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Abstract

Purpose: This paper investigates the impact of various leadership styles on the professionalization and subsequent performance of family businesses.

Design/methodology/approach: Using a survey method and employing a partial least squares approach to structural equation modeling, we tested our model and analyzed the collected data based on the responses of 216 managers in Iran.

Findings: Our research demonstrates that professionalization mediates the relationship between leadership style and performance. Moreover, our findings show that the participative leadership style is the most effective option for family businesses seeking to achieve professionalization and improve performance.

Originality: Our study suggests that examining the potential impact of leadership styles on professionalization can provide clarity amidst mixed findings regarding the influence of professionalization on firm performance. Additionally, we challenge the oversimplified categorization of professionalization and argue for a multifaceted view, contending that professionalization comprises various dimensions acting concurrently, potentially mediating the effect of leadership styles on family business performance.

Research Limitations/implications: First, the sample used in this study was drawn from a single country, namely Iran. Second, although we adhered to established practices for measuring financial performance, future research could explore alternative dimensions of performance, including non-financial goals. Third, we did not investigate the impact of different leadership styles on each dimension of professionalization.

Practical implications: These findings provide valuable insights for family business managers seeking to adopt a suitable leadership style to achieve professional management and realize favorable outcomes.

Keywords: Professionalization, leadership style, firm performance, family business, PLS-SEM.

Introduction

Over the past two decades, a growing body of research has focused on the performance of family businesses due to their prominent role in the business landscape (De Massis *et al.*, 2018; Yang *et al.*, 2021). Family businesses constitute a significant portion of global enterprises, accounting for two-thirds of all businesses worldwide and contributing to 70 percent of the annual global GDP (Family Firm Institute, 2022; Daspit *et al.*, 2018). Anderson and Reeb's (2003) analysis of the S&P 500 (Standard and Poor's 500 Stock Index) demonstrated that family firms, on average, outperformed other entities, thus highlighting the importance of studying the performance of family businesses. Despite extensive efforts, a universally accepted definition of a family business remains elusive (Vazquez, 2018). We characterized a family business as a company in which a single family owns at least 50% of the corporate shares, and where at least two family members actively participate in the business (De Witt, 2015; Cano-Rubio *et al.*, 2017).

Recent evidence suggests that family businesses face internal and external pressures that compel them to adopt professionalization strategies (Waldkirch *et al.*, 2017). Professionalization refers to the phase of development in family firms where the organization transitions from being owner-managed and entrepreneurial to a more formal and structured entity (Dekker *et al.*, 2015). Scholars, professionals, and news outlets are increasingly articulating higher expectations of 'professionalism' towards families who own businesses, delineating specific norms that these families must conform to (Hermle-Boersig *et al.*, 2023). This includes the employment of professional managers, a prevalent piece of advice given to family businesses (Hiebl and Mayrleitner, 2019). However, evidence of the potential favorable effects of such professional managers is not yet conclusive. Professionalization relies on the engagement of professional managers who utilize various leadership styles to facilitate the implementation of the firm's strategy (Songini *et al.*, 2023).

Our understanding of how managers' leadership styles within family businesses impact the professionalization process remains limited. This article investigates the impact of leadership styles on the professionalization of family businesses and the subsequent consequences for their performance. While professionalization has typically been defined as the "employment of full-time, non-family personnel, particularly involving the delegation of managerial authority" (Stewart and Hitt, 2012, p. 59), our research expands its scope by considering all five dimensions of professionalization identified by Dekker et al. (2015): financial control systems, non-family involvement in governance systems, human resource control systems, decentralization of authority, and top-level activeness. By adopting a multidimensional perspective, this study aims to overcome the limitations of existing literature and assess the overall impact of professionalization on family business performance.

Previous studies (e.g., Piyasinchai *et al.*, 2023; Songini *et al.*, 2023) have examined the impact of professionalization on the performance of family businesses. However, the findings of their research have demonstrated inconsistency. While some studies, such as those conducted by Madison et al. (2018) and Polat and Benligiray (2022), have identified a positive correlation between the level of professionalization and the performance of family businesses, others, such as Castillo and Wakefield (2006), have found evidence suggesting a negative impact. Another set of studies (e.g., Hermle-Boersig *et al.*, 2023) has indicated that family businesses can either benefit from or suffer due to adopting or rejecting professionalization. The inconsistency in the existing literature largely stems from the use of a simplified unidimensional measure for professionalization, as highlighted by Dekker et al. (2015). This study makes a valuable contribution by examining the mediating role of professionalization, considering it as a multidimensional concept, in the link between leadership styles and performance in family businesses, potentially yielding more accurate results.

One of the most influential factors that impact a firm's performance is the leadership style (Fries *et al.*, 2021). Prior studies emphasized the importance of sound and effective leadership in all types of businesses, including family enterprises (Toor and Ofori, 2009; Barbery and Torres, 2019). The impact of leadership style on business performance is evident, as businesses that adopt an appropriate leadership style have the potential to achieve higher profits through improved employee performance, among other factors (Asrar-ul-Haq and Kuchinke, 2016; Hadiannasab and Afshari, 2019; Ribeiro *et al.*, 2018). While various authors, such as Khan and Adnan (2014), Puni et al. (2014), and Imamoglu et al. (2015), have provided empirical evidence linking business performance to the firm's leadership style, there is still a lack of clear understanding of this relationship within the realm of family businesses and how the family business's attempt at professionalization influences this connection. Sorenson (2000) found that different leadership styles have varying impacts on a firm's performance, yet the reasons for these divergent impacts are not fully understood. Given the inherent connection between leadership and professionalization, it is highly probable that professionalization plays a critical role in determining the various leadership styles and their impact on firm performance.

According to Osborn's (1975) adaptive-reactive theory, which expands Fiedler's (1964, 1967) contingency theory, the organizational structure serves a crucial role in determining the most suitable leadership style for organizations. Given the non-professional nature inherent in family firms, as evident in their structure (De Witt, 2015; Cano-Rubio *et al.*, 2017), we explore the leadership style that can guide family firms to success through professionalization. Professionalization, a process outlined by Dekker et al. (2015), involves transforming a family firm into a more formal and structured entity. This process significantly influences how the firm is managed, which in turn affects its performance and survival (Dyer, 1996). However, the specific leadership styles that contribute to improved performance in family businesses and their subsequent effects remain unclear (Fries *et al.*, 2021). According to the company growth theory, success involves a crucial stage of professionalization (Deakins *et al.*, 2002). This presents a significant research gap as different leadership styles may have varied yet significant effects on subsequent variables, including professionalization and performance. The main questions that arise are: Which leadership style leads to superior performance in family firms, and what role does professionalization play in this complex process?

Moreover, the existing literature on family businesses primarily focuses on American and European companies (e.g., Cruz, 2020), resulting in a geographical bias. Therefore, there is a need for more research in other geographic regions to address this bias. Specifically, there is a lack of insights into family firms in Asia, despite the significant presence of such businesses in its economic landscape (Fries *et al.*, 2021). Asia, with its diverse cultural and economic contexts, provides a unique setting to explore the dynamics of professionalization and leadership in family businesses (Gupta *et al.*, 2009). This diversity allows for a comprehensive examination of how different cultural values and economic conditions impact the professionalization process and its outcomes. The purpose of our research is to explore two main aspects: first, the direct impact of three leadership styles on the performance of family businesses, and second, the mediating influence of professionalization on the connection between leadership style and performance. This investigation utilizes data gathered from family firms in Iran to provide a more diverse and comprehensive perspective.

This paper is divided into the following sections. First, we will review the existing literature on leadership styles and business professionalization in family businesses, which will lead to the formulation of four main research hypotheses. Then, we will outline the research methods and provide a detailed explanation of how the Partial Least Squares approach to Structural Equation Modeling (PLS-SEM) was used to empirically test the hypotheses. Finally, the paper will discuss the theoretical and practical implications of the study, present the findings and results, and highlight the contributions of this research.

Literature Review and Hypotheses Development

Leadership Styles in Family Businesses

The literature on leadership in the field of family business is divided into two primary categories: the broader study of various leadership styles and the examination of leadership behavior specific to the family business context (Fries *et al.*, 2021). This research delves into how these leadership styles function uniquely within family firms, highlighting both the distinct and overlapping elements compared to non-family businesses.

The definition of leadership within family businesses remains contested due to the field's emerging status (e.g., Marshall *et al.*, 2006; Bernhard and O'Driscoll, 2011; Menges *et al.*, 2011). Various scholars (e.g., Dyer, 1986; Sorenson, 2000; Katsaros *et al.*, 2020) have approached leadership styles differently, leading to diverse classifications. This study adopts Lewin's (1939) conceptualization due to its significant value in terms of its clarity and applicability across a wide range of contexts (Fischer *et al.*, 2024). Lewin et al. (1939) identified three primary leadership styles prevalent in family businesses: (1) autocratic, (2) participative, and (3) laissez-faire. The leadership styles in family businesses are defined as a leader's inclination to behave in a specific manner (e.g., autocratic decision-making) to achieve a desired objective (Fries *et al.*, 2021).

Leadership in family firms differs from leadership in non-family firms primarily because of the emotional considerations of leaders in this sector (Gomez-Mejia *et al.*, 2011), their relatively longer tenures (Bernhard and O'Driscoll, 2011), and their significant roles within these organizations (Carney, 2005).

Despite the modernization of family businesses in recent decades, autocratic leadership remains predominant (Fries *et al.*, 2021). This persistence is largely due to the dual role of owners as managers, which consolidates power at the top (Akonkwa *et al.*, 2021; Goyal *et al.*, 2023). Autocratic leaders often bypass employee input, making unilateral decisions (De Witt, 2015), and rely on a top-down approach to assign tasks and ensure compliance through rewards and punishments (Fiaz *et al.*, 2017). While this might streamline decision-making, it typically results in low morale, high stress, high turnover, and a rigid work environment (Harms *et al.*, 2018).

In contrast, participative leadership emphasizes employee involvement in decision-making (Lam *et al.*, 2015). Even if decisions aren't made collectively, participative leaders incorporate employee feedback, fostering a sense of inclusion and community (Vroom and Yetton, 1973; Miller and Le Breton-Miller, 2005). This approach is particularly effective in family businesses, where informal structures and emotional bonds prevail (Ward, 2016). By enhancing decision quality and acceptance (Sorenson, 2000) and boosting employee satisfaction and ownership (De Witt, 2015; Yukl, 2002), participative leadership can significantly improve firm performance (Lam *et al.*, 2015).

On the other hand, laissez-faire leadership, or non-leadership, grants employees extensive autonomy, often to the detriment of organizational coherence (Asrar-ul-Haq and Kuchinke, 2016; Wong and Giessner, 2018). Leaders adopting this style evade responsibility and decision-making (Northouse, 2018), setting objectives without providing guidance on achieving them. This can lead to misaligned efforts that jeopardize the firm's primary goals (Sorenson, 2000). The lack of support and direction typical of laissez-faire leadership hampers goal identification and overall effectiveness (Bass and Avolio, 1994).

In conclusion, while autocratic leadership remains entrenched in family businesses due to the concentrated power of owner-managers, participative leadership offers a more inclusive and potentially more effective alternative by leveraging emotional bonds and community spirit. Laissez-faire leadership, though promoting independence, often fails to provide the necessary direction and support, risking misalignment and inefficiency. Future research should explore how these leadership styles can be optimized to better align with the unique dynamics of family firms.

Business Professionalization in Family Businesses

The transition from an owner-managed family firm to a formalized and structured business, known as professionalization, has garnered significant attention in the literature (Petrolo *et al.*, 2020). This process is critical in family firms, yet the decision to professionalize is influenced by various unique factors inherent to these organizations. While professionalization is often linked to the involvement of non-family managers (Bennedsen *et al.*, 2007; Lin and Hu, 2007; Zhang and Ma, 2009; Stewart and Hitt, 2012), it encompasses much more, including formal planning, structured meetings, clear responsibilities, performance evaluations, formal training, management development, and control structures (Dekker, 2012; Flamholtz and Randle, 2012).

Despite its benefits, the professionalization of family firms is not always straightforward or universally accepted. Factors such as entrenched family dynamics, resistance to change, and the fear of losing control can significantly hinder the adoption of professional practices. The literature (see Dekker *et al.*, 2015) identifies five main elements of professionalization that serve as benchmarks to gauge the extent of this process in family firms, but the nuances of why these firms choose to professionalize—or not—require deeper exploration.

First, non-family involvement in governance is a significant indicator of professionalization (Stewart and Hitt, 2012). However, many family firms resist this step due to concerns about diluting family influence and loyalty, potentially leading to conflicts between family and non-family members over control and direction.

Second, professionalized firms often have advanced financial control systems, including robust budgeting and performance appraisals (Duréndez *et al.*, 2007). Yet, the shift from informal, trust-based financial management to formalized systems can be challenging. Family firms may fear that strict financial oversight could expose inefficiencies or reduce the flexibility they value.

Third, comprehensive HR control systems, such as formal performance assessments and structured hiring practices, are hallmarks of professionalization (Dyer, 2006). Nevertheless, family firms might prefer informal HR practices based on personal relationships and trust, viewing formal systems as impersonal and bureaucratic.

Fourth, decentralizing decision-making to lower levels within the firm is more prominent in professionalized firms (Stewart and Hitt, 2012). Family firms, however, often centralize authority within the family to maintain control, which can stifle professionalization efforts. The reluctance to delegate can stem from a lack of trust in non-family members and the desire to preserve family legacy and values.

Fifth, active engagement of board members and management teams, characterized by frequent meetings, is common in professionalized firms (Jackling and Johl, 2009). In contrast, family firms may have less formalized governance structures, with meetings occurring irregularly or decisions being made in more informal settings. This can limit the strategic oversight necessary for professional growth.

In summary, while the process of professionalization involves adopting formal structures and practices, family firms face unique challenges that influence whether and how they professionalize. Resistance to change, fear of losing control, and the desire to maintain family culture and values often outweigh the perceived benefits of professionalization. Understanding these dynamics is crucial for comprehensively analyzing professionalization within family firms, moving beyond the textbook description of processes and activities to a critical examination of the underlying reasons for their adoption or resistance. In this research, we study the role of professionalization as a mediating variable within the context of leadership approaches adopted within family firms and their overall performance.

Hypotheses Development

To critically analyze leadership styles within the context of family firms and their professionalization process, we employ Osborn's (1975) adaptive-reactive theory, an expanded version of Fiedler's (1964, 1967) contingency theory. This theory posits that the effectiveness of leadership styles varies across enterprises, with organizational structure playing a pivotal role in determining the optimal leadership style for success. Our study aims to identify the leadership style that most effectively enhances performance in family firms, considering their informal structural characteristics (Miller and Le Breton-Miller, 2005) and the nuances of professionalization.

Professionalization in family firms, often marked by the involvement of non-family employees in managerial roles, poses unique challenges and opportunities (Camfield and Franco, 2019; Dekker *et al.*, 2015). This aspect is critical because it directly involves interactions with the organizational leader, thus influencing the overall impact of leadership style on the firm's evolution. In participative-led family firms, leaders play a vital role in fostering decision acceptance, improving decision quality, and enhancing decision-making skills among both leaders and employees (Fiaz et al., 2017; Wong and Giessner, 2018). The participative leadership style's ability to minimize status and power differences (Sorenson, 2000) can facilitate the integration of non-family managers, given the high level of trust and universal performance evaluations applied within these firms.

Furthermore, participative leadership aligns with entrepreneurial leadership behaviors that promote independent thinking and action in dynamic conditions (Pistrui *et al.*, 2000; Fries *et al.*, 2021). This decentralization of authority is a critical element of professionalization, suggesting that family firms led by participative leaders might encounter fewer challenges and achieve smoother professionalization. In contrast, laissez-faire leadership, characterized by minimal intervention and autonomous decision-making (Yang, 2015), might not significantly impact the professionalization process since it inherently allows for individual or team-based decisions, potentially diluting the leader's influence on professionalization outcomes.

Autocratic leadership, however, presents significant hurdles for professionalization in family firms. This leadership style, marked by centralized decision-making and minimal employee involvement, can lead to low levels of decision acceptance and employee satisfaction. The concentration of power typical of autocratic leaders complicates the integration of professional managers, often leading to friction and misalignment with the non-family managers' work styles (Zhang and Ma, 2009). Moreover, autocratic leadership's nepotistic tendencies can introduce bias into decision-making, where approvals and promotions are influenced by social networks rather than merit (Liu *et al.*, 2015). This bias contrasts sharply with the meritocratic principles inherent in professionalized human resource control systems, thereby negatively impacting the professionalization process in family firms.

In conclusion, the professionalization of family firms is deeply intertwined with the adopted leadership style. Participative leadership appears to support professionalization by fostering inclusivity and decentralization, while autocratic leadership undermines it by centralizing power and perpetuating nepotism. Laissez-faire leadership, though allowing autonomy, may not actively support the structured progress needed for professionalization. Understanding these dynamics is crucial for advancing family firms through professionalization, balancing the preservation of family values with the adoption of formal business practices. Taking all aforementioned into account, it is hypothesized that:

H1: The extent to which a family business's leader adopts a) autocratic, b) participative and c) laissez-faire styles will have a significant effect on the firm's professionalization.

A substantial body of literature has investigated the influence of leadership on organizational performance, revealing that different leadership styles can significantly affect a firm's outcomes (Lin and Shiqian, 2018). Scholars (e.g., Fries *et al.*, 2021) argue that specific leadership styles can either enhance or diminish firm performance, drawing on contingency theories of leadership proposed by Fiedler (1964) and Osborn (1975). This study critically examines the impact of three primary leadership styles—autocratic, participative, and laissez-faire—on the performance of family firms, a context often overlooked in traditional leadership studies.

Participative leadership has been shown to potentially improve firm performance by fostering a supportive organizational environment. This leadership style is particularly pertinent to family firms, where integrating diverse perspectives can enhance structural changes and interactions within the business. Imamoglu et al. (2015) assert that a collaborative approach can drive success and improved performance by encouraging flexibility and inclusivity among employees. Furthermore, Fries et al. (2021) suggest that participative leadership aligns with entrepreneurial behaviors, leading to better financial outcomes through long-term investment goals (Miralles-Marcelo *et al.*, 2014). This alignment is crucial in family firms, where entrepreneurial spirit and long-term orientation are often ingrained in the organizational culture.

Conversely, autocratic leadership tends to centralize power within the family circle, stifling employee participation and creativity (Pittino and Visintin, 2009). Sorenson (2000) highlights the negative impact of autocratic leadership on employee satisfaction, which can foster in-group versus out-group dynamics among family and non-family staff. This division amplifies perceptions of injustice and diminishes job commitment, critical factors for performance in family firms (Huang *et al.*, 2015). Since employee satisfaction is integral to firm performance (Arnold, 2017), the autocratic style's potential to lower morale and increase turnover may ultimately reduce the effectiveness and success of family businesses.

The impact of laissez-faire leadership on performance is more contentious. While Yang (2015) suggests that this style can yield positive results when practiced by highly motivated and competent employees (Bass and Stogdill, 1990), other studies present conflicting views. Some researchers argue that laissez-faire leadership has no significant impact on performance (Puni et al., 2014), while others indicate it can be detrimental (Khan and Adnan, 2014). Cunningham et al. (2016) argue that in the context of family firms, laissez-faire leadership is particularly harmful to knowledge formation and distribution. The absence of a supportive leader to guide employees toward organizational goals and the poor communication of critical information can impede performance. Santiago (2015) further contends that laissez-faire leaders may fail to effectively identify and address challenges, contributing to the potential failure of family businesses.

Given the varying perspectives and inconsistent findings in the literature regarding the direct impact of leadership styles on firm performance, it is evident that the unique dynamics of family firms require a more nuanced approach. Family businesses, characterized by complex emotional and relational ties, respond differently to leadership styles compared to non-family firms. Therefore, we propose a comprehensive hypothesis to thoroughly investigate the influence of autocratic, participative, and laissez-faire leadership styles on the performance of family businesses. This hypothesis aims to integrate the contextual specificities of family firms, considering how leadership styles interact with the intrinsic familial relationships and professionalization processes that define these organizations.

H2: The extent to which a family business's leader adopts a) autocratic, b) participative and c) laissez-faire styles will have a significant effect on the firm performance.

In theory, determining the exact effect of professionalization on performance in family firms is challenging due to inconsistent research findings. This inconsistency partly stems from the limited scope of previous studies, which often focused on singular aspects of professionalization, such as non-family involvement or financial control systems. To address these limitations, we adopt a comprehensive perspective on professionalization, as outlined by Dekker et al. (2015), encompassing its diverse facets. This approach enables us to assess whether professionalization, as a whole, positively influences the performance of family businesses.

We propose that professionalization significantly enhances the performance of family firms, drawing on insights from both agency theory and company growth theories. Agency theory, pioneered by Jensen and Meckling (1976), examines the challenges associated with delegating responsibilities from principals to agents, particularly conflicts of interest between these parties. The literature identifies two primary types of agency conflicts: Type I (principal-agent conflicts) and Type II (principal-principal conflicts) (Purkayastha *et al.*, 2022). If unresolved, these conflicts can escalate capital costs and detrimentally affect firm performance (Madison *et al.*, 2015). Agency theory suggests that formal structures and managerial control systems can align the interests and actions of managers and owners, thereby mitigating these conflicts and reducing agency costs (Schulze *et al.*, 2003). In the context of family firms, professionalization can alleviate these agency problems, thereby enhancing overall performance.

Company growth theory also considers professionalization crucial for addressing the unique challenges of family businesses and as a critical component of their lifecycle (Ward, 1998). According to this theory, professionalization influences firm performance by integrating non-family managers and implementing strategic planning and control systems (Gnan and Songini, 2004). This transition is particularly significant in family firms, where balancing familial control and professional management impacts long-term success.

The positive impact of professionalization on performance in family firms can be further elucidated through its various dimensions. First, robust financial control systems have been shown to provide critical information for decision-making and financial planning, leading to enhanced performance (Chenhall, 2003; Dekker *et al.*, 2015; Kotey, 2005; Pérez de Lema and Duréndez, 2007). Second, the inclusion of non-family members in management addresses issues of self-control and altruism, thereby boosting business performance (Schulze *et al.*, 2001). Third, human resource control systems counterbalance agency problems and nepotism, contributing to improved performance (Carlson *et al.*, 2006; Dekker *et al.*, 2015; Kotey and Folker, 2007; Kellermanns and Eddleston, 2004). Fourth, decentralization of authority, as supported by Bakalis et al. (2007) and

Daily and Dalton (1992), enhances firm effectiveness by ensuring appropriate power delegation. Finally, the assertiveness of top-level management significantly impacts decision-making quality and overall firm performance (Gersick *et al.*, 1997).

In conclusion, the professionalization of family firms is a multifaceted process that substantially enhances performance. By addressing agency conflicts, implementing strategic financial and human resource controls, decentralizing authority, and ensuring active top-level management, family businesses can achieve better alignment between managerial actions and ownership interests. This comprehensive approach to professionalization not only mitigates inherent familial challenges but also fosters a more robust and competitive organizational structure, ultimately leading to improved firm performance. Thus, we propose that:

H3: The extent to which a family business is led professionally will positively affect the firm performance.

Given the unique dynamics of leadership within family businesses, leadership plays a critical role in guiding the firm through professionalization. Nicholson and Björnberg (2005) highlight that a leader's ability to navigate family conflicts and manage the interface between the business and the family can determine the success or failure of the business. Consequently, leadership style is crucial in any significant transformation, such as professionalization, aimed at improving company performance. Identifying the most effective leadership styles in the context of professionalization is paramount.

Participative leadership, which emphasizes group decision-making, is particularly relevant in family businesses. Participative leaders are more likely to consider subordinates' opinions and less likely to make unilateral decisions (Yang, 2015). In scenarios where the CEO transitions from a family member to a non-family (professional) CEO, the inclusive nature of participative leadership can facilitate greater influence from various team members on strategic decisions. This collective approach can be instrumental during the professionalization process, which is often complex and involves critical decision-making tasks (Chittoor and Das, 2007). A participative leader can harness the support of teams within the family business to make informed and collective decisions, thereby minimizing resistance to the shift toward professionalism and maximizing the benefits of professionalization.

In contrast, laissez-faire leadership may not significantly impact the firm's decisions during the CEO's transition to a professional role, a key aspect of professionalization. Laissez-faire leaders are typically less involved in decision-making processes compared to participative leaders (Asrar-ul-Haq and Kuchinke, 2016; Wong and Giessner, 2018). This detachment can be detrimental to the professionalization process, which requires active and engaged leadership to guide the organization through structural changes and strategic planning.

The influence of leadership styles on performance in family firms is thus mediated by the process of professionalization. Professionalization requires a leadership style that can effectively manage the delicate balance between familial interests and professional management. Participative leadership, with its focus on inclusivity and collective decision-making, appears well-suited to this task. It can help overcome the inherent challenges of professionalization in family businesses, fostering a collaborative environment that supports strategic growth and improved performance.

H4: The impact of a family business's leadership style: (a) autocratic, b) participative, and (c) laissez-faire on the firm performance is mediated by the degree of the firm's professionalization.

Based on the research hypotheses mentioned above, our framework can be illustrated as shown in Figure 1. The main assumption underlying this framework is that carefully selected and practiced leadership style for family businesses can result in positive performance through professionalization.

---Insert Figure 1 about here---

Method

Sample and Data Collection

As mentioned earlier, this study adopts a specific definition of a family business. According to this definition, a family business is characterized by a single family owning at least 50% of the corporate shares, with at least two family members actively involved in the business. The sample for this study comprises 216 Iranian firms that meet these criteria. The sampling procedure involved selecting firms from a list provided by the Iran Small Industries and Industrial Parks Organization (ISIPO) in 2022.

Given that 92% of Iran's industries consist of small and medium-sized enterprises (SMEs), and recognizing the crucial role that SMEs play in economic advancement, ISIPO provided a list of family businesses. The sampling frame included 1129 family firms operating in various sectors such as food, chemicals, transportation equipment, health services, construction, and electrical appliances. To ensure a comprehensive understanding of the firms, the survey respondents were either chief executive officers (CEOs) or senior managers.

Data collection was conducted through an online survey, supplemented by printed questionnaires sent by mail to respondents in cases where email communication was not feasible or preferred by the respective firm. To enhance the response rate, a letter explaining the research's purpose and importance was included with the survey. The letter also assured respondents of their anonymity. We received a total of 223 completed questionnaires, resulting in a response rate of

19.75%. This response rate is consistent with the average response rate of 10%-20% typically observed in surveys targeting senior management (Pittino *et al.*, 2018).

Out of these responses, seven incomplete questionnaires were excluded. Therefore, the final sample consists of 216 firms, a sample size deemed sufficient according to Cohen's (1992) recommendation.

Analysis

We employed the PLS-SEM method with SmartPLS 3 software to analyze the collected data. The preference for PLS-SEM among researchers has been increasing due to its specific features (Hair *et al.*, 2019). The choice to use PLS-SEM to analyze our data is justified by the complexity of our study model. When a structural model involves multiple constructs, indicators, and relationships, covariance-based SEM (CB-SEM) may encounter issues, especially with small sample sizes or non-normal data (Hair *et al.*, 2017). Given the challenge of accessing comprehensive databases from family businesses, which often results in smaller sample sizes, PLS-SEM, known for its ability to analyze such datasets, was considered the more suitable method for this study (Ali *et al.*, 2018).

The PLS algorithm used in PLS-SEM does not assume normality in the data, making it suitable for analyzing non-normal data encountered in our study (Hair *et al.*, 2017). Additionally, PLS-SEM has the advantage of handling formative constructs, which is a limitation of CB-SEM. Since the construct of business professionalization in this study is considered both reflective and formative, PLS-SEM is deemed appropriate for conducting the data analysis.

Measurement

Constructing measures involves the critical task of determining the appropriate use of formative and reflective measures to avoid significant errors (Hair *et al.*, 2012; Mikulić and Ryan, 2018). We meticulously examined the constructs and clarified the rationale behind constructing the measures in a specific manner, following criteria proposed by Jarvis et al. (2003) to distinguish between reflective and formative constructs. A key criterion involves assessing whether the indicators of a construct can be interchanged, accurately describing its characteristics and representing its manifestations.

Business professionalization, as defined by Dekker et al. (2015), encompasses five components: financial control systems, non-family involvement in governance systems, human resource control systems, decentralization of authority, and top-level involvement. The questionnaire items are detailed in Table 1. In this study, business professionalization is considered a reflective-formative construct. While the indicators of the five components are interchangeable, they assess different aspects of business professionalization and should not be treated as identical, as indicated by their names. Notably, certain questionnaire items used to measure these indicators are reverse-coded, identified by appending the letter "R" to their names, with associated responses reversed to ensure consistency in measuring increased business professionalization.

For the measurement of leadership style, items from Sorenson (2000) were employed. Sorenson's (2000) scale, grounded in Lewin's conceptualization, forms the theoretical foundation for our hypotheses. Each leadership style is a reflective construct comprising a set of indicators. These indicators are reflective because each style's items can be interchanged. The survey items are detailed in Table 1.

Assessing firm performance typically involves using financial indicators (Lin and Hu, 2007; Nasr *et al.*, 2019; Sraer and Thesmar, 2007). However, due to most firms in our sample being privately held and lacking publicly available performance data, and considering confidentiality concerns, objective financial data were not accessible. Therefore, we relied on self-reported subjective measures of firm performance. Subjective measures can effectively capture the nuances of firm performance (Craig *et al.*, 2008). We used profit and return on assets (ROA) as reflective variables. Profit represents the surplus revenue generated after deducting all expenses, while ROA is calculated by dividing net income by total assets (Oh *et al.*, 2012). Previous research (e.g., Arbelo *et al.*, 2021; Lin and Wu, 2014; Oh *et al.*, 2012) supports the effectiveness of profit and ROA in evaluating firm performance compared to return on invested capital. The items used for measuring firm performance are listed in Table 1.

Control variables were applied comprehensively across all variables to ensure that any observed changes were solely attributed to leadership style and professionalization. Three specific control variables included firm size (measured by the number of full-time employees), firm age (measured by years since establishment), and the educational degrees held by CEOs, consistent with previous studies (e.g., Obeso *et al.*, 2020). Details of these constructs can be found in Table 1.

---Insert Table 1 about here---

Results

Construct reliability and validity of reflective constructs

To assess the validity of the constructs, we initially focused on the reflective constructs. Evaluating construct validity involves measuring internal consistency, discriminant validity, and convergent validity, all essential for assessing the reliability and validity of the constructs (Hair *et al.*, 2017). While Cronbach's alpha is a conventional method for evaluating internal consistency, we chose composite reliabilities because they are sensitive to the number of items and can confirm internal consistency (Taber, 2018). Acceptable values for composite reliability are typically above 0.7 in initial stages and above 0.8 in later stages of research, with values below 0.6 indicating a lack of internal consistency reliability (Hair *et al.*, 2017). As depicted in Table 1, all reflective constructs have composite reliability values exceeding 0.7, confirming their internal consistency.

Convergent validity for reflective constructs is typically assessed using two indicators: average variance extracted (AVE) and reliability. Indicator reliability requires outer loadings to exceed 0.708 (Hair *et al.*, 2017). While most loadings meet this criterion, a few indicators have slightly lower loadings, which were retained based on recommendations not to remove items with loadings between 0.4 and 0.7 unless doing so significantly improves composite reliability (Hair *et al.*, 2017). Additionally, an AVE exceeding 0.5 signifies convergent validity, as indicated in Table 1, confirming the convergent validity of the reflective constructs.

Discriminant validity was assessed using the Fornell-Larcker criterion. The square root of AVE for each construct, presented in Table 2, is higher than the correlation values of each pair (diagonal values), ensuring discriminant validity. Therefore, we can conclude that the reflective constructs used in this study are valid.

---Insert Table 2 about here---

Construct reliability and validity of second order construct

Following initial data analysis, it became necessary to remove three indicators from two different aspects of business professionalization (Hair *et al.*, 2017). The specific indicators removed were DECE_3, HUMA_3, and HUMA_5. Eliminating these indicators was crucial for addressing concerns regarding discriminant and convergent validity of lower order component (LOCs). Importantly, their removal did not compromise the essence and characteristics of the underlying latent variables. The results of the data on business professionalization can be found in Table 1.Business professionalization is analyzed separately because it is considered a second-order construct with a formative nature at the higher-order level.

Multicollinearity

According to MacKenzie et al. (2005), evaluating formative constructs requires criteria beyond internal consistency and convergent validity. Therefore, assessing this construct involved examining issues of multicollinearity, as well as the relevance and significance of its indicators. Expert validity was ensured through discussions with managers from the sampled firms.

Sarstedt et al. (2019) recommend considering two measurement models for second-order and reflective-formative constructs—one for the lower-order components and another for the higher-order components. Two main approaches, the repeated indicator approach and the two-stage approach, are proposed for assessing these constructs. We employed the two-stage approach, involving the computation and saving of scores for all constructs in the first stage through a PLS algorithm, specifically using the repeated indicator approach for business professionalization. In the subsequent stage, these scores were introduced as new variables into the dataset, allowing for the evaluation of the relationship between lower-order components and the higher-order component. Furthermore, these new variables, all first-order constructs, were used to appraise the structural model.

This section explores the lower-level components of business professionalization, assessing them using a method similar to the evaluation of other reflective constructs in previous sections. This entails examining discriminant validity, convergent validity, and internal consistency. As shown in Table 1, all criteria for construct validity are met for the lower-level components.

In this stage, variables derived from construct scores were used, with five key aspects of business professionalization serving as indicators. The validity of the higher-order construct was assessed by examining the variance inflation factor (VIF) for each aspect of business professionalization. According to Hair et al. (2017), VIF values below 5 are considered acceptable, indicating the absence of multicollinearity problems. As displayed in Table 1, all VIF values were below the 5-cutoff point. To evaluate the relevance and significance of the formative indicators, a bootstrap analysis (number of bootstraps = 5000) was conducted, and the findings are presented in Table 1. These findings affirm that all indicators possess significant outer weights, demonstrating construct validity at this level.

Individual indicator validity

Diamantopoulos, Riefler, and Roth (2008) state that "The γ-parameters[weights] capture the contribution of the individual indicator to the construct, therefore items with nonsignificant γ-parameters[wights] should be considered for elimination as they cannot represent valid indicators of the construct". This condition is satisfied in our case. All weights in the bootstrapped measurement model are statistically significant.

Nomological validity

Diamantopoulos and Winklhofer (2003) argued that "A final approach to validation, focusing on nomological aspects, involves linking the index to other constructs with which it would be expected to be linked (i.e., antecedents and/or consequences). Such validation is particularly relevant when indicators have been eliminated from the original index; under these circumstances, it becomes essential to establish that the new version functions in predictable ways. Validation along these lines requires (1) that information is gathered for at least one more construct than the one captured by the index, (2) that this other construct is measured by means of reflective indicators, and (3) that a theoretical relationship can be postulated to exist between the constructs". These conditions are satisfied in our case. We omit all other indicators(leadership styles and control variables) and keep only the formative(Professionalization) and reflective construct(performance). The relationship between professionalization and performance is statistically significant ($T=10.236$, $P<0$, $\beta=0.589$). The R-square value is 0.346 and we have a good fit. Figure 2 and Table 3 show the results of the nomological validity of professionalization. So, we conclude we have a valid measure for professionalization.

---Insert Figure 2 about here---

---Insert Table 3 about here---

Common Method Bias

To assess potential common method bias in the model, we followed Kock's (2015) recommended approach. This involved linking each variable in the structural model to its corresponding latent variable and examining the inner variance inflation factors (VIFs). The inner VIF values were carefully scrutinized, and the results are presented in Table 4. Each column in the table represents a specific variable, with values calculated based on the inner VIFs of the other variables linked to that particular variable. All VIFs obtained from the collinearity tests were found to be below 3.3, indicating that the results are not influenced by common method bias, consistent with Kock's methodology (2015).

---Insert Table 4 about here-

Hypothesis Testing

The previous section focused on establishing the reliability and validity of constructs. In this section, we conduct a thorough analysis of the structural model to test our hypotheses. The evaluation of the inner model involves assessing the relationships between constructs and the predictive power of the model. Therefore, we carefully examine issues such as collinearity, the algebraic sign, magnitude, and significance of path coefficients, R^2 values, F^2 effect size, and Q^2 values. We employ bootstrapping to calculate t-statistics and standard errors to determine the significance of the path coefficients.

Out of the ten hypothesized relationships, eight were found to be significant, providing support for all hypotheses except H2a and H2b. Among the three control variables integrated into our model, AGE and SIZE show significant paths, while EDUC does not exhibit significance.

Given the significant results for AGE and SIZE, it is important to delve deeper into these findings. AGE and SIZE have demonstrated a significant impact on firm performance (PERF), indicating that older and larger firms may possess inherent advantages or face challenges that influence their performance outcomes. This observation is consistent with existing literature that recognizes the influence of firm age and size on business outcomes (Anderson and Reeb, 2003; Zahra, 2005).

Prioritizing the assessment of collinearity, Table 5 presents the VIF values of the constructs in the inner model. All values are below 5, indicating no significant collinearity issues in the structural model (Hair *et al.*, 2017). Therefore, further analysis of these findings is warranted.

---Insert Table 5 about here---

Firm performance demonstrates a substantial R^2 value of 0.587, whereas professionalization shows a relatively weak R^2 value of 0.104. The subsequent step involved assessing the effect size of relationships within the model by calculating F^2 values. Table 6 indicates that only AUTO, LAIS, and EDUC do not significantly affect PERF, whereas other constructs influence PERF or PROF to varying degrees. AGE has a negligible effect on PERF, while PART and SIZE have medium effects on PERF. Additionally, PROF significantly influences PERF. Furthermore, AUTO, LAIS, and PART exhibit a negligible effect size on PROF. These interpretations adhere to the F^2 thresholds established by Cohen (1988), where values below 0.02 indicate no effect, and values above 0.02, 0.15, and 0.35 respectively denote small, medium, and large effect sizes.

Q^2 values were also calculated to evaluate the model's ability to predict out-of-sample, following the guidelines of Hair et al.'s (2017). The blindfolding procedure with an omission distance of 7 yielded Q^2 values of 0.570 and 0.096 for PERF and PROF, respectively. According to Hair et al. (2017), Q^2 values larger than zero indicate high predictive relevance of exogenous constructs for endogenous constructs, confirming the model's robust predictive power out-of-sample. Finally, the model fit was assessed using the standardized root mean square residual (SRMR), which indicated an acceptable fit with an SRMR value of 0.061, below the common cutoff of 0.08 (Hu and Bentler, 1999).

The study followed the steps outlined by Hair et al. (2017) to analyze the mediation model and evaluate the relationships between the constructs in the structural model. Initially, the direct effects of leadership styles (AUTO, LAIS, and PART) on PERF were evaluated using the bootstrapping procedure (5000 sub-samples). The results in Table 6 indicate that PART has a positive and significant effect on PERF ($\beta = 0.350$; $p < 0.05$), while the effects of AUTO and LAIS on PERF are negative and non-significant (AUTO on PERF: $\beta = 0.082$; $p > 0.05$, and LAIS on PERF: $\beta = 0.067$; $p > 0.05$). In the second step, the effect of the mediator variable (PROF) was considered. The indirect effect of PART on PERF through PROF is positive and significant ($\beta = 0.100$; $p < 0.05$), while the indirect effects of AUTO and LAIS on PERF through PROF are negative and significant (AUTO: $\beta = -0.073$; $p < 0.05$; and LAIS: $\beta = -0.076$; $p < 0.05$). Consequently, H4a-c are accepted, affirming that PROF positively mediates the PART-PERF relationship, while it negatively mediates the AUTO-PERF and LAIS-PERF relationships (please refer to Figure 2).

---Insert Figure 3 about here---

Discussion and implications

This study assessed the mediating effects of professionalization in the relationship between leadership styles and the performance of family businesses. Drawing upon adaptive-reactive and growth theories, our findings emphasize that the participative leadership style emerges as the most effective option for family businesses aiming to promote the professionalization process and achieve positive performance results. This is particularly significant in the context of family firm literature, which highlights the unique challenges and opportunities inherent in family-managed enterprises.

Participative leadership, characterized by collaborative decision-making, aligns well with the family firm's need to balance business objectives with socio-emotional wealth—a concept central to family business theory (Gómez-Mejía *et al.*, 2007). This leadership style's emphasis on inclusiveness and shared governance supports both the professionalization of the business and the preservation of family values (Lam *et al.*, 2015). Our findings are consistent with previous research (e.g., Filatotchev *et al.*, 2005; Sciascia and Mazzola, 2008), which suggests that higher levels of professionalization are linked to improved performance.

Our research demonstrates that managers' implementation of participative leadership significantly contributes to the professionalization process within family businesses. This contribution challenges the existing notion in the family firm literature that non-family management is essential for professionalization (see Stewart and Hitt, 2012). Our model indicates that a participative leadership approach, whether by family or non-family managers, can be highly effective. This finding aligns with Astrachan and Jaskiewicz's (2008) argument that professionalization does not necessarily require external managers but rather a professional mindset and approach. Furthermore, family members who possess professional training and expertise can effectively utilize a participative leadership style, thereby enhancing professional management while preserving socio-emotional wealth, family values, and the long-term vision of the company. This also facilitates smoother intergenerational transitions, a topic of significant interest in the family firm literature (Miller and Le Breton-Miller, 2020).

Regarding the relationship between leadership styles and family business performance, our study did not find support for the direct effects of autocratic and laissez-faire leadership styles on performance. This is in line with some arguments in the literature (e.g., Puni *et al.*, 2014) but contradicts other studies suggesting a negative impact of laissez-faire leadership on performance (Goodall and Bäker, 2015; Imamoglu *et al.*, 2015). In accordance with Sorenson's (2000) findings, our study highlights that only the participative leadership style significantly influences performance in family businesses. This reinforces the unique importance of participative leadership in this context.

Overall, this study contributes to the family firm literature by elucidating the critical role of participative leadership in fostering professionalization and improving performance in family businesses. By challenging the traditional emphasis on non-family management for professionalization, our findings pave the way for further exploration of leadership dynamics within family firms, offering valuable theoretical and practical insights.

Theoretical implications

The current paper makes several key contributions to advance the literature on family business, integrating our findings more directly with existing knowledge and emphasizing the unique aspects of family firms.

Firstly, we underscore the crucial role of leadership in the professionalization process within family businesses, advocating for a reevaluation of leadership style as a critical determinant. While previous research has recognized the importance of leadership (e.g., Dyer, 1989; Sorenson, 2000), it has not fully appreciated the potential impact of different leadership styles on professionalization. Our study suggests that examining these styles provides clarity amidst conflicting findings regarding the influence of professionalization on firm performance. Specifically, the participative leadership style, with its emphasis on collaborative decision-making and preservation of socio-emotional wealth, aligns well with the values and dynamics inherent in family firms (Gómez-Mejía *et al.*, 2007).

Secondly, we contribute to the literature by challenging the overly simplistic classification of professionalization as solely involving a non-family manager (Stewart and Hitt, 2012). Our findings advocate for a more comprehensive perspective, arguing that professionalization encompasses multiple dimensions that concurrently mediate the effect of leadership styles on family business performance. This perspective resonates with the insights of Hall and Nordqvist (2008), who highlighted the complex and multifaceted nature of professionalization in family firms.

Thirdly, our research enhances understanding of the mechanisms through which professionalization shapes the impact of leadership styles on performance. While previous studies have separately explored the direct effects of professionalization and leadership styles on performance, our research deepens knowledge by examining how the professionalization process can mediate these effects. This holistic approach underscores the interconnectedness of leadership styles, professionalization processes, and performance outcomes in family businesses.

Lastly, distinguishing itself from research predominantly focused on Western contexts (Zhang and Ma, 2009), our study empirically investigates the professionalization of family businesses in a Middle Eastern country, specifically Iran. This geographical focus expands the family business literature by offering insights into how cultural and contextual factors influence the professionalization process and leadership dynamics in non-Western settings (Gupta *et al.*, 2009).

Practical implications

This article also provides several implications for practitioners.

Firstly, our research suggests that, except for the participative style, leadership styles do not directly impact performance; instead, professionalization does. Managers are thus encouraged to view professionalization as a strategic approach to enhancing the performance of family businesses. The importance of cultivating trust, reducing organizational hierarchy, and fostering broad participation in decision-making is emphasized, as these elements are critical for successful professionalization and superior performance outcomes (Kellermanns and Eddleston, 2004).

Secondly, family businesses should exercise caution with autocratic and laissez-faire leadership styles. Our research indicates that professionalization significantly diminishes the link between these styles and performance. This implies that family businesses led by autocratic leaders, who make decisions with minimal input, should carefully consider the implications of professionalization, which can pose risks to business performance. Similarly, businesses adopting a laissez-faire style may achieve better outcomes when managed by family members rather than external professionals. This finding underscores the potential pitfalls of professionalization in family firms that lack clear leadership direction and structure (Daily and Dollinger, 1992).

Thirdly, our study underscores that the traditional perspective on professionalization may be insufficient. Managers should adopt a comprehensive approach to effectively manage family businesses. This approach should extend beyond simply hiring an external manager to include decentralized authority systems, professional budgeting, performance systems, and robust human resource control mechanisms (De Kok *et al.*, 2019). Family business managers are encouraged to leverage internal managerial talent and harness the multifaceted professionalization process to their advantage.

In summary, our findings advocate for a nuanced understanding of professionalization and leadership in family businesses. This contributes to the ongoing discourse in family firm literature and offers practical strategies for enhancing performance and maintaining competitive advantage.

Limitations and Future Research

To conduct this research, we encountered several limitations that future researchers should consider when interpreting its results.

Firstly, the study's sample was confined to Iran. Given potential cultural, legal, and regulatory variations across countries, it is crucial for future research to determine the generalizability of these findings to diverse regions and nations.

Secondly, while we adhered to established practices in measuring financial performance, future studies could explore alternative performance dimensions such as customer loyalty, retention rates, and non-financial metrics, as well as objectives specific to family businesses.

Thirdly, although we operationalized professionalization as a multidimensional construct based on Dekker et al. (2015) and measured all five aspects, we did not investigate how different leadership styles influence each dimension of professionalization. Therefore, future research should delve into how each leadership style impacts the various facets of professionalization. For instance, exploring how a participative leadership style can facilitate or hinder the decentralization of authority, thus affecting performance outcomes, would be beneficial. While this exceeds the current study's scope, it represents a promising avenue for future inquiry.

Moreover, future research could explore several other pertinent questions: (1) What specific characteristics of participative leaders enhance the relationship between professionalization and firm performance? (2) What mechanisms underlie these effects? (3) Do these findings hold consistent across different generational cohorts within the same family business, and if not, what factors contribute to the variation?

Lastly, scholars may find it valuable to revisit the proposed conceptual framework by examining an alternative classification of leadership styles. For example, investigating the distinctions between transactional and transformational leaders in the context of family business professionalization could offer fresh insights for future investigations.

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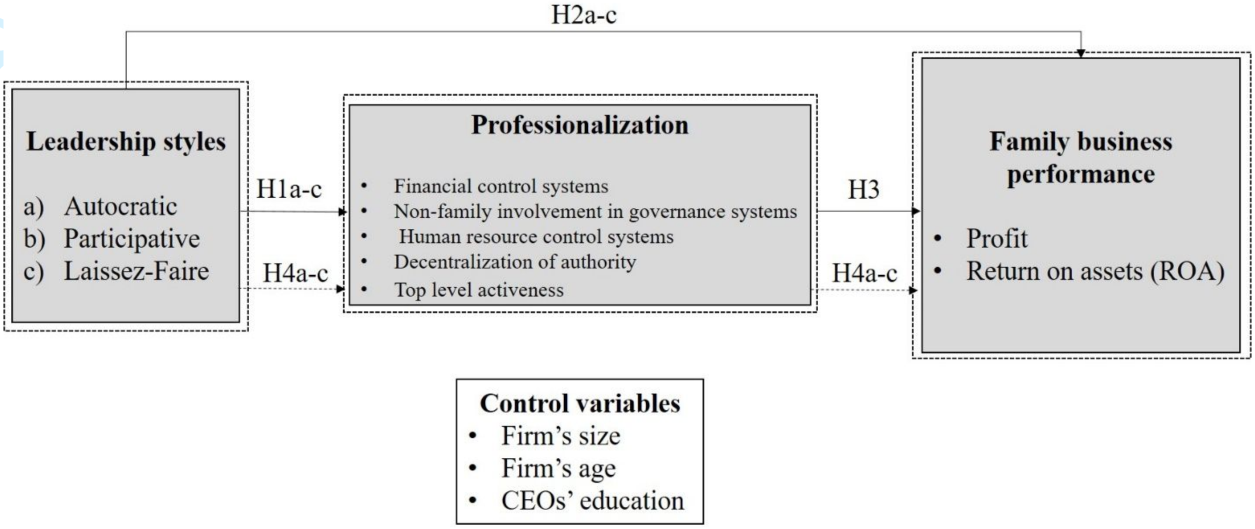

Figure 1- Research framework

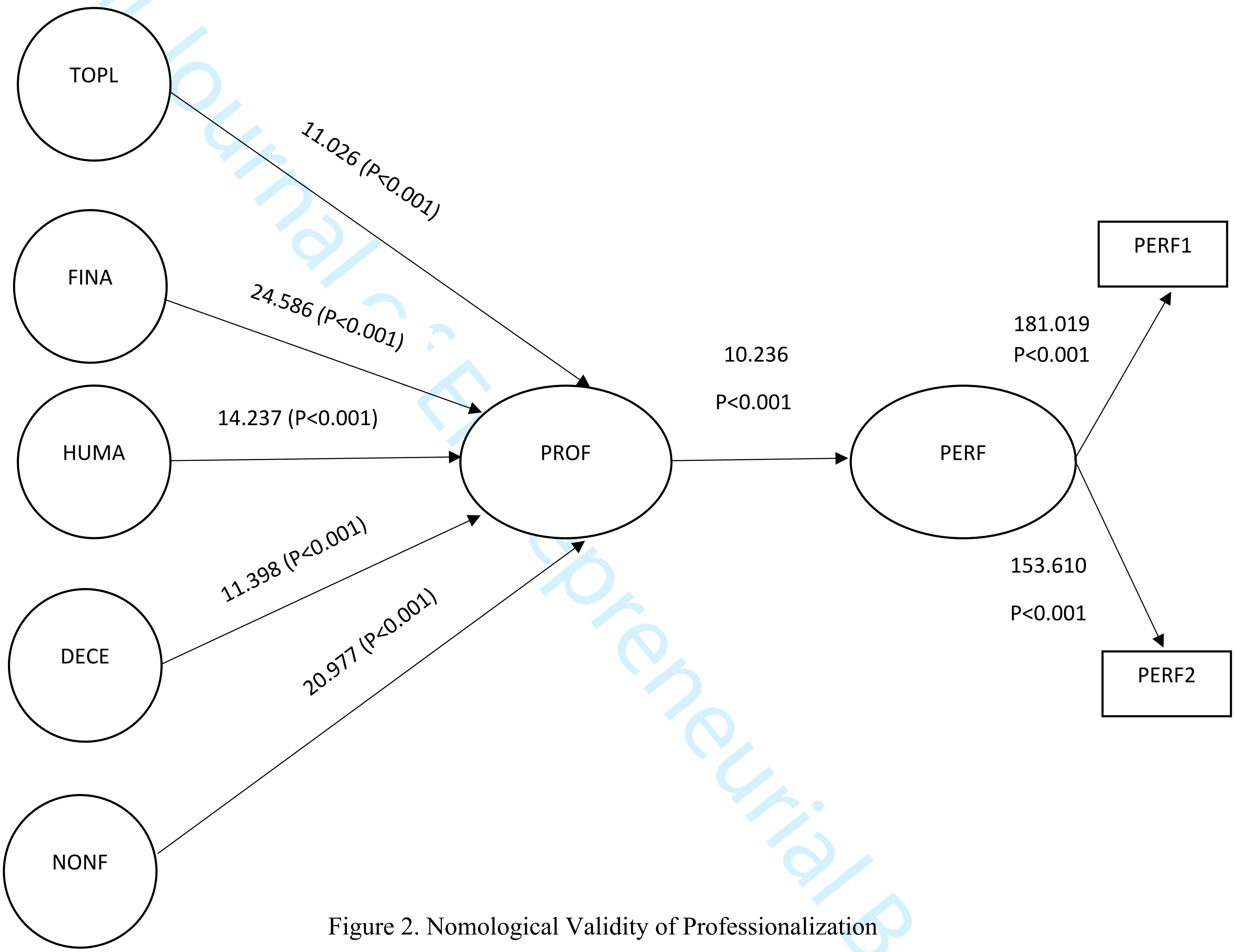

Figure 2. Nomological Validity of Professionalization

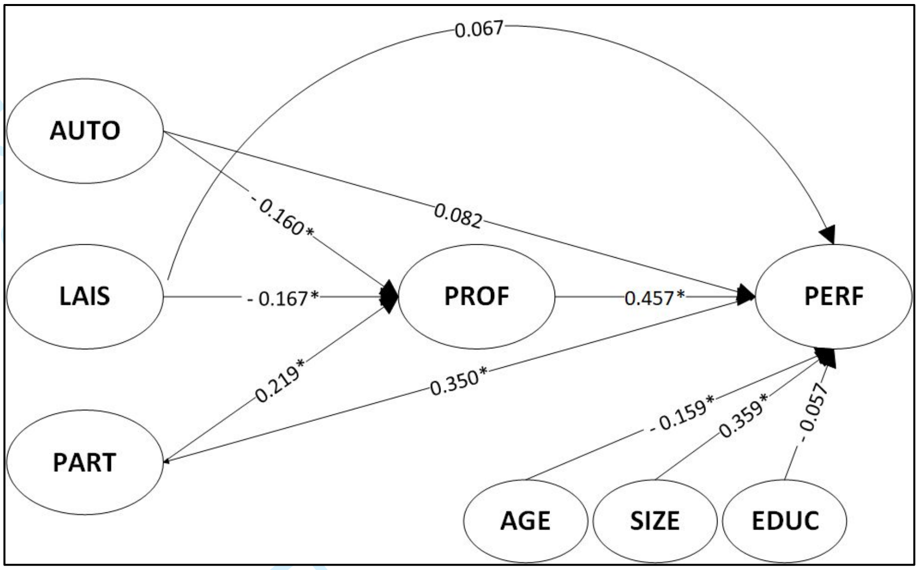

Figure 3: The results

PROF: Professionalization; FINA: Financial Control Systems; NONF: Non-family Involvement in Governance Systems; HUMA: Human Resource Control Systems; DECE: Decentralisation of Authority; TOPL: Top Level Activeness; PERF: Firm Performance; AUTO: Autocratic; LAIS: Laissez-faire; PART: Participative; SIZE: Firm Size; AGE: Firm Age; EDUC: CEO's Highest Educational Degree

Path coefficients in outer model represent loadings for reflective constructs and weights for formative constructs, and path coefficients in inner model are results of PLS algorithm.

*Significant at 0.05 (2-tailed)

Table 1: Research constructs

Construct	Indicators	range	mean	SD	1st order loadings	Inner VIFs	AVE	CR
PROF (second-order construct)								
FINA						3.751	0.636	0.874
FINA_1[a]	The company owns reports in which the proposed budgets of the company are compared with the actual figures.	0-1	0.58	0.49	0.806*			
FINA_2[a]	The deviations from the budgeted targets are monitored to perhaps undertake future actions.	0-1	0.58	0.49	0.688*			
FINA_3[a]	There is a report or document in which the company objectives with reference to next year's sales, are fully and accurately computed.	0-1	0.61	0.49	0.885*			
FINA_4[a]	Management prepares quarterly reports.	0-1	0.64	0.48	0.800*			
NONF						2.689	0.674	0.891
NONF_1R	Proportion of family in the board of directors	0-1	0.33	0.27	0.912*			
NONF_2[a]	The CEO is part of the family.	0-1	0.42	0.49	0.801*			
NONF_3R	Proportion of externals in the board of directors	0-1	0.18	0.25	0.703*			
NONF_4R	Proportion of family in the management team	0-1	0.44	0.27	0.855*			
HUMA						2.035	0.524	0.766
HUMA_1[a]	The staff meetings are usually formally prepared and planned in advance.	0-1	0.61	0.49	0.793*			

HUMA_2[a]	The company uses incentive payments based on performance, for example through bonuses.	0-1	0.75	0.43	0.742*			
HUMA_3[a]	The periodical performance reviews with the managers of the company are drawn up in reports.	0-1	0.47	0.50	-			
HUMA_4[a]	The company provides formal internal or external training programs for their employees.	0-1	0.58	0.49	0.626*			
HUMA_5[a]	The procedures regarding the recruitment of new staff are noted down in a document.	0-1	0.61	0.49	-			
DECE						1.822	0.643	0.781
DECE_1R[a]	The CEO of the company individually decides which organizational strategy must be followed.	0-1	0.58	0.49	0.701*			
DECE_2R[a]	All major decisions within the company are autonomously made by the CEO, and then communicated downwards.	0-1	0.44	0.50	0.892*			
DECE_3R[a]	All employees within the company directly report to the CEO (without using an intermediary).	0-1	0.64	0.48	-			
TOPL						1.458	0.756	0.861
TOPL_1	How often does the board of directors officially meet on an annual basis?	1-50	14.06	10.90	0.809*			
TOPL_2	How often does the management team officially meet on an annual basis?	6-60	35.75	16.42	0.927*			
AUTO							0.929	0.963
AUTO_1	Top-level leadership in our organization sometimes manipulates employees.	1-7	4.94	1.76	0.967*			
AUTO_2	Top-level leadership in our organization is very dominating.	1-7	4.94	2.05	0.961*			
LAIS							0.849	0.918

LAIS_1	Top-level leadership in our organization leaves employees alone to work.	1-7	4.44	1.57	0.958*		
LAIS_2	Top-level leadership in our organization transmits a sense of mission to employees	1-7	4.61	1.50	0.883*		
PART						0.864	0.962
PART_1	Top-level leadership in our organization encourages subordinates to participate in important decisions.	1-7	4.61	1.78	0.889*		
PART_2	Top-level leadership in our organization keeps informed about the way subordinates think and feel about things.	1-7	4.78	1.86	0.939*		
PART_3	Top-level leadership in our organization encourages employees to speak up when they disagree about decisions.	1-7	4.75	1.82	0.939*		
PART_4	Top-level leadership in our organization helps subordinates with personal problems.	1-7	4.64	1.92	0.949*		
PERF						0.895	0.944
PERF_1	In the last 3 years, our company has improved regarding profits.	1-7	4.72	1.46	0.947*		
PERF_2	In the last 3 years, our company has improved regarding return on assets.	1-7	4.81	1.37	0.945*		
Control variables							
SIZE	The number of fulltime employees	115-300	190.50	52.03			
EDUC	The highest educational degree obtained by the CEO of their company	1-5	3.31	1.37			
AGE	The number of years of incorporation of the company	4-46	25.64	13.37			

SD: standard deviation; VIF: Variance inflation factor; AVE: average variance extracted; CR: composite reliability
PROF: Professionalization; FINA: Financial Control Systems; NONF: Non-family Involvement in Governance Systems; HUMA: Human Resource Control Systems; DECE: Decentralization of Authority; TOPL: Top Level Activeness; PERF: Firm Performance; AUTO: Autocratic; LAIS: Laissez-faire; PART: Participative; SIZE: Firm Size; AGE: Firm Age; EDUC: CEO's Highest Educational Degree
*Significant at 0.05 (2-tailed)
[a] Anchored at 1 = agree and 0 = disagree.

Table 2: Correlations results

	AGE	AUTO	DECE	EDUC	FINA	HUMA	LAIS	NONF	PART	PERF	SIZE	TOPL
AGE	1											
AUTO	0.158	1										
DECE	0.145	-0.259	1									
EDUC	0.159	-0.009	-0.057	1								
FINA	0.01	-0.196	0.626	-0.202	1							
HUMA	0.223	0.01	0.544	0.021	0.687	1						
LAIS	-0.162	0.203	-0.117	-0.07	-0.213	-0.094	1					
NONF	0.008	-0.047	0.614	-0.118	0.771	0.607	-0.139	1				
PART	0.382	0.207	0.142	0.187	0.171	0.384	-0.086	0.093	1			
PERF	0.034	0.116	0.313	0.038	0.579	0.657	0.088	0.404	0.407	1		
SIZE	0.119	0.111	-0.013	0.295	0.189	0.311	0.29	0.205	0.072	0.48	1	
TOPL	-0.167	-0.163	0.361	0.101	0.55	0.306	-0.402	0.411	0.034	0.353	0.192	1

Table 3. Statistical measures of nomological models to assess formative construct

Relationship			T-value	R-square
TOPL	⇨	PROF	11.026	
FINA	⇨	PROF	24.586	
HUMA	⇨	PROF	14.237	
DECE	⇨	PROF	11.398	
NONF	⇨	PROF	20.977	
PROF	⇨	PERF	10.236	0.346
PERF	⇨	PERF1	181.019	
PERF	⇨	PERF2	153.610	

Table 4: VIFs inner values

	AGE	AUTO	EDUC	LAIS	PART	PERF	PROF	SIZE
AGE		1.292	1.313	1.269	1.116	1.252	1.31	1.25
AUTO	1.162		1.169	1.16	1.155	1.164	1.122	1.178
EDUC	1.279	1.267		1.229	1.217	1.271	1.224	1.09
LAIS	1.32	1.342	1.311		1.365	1.354	1.233	1.214
PART	1.381	1.59	1.546	1.625		1.328	1.624	1.504
PERF	2.311	2.39	2.409	2.405	1.981		1.766	2
PROF	1.86	1.772	1.783	1.684	1.863	1.358		1.85
SIZE	1.703	1.786	1.525	1.592	1.657	1.476	1.776	

Table 5- VIFs values in the inner model

Construct	PERF	PROF
AGE	1.252	-
AUTO	1.164	1.101
EDUC	1.271	-
LAIS	1.354	1.062
PART	1.328	1.064
PROF	1.358	-
SIZE	1.476	-

Table 6- Hypohteses testing results

Hypothesis	Path	Path Coefficients	P Values	F^2	Hypothesis confirmation
Direct effects					
H1a	AUTO -> PROF	-0.160	0.016	0.026	Supported
H1b	LAIS -> PROF	-0.167	0.016	0.029	Supported
H1c	PART -> PROF	0.219	0.001	0.050	Supported
H2a	AUTO -> PERF	0.082	0.070	0.014	Not Supported
H2b	LAIS -> PERF	0.067	0.163	0.008	Not Supported
H2c	PART -> PERF	0.350	0.000	0.224	Supported
H3	PROF -> PERF	0.457	0.000	0.373	Supported
-	AGE -> PERF	-0.159	0.003	0.049	-
-	SIZE -> PERF	0.359	0.000	0.212	-
-	EDUC -> PERF	-0.057	0.257	0.006	-
Indirect effects					
H4a	AUTO -> PROF -> PERF	-0.073	0.025	-	Supported
H4b	LAIS -> PROF -> PERF	-0.076	0.019	-	Supported
H4c	PART -> PROF -> PERF	0.100	0.002	-	Supported
Total effects					
	LAIS -> PERF	-0.01	0.860	-	Not Supported
	AUTO -> PERF	0.009	0.866	-	Not supported
	PART -> PERF	0.45	0.000	-	supported

Professionalization in family businesses: The role of leadership style

Abstract

Purpose: This paper investigates the impact of various leadership styles on the professionalization and subsequent performance of family businesses.

Design/methodology/approach: Using a survey method and employing a partial least squares approach to structural equation modeling, we tested our model and analyzed the collected data based on the responses of 216 managers in Iran.

Findings: Our research demonstrates that professionalization mediates the relationship between leadership style and performance. Moreover, our findings show that the participative leadership style is the most effective option for family businesses seeking to achieve professionalization and improve performance.

Originality: Our study suggests that examining the potential impact of leadership styles on professionalization can provide clarity amidst mixed findings regarding the influence of professionalization on firm performance. Additionally, we challenge the oversimplified categorization of professionalization and argue for a multifaceted view, contending that professionalization comprises various dimensions acting concurrently, potentially mediating the effect of leadership styles on family business performance.

Research Limitations/implications: First, the sample used in this study was drawn from a single country, namely Iran. Second, although we adhered to established practices for measuring financial performance, future research could explore alternative dimensions of performance, including non-financial goals. Third, we did not investigate the impact of different leadership styles on each dimension of professionalization.

Practical implications: These findings provide valuable insights for family business managers seeking to adopt a suitable leadership style to achieve professional management and realize favorable outcomes.

Keywords: Professionalization, leadership style, firm performance, family business, PLS-SEM.

Introduction

Over the past two decades, a growing body of research has focused on the performance of family businesses due to their prominent role in the business landscape (De Massis *et al.*, 2018; Yang *et al.*, 2021). Family businesses constitute a significant portion of global enterprises, accounting for two-thirds of all businesses worldwide and contributing to 70 percent of the annual global GDP (Family Firm Institute, 2022; Daspit *et al.*, 2018). Anderson and Reeb's (2003) analysis of the S&P 500 (Standard and Poor's 500 Stock Index) demonstrated that family firms, on average, outperformed other entities, thus highlighting the importance of studying the performance of family businesses. Despite extensive efforts, a universally accepted definition of a family business remains elusive (Vazquez, 2018). We characterized a family business as a company in which a single family owns at least 50% of the corporate shares, and where at least two family members actively participate in the business (De Witt, 2015; Cano-Rubio *et al.*, 2017).

Recent evidence suggests that family businesses face internal and external pressures that compel them to adopt professionalization strategies (Waldkirch *et al.*, 2017). Professionalization refers to the phase of development in family firms where the organization transitions from being owner-managed and entrepreneurial to a more formal and structured entity (Dekker *et al.*, 2015). Scholars, professionals, and news outlets are increasingly articulating higher expectations of 'professionalism' towards families who own businesses, delineating specific norms that these families must conform to (Hermle-Boersig *et al.*, 2023). This includes the employment of professional managers, a prevalent piece of advice given to family businesses (Hiebl and Mayrleitner, 2019). However, evidence of the potential favorable effects of such professional managers is not yet conclusive. Professionalization relies on the engagement of professional managers who utilize various leadership styles to facilitate the implementation of the firm's strategy (Songini *et al.*, 2023).

Our understanding of how managers' leadership styles within family businesses impact the professionalization process remains limited. This article investigates the impact of leadership styles on the professionalization of family businesses and the subsequent consequences for their performance. While professionalization has typically been defined as the "employment of full-time, non-family personnel, particularly involving the delegation of managerial authority" (Stewart and Hitt, 2012, p. 59), our research expands its scope by considering all five dimensions of professionalization identified by Dekker et al. (2015): financial control systems, non-family involvement in governance systems, human resource control systems, decentralization of authority, and top-level activeness. By adopting a multidimensional perspective, this study aims to overcome the limitations of existing literature and assess the overall impact of professionalization on family business performance.

Previous studies (e.g., Piyasinchai *et al.*, 2023; Songini *et al.*, 2023) have examined the impact of professionalization on the performance of family businesses. However, the findings of their research have demonstrated inconsistency. While some studies, such as those conducted by Madison et al. (2018) and Polat and Benligiray (2022), have identified a positive correlation between the level of professionalization and the performance of family businesses, others, such as Castillo and Wakefield (2006), have found evidence suggesting a negative impact. Another set of studies (e.g., Hermle-Boersig *et al.*, 2023) has indicated that family businesses can either benefit from or suffer due to adopting or rejecting professionalization. The inconsistency in the existing literature largely stems from the use of a simplified unidimensional measure for professionalization, as highlighted by Dekker et al. (2015). This study makes a valuable contribution by examining the mediating role of professionalization, considering it as a multidimensional concept, in the link between leadership styles and performance in family businesses, potentially yielding more accurate results.

One of the most influential factors that impact a firm's performance is the leadership style (Fries *et al.*, 2021). Prior studies emphasized the importance of sound and effective leadership in all types of businesses, including family enterprises (Toor and Ofori, 2009; Barbery and Torres, 2019). The impact of leadership style on business performance is evident, as businesses that adopt an appropriate leadership style have the potential to achieve higher profits through improved employee performance, among other factors (Asrar-ul-Haq and Kuchinke, 2016; Hadiannasab and Afshari, 2019; Ribeiro *et al.*, 2018). While various authors, such as Khan and Adnan (2014), Puni et al. (2014), and Imamoglu et al. (2015), have provided empirical evidence linking business performance to the firm's leadership style, there is still a lack of clear understanding of this relationship within the realm of family businesses and how the family business's attempt at professionalization influences this connection. Sorenson (2000) found that different leadership styles have varying impacts on a firm's performance, yet the reasons for these divergent impacts are not fully understood. Given the inherent connection between leadership and professionalization, it is highly probable that professionalization plays a critical role in determining the various leadership styles and their impact on firm performance.

According to Osborn's (1975) adaptive-reactive theory, which expands Fiedler's (1964, 1967) contingency theory, the organizational structure serves a crucial role in determining the most suitable leadership style for organizations. Given the non-professional nature inherent in family firms, as evident in their structure (De Witt, 2015; Cano-Rubio *et al.*, 2017), we explore the leadership style that can guide family firms to success through professionalization. Professionalization, a process outlined by Dekker et al. (2015), involves transforming a family firm into a more formal and structured entity. This process significantly influences how the firm is managed, which in turn affects its performance and survival (Dyer, 1996). However, the specific leadership styles that contribute to improved performance in family businesses and their subsequent effects remain unclear (Fries *et al.*, 2021). According to the company growth theory, success involves a crucial stage of professionalization (Deakins *et al.*, 2002). This presents a significant research gap as different leadership styles may have varied yet significant effects on subsequent variables, including professionalization and performance. The main questions that arise are: Which leadership style leads to superior performance in family firms, and what role does professionalization play in this complex process?

Moreover, the existing literature on family businesses primarily focuses on American and European companies (e.g., Cruz, 2020), resulting in a geographical bias. Therefore, there is a need for more research in other geographic regions to address this bias. Specifically, there is a lack of insights into family firms in Asia, despite the significant presence of such businesses in its economic landscape (Fries *et al.*, 2021). Asia, with its diverse cultural and economic contexts, provides a unique setting to explore the dynamics of professionalization and leadership in family businesses (Gupta *et al.*, 2009). This diversity allows for a comprehensive examination of how different cultural values and economic conditions impact the professionalization process and its outcomes. The purpose of our research is to explore two main aspects: first, the direct impact of three leadership styles on the performance of family businesses, and second, the mediating influence of professionalization on the connection between leadership style and performance. This investigation utilizes data gathered from family firms in Iran to provide a more diverse and comprehensive perspective.

This paper is divided into the following sections. First, we will review the existing literature on leadership styles and business professionalization in family businesses, which will lead to the formulation of four main research hypotheses. Then, we will outline the research methods and provide a detailed explanation of how the Partial Least Squares approach to Structural Equation Modeling (PLS-SEM) was used to empirically test the hypotheses. Finally, the paper will discuss the theoretical and practical implications of the study, present the findings and results, and highlight the contributions of this research.

Literature Review and Hypotheses Development

Leadership Styles in Family Businesses

The literature on leadership in the field of family business is divided into two primary categories: the broader study of various leadership styles and the examination of leadership behavior specific to the family business context (Fries *et al.*, 2021). This research delves into how these leadership styles function uniquely within family firms, highlighting both the distinct and overlapping elements compared to non-family businesses.

The definition of leadership within family businesses remains contested due to the field's emerging status (e.g., Marshall *et al.*, 2006; Bernhard and O'Driscoll, 2011; Menges *et al.*, 2011). Various scholars (e.g., Dyer, 1986; Sorenson, 2000; Katsaros *et al.*, 2020) have approached leadership styles differently, leading to diverse classifications. This study adopts Lewin's (1939) conceptualization due to its significant value in terms of its clarity and applicability across a wide range of contexts (Fischer *et al.*, 2024). Lewin et al. (1939) identified three primary leadership styles prevalent in family businesses: (1) autocratic, (2) participative, and (3) laissez-faire. The leadership styles in family businesses are defined as a leader's inclination to behave in a specific manner (e.g., autocratic decision-making) to achieve a desired objective (Fries *et al.*, 2021).

Leadership in family firms differs from leadership in non-family firms primarily because of the emotional considerations of leaders in this sector (Gomez-Mejia *et al.*, 2011), their relatively longer tenures (Bernhard and O'Driscoll, 2011), and their significant roles within these organizations (Carney, 2005).

Despite the modernization of family businesses in recent decades, autocratic leadership remains predominant (Fries *et al.*, 2021). This persistence is largely due to the dual role of owners as managers, which consolidates power at the top (Akonkwa *et al.*, 2021; Goyal *et al.*, 2023). Autocratic leaders often bypass employee input, making unilateral decisions (De Witt, 2015), and rely on a top-down approach to assign tasks and ensure compliance through rewards and punishments (Fiaz *et al.*, 2017). While this might streamline decision-making, it typically results in low morale, high stress, high turnover, and a rigid work environment (Harms *et al.*, 2018).

In contrast, participative leadership emphasizes employee involvement in decision-making (Lam *et al.*, 2015). Even if decisions aren't made collectively, participative leaders incorporate employee feedback, fostering a sense of inclusion and community (Vroom and Yetton, 1973; Miller and Le Breton-Miller, 2005). This approach is particularly effective in family businesses, where informal structures and emotional bonds prevail (Ward, 2016). By enhancing decision quality and acceptance (Sorenson, 2000) and boosting employee satisfaction and ownership (De Witt, 2015; Yukl, 2002), participative leadership can significantly improve firm performance (Lam *et al.*, 2015).

On the other hand, laissez-faire leadership, or non-leadership, grants employees extensive autonomy, often to the detriment of organizational coherence (Asrar-ul-Haq and Kuchinke, 2016; Wong and Giessner, 2018). Leaders adopting this style evade responsibility and decision-making (Northouse, 2018), setting objectives without providing guidance on achieving them. This can lead to misaligned efforts that jeopardize the firm's primary goals (Sorenson, 2000). The lack of support and direction typical of laissez-faire leadership hampers goal identification and overall effectiveness (Bass and Avolio, 1994).

In conclusion, while autocratic leadership remains entrenched in family businesses due to the concentrated power of owner-managers, participative leadership offers a more inclusive and potentially more effective alternative by leveraging emotional bonds and community spirit. Laissez-faire leadership, though promoting independence, often fails to provide the necessary direction and support, risking misalignment and inefficiency. Future research should explore how these leadership styles can be optimized to better align with the unique dynamics of family firms.

Business Professionalization in Family Businesses

The transition from an owner-managed family firm to a formalized and structured business, known as professionalization, has garnered significant attention in the literature (Petrolo *et al.*, 2020). This process is critical in family firms, yet the decision to professionalize is influenced by various unique factors inherent to these organizations. While professionalization is often linked to the involvement of non-family managers (Bennedsen *et al.*, 2007; Lin and Hu, 2007; Zhang and Ma, 2009; Stewart and Hitt, 2012), it encompasses much more, including formal planning, structured meetings, clear responsibilities, performance evaluations, formal training, management development, and control structures (Dekker, 2012; Flamholtz and Randle, 2012).

Despite its benefits, the professionalization of family firms is not always straightforward or universally accepted. Factors such as entrenched family dynamics, resistance to change, and the fear of losing control can significantly hinder the adoption of professional practices. The literature (see Dekker *et al.*, 2015) identifies five main elements of professionalization that serve as benchmarks to gauge the extent of this process in family firms, but the nuances of why these firms choose to professionalize—or not—require deeper exploration.

First, non-family involvement in governance is a significant indicator of professionalization (Stewart and Hitt, 2012). However, many family firms resist this step due to concerns about diluting family influence and loyalty, potentially leading to conflicts between family and non-family members over control and direction.

Second, professionalized firms often have advanced financial control systems, including robust budgeting and performance appraisals (Duréndez *et al.*, 2007). Yet, the shift from informal, trust-based financial management to formalized systems can be challenging. Family firms may fear that strict financial oversight could expose inefficiencies or reduce the flexibility they value.

Third, comprehensive HR control systems, such as formal performance assessments and structured hiring practices, are hallmarks of professionalization (Dyer, 2006). Nevertheless, family firms might prefer informal HR practices based on personal relationships and trust, viewing formal systems as impersonal and bureaucratic.

Fourth, decentralizing decision-making to lower levels within the firm is more prominent in professionalized firms (Stewart and Hitt, 2012). Family firms, however, often centralize authority within the family to maintain control, which can stifle professionalization efforts. The reluctance to delegate can stem from a lack of trust in non-family members and the desire to preserve family legacy and values.

Fifth, active engagement of board members and management teams, characterized by frequent meetings, is common in professionalized firms (Jackling and Johl, 2009). In contrast, family firms may have less formalized governance structures, with meetings occurring irregularly or decisions being made in more informal settings. This can limit the strategic oversight necessary for professional growth.

In summary, while the process of professionalization involves adopting formal structures and practices, family firms face unique challenges that influence whether and how they professionalize. Resistance to change, fear of losing control, and the desire to maintain family culture and values often outweigh the perceived benefits of professionalization. Understanding these dynamics is crucial for comprehensively analyzing professionalization within family firms, moving beyond the textbook description of processes and activities to a critical examination of the underlying reasons for their adoption or resistance. In this research, we study the role of professionalization as a mediating variable within the context of leadership approaches adopted within family firms and their overall performance.

Hypotheses Development

To critically analyze leadership styles within the context of family firms and their professionalization process, we employ Osborn's (1975) adaptive-reactive theory, an expanded version of Fiedler's (1964, 1967) contingency theory. This theory posits that the effectiveness of leadership styles varies across enterprises, with organizational structure playing a pivotal role in determining the optimal leadership style for success. Our study aims to identify the leadership style that most effectively enhances performance in family firms, considering their informal structural characteristics (Miller and Le Breton-Miller, 2005) and the nuances of professionalization.

Professionalization in family firms, often marked by the involvement of non-family employees in managerial roles, poses unique challenges and opportunities (Camfield and Franco, 2019; Dekker *et al.*, 2015). This aspect is critical because it directly involves interactions with the organizational leader, thus influencing the overall impact of leadership style on the firm's evolution. In participative-led family firms, leaders play a vital role in fostering decision acceptance, improving decision quality, and enhancing decision-making skills among both leaders and employees (Fiaz et al., 2017; Wong and Giessner, 2018). The participative leadership style's ability to minimize status and power differences (Sorenson, 2000) can facilitate the integration of non-family managers, given the high level of trust and universal performance evaluations applied within these firms.

Furthermore, participative leadership aligns with entrepreneurial leadership behaviors that promote independent thinking and action in dynamic conditions (Pistrui *et al.*, 2000; Fries *et al.*, 2021). This decentralization of authority is a critical element of professionalization, suggesting that family firms led by participative leaders might encounter fewer challenges and achieve smoother professionalization. In contrast, laissez-faire leadership, characterized by minimal intervention and autonomous decision-making (Yang, 2015), might not significantly impact the professionalization process since it inherently allows for individual or team-based decisions, potentially diluting the leader's influence on professionalization outcomes.

Autocratic leadership, however, presents significant hurdles for professionalization in family firms. This leadership style, marked by centralized decision-making and minimal employee involvement, can lead to low levels of decision acceptance and employee satisfaction. The concentration of power typical of autocratic leaders complicates the integration of professional managers, often leading to friction and misalignment with the non-family managers' work styles (Zhang and Ma, 2009). Moreover, autocratic leadership's nepotistic tendencies can introduce bias into decision-making, where approvals and promotions are influenced by social networks rather than merit (Liu *et al.*, 2015). This bias contrasts sharply with the meritocratic principles inherent in professionalized human resource control systems, thereby negatively impacting the professionalization process in family firms.

In conclusion, the professionalization of family firms is deeply intertwined with the adopted leadership style. Participative leadership appears to support professionalization by fostering inclusivity and decentralization, while autocratic leadership undermines it by centralizing power and perpetuating nepotism. Laissez-faire leadership, though allowing autonomy, may not actively support the structured progress needed for professionalization. Understanding these dynamics is crucial for advancing family firms through professionalization, balancing the preservation of family values with the adoption of formal business practices. Taking all aforementioned into account, it is hypothesized that:

H1: The extent to which a family business's leader adopts a) autocratic, b) participative and c) laissez-faire styles will have a significant effect on the firm's professionalization.

A substantial body of literature has investigated the influence of leadership on organizational performance, revealing that different leadership styles can significantly affect a firm's outcomes (Lin and Shiqian, 2018). Scholars (e.g., Fries *et al.*, 2021) argue that specific leadership styles can either enhance or diminish firm performance, drawing on contingency theories of leadership proposed by Fiedler (1964) and Osborn (1975). This study critically examines the impact of three primary leadership styles—autocratic, participative, and laissez-faire—on the performance of family firms, a context often overlooked in traditional leadership studies.

Participative leadership has been shown to potentially improve firm performance by fostering a supportive organizational environment. This leadership style is particularly pertinent to family firms, where integrating diverse perspectives can enhance structural changes and interactions within the business. Imamoglu et al. (2015) assert that a collaborative approach can drive success and improved performance by encouraging flexibility and inclusivity among employees. Furthermore, Fries et al. (2021) suggest that participative leadership aligns with entrepreneurial behaviors, leading to better financial outcomes through long-term investment goals (Miralles-Marcelo *et al.*, 2014). This alignment is crucial in family firms, where entrepreneurial spirit and long-term orientation are often ingrained in the organizational culture.

Conversely, autocratic leadership tends to centralize power within the family circle, stifling employee participation and creativity (Pittino and Visintin, 2009). Sorenson (2000) highlights the negative impact of autocratic leadership on employee satisfaction, which can foster in-group versus out-group dynamics among family and non-family staff. This division amplifies perceptions of injustice and diminishes job commitment, critical factors for performance in family firms (Huang *et al.*, 2015). Since employee satisfaction is integral to firm performance (Arnold, 2017), the autocratic style's potential to lower morale and increase turnover may ultimately reduce the effectiveness and success of family businesses.

The impact of laissez-faire leadership on performance is more contentious. While Yang (2015) suggests that this style can yield positive results when practiced by highly motivated and competent employees (Bass and Stogdill, 1990), other studies present conflicting views. Some researchers argue that laissez-faire leadership has no significant impact on performance (Puni et al., 2014), while others indicate it can be detrimental (Khan and Adnan, 2014). Cunningham et al. (2016) argue that in the context of family firms, laissez-faire leadership is particularly harmful to knowledge formation and distribution. The absence of a supportive leader to guide employees toward organizational goals and the poor communication of critical information can impede performance. Santiago (2015) further contends that laissez-faire leaders may fail to effectively identify and address challenges, contributing to the potential failure of family businesses.

Given the varying perspectives and inconsistent findings in the literature regarding the direct impact of leadership styles on firm performance, it is evident that the unique dynamics of family firms require a more nuanced approach. Family businesses, characterized by complex emotional and relational ties, respond differently to leadership styles compared to non-family firms. Therefore, we propose a comprehensive hypothesis to thoroughly investigate the influence of autocratic, participative, and laissez-faire leadership styles on the performance of family businesses. This hypothesis aims to integrate the contextual specificities of family firms, considering how leadership styles interact with the intrinsic familial relationships and professionalization processes that define these organizations.

H2: The extent to which a family business's leader adopts a) autocratic, b) participative and c) laissez-faire styles will have a significant effect on the firm performance.

In theory, determining the exact effect of professionalization on performance in family firms is challenging due to inconsistent research findings. This inconsistency partly stems from the limited scope of previous studies, which often focused on singular aspects of professionalization, such as non-family involvement or financial control systems. To address these limitations, we adopt a comprehensive perspective on professionalization, as outlined by Dekker et al. (2015), encompassing its diverse facets. This approach enables us to assess whether professionalization, as a whole, positively influences the performance of family businesses.

We propose that professionalization significantly enhances the performance of family firms, drawing on insights from both agency theory and company growth theories. Agency theory, pioneered by Jensen and Meckling (1976), examines the challenges associated with delegating responsibilities from principals to agents, particularly conflicts of interest between these parties. The literature identifies two primary types of agency conflicts: Type I (principal-agent conflicts) and Type II (principal-principal conflicts) (Purkayastha *et al.*, 2022). If unresolved, these conflicts can escalate capital costs and detrimentally affect firm performance (Madison *et al.*, 2015). Agency theory suggests that formal structures and managerial control systems can align the interests and actions of managers and owners, thereby mitigating these conflicts and reducing agency costs (Schulze *et al.*, 2003). In the context of family firms, professionalization can alleviate these agency problems, thereby enhancing overall performance.

Company growth theory also considers professionalization crucial for addressing the unique challenges of family businesses and as a critical component of their lifecycle (Ward, 1998). According to this theory, professionalization influences firm performance by integrating non-family managers and implementing strategic planning and control systems (Gnan and Songini, 2004). This transition is particularly significant in family firms, where balancing familial control and professional management impacts long-term success.

The positive impact of professionalization on performance in family firms can be further elucidated through its various dimensions. First, robust financial control systems have been shown to provide critical information for decision-making and financial planning, leading to enhanced performance (Chenhall, 2003; Dekker *et al.*, 2015; Kotey, 2005; Pérez de Lema and Duréndez, 2007). Second, the inclusion of non-family members in management addresses issues of self-control and altruism, thereby boosting business performance (Schulze *et al.*, 2001). Third, human resource control systems counterbalance agency problems and nepotism, contributing to improved performance (Carlson *et al.*, 2006; Dekker *et al.*, 2015; Kotey and Folker, 2007; Kellermanns and Eddleston, 2004). Fourth, decentralization of authority, as supported by Bakalis et al. (2007) and

Daily and Dalton (1992), enhances firm effectiveness by ensuring appropriate power delegation. Finally, the assertiveness of top-level management significantly impacts decision-making quality and overall firm performance (Gersick *et al.*, 1997).

In conclusion, the professionalization of family firms is a multifaceted process that substantially enhances performance. By addressing agency conflicts, implementing strategic financial and human resource controls, decentralizing authority, and ensuring active top-level management, family businesses can achieve better alignment between managerial actions and ownership interests. This comprehensive approach to professionalization not only mitigates inherent familial challenges but also fosters a more robust and competitive organizational structure, ultimately leading to improved firm performance. Thus, we propose that:

H3: The extent to which a family business is led professionally will positively affect the firm performance.

Given the unique dynamics of leadership within family businesses, leadership plays a critical role in guiding the firm through professionalization. Nicholson and Björnberg (2005) highlight that a leader's ability to navigate family conflicts and manage the interface between the business and the family can determine the success or failure of the business. Consequently, leadership style is crucial in any significant transformation, such as professionalization, aimed at improving company performance. Identifying the most effective leadership styles in the context of professionalization is paramount.

Participative leadership, which emphasizes group decision-making, is particularly relevant in family businesses. Participative leaders are more likely to consider subordinates' opinions and less likely to make unilateral decisions (Yang, 2015). In scenarios where the CEO transitions from a family member to a non-family (professional) CEO, the inclusive nature of participative leadership can facilitate greater influence from various team members on strategic decisions. This collective approach can be instrumental during the professionalization process, which is often complex and involves critical decision-making tasks (Chittoor and Das, 2007). A participative leader can harness the support of teams within the family business to make informed and collective decisions, thereby minimizing resistance to the shift toward professionalism and maximizing the benefits of professionalization.

In contrast, laissez-faire leadership may not significantly impact the firm's decisions during the CEO's transition to a professional role, a key aspect of professionalization. Laissez-faire leaders are typically less involved in decision-making processes compared to participative leaders (Asrar-ul-Haq and Kuchinke, 2016; Wong and Giessner, 2018). This detachment can be detrimental to the professionalization process, which requires active and engaged leadership to guide the organization through structural changes and strategic planning.

The influence of leadership styles on performance in family firms is thus mediated by the process of professionalization. Professionalization requires a leadership style that can effectively manage the delicate balance between familial interests and professional management. Participative leadership, with its focus on inclusivity and collective decision-making, appears well-suited to this task. It can help overcome the inherent challenges of professionalization in family businesses, fostering a collaborative environment that supports strategic growth and improved performance.

H4: The impact of a family business's leadership style: (a) autocratic, b) participative, and (c) laissez-faire on the firm performance is mediated by the degree of the firm's professionalization.

Based on the research hypotheses mentioned above, our framework can be illustrated as shown in Figure 1. The main assumption underlying this framework is that carefully selected and practiced leadership style for family businesses can result in positive performance through professionalization.

---Insert Figure 1 about here---

Method

Sample and Data Collection

As mentioned earlier, this study adopts a specific definition of a family business. According to this definition, a family business is characterized by a single family owning at least 50% of the corporate shares, with at least two family members actively involved in the business. The sample for this study comprises 216 Iranian firms that meet these criteria. The sampling procedure involved selecting firms from a list provided by the Iran Small Industries and Industrial Parks Organization (ISIPO) in 2022.

Given that 92% of Iran's industries consist of small and medium-sized enterprises (SMEs), and recognizing the crucial role that SMEs play in economic advancement, ISIPO provided a list of family businesses. The sampling frame included 1129 family firms operating in various sectors such as food, chemicals, transportation equipment, health services, construction, and electrical appliances. To ensure a comprehensive understanding of the firms, the survey respondents were either chief executive officers (CEOs) or senior managers.

Data collection was conducted through an online survey, supplemented by printed questionnaires sent by mail to respondents in cases where email communication was not feasible or preferred by the respective firm. To enhance the response rate, a letter explaining the research's purpose and importance was included with the survey. The letter also assured respondents of their anonymity. We received a total of 223 completed questionnaires, resulting in a response rate of

19.75%. This response rate is consistent with the average response rate of 10%-20% typically observed in surveys targeting senior management (Pittino *et al.*, 2018).

Out of these responses, seven incomplete questionnaires were excluded. Therefore, the final sample consists of 216 firms, a sample size deemed sufficient according to Cohen's (1992) recommendation.

Analysis

We employed the PLS-SEM method with SmartPLS 3 software to analyze the collected data. The preference for PLS-SEM among researchers has been increasing due to its specific features (Hair *et al.*, 2019). The choice to use PLS-SEM to analyze our data is justified by the complexity of our study model. When a structural model involves multiple constructs, indicators, and relationships, covariance-based SEM (CB-SEM) may encounter issues, especially with small sample sizes or non-normal data (Hair *et al.*, 2017). Given the challenge of accessing comprehensive databases from family businesses, which often results in smaller sample sizes, PLS-SEM, known for its ability to analyze such datasets, was considered the more suitable method for this study (Ali *et al.*, 2018).

The PLS algorithm used in PLS-SEM does not assume normality in the data, making it suitable for analyzing non-normal data encountered in our study (Hair *et al.*, 2017). Additionally, PLS-SEM has the advantage of handling formative constructs, which is a limitation of CB-SEM. Since the construct of business professionalization in this study is considered both reflective and formative, PLS-SEM is deemed appropriate for conducting the data analysis.

Measurement

Constructing measures involves the critical task of determining the appropriate use of formative and reflective measures to avoid significant errors (Hair *et al.*, 2012; Mikulić and Ryan, 2018). We meticulously examined the constructs and clarified the rationale behind constructing the measures in a specific manner, following criteria proposed by Jarvis et al. (2003) to distinguish between reflective and formative constructs. A key criterion involves assessing whether the indicators of a construct can be interchanged, accurately describing its characteristics and representing its manifestations.

Business professionalization, as defined by Dekker et al. (2015), encompasses five components: financial control systems, non-family involvement in governance systems, human resource control systems, decentralization of authority, and top-level involvement. The questionnaire items are detailed in Table 1. In this study, business professionalization is considered a reflective-formative construct. While the indicators of the five components are interchangeable, they assess different aspects of business professionalization and should not be treated as identical, as indicated by their names. Notably, certain questionnaire items used to measure these indicators are reverse-coded, identified by appending the letter "R" to their names, with associated responses reversed to ensure consistency in measuring increased business professionalization.

For the measurement of leadership style, items from Sorenson (2000) were employed. Sorenson's (2000) scale, grounded in Lewin's conceptualization, forms the theoretical foundation for our hypotheses. Each leadership style is a reflective construct comprising a set of indicators. These indicators are reflective because each style's items can be interchanged. The survey items are detailed in Table 1.

Assessing firm performance typically involves using financial indicators (Lin and Hu, 2007; Nasr *et al.*, 2019; Sraer and Thesmar, 2007). However, due to most firms in our sample being privately held and lacking publicly available performance data, and considering confidentiality concerns, objective financial data were not accessible. Therefore, we relied on self-reported subjective measures of firm performance. Subjective measures can effectively capture the nuances of firm performance (Craig *et al.*, 2008). We used profit and return on assets (ROA) as reflective variables. Profit represents the surplus revenue generated after deducting all expenses, while ROA is calculated by dividing net income by total assets (Oh *et al.*, 2012). Previous research (e.g., Arbelo *et al.*, 2021; Lin and Wu, 2014; Oh *et al.*, 2012) supports the effectiveness of profit and ROA in evaluating firm performance compared to return on invested capital. The items used for measuring firm performance are listed in Table 1.

Control variables were applied comprehensively across all variables to ensure that any observed changes were solely attributed to leadership style and professionalization. Three specific control variables included firm size (measured by the number of full-time employees), firm age (measured by years since establishment), and the educational degrees held by CEOs, consistent with previous studies (e.g., Obeso *et al.*, 2020). Details of these constructs can be found in Table 1.

---Insert Table 1 about here---

Results

Construct reliability and validity of reflective constructs

To assess the validity of the constructs, we initially focused on the reflective constructs. Evaluating construct validity involves measuring internal consistency, discriminant validity, and convergent validity, all essential for assessing the reliability and validity of the constructs (Hair *et al.*, 2017). While Cronbach's alpha is a conventional method for evaluating internal consistency, we chose composite reliabilities because they are sensitive to the number of items and can confirm internal consistency (Taber, 2018). Acceptable values for composite reliability are typically above 0.7 in initial stages and above 0.8 in later stages of research, with values below 0.6 indicating a lack of internal consistency reliability (Hair *et al.*, 2017). As depicted in Table 1, all reflective constructs have composite reliability values exceeding 0.7, confirming their internal consistency.

Convergent validity for reflective constructs is typically assessed using two indicators: average variance extracted (AVE) and reliability. Indicator reliability requires outer loadings to exceed 0.708 (Hair *et al.*, 2017). While most loadings meet this criterion, a few indicators have slightly lower loadings, which were retained based on recommendations not to remove items with loadings between 0.4 and 0.7 unless doing so significantly improves composite reliability (Hair *et al.*, 2017). Additionally, an AVE exceeding 0.5 signifies convergent validity, as indicated in Table 1, confirming the convergent validity of the reflective constructs.

Discriminant validity was assessed using the Fornell-Larcker criterion. The square root of AVE for each construct, presented in Table 2, is higher than the correlation values of each pair (diagonal values), ensuring discriminant validity. Therefore, we can conclude that the reflective constructs used in this study are valid.

---Insert Table 2 about here---

Construct reliability and validity of second order construct

Following initial data analysis, it became necessary to remove three indicators from two different aspects of business professionalization (Hair *et al.*, 2017). The specific indicators removed were DECE_3, HUMA_3, and HUMA_5. Eliminating these indicators was crucial for addressing concerns regarding discriminant and convergent validity of lower order component (LOCs). Importantly, their removal did not compromise the essence and characteristics of the underlying latent variables. The results of the data on business professionalization can be found in Table 1.Business professionalization is analyzed separately because it is considered a second-order construct with a formative nature at the higher-order level.

Multicollinearity

According to MacKenzie et al. (2005), evaluating formative constructs requires criteria beyond internal consistency and convergent validity. Therefore, assessing this construct involved examining issues of multicollinearity, as well as the relevance and significance of its indicators. Expert validity was ensured through discussions with managers from the sampled firms.

Sarstedt et al. (2019) recommend considering two measurement models for second-order and reflective-formative constructs—one for the lower-order components and another for the higher-order components. Two main approaches, the repeated indicator approach and the two-stage approach, are proposed for assessing these constructs. We employed the two-stage approach, involving the computation and saving of scores for all constructs in the first stage through a PLS algorithm, specifically using the repeated indicator approach for business professionalization. In the subsequent stage, these scores were introduced as new variables into the dataset, allowing for the evaluation of the relationship between lower-order components and the higher-order component. Furthermore, these new variables, all first-order constructs, were used to appraise the structural model.

This section explores the lower-level components of business professionalization, assessing them using a method similar to the evaluation of other reflective constructs in previous sections. This entails examining discriminant validity, convergent validity, and internal consistency. As shown in Table 1, all criteria for construct validity are met for the lower-level components.

In this stage, variables derived from construct scores were used, with five key aspects of business professionalization serving as indicators. The validity of the higher-order construct was assessed by examining the variance inflation factor (VIF) for each aspect of business professionalization. According to Hair et al. (2017), VIF values below 5 are considered acceptable, indicating the absence of multicollinearity problems. As displayed in Table 1, all VIF values were below the 5-cutoff point. To evaluate the relevance and significance of the formative indicators, a bootstrap analysis (number of bootstraps = 5000) was conducted, and the findings are presented in Table 1. These findings affirm that all indicators possess significant outer weights, demonstrating construct validity at this level.

Individual indicator validity

Diamantopoulos, Riefler, and Roth(2008) state that “The γ-parameters[weights] capture the contribution of the individual indicator to the construct, therefore items with nonsignificant γ-parameters[wights] should be considered for elimination as they cannot represent valid indicators of the construct” .This condition is satisfied in our case. All weights in the bootstrapped measurement model are statistically significant.

Nomological validity

Diamantopoulos and Winklhofer (2003) argued that "A final approach to validation, focusing on nomological aspects, involves linking the index to other constructs with which it would be expected to be linked (i.e., antecedents and/or consequences). Such validation is particularly relevant when indicators have been eliminated from the original index; under these circumstances, it becomes essential to establish that the new version functions in predictable ways. Validation along these lines requires (1) that information is gathered for at least one more construct than the one captured by the index, (2) that this other construct is measured by means of reflective indicators, and (3) that a theoretical relationship can be postulated to exist between the constructs**"**. These conditions are satisfied in our case. We omit all other indicators(leadership styles and control variables) and keep only the formative(Professionalization) and reflective construct(performance). ~~We first analyzed the literature and find a construct has the above specification. Stewart and Hitt (2011) argue "this older meaning of professionalization is at odds with other connotations of professionalization. According to the stereotypes, management in family firms is less formalized, rational, and standardized than in nonfamily firms". So, we select formalization as a reflective construct from Pertusa,Zaragoza&Claver (2010) for analyzing nomological validity.~~ The relationship between professionalization and ~~formalization~~ performance is statistically significant (T=~~28.313~~10.236, P<0, β=0.~~731~~589). The R-square value is 0.~~534~~ 346 and we have a good fit. Figure 2 and ~~,~~ Table 3 ~~and Table 4~~ show the results of the nomological validity of professionalization. So, we conclude we have a valid measure for professionalization.

---Insert Figure 2 about here---

---Insert Table 3 about here---

~~*---Insert Table 4 about here---*~~

Common Method Bias

To assess potential common method bias in the model, we followed Kock's (2015) recommended approach. This involved linking each variable in the structural model to its corresponding latent variable and examining the inner variance inflation factors (VIFs). The inner VIF values were carefully scrutinized, and the results are presented in Table ~~5~~4. Each column in the table represents a specific variable, with values calculated based on the inner VIFs of the other variables linked to that particular variable. All VIFs obtained from the collinearity tests were found to be below 3.3, indicating that the results are not influenced by common method bias, consistent with Kock's methodology (2015).

---Insert Table ~~5~~ 4 about here-

Hypothesis Testing

The previous section focused on establishing the reliability and validity of constructs. In this section, we conduct a thorough analysis of the structural model to test our hypotheses. The evaluation of the inner model involves assessing the relationships between constructs and the predictive power of the model. Therefore, we carefully examine issues such as collinearity, the algebraic sign, magnitude, and significance of path coefficients, R^2 values, F^2 effect size, and Q^2 values. We employ bootstrapping to calculate t-statistics and standard errors to determine the significance of the path coefficients.

Out of the ten hypothesized relationships, eight were found to be significant, providing support for all hypotheses except H2a and H2b. Among the three control variables integrated into our model, AGE and SIZE show significant paths, while EDUC does not exhibit significance.

Given the significant results for AGE and SIZE, it is important to delve deeper into these findings. AGE and SIZE have demonstrated a significant impact on firm performance (PERF), indicating that older and larger firms may possess inherent advantages or face challenges that influence their performance outcomes. This observation is consistent with existing literature that recognizes the influence of firm age and size on business outcomes (Anderson and Reeb, 2003; Zahra, 2005).

Prioritizing the assessment of collinearity, Table ~~6~~ 5 presents the VIF values of the constructs in the inner model. All values are below 5, indicating no significant collinearity issues in the structural model (Hair *et al.*, 2017). Therefore, further analysis of these findings is warranted.

---Insert Table ~~6~~ 5 about here---

Firm performance demonstrates a substantial R^2 value of 0.587, whereas professionalization shows a relatively weak R^2 value of 0.104. The subsequent step involved assessing the effect size of relationships within the model by calculating F^2 values. Table ~~7~~ 6 indicates that only AUTO, LAIS, and EDUC do not significantly affect PERF, whereas other constructs influence PERF or PROF to varying degrees. AGE has a negligible effect on PERF, while PART and SIZE have medium effects on PERF. Additionally, PROF significantly influences PERF. Furthermore, AUTO, LAIS, and PART exhibit a negligible effect size on PROF. These interpretations adhere to the F^2 thresholds established by Cohen (1988), where values below 0.02 indicate no effect, and values above 0.02, 0.15, and 0.35 respectively denote small, medium, and large effect sizes.

Q^2 values were also calculated to evaluate the model's ability to predict out-of-sample, following the guidelines of Hair et al.'s (2017). The blindfolding procedure with an omission distance of 7 yielded Q^2 values of 0.570 and 0.096 for PERF and PROF, respectively. According to Hair et al. (2017), Q^2 values larger than zero indicate high predictive relevance of exogenous constructs for endogenous constructs, confirming the model's robust predictive power out-of-sample. Finally, the model fit was assessed using the standardized root mean square residual (SRMR), which indicated an acceptable fit with an SRMR value of 0.061, below the common cutoff of 0.08 (Hu and Bentler, 1999).

The study followed the steps outlined by Hair et al. (2017) to analyze the mediation model and evaluate the relationships between the constructs in the structural model. Initially, the direct effects of leadership styles (AUTO, LAIS, and PART) on PERF were evaluated using the bootstrapping procedure (5000 sub-samples). The results in Table ~~7~~ 6 indicate that PART has a positive and significant effect on PERF ($\beta = 0.350$; $p < 0.05$), while the effects of AUTO and LAIS on PERF are negative and non-significant (AUTO on PERF: $\beta = 0.082$; $p > 0.05$, and LAIS on PERF: $\beta = 0.067$; $p > 0.05$). In the second step, the effect of the mediator variable (PROF) was considered. The indirect effect of PART on PERF through PROF is positive and significant (β = 0.100; $p < 0.05$), while the indirect effects of AUTO and LAIS on PERF through PROF are negative and significant (AUTO: β = -0.073; $p < 0.05$; and LAIS: β = -0.076; $p < 0.05$). Consequently, H4a-c are accepted, affirming that PROF positively mediates the PART-PERF relationship, while it negatively mediates the AUTO-PERF and LAIS-PERF relationships (please refer to Figure 2).

---Insert Figure 3 about here---

Discussion and implications

This study assessed the mediating effects of professionalization in the relationship between leadership styles and the performance of family businesses. Drawing upon adaptive-reactive and growth theories, our findings emphasize that the participative leadership style emerges as the most effective option for family businesses aiming to promote the professionalization process and achieve positive performance results. This is particularly significant in the context of family firm literature, which highlights the unique challenges and opportunities inherent in family-managed enterprises.

Participative leadership, characterized by collaborative decision-making, aligns well with the family firm's need to balance business objectives with socio-emotional wealth—a concept central to family business theory (Gómez-Mejía *et al.*, 2007). This leadership style's emphasis on inclusiveness and shared governance supports both the professionalization of the business and the preservation of family values (Lam *et al.*, 2015). Our findings are consistent with previous research (e.g., Filatotchev *et al.*, 2005; Sciascia and Mazzola, 2008), which suggests that higher levels of professionalization are linked to improved performance.

Our research demonstrates that managers' implementation of participative leadership significantly contributes to the professionalization process within family businesses. This contribution challenges the existing notion in the family firm literature that non-family management is essential for professionalization (see Stewart and Hitt, 2012). Our model indicates that a participative leadership approach, whether by family or non-family managers, can be highly effective. This finding aligns with Astrachan and Jaskiewicz's (2008) argument that professionalization does not necessarily require external managers but rather a professional mindset and approach. Furthermore, family members who possess professional training and expertise can effectively utilize a participative leadership style, thereby enhancing professional management while preserving socio-emotional wealth, family values, and the long-term vision of the company. This also facilitates smoother intergenerational transitions, a topic of significant interest in the family firm literature (Miller and Le Breton-Miller, 2020).

Regarding the relationship between leadership styles and family business performance, our study did not find support for the direct effects of autocratic and laissez-faire leadership styles on performance. This is in line with some arguments in the literature (e.g., Puni *et al.*, 2014) but contradicts other studies suggesting a negative impact of laissez-faire leadership on performance (Goodall and Bäker, 2015; Imamoglu *et al.*, 2015). In accordance with Sorenson's (2000) findings, our study highlights that only the participative leadership style significantly influences performance in family businesses. This reinforces the unique importance of participative leadership in this context.

Overall, this study contributes to the family firm literature by elucidating the critical role of participative leadership in fostering professionalization and improving performance in family businesses. By challenging the traditional emphasis on non-family management for professionalization, our findings pave the way for further exploration of leadership dynamics within family firms, offering valuable theoretical and practical insights.

Theoretical implications

The current paper makes several key contributions to advance the literature on family business, integrating our findings more directly with existing knowledge and emphasizing the unique aspects of family firms.

Firstly, we underscore the crucial role of leadership in the professionalization process within family businesses, advocating for a reevaluation of leadership style as a critical determinant. While previous research has recognized the importance of leadership (e.g., Dyer, 1989; Sorenson, 2000), it has not fully appreciated the potential impact of different leadership styles on professionalization. Our study suggests that examining these styles provides clarity amidst conflicting findings regarding the influence of professionalization on firm performance. Specifically, the participative leadership style, with its emphasis on collaborative decision-making and preservation of socio-emotional wealth, aligns well with the values and dynamics inherent in family firms (Gómez-Mejía *et al.*, 2007).

Secondly, we contribute to the literature by challenging the overly simplistic classification of professionalization as solely involving a non-family manager (Stewart and Hitt, 2012). Our findings advocate for a more comprehensive perspective, arguing that professionalization encompasses multiple dimensions that concurrently mediate the effect of leadership styles on family business performance. This perspective resonates with the insights of Hall and Nordqvist (2008), who highlighted the complex and multifaceted nature of professionalization in family firms.

Thirdly, our research enhances understanding of the mechanisms through which professionalization shapes the impact of leadership styles on performance. While previous studies have separately explored the direct effects of professionalization and leadership styles on performance, our research deepens knowledge by examining how the professionalization process can mediate these effects. This holistic approach underscores the interconnectedness of leadership styles, professionalization processes, and performance outcomes in family businesses.

Lastly, distinguishing itself from research predominantly focused on Western contexts (Zhang and Ma, 2009), our study empirically investigates the professionalization of family businesses in a Middle Eastern country, specifically Iran. This geographical focus expands the family business literature by offering insights into how cultural and contextual factors influence the professionalization process and leadership dynamics in non-Western settings (Gupta *et al.*, 2009).

Practical implications

This article also provides several implications for practitioners.

Firstly, our research suggests that, except for the participative style, leadership styles do not directly impact performance; instead, professionalization does. Managers are thus encouraged to view professionalization as a strategic approach to enhancing the performance of family businesses. The importance of cultivating trust, reducing organizational hierarchy, and fostering broad participation in decision-making is emphasized, as these elements are critical for successful professionalization and superior performance outcomes (Kellermanns and Eddleston, 2004).

Secondly, family businesses should exercise caution with autocratic and laissez-faire leadership styles. Our research indicates that professionalization significantly diminishes the link between these styles and performance. This implies that family businesses led by autocratic leaders, who make decisions with minimal input, should carefully consider the implications of professionalization, which can pose risks to business performance. Similarly, businesses adopting a laissez-faire style may achieve better outcomes when managed by family members rather than external professionals. This finding underscores the potential pitfalls of professionalization in family firms that lack clear leadership direction and structure (Daily and Dollinger, 1992).

Thirdly, our study underscores that the traditional perspective on professionalization may be insufficient. Managers should adopt a comprehensive approach to effectively manage family businesses. This approach should extend beyond simply hiring an external manager to include decentralized authority systems, professional budgeting, performance systems, and robust human resource control mechanisms (De Kok *et al.*, 2019). Family business managers are encouraged to leverage internal managerial talent and harness the multifaceted professionalization process to their advantage.

In summary, our findings advocate for a nuanced understanding of professionalization and leadership in family businesses. This contributes to the ongoing discourse in family firm literature and offers practical strategies for enhancing performance and maintaining competitive advantage.

Limitations and Future Research

To conduct this research, we encountered several limitations that future researchers should consider when interpreting its results.

Firstly, the study's sample was confined to Iran. Given potential cultural, legal, and regulatory variations across countries, it is crucial for future research to determine the generalizability of these findings to diverse regions and nations.

Secondly, while we adhered to established practices in measuring financial performance, future studies could explore alternative performance dimensions such as customer loyalty, retention rates, and non-financial metrics, as well as objectives specific to family businesses.

Thirdly, although we operationalized professionalization as a multidimensional construct based on Dekker et al. (2015) and measured all five aspects, we did not investigate how different leadership styles influence each dimension of professionalization. Therefore, future research should delve into how each leadership style impacts the various facets of professionalization. For instance, exploring how a participative leadership style can facilitate or hinder the decentralization of authority, thus affecting performance outcomes, would be beneficial. While this exceeds the current study's scope, it represents a promising avenue for future inquiry.

Moreover, future research could explore several other pertinent questions: (1) What specific characteristics of participative leaders enhance the relationship between professionalization and firm performance? (2) What mechanisms underlie these effects? (3) Do these findings hold consistent across different generational cohorts within the same family business, and if not, what factors contribute to the variation?

Lastly, scholars may find it valuable to revisit the proposed conceptual framework by examining an alternative classification of leadership styles. For example, investigating the distinctions between transactional and transformational leaders in the context of family business professionalization could offer fresh insights for future investigations.

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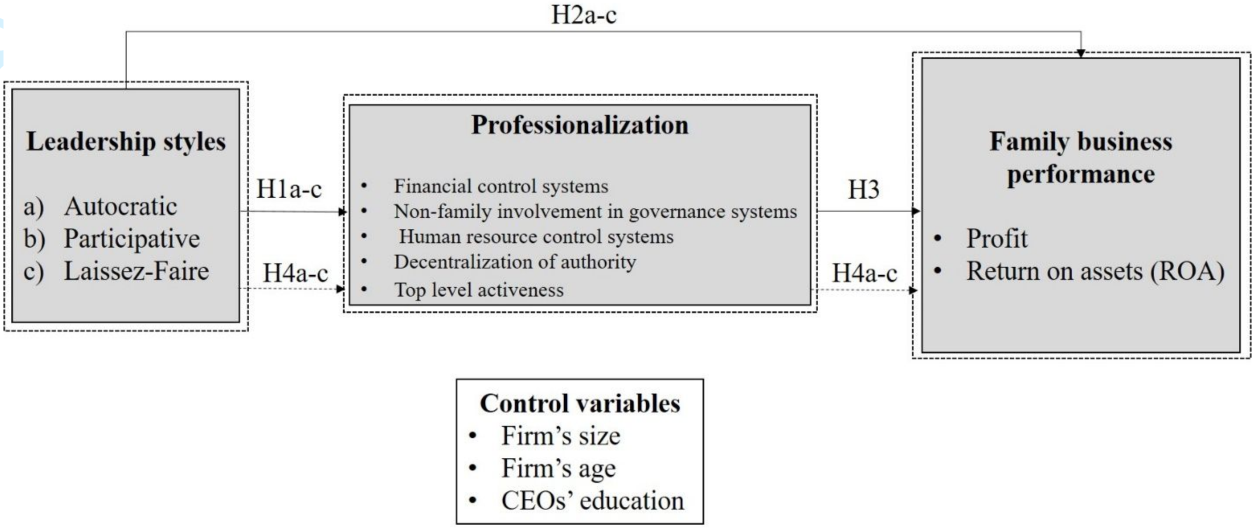

Figure 1- Research framework

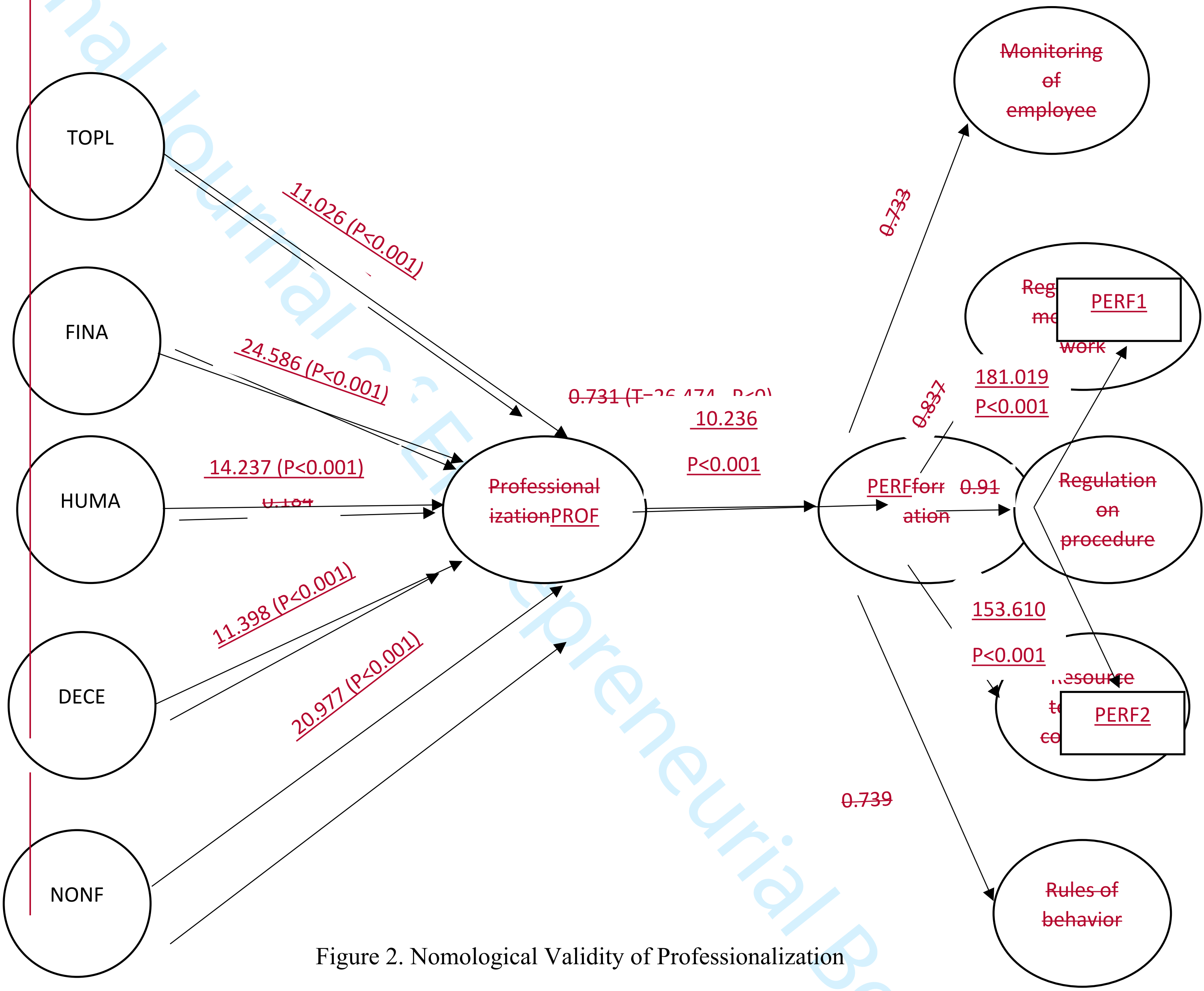

Figure 2. Nomological Validity of Professionalization

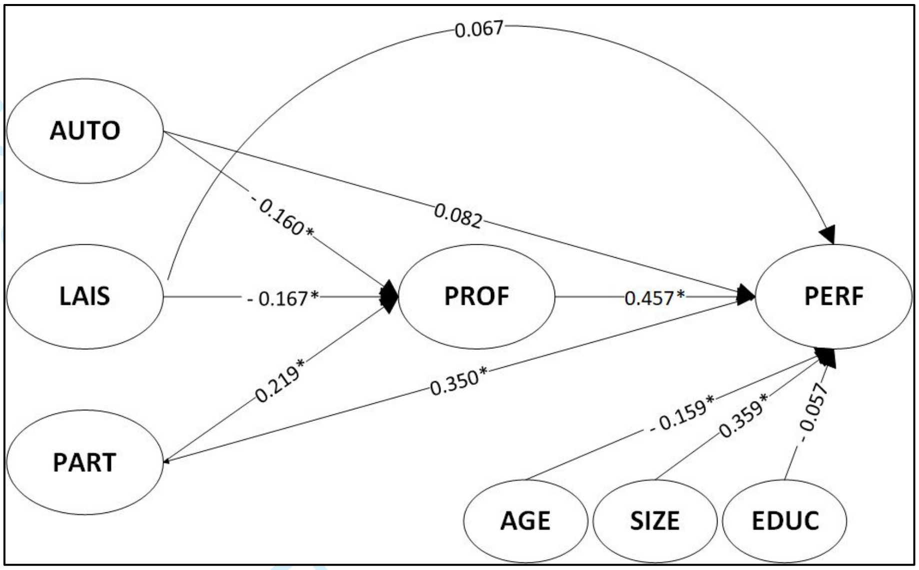

Figure 3: The results

PROF: Professionalization; FINA: Financial Control Systems; NONF: Non-family Involvement in Governance Systems; HUMA: Human Resource Control Systems; DECE: Decentralisation of Authority; TOPL: Top Level Activeness; PERF: Firm Performance; AUTO: Autocratic; LAIS: Laissez-faire; PART: Participative; SIZE: Firm Size; AGE: Firm Age; EDUC: CEO's Highest Educational Degree

Path coefficients in outer model represent loadings for reflective constructs and weights for formative constructs, and path coefficients in inner model are results of PLS algorithm.

*Significant at 0.05 (2-tailed)

Table 1: Research constructs

Construct	Indicators	range	mean	SD	1st order loadings	Inner VIFs	AVE	CR
PROF (second-order construct)								
FINA						3.751	0.636	0.874
FINA_1[a]	The company owns reports in which the proposed budgets of the company are compared with the actual figures.	0-1	0.58	0.49	0.806*			
FINA_2[a]	The deviations from the budgeted targets are monitored to perhaps undertake future actions.	0-1	0.58	0.49	0.688*			
FINA_3[a]	There is a report or document in which the company objectives with reference to next year's sales, are fully and accurately computed.	0-1	0.61	0.49	0.885*			
FINA_4[a]	Management prepares quarterly reports.	0-1	0.64	0.48	0.800*			
NONF						2.689	0.674	0.891
NONF_1R	Proportion of family in the board of directors	0-1	0.33	0.27	0.912*			
NONF_2[a]	The CEO is part of the family.	0-1	0.42	0.49	0.801*			
NONF_3R	Proportion of externals in the board of directors	0-1	0.18	0.25	0.703*			
NONF_4R	Proportion of family in the management team	0-1	0.44	0.27	0.855*			
HUMA						2.035	0.524	0.766
HUMA_1[a]	The staff meetings are usually formally prepared and planned in advance.	0-1	0.61	0.49	0.793*			

HUMA_2[a]	The company uses incentive payments based on performance, for example through bonuses.	0-1	0.75	0.43	0.742*			
HUMA_3[a]	The periodical performance reviews with the managers of the company are drawn up in reports.	0-1	0.47	0.50	-			
HUMA_4[a]	The company provides formal internal or external training programs for their employees.	0-1	0.58	0.49	0.626*			
HUMA_5[a]	The procedures regarding the recruitment of new staff are noted down in a document.	0-1	0.61	0.49	-			
DECE						1.822	0.643	0.781
DECE_1R[a]	The CEO of the company individually decides which organizational strategy must be followed.	0-1	0.58	0.49	0.701*			
DECE_2R[a]	All major decisions within the company are autonomously made by the CEO, and then communicated downwards.	0-1	0.44	0.50	0.892*			
DECE_3R[a]	All employees within the company directly report to the CEO (without using an intermediary).	0-1	0.64	0.48	-			
TOPL						1.458	0.756	0.861
TOPL_1	How often does the board of directors officially meet on an annual basis?	1-50	14.06	10.90	0.809*			
TOPL_2	How often does the management team officially meet on an annual basis?	6-60	35.75	16.42	0.927*			
AUTO							0.929	0.963
AUTO_1	Top-level leadership in our organization sometimes manipulates employees.	1-7	4.94	1.76	0.967*			
AUTO_2	Top-level leadership in our organization is very dominating.	1-7	4.94	2.05	0.961*			
LAIS							0.849	0.918

LAIS_1	Top-level leadership in our organization leaves employees alone to work.	1-7	4.44	1.57	0.958*		
LAIS_2	Top-level leadership in our organization transmits a sense of mission to employees	1-7	4.61	1.50	0.883*		
PART						0.864	0.962
PART_1	Top-level leadership in our organization encourages subordinates to participate in important decisions.	1-7	4.61	1.78	0.889*		
PART_2	Top-level leadership in our organization keeps informed about the way subordinates think and feel about things.	1-7	4.78	1.86	0.939*		
PART_3	Top-level leadership in our organization encourages employees to speak up when they disagree about decisions.	1-7	4.75	1.82	0.939*		
PART_4	Top-level leadership in our organization helps subordinates with personal problems.	1-7	4.64	1.92	0.949*		
PERF						0.895	0.944
PERF_1	In the last 3 years, our company has improved regarding profits.	1-7	4.72	1.46	0.947*		
PERF_2	In the last 3 years, our company has improved regarding return on assets.	1-7	4.81	1.37	0.945*		
Control variables							
SIZE	The number of fulltime employees	115-300	190.50	52.03			
EDUC	The highest educational degree obtained by the CEO of their company	1-5	3.31	1.37			
AGE	The number of years of incorporation of the company	4-46	25.64	13.37			

SD: standard deviation; VIF: Variance inflation factor; AVE: average variance extracted; CR: composite reliability
PROF: Professionalization; FINA: Financial Control Systems; NONF: Non-family Involvement in Governance Systems; HUMA: Human Resource Control Systems; DECE: Decentralization of Authority; TOPL: Top Level Activeness; PERF: Firm Performance; AUTO: Autocratic; LAIS: Laissez-faire; PART: Participative; SIZE: Firm Size; AGE: Firm Age; EDUC: CEO's Highest Educational Degree
*Significant at 0.05 (2-tailed)
[a] Anchored at 1 = agree and 0 = disagree.

Table 2: Correlations results

	AGE	AUTO	DECE	EDUC	FINA	HUMA	LAIS	NONF	PART	PERF	SIZE	TOPL
AGE	1											
AUTO	0.158	1										
DECE	0.145	-0.259	1									
EDUC	0.159	-0.009	-0.057	1								
FINA	0.01	-0.196	0.626	-0.202	1							
HUMA	0.223	0.01	0.544	0.021	0.687	1						
LAIS	-0.162	0.203	-0.117	-0.07	-0.213	-0.094	1					
NONF	0.008	-0.047	0.614	-0.118	0.771	0.607	-0.139	1				
PART	0.382	0.207	0.142	0.187	0.171	0.384	-0.086	0.093	1			
PERF	0.034	0.116	0.313	0.038	0.579	0.657	0.088	0.404	0.407	1		
SIZE	0.119	0.111	-0.013	0.295	0.189	0.311	0.29	0.205	0.072	0.48	1	
TOPL	-0.167	-0.163	0.361	0.101	0.55	0.306	-0.402	0.411	0.034	0.353	0.192	1

Table 3. Statistical measures of nomological models to assess formative construct

Relationship			T-value	R-square
TOPL	→	PROF	11.026 ~~10.73~~	
FINA	→	PROF	24.586 ~~21.479~~	
HUMA	→	PROF	14.237 ~~12.207~~	
DECE	→	PROF	11.398 ~~12.522~~	
NONF	→	PROF	20.977 ~~21.213~~	
PROF	→	~~Formalization~~PERF	10.236~~26.474~~	0.346~~0.534~~
~~formalization~~PERF	→	PERF1~~Monitor of employee~~	181.019 ~~23.268~~	
~~formalization~~PERF	→	PERF2~~Regulation of monitoring work~~	153.610 ~~37.129~~	
~~formalization~~	→	~~Regulation of procedure~~	~~58.111~~	
~~formalization~~	→	~~Resource to ensure compliance~~	~~35..533~~	
~~formalization~~	→	~~Rule of behavior~~	~~19.964~~	

~~Table 4. Correlation of formalization with LOCs~~

	~~TOPL~~	~~FINA~~	~~HUMA~~	~~DECE~~	~~NONF~~
~~Formalization~~	~~0.454~~	~~0.644~~	~~0.515~~	~~0.579~~	~~0.698~~

Table ~~5~~4: VIFs inner values

	AGE	AUTO	EDUC	LAIS	PART	PERF	PROF	SIZE

AGE		1.292	1.313	1.269	1.116	1.252	1.31	1.25
AUTO	1.162		1.169	1.16	1.155	1.164	1.122	1.178
EDUC	1.279	1.267		1.229	1.217	1.271	1.224	1.09
LAIS	1.32	1.342	1.311		1.365	1.354	1.233	1.214
PART	1.381	1.59	1.546	1.625		1.328	1.624	1.504
PERF	2.311	2.39	2.409	2.405	1.981		1.766	2
PROF	1.86	1.772	1.783	1.684	1.863	1.358		1.85
SIZE	1.703	1.786	1.525	1.592	1.657	1.476	1.776	

Table ~~6~~5- VIFs values in the inner model

Construct	**PERF**	**PROF**
AGE	1.252	-
AUTO	1.164	1.101
EDUC	1.271	-
LAIS	1.354	1.062
PART	1.328	1.064
PROF	1.358	-
SIZE	1.476	-

Table ~~7~~6- Hypohteses testing results

Hypothesis	**Path**	**Path Coefficients**	**P Values**	**F^2**	**Hypothesis confirmation**
Direct effects					
H1a	AUTO -> PROF	-0.160	0.016	0.026	Supported
H1b	LAIS -> PROF	-0.167	0.016	0.029	Supported
H1c	PART -> PROF	0.219	0.001	0.050	Supported
H2a	AUTO -> PERF	0.082	0.070	0.014	Not Supported
H2b	LAIS -> PERF	0.067	0.163	0.008	Not Supported
H2c	PART -> PERF	0.350	0.000	0.224	Supported
H3	PROF -> PERF	0.457	0.000	0.373	Supported
-	AGE -> PERF	-0.159	0.003	0.049	-
-	SIZE -> PERF	0.359	0.000	0.212	-
-	EDUC -> PERF	-0.057	0.257	0.006	-
Indirect effects					
H4a	AUTO -> PROF -> PERF	-0.073	0.025	-	Supported
H4b	LAIS -> PROF -> PERF	-0.076	0.019	-	Supported
H4c	PART -> PROF -> PERF	0.100	0.002	-	Supported
Total effects					
	LAIS -> PERF	-0.01	0.860	-	Not Supported
	AUTO -> PERF	0.009	0.866	-	Not supported
	PART -> PERF	0.45	0.000	-	supported