CMB, we used varying response formats and multiple sources of data.

3.2 Dependent Variables

We conducted a principal component factor analysis (PCA) using all available HR practices from the Linked Personnel Panel (LPP) dataset to construct our dependent variables. These HR practices were developed and refined jointly by the cooperating survey institutions, including the Institute for Employment Research (IAB), the Centre for European Economic Research (ZEW), and the Universities of Cologne and Tübingen. The full set of HR practices included in the analysis draws on established data and previous research and iterative development by the contributing institutions. The HR practices are as follows: recruitment through social media and a private recruitment agency, assessment centers, intelligence or skills tests, personality or behavioral tests, qualification measures for unskilled employees, qualification measures for skilled employees, development plans, appraisal interviews, target agreements, performance appraisal, variable remuneration, employee surveys, and the establishment of goals to promote diversity and equal opportunities and increase the role of women in management. The following Table 2 shows the result of the principal component factor analysis.

The factor analysis revealed that some HR practices account for more than one AMO dimension. For example, development plans load on the motivation, opportunity, and T&D factors, while employee surveys load on the motivation and opportunity factors. To obtain two dependent variables, we computed the values of the AE-HRM dimensions of employee selection and T&D for all our observations using the Selection HRM Measures Scale (S-HRM-Scale) and the T&D HRM Measures Scale (T-HRM-Scale).

3.3 Independent Variables

3.3.1 Family Involvement in Top Management

The 2018 wave of the IAB-BP surveyed companies about the composition of their top management. The companies were asked whether their top management comprised only company owners, only managers, or both owners and managers. Based on these data, we coded the ordinal variable *family involvement* as "0" if the firm was a nonfamily firm; "1" if the firm was a family firm run only by nonfamily managers (professionally managed); "2" if the firm was a family firm run by both the owners and nonfamily managers (mixed-managed); and "3" if the firm was a family firm run only by the owner (owner-managed).

3.3.2 Stewardship Over Employees

Scholars associate stewardship over employees with governance structures that involve employees and encourage them to interact and cooperate (Davis et al, 1997; Eddleston et al, 2012). Stewardship-oriented management practices entail participative and employee-oriented personnel management, which assumes an altruistic attitude toward employees (Madison et al, 2017).

The LPP contains information regarding the perceived importance of certain workplace aspects in strengthening employee loyalty. These aspects are flexible working hours, remuneration, additional voluntary benefits, career development prospects, general work atmosphere, contact between management and employees, and work–family balance. In the survey, employers were asked to rank these aspects from 1 (*unimportant*) to 5 (*very important*) in terms of their potential to strengthen employee loyalty to their firms. As it seems plausible that employers with an employee-oriented attitude would consider these aspects important due to their stewardship over their employees, we computed a proxy variable for stewardship by averaging the perceived importance of these seven aspects.

3.4 Controls

To isolate the effect of family involvement in top management on the application of AE-HRM practices in family firms, we controlled for the organizational context of the respective firms (Flamini et al, 2021; Gooderham et al, 2019).

Gooderham et al (2019) divided the organizational context into internal and external contexts. The internal context includes organizational characteristics, such as firm size, industry, structure, and strategy. Firm size and industry are already well established in HRM literature as control variables for assessing management practices of companies (Jorissen et al, 2005; Kim and Gao, 2014; De Kok et al, 2006; Porter, 1980; Reid et al, 2000; Risseeuw and Masurel, 1994; Sánchez-Marín et al, 2019). For firm structure, our control variables included the *number of employees*, *industry dummies*, and the application of *new technologies* as proxies for organizational complexity (Lepak et al, 2003; Sánchez-Marín et al, 2019). Our nominal scaled *strategy* variable represented strategic orientation toward quality leadership, cost leadership, or both (De Kok et al, 2006). Gooderham et al (2019) cited another internal context: HRM organizational integration, which specifies the relationship between the HR department and the rest of the organization. It includes the *relative size of the HR department*, the *hierarchical location of the HR Manager* (*i.e., the Chief Human Resources Officer*), and the *presence of workforce representation* (e.g., a work council). De Kok et al (2006) referred to HRM organizational integration as "HRM specialization" and considered it an important control variable.

We controlled for the external context by including variables for *competitive pressure* (Bloom and Van Reenen, 2007), the variation in the firm's recent past *sales* as a measure of environmental uncertainty (Krishnan et al, 2016; Lee, 2004), and the *number of inhabitants* in the firm's location (Jorissen et al, 2005) and *region*.

Moreover, we controlled for firm age, which is a strong predictor of management practices in family firms (Anderson and Reeb, 2003; De Kok et al, 2006; Neckebrouck et al, 2018).

3.5 Data Analysis

To test our hypotheses, we used hierarchical multiple linear ordinary least squared (OLS) regressions. First, we estimated the models with only the control variables. Second, we added the ordinal independent variable "*family involvement in top management*". Third, we added the interaction of the variables "*family involvement in top management*" and the *stewardship proxy*. In addition, we calculated robust standard errors to enhance the reliability of our analysis by addressing violations of homoskedasticity, thereby ensuring valid inference even when residual variance was not constant (White, 1980). By adjusting the standard errors to account for heteroskedasticity, we obtained more accurate t-values and p-values, reducing the risk of Type I and Type II errors (Hayes and Cai, 2007).

4. Results

Table 3 shows the Pearson correlation coefficients of the variables and their respective p-values. The independent variable *stewardship over employees* correlates with the AE-HRM-Scales.

Table 3. Correlation table.

	S-HRM-Scale	T-HRM-Scale	Family involvement	Stewardship proxy	Firm size	Competetive preassure	Firm age	Standard deviation of sales	Strategy	CHRO	Relative size of the HR department	Workforce rep-resentation	Industry	Inhabitants of company location	New technologies	Region
S-HRM-Scale	1.0000															
T-HRM-Scale	0.0000	1.0000														
Family involvement	–0.0310	0.0139	1.0000													
Stewardship proxy	0.0638	0.1442***	–0.0816*	1.0000												
Firm size	0.1366***	0.1615***	–0.2522***	0.0837*	1.0000											
Competetive preassure	–0.0142	0.0419	0.0144	0.0236	0.0613	1.0000										
Firm age	0.0578	0.0363	0.0198	0.0024	0.1755***	0.0576	1.0000									
Standard deviation of sales	0.0629	0.0120	–0.1738***	0.0352	0.4152***	0.0285	0.0098	1.0000								
Strategy	0.0350	0.1579***	–0.0139	0.1094**	0.1248**	–0.0195	0.0980*	0.1378**	1.0000							
CHRO	0.0112	–0.0185	0.1542***	–0.0632	–0.2412***	–0.0138	–0.0838*	–0.0851*	0.0186	1.0000						
Relative size of the HR department	0.0263	–0.0316	0.0451	–0.0409	–0.1300***	–0.0826*	0.0268	–0.0331	–0.0399	0.1018**	1.0000					
Workforce re-presentation	0.0229	0.0199	–0.3925***	–0.0058	0.3722***	0.0797*	0.1705***	0.1263**	0.0602	–0.1638***	–0.0861*	1.0000				
Industry	0.0450	–0.0304	–0.0924*	–0.0220	–0.1028**	–0.1530***	–0.2366***	–0.0108	–0.0182	0.0503	0.0471	–0.1737***	1.0000			
Inhabitants of company location	0.0450	–0.0697	–0.0646	–0.0070	0.0297	0.0287	–0.0206	0.1031*	0.0228	–0.0755*	0.0284	–0.0033	0.1659***	1.0000		
New technologies	0.0751	0.1435***	–0.1388***	0.1455***	0.2981***	0.0677	0.0915*	0.1759***	0.1093**	–0.0686	0.0045	0.1949***	–0.2462***	0.0213	1.0000	
Region	0.0244	0.0448	0.0535	0.0235	0.0926*	0.0595	0.1099**	0.0826*	0.0980*	–0.0432	–0.0148	0.0599	–0.1056**	–0.0756*	0.1296**	1.0000

$p < 0.001$***; $p < 0.01$**; $p < 0.05$*.

CHRO, Chief Executive Human Resource Officer; HR, Human Resource.

Furthermore, firm size, operationalized by the number of employees, was significantly correlated with both AE-HRM scales. The Pearson correlation coefficients were positive. Another significant correlation worth mentioning is the correlation between *family involvement in top management* and both *hierarchical level of the HR manager* and *firm size*. Moreover, *family involvement in top management* was negatively correlated with *workforce representation* and *new technologies*.

Table 4 shows the regression results for the different models.

In Model 1.1, we regressed the control variables on the S-HRM-Scale. The firm size had a statistically significant positive effect on the S-HRM-Scale (ß = 0.168, $p < 0.05$). Business strategy also affected the S-HRM-Scale—firms with quality leadership business strategies scored higher on the S-HRM-Scale than firms with cost leadership strategies (ß = 0.400, $p < 0.01$), and firms with both quality and cost leadership strategies scored higher on the S-HRM-Scale than firms with only cost leadership strategies (ß = 0.429, $p < 0.001$).

In Model 1.2, we included *family involvement in top management*. The ß coefficients and *p*-values show that family involvement does not affect the S-HRM-Scale. Hence, we reject **H1: Family involvement in top management negatively influences the adoption of formal employee selection practices.**

In Model 2.1, we regressed the control variables on the T-HRM-Scale. Business strategy affected the T-HRM-Scale—firms with quality leadership business strategies scored higher on the T-HRM-Scale than firms with cost leadership strategies (ß = 0.468, $p < 0.05$). Industry also affected scores on the T-HRM-Scale—firms in the mining/energy/water/recycling industry (ß = 0.762, $p < 0.05$) and in the healthcare and service industries (ß = 0.839, $p < 0.05$) scored statistically significant higher on the T-HRM-Scale than firms in the construction industry. Furthermore, the firm's application of new technologies had a statistically significant positive effect on the T-HRM-Scale (ß = 0.063, $p < 0.001$). However, firm size had no statistically significant effect on the T-HRM-Scale. The model fit also increases.

In Model 2.2, we included *family involvement in top management*. The ß coefficients and their respective *p*-values show a statistically significant positive effect on T&D intensity in these firms (ß = 0.306, $p < 0.05$). However, this effect was only statistically significant for owner-managed family firms, with the base case being professionally managed family firms. This result shows that family involvement in top management positively affects employee T&D. Therefore, we reject our second hypothesis: **H2: Family involvement in top management negatively influences the adoption of employee T&D practices.**

In Model 2.3, we tested the interaction between *family involvement in top management* and *the stewardship proxy* to examine whether their combined effect significantly influences the T-HRM-Scale. While both main effects were positive and statistically significant ($\beta_{\text{family involvement in top management}} = 0.328$, $p < 0.01$; $\beta_{\text{stewardship proxy}} = 0.264$, $p < 0.01$), the interaction term was not statistically significant ($p > 0.10$). This suggests that their combined presence does not produce an additional multiplicative effect. Rather, family involvement and stewardship orientation contribute to T&D intensity in an additive rather than interactive manner. One possible explanation is that both mechanisms—family involvement in top management and stewardship over employees—encourage T&D intensity through distinct but parallel pathways. Family involvement may reflect long-term strategic commitment to human capital, while stewardship orientation captures general employee-centered values. The lack of a significant interaction indicates that these forces may not reinforce one another beyond their individual contributions. We therefore only partially confirm **H3: The interaction between family involvement and stewardship over employees positively influences the adoption of employee T&D**. While both family involvement and stewardship orientation are positively associated with the use of employee T&D practices, their interaction does not exert a statistically significant effect.

5. Discussion

This study makes a significant contribution to HRM research in family firms, particularly by differentiating between T&D measures and selection practices. The findings extend existing models by shedding light on the heterogeneous effects of family involvement in top management. Both the advantages and disadvantages of owner-family involvement in the top management of a family firm need to be considered. On the one hand, family successors' predetermined career paths lead to superior expertise due to their early investment in firm-specific human capital. Additionally, owner management reduces agency problems and decreases monitoring costs. Furthermore, members of the owning family are inclined to view the firm's management favorably, as it preserves the family's socioemotional status. On the other hand, family members' top management positions may limit the pool and motivation of potential external talent, as discussed by Bloom and Van Reenen (2007), Burkart et al (2003), and Cruz et al (2011). Specifically, the positive relationship between family-driven management and the intensity of T&D initiatives provides a foundation for further exploration of how specific HRM practices are implemented across different contexts. Moreover, the results support the hypothesis that the stewardship approach characteristic of family firms plays a vital role in workforce development, affirming prior theories such as those proposed by Eddleston et al (2012).

For practitioners in family firms, these findings offer several actionable insights. First, there should be an increased focus on T&D measures as a core strategy to ensure long-term competitiveness. Evidence suggests that in-

Table 4. Regression analysis.

Regression analysis	Hypothesis 1		Hypothesis 2		
	Model 1.1	Model 1.2	Model 2.1	Model 2.2	Model 2.3
	Controls only	Family involvement	Controls only	Family involvement	Interaction
Number of firms	534	528	534	528	525
R^2	0.095	0.096	0.140	0.150	0.170
Independent/Dependent Variables	S-HRM-Scale	S-HRM-Scale	T-HRM-Scale	T-HRM-Scale	T-HRM-Scale
Family involvement – Base = Family Firm profess. Mgmt.					
Non-Family Firm	-	–0.030	-	0.138	0.153
Family Firm mxt.mgmt	-	–0.010	-	0.106	0.096
Owner managed	-	0.006	-	0.306*	0.328**
Stewardship proxy	-	-	-	-	0.264**
Interaction Family involvement and stewardship proxy					
Non-Family Firm	-	-	-	-	–0.201
Family Firm mxt.mgmt	-	-	-	-	–0.230
Owner managed	-	-	-	-	–0.152
ln(size)	0.168*	0.181**	0.095	0.102	0.096
Competitive pressure – Base = no pressure					
Small	0.139	0.072	0.211	0.271	0.214
Medium	0.057	–0.017	0.198	0.249	0.225
High	0.092	0.013	0.284	0.350	0.327
Firm age – Base ≥32 Years					
≤5 Years	–0.136	–0.147	–1.062***	–0.969***	–0.946***
6–10 Years	–0.142	–0.152	–0.119	–0.089	–0.142
11–15 Years	0.153	0.155	–0.028	–0.042	–0.054
16–20 Years	0.053	0.054	0.439*	0.459*	0.456
21–25 Years	–0.070	–0.055	–0.037	–0.019	–0.017
26–32 Years	0.126	0.138	–0.197	–0.205	–0.255*
Standard deviation of sales	0.000	0.000	0.000	0.000	0.000
Strategy – Base = Cost leadership					
Both equally	0.429***	0.408***	0.180	0.177	0.147
Quality leadership	0.400**	0.392**	0.468*	0.451*	0.421*
CHRO[1]	–0.043	–0.029	–0.094	–0.128	–0.107
Relative size of the HR department	0.002	0.002	–0.002	–0.002	–0.002
Workforce representation	–0.098	–0.107	–0.071	0.015	0.036
Industry – Base = Construction					
Mining/energy/water/recycling	–0.073	–0.087	0.762*	0.805*	0.709*
Food/luxury	–0.380	–0.382	–0.042	–0.055	–0.202
Production goods	–0.188	–0.198	0.308	0.364	0.261
Inv/durable goods	–0.315	–0.328	0.253	0.284	0.197
Construction	–0.049	–0.074	0.504	0.503	0.392
Wholesale/automotive trade and repair	0.039	0.025	0.220	0.284	0.226
Retail	0.098	0.093	–0.067	–0.041	–0.116
Transport and storage	–0.053	–0.165	0.081	0.220	0.173
Information amd communication	0.065	0.073	0.167	0.170	0.052
Hospitality industry	–0.064	–0.064	–0.105	–0.027	–0.132
Finan/insur, services	0.775	0.772	0.466	0.518	0.373
Econom/scientif/freelance services	0.019	0.005	0.262	0.295	0.243
Education	–0.157	–0.164	0.485	0.572	0.475
Healthcare and social services	0.006	0.043	0.839*	0.833*	0.634
Other services	–0.432	–0.438	0.154	0.243	0.071
Inhabitants of company location – Base ≤2 k					
2–4.9 k	–0.690	–0.681	0.215	0.157	0.195
5–19 k	–0.502	–0.464	0.023	–0.093	–0.074
20–49 k	–0.369	–0.334	–0.197	–0.295	–0.294
50–99 k	–0.582	–0.539	–0.128	–0.256	–0.282
100–499 k	–0.396	–0.360	–0.401	–0.504	–0.498
>500 k	–0.459	–0.416	–0.123	–0.219	–0.211

Table 4. Continued.

Regression analysis	Hypothesis 1		Hypothesis 2		
	Model 1.1	Model 1.2	Model 2.1	Model 2.2	Model 2.3
	Controls only	Family involvement	Controls only	Family involvement	Interaction
New technologies	0.011	0.007	0.063**	0.067***	0.059**
Region – Base = South					
North	0.081	0.054	–0.144	–0.117	–0.117
East	0.179	0.178	0.020	0.052	0.073
West	0.142	0.142	–0.100	–0.090	–0.101
Cons	–0.899	–0.880	–1.034*	–1.147*	–1.120*

[1]CHRO, Chief Executive Human Resource Officer.

$p < 0.001$***; $p < 0.01$**; $p < 0.05$*.

vestments in employee T&D not only enhance individual performance but also create a culture of continuous learning, serving as a competitive advantage in dynamic markets (Aguinis and Kraiger, 2009). Second, family firms could benefit from integrating structured selection processes to balance cultural and competency-based criteria effectively. While informal recruitment practices may preserve cultural cohesion, formal mechanisms could enhance objectivity and skill alignment, as highlighted by Lepak and Snell (1999). Third, the family-driven orientation should be strategically leveraged to enhance employee retention and satisfaction. Building on stewardship theory, family firms can foster loyalty and commitment by aligning organizational goals with employees' personal development aspirations (Davis et al, 1997).

However, the study has several limitations that should be considered when interpreting the results. First, the analysis relies on cross-sectional data, which does not permit causal inferences. Future longitudinal studies could provide more dynamic insights by capturing changes over time and identifying causal pathways. Second, the data is regionally constrained to Germany, limiting generalizability to other cultural or economic contexts. Family firms in other regions, such as Asia or North America, may exhibit distinct HRM practices due to varying cultural values and market dynamics. Third, the data pertains to the year 2018, meaning developments in digitization and labor market trends since then have not been captured. For example, the rise of remote work and digital HR tools could significantly influence T&D practices and employee selection processes.

While this study focuses on examining how family involvement shapes HRM practices in family firms, the possibility of reverse causality cannot be entirely ruled out. In particular, a low degree of formalization in HRM—especially in the area of employee selection—may necessitate deeper involvement of the family in day-to-day operations to ensure continuity and organizational stability. This suggests a possible bidirectional relationship: while family involvement may influence the structure of HRM systems, the absence of formal HR structures can, in turn, significantly increase the need for direct family intervention.

Previous research has pointed to such interdependencies. For example, Sánchez-Marín et al (2019) empirically demonstrate that family firms often employ fewer formalized HRM practices, which tends to reinforce the operational role of the family within the business. De Massis and Foss (2018) provide a theoretical framework indicating that family-based decision-making processes can emerge as a compensatory response to structural deficiencies—such as the lack of formal HR systems—requiring substitution through familial governance mechanisms.

This potential reverse causality may offer a partial explanation for the results found in our first hypothesis. Additional insights from previous research help to contextualize these findings. For instance, family firms often operate under hybrid organizational models, combining strong family control with the professionalization of certain business functions, such as HRM, which may be delegated to external HR professionals (Gedajlovic et al, 2012). Moreover, Kotlar et al (2014) argue that families in such firms are more likely to exert influence through strategic decision-making or by occupying key managerial roles, rather than through direct involvement in routine processes such as employee recruitment.

The professionalization of HR practices has emerged as a central topic in the study of HRM in family firms. In this context, one question is particularly relevant: At what point in a firm's development the implementation of formalized, professional HR practices becomes necessary to maintain effective management structures. Theoretical frameworks such as agency theory and the resource-based view offer valuable perspectives for understanding these dynamics. Steijvers et al (2017) show that owner-managed family firms are more likely to adopt formal HR practices due to higher levels of trust and goal alignment, whereas Michiels (2017) finds fewer formalized compensation practices in such firms. However, professionalization does not always produce positive outcomes. Madison et al (2018) caution that, without transparency and fairness, formal HR practices can undermine the socioemotional wealth that family firms aim to preserve. Especially, when bifurcation bias disadvantages non-family employees. Therefore, family firms face the challenge of balancing professionalization with the protection of their socioemotional wealth. HR practices must not only be efficient but also sensitive to the relational foundations of the owner-family and the business. When assessing or designing HR systems, it is essential to deliberately align or manage tensions between family and business logics (Lansberg, 1983). Framing professionalization as a multidimensional process can support more sustainable, inclusive, and innovation-friendly HRM strategies that are both future-oriented and protective of family socioemotional wealth.

6. Conclusion

In summary, this study underscores the pivotal role of family member involvement in the top management of family firms in shaping their AE-HRM practices. The positive effect on T&D intensity highlights the importance of family-driven values and a long-term perspective. Simultaneously, selection practices remain largely unaffected, pointing to the need for targeted improvements in this area. This divergence between T&D and employee selection may reflect deeper structural and cultural dynamics within family firms. While T&D aligns with the long-term orientation and stewardship mindset often observed in family firms, selection practices are more likely to remain informal and driven by personal trust or relational familiarity. These informal mechanisms may be seen as culturally embedded and therefore more resistant to standardization. Future research could explore how these patterns evolve across generational transitions and whether external factors, such as increasing labor market competition, encourage more formalized selection approaches over time. Furthermore, future research could investigate on the preferred source of human capital of family firms: New hiring of already developed employees and their skills and competences or developing skills and competencies of existing employees.

By fostering a dual focus on tradition and innovation, family firms can enhance their ability to navigate the complexities of modern business environments. For the future, international comparisons could be highly insightful, comparing family firms across diverse cultural and economic settings. Studies that explore the interplay between cultural norms and AE-HRM practices may find new ways to optimize employee development and selection strategies. Longitudinal studies examining the dynamics of AE-HRM practices over time could provide a deeper understanding of the mechanisms at play, such as how changes in leadership structures influence AE-HRM outcomes.

Additionally, the absence of a statistically significant interaction effect between family involvement in top management and stewardship orientation suggests that these two dimensions may operate in parallel rather than reinforcing each other. While both were individually associated with higher T&D intensity, their combination did not produce a multiplicative effect in our model. This could indicate that each variable entails distinct mechanisms: family involvement may promote long-term human capital investment through legacy-driven motives, while stewardship reflects a values-based leadership style focused on employee care and empowerment. Future studies could examine whether these mechanisms interact under specific contextual conditions, such as during generational transitions or in response to external shocks.

Expanding the dataset to include variables such as the impact of digitalization, the role of diversity initiatives, or the effects of government policies on AE-HRM practices would further enrich the analysis. For example, understanding how digital tools are integrated into training programs could reveal opportunities for scalability and cost-efficiency. Recent research on the impact of digital transformation on organizational performance highlights the potential of advanced technologies to enhance T&D. For instance, virtual reality (VR) simulations offer realistic training environments, reduce dependence on physical resources, and facilitate remote learning. Moreover, the integration of artificial intelligence (AI) to create personalized learning paths can significantly improve both the efficiency and effectiveness of training programs (Porfírio et al, 2024). By applying such digital tools, family firms can scale their T&D activities more easily, lower the costs associated with traditional training formats, and provide more tailored and engaging learning experiences.

Similarly, exploring how diversity-focused recruitment strategies intersect with family values could shed light on the evolving priorities of family firms. This could reveal how family firms balance internal cohesion with external expectations for inclusion and representation, particularly as they seek to attract talent in increasingly diverse labor markets. Finally, experimental or quasi-experimental designs could be employed to establish causal relationships between family involvement and AE-HRM practices. Controlled experiments could test specific interventions, such as the introduction of formalized training programs, to measure their impact on employee motivation and performance.

The alignment between legacy and leadership is crucial for ensuring resilience and adaptability in a rapidly changing world. Based on our findings, we suggest that especially medium-sized family firms with approximately 50 to 250 employees focus on HRM practices that balance operational pragmatism with strategic development. These firms are often large enough to require formalized structures but still small enough for values, relationships, and family influence to play a central role in decision-making. In the area of T&D, structured onboarding programs, internal mentoring involving long-standing employees or family members, and modular learning formats supported by digital platforms (e.g., AI-based training paths or virtual workshops) can help ensure continuity while fostering skill development.

Regarding employee selection, we recommend the gradual introduction of standardized tools such as competency-based interview guides or job requirement matrices, which can improve decision quality without disrupting the relational culture typical of small to medium-sized family firms. Family firms can implement these tools in a resource-efficient manner and scale them over time. Moreover, maintaining cultural fit as a selection criterion can help reconcile professionalism with identity. We advise practitioners to implement these procedures transparently and in a replicable way. In sum, medium-sized family firms are in a unique position to institutionalize HRM in ways that preserve their distinctiveness while increasing organizational professionalism.

By adopting these recommendations, family firms may effectively integrate modern HR practices with their traditional values, positioning themselves for sustained success in the evolving workplace. Furthermore, family firms have the potential to act as role models for other organizational forms by demonstrating how a values-driven approach can coexist with strategic HR innovations. This alignment between legacy and leadership is crucial for ensuring resilience and adaptability in a rapidly changing world.

Availability of Data and Materials

Since May 2018, the opportunities to obtain access to IAB research data in order to replicate scientific IAB publications have improved significantly. The data access, made possible by the establishment of a central archive and the passing of a statutory proceeding, serves to verify scientific honesty as part of good scientific practice. It is therefore prohibited to access data for other purposes through this channel. In particular, it is not possible to conduct one's own analyses using the data provided. Generally, the option to access data for replication as part of this procedure is available for any projects started in or after May 2018 for ten years starting from the date of the respective publication. In individual cases, it may also be possible to access data used in older projects: https://iab.de/en/facts-and-figures-2/data-access-for-replication-purposes/.

Author Contributions

MK, AM and NT designed the research study. MK performed the research. AM and NT provided help and advice MK analyzed the data. MK and NT wrote the manuscript. All authors contributed to editorial changes in the manuscript. All authors read and approved the final manuscript. All authors have participated sufficiently in the work and agreed to be accountable for all aspects of the work.

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Conflict of Interest

The authors declare no conflict of interest.

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