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Family ownership, management and capital structure decisions: Evidence from Morocco

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Abstract. The purpose of this paper is to examine the effect of family involvement in ownership and management on debt policy of Moroccan listed firms adopting the socioemotional wealth (SEW) perspective. This study is conducted on a sample of Moroccan listed firms during the period from 2018 to 2022. The authors employed panel data analysis to investigate whether and how family involvement in ownership and management shapes firm's capital structure. Findings suggest that family ownership plays a key role in shaping a firm's capital structure insofar as it leads to higher levels of indebtedness. Nevertheless, having a family CEO does not significantly influence debt financing. This implies that family shareholders may indirectly influence decision-making through ownership, using their voting rights. Indeed, findings support assumptions of the socioemotional wealth theory (SEW) and suggest that family firms determine their capital structure by considering a combination of economic and non-economic factors, especially those related to control preservation. Additionally, findings show that the financing behavior of Moroccan listed firms aligns with the pecking order theory's assumptions. This study makes a novel contribution by examining the influence of family involvement on debt financing within the underexplored context of an emerging Arab African economy, thereby addressing a critical gap in the literature, which remains largely focused on developed markets. It also responds to recent scholarly calls for a more nuanced analysis of family firms' financing behavior through the lens of behavioral approaches. By drawing on the socioemotional wealth (SEW) perspective, this study offers new insights into the capital structure dynamics of family firms. The findings contribute to a deeper understanding of the financing behavior of family-controlled businesses, offering valuable implications for researchers, investors, and policymakers in comparable institutional contexts.

Keywords : *Family ownership; Family management; Socioemotional wealth; Debt policy; Capital structure; Corporate finance.*

1. Introduction

Family business research gained much attention during the last decade (Michiels and Molly, 2017), with an increased focus on financing decisions (Baixauli-Soler *et al.*, 2021; Michiels and Molly, 2017). Nonetheless, research on family firms' financial decisions remains limited (Chen *et al.*, 2014), and multiple research challenges still remain in this topic (Michiels and Molly, 2017). Indeed, prior studies mostly focused on explaining family firms' capital structure decisions from a purely economic perspective adopting the Pecking Order Theory (Myers and

Majluf, 1984) and the Trade-Off-Theory (DeAngelo and Masulis, 1980) (e.g. Oktavina *et al*. (2018), Bauweraerts and Colot (2012)). However, family firms are particular organizations, wherein non-economic factors play an important role in shaping corporate decisions (Gomez-Mejia *et al*., 2011). Therefore, traditional capital structure frameworks seem limited and inadequate for explaining family firms' financial policies, as they ignore the potential role of non-economic considerations in determining firm's corporate decisions (Baixauli-Soler *et al*., 2021; Michiels and Molly, 2017).

Indeed, family firm's financial behavior reveals a certain uniqueness and, unlike non-family firms, is determined by a combination of both economic and non-economic considerations (Gomez-Mejia *et al*., 2011). In this sense, Gallo *et al*. (2004) suggest that family firms have particular and unique financial logic that is determined by family's preference toward risk, control, and growth. Further, Koropp *et al*. (2014) argue that family firms' financial behavior is determined by non-economic aspects such as family's norms, attitudes and perceived behavioral control. As it seems, financial behavior of family firms is driven by a wide set of non-economic factors. This justify the calls of Michiels and Molly (2017) for investigating corporate financing decisions adopting behavioral theories in an attempt to enhance our overall understanding of family firms finance. In this context, socioemotional wealth (SEW), which refers to the set of non-financial aspects that meets the family's affective needs (Gómez-Mejía *et al*., 2007) gained an increased focus from the researcher community as a key driver of family firm's strategic behavior especially financing behavior (e.g. Baixauli-Soler *et al*. (2021), Molly *et al*. (2019)). In effect, SEW preservation play an important role in shaping firm's corporate decisions insofar as families are sensitive to the potential loss of their SEW which lead them to prioritize family-centered goals (Gomez-Mejia *et al*., 2011).

Following research directions of Michiels and Molly (2017), this paper analyzes the effect of family control and influence, assessed through family involvement in both ownership and management, on debt policy of Moroccan listed firms. Indeed, literature remains unconclusive regarding the relationship between family involvement and capital structure. For instance, Gottardo and Moisello (2019) shows that family ownership has a positive influence on firm indebtedness. Those findings are in line with results of ElBannan (2017). On the contrary, the study by Poletti-Hughes and Martinez Garcia (2022) suggests that family firms tend to decrease their leverage once their SEW needs are fulfilled through high family ownership level. Furthermore, Quiddi and Habba (2021) shows that family ownership does not have any influence on capital structure of public large firms. Thus, literature is far from establishing a consensus about the nature of the relationship between family involvement and firm's capital structure. The understanding of family firms' financial behaviors is, indeed, still challenging.

To fill this gap, this paper explores the effect of family involvement on capital structure decisions of Moroccan listed firms and provides insights about the relevancy of SEW perspective in explaining debt policy of public firms. In recent years, there has been a growing research interest in examining corporate finance issues within Moroccan and Arab African family firms (Boumlik *et al*., 2024; 2025; Cherkaoui and Dembele, 2023). However, significant challenges remain in fully understanding the dynamics of financing decisions in these contexts. To address this gap, our study focuses on a sample of 55 large firms listed on the Casablanca Stock Exchange (CSE) over the period 2018–2022.

Morocco, as an emerging economy, is rapidly recovering from the impact of the COVID-19 crisis. Notably, the country has achieved a remarkable GDP growth of 7.9% in 2021, surpassing the global economic growth rate of 6% and returning to its pre-pandemic levels (Worldbank, 2023). The Kingdom's capital market Casablanca Stock Exchange (CSE) ranks among the largest in Africa. Its capitalization stood at 561 billion MAD by the end of 2022, experiencing

a decrease from 691 billion MAD at the close of 2021(AMMC, 2023). The market comprises 76 listed firms and presents a market capitalization to GDP ratio of 43.1% (AMMC, 2023). Regarding debt, the total raised in private debt capital reached 64 billion MAD in 2022, marking an increase from 60 billion MAD in 2021 and representing a growth of 6.7%.

Indeed, this study offers valuable insights into the debt policy of listed firms in Morocco, thereby making a noteworthy contribution to the literature on corporate financing decisions in emerging markets. Unlike most prior research that has focused on developed economies, this paper provides novel evidence from Morocco, where family businesses play a central role in the economy. Yet, little do we know about the financing behavior of Moroccan family firms, as only limited research efforts have been devoted to this issue. Furthermore, this study enhances the existing literature on corporate finance of family firms by presenting empirical evidence on the impact of family ownership and involvement in CEO position on capital structure decisions. This dual perspective on ownership and management allows us to disentangle their respective effects, thereby addressing ambiguity in prior findings and contributing to a more nuanced understanding of how family involvement shapes financing behavior. Additionally, the study sheds light on the relevance of the SEW perspective in explaining the capital structure of family firms. Overall, the paper extends both the theoretical and empirical boundaries of family business research by showing how socioemotional wealth considerations interact with ownership and management structures to influence debt policy in an emerging economy. Moreover, the study identifies the key firm-level determinants of corporate debt policy, enhancing our understanding of capital structure decisions within Moroccan listed firms. Finally, investors and analysts can benefit from these insights to better anticipate financing choices in family firms and evaluate their potential impact on firm value.

The paper is structured as follows. Section 1. presents literature review and hypothesis development. Section 2 outlines the research method and materials. Section 3 presents the study's results. Discussion is presented in section 4, and a general conclusion is presented at the end of the paper.

2. Literature review and hypothesis development

a. Traditional capital structure theories

The question of how firms determine their capital structure has long been a central issue in corporate finance, particularly since the seminal work of Myers (1984), *The Capital Structure Puzzle*. Despite extensive theoretical and empirical contributions, a unified consensus on the optimal corporate debt policy remains elusive (Colot and Croquet, 2007). In addressing this complex question, traditional financial theories, namely the trade-off theory, agency theory, and the pecking order theory, offer essential insights by identifying the key determinants shaping firms' financing decisions.

The static trade-off theory (TOT) suggests that firms seek an optimal capital structure that balances the benefits and costs associated with debt financing (Myers, 1984). Indeed, debt generates tax shields by reducing taxable income, thereby potentially increasing firm value. However, the use of debt also exposes firms to financial distress and bankruptcy risk, especially when earnings are insufficient to meet fixed obligations. The bankruptcy costs, including legal and administrative expenses and reputational damage, can significantly impair firm performance (Kartobi, 2013).. In this vein, Myers (1984) argues that firms facing high risk should limit leverage, while healthier firms can borrow up to the point where the marginal tax benefit is offset by the marginal expected bankruptcy cost.

Building on a similar economic rationale, agency theory introduces the role of agency conflicts into capital structure choices (Jensen and Meckling, 1976). In firms where ownership and

control are separated, managers may act in their own interest rather than in that of shareholders, leading to inefficiencies. Debt can function as a disciplinary mechanism by imposing mandatory financial commitments that constrain managerial discretion and reduce the free cash flow available for potentially wasteful expenditures (Jensen, 1986). In doing so, debt enhances corporate governance and helps align managerial actions with shareholder interests.

However, debt also introduces agency costs stemming this time from the conflict between shareholders/managers and creditors. Indeed, shareholders and managers acting in their interests may pursue high-risk projects financed by debt, capturing the upside benefits while transferring much of the downside risk to creditors (Lasfer, 1995). Anticipating such behavior, lenders often require higher interest rates or stricter covenants, which increases the cost of borrowing. Firms are thus compelled to weigh agency costs of debt and those of equity when determining their capital structure (Chakraborty, 2010).

In contrast to the TOT and agency perspectives, the pecking order theory (POT) offers a more behavioral and informational lens. It posits that firms follow a hierarchical order of financing preferences as they first use internal funds, then resort to debt, and turn to equity issuance only as a last resort (Chalençon and Marion, 2021). This preference order is primarily driven by information asymmetry problems and the consequent transaction costs. Indeed, internal financing is associated with negligible transaction costs and no information disclosure requirements, making it the most cost-effective option. In contrast, external financing, particularly equity issuance, is costly and often interpreted by the market as a negative signal regarding firm value (Emery et Finnerty, 1997, cité dans Vasiliou *et al*. (2009).

In effect, equity issuance is the least preferred financing option under POT due to its dilutive effects on ownership and firm valuation. Debt, despite its associated costs (e.g., interest payments, collateral, and administrative fees), tends to signal a firm's ability to meet obligations. This is consistent with Myers (1984)' principle to "issue safe securities before risky ones.". Firms with ample internal resources are thus unlikely to seek external capital, making retained earnings the most favored source of financing (Chen and Chen, 2011)

Overall, classical financial theories have significantly advanced our understanding of capital structure decisions. Nonetheless, the distinctive characteristics and complexities inherent in family firms necessitate the incorporation of alternative behavioral frameworks to deepen insights into their financial policy choices.

b. Family involvement and debt financing: a socioemotional wealth perspective

The SEW can be defined as the set of affective values that a family derives from its control and ownership of a business (Vandemaele and Vancauteren, 2015). Gómez-Mejía *et al*. (2007) assert that SEW can take many forms including the ability to exercise authority, the satisfaction of belonging needs, the preservation of family dynasty, the preservation of social capital, etc. According to Gómez-Mejía *et al*. (2007), SEW preservation is the first point of reference for the family business. Although there has been significant progress in researching the SEW of family businesses, there is a lack of consensus on how to interpret the structure and operationalize the SEW concept (Reina *et al*., 2022). Indeed, there is currently no universal consensus on the meaning of SEW (Brigham and Payne, 2019). The literature tends to consider that SEW refers to non-economic or non-financial aspects that satisfy family's needs (Reina *et al*., 2022). The definition that is widely accepted in the literature is the one proposed by (Gómez-Mejía *et al*., 2007): "*By socioemotional wealth, we refer to non-financial aspects of the firm that meet the family's affective needs, such as identity, the ability to exercise family influence, and the perpetuation of the family dynasty*". (P.106)

Berrone *et al*. (2012) propose that SEW is inherently multidimensional. They introduce the FIBER model as both an analytical framework and an operationalization method for this intricate concept of SEW. Fiber's model comprises five dimensions of socioemotional wealth which are family control and influence, family identification with the firm, emotional attachment, binding social ties and renewal of family bonds through dynastic succession. Indeed, Zellweger *et al*. (2012) argue that family control is critical for creating, maintaining, and enhancing SEW because it enables family members to pursue family-centered goals. Further, Gómez-Mejía *et al*. (2007) contend that generating SEW is only possible when family members exert control over the business.

i. Family involvement in ownership and debt financing

The socioemotional wealth (SEW) framework provides a powerful lens through which to understand the financial behavior of family firms. According to SEW theory, family businesses are not solely driven by economic or financial motives; rather, they are deeply attached to preserving non-financial aspects such as family control, the satisfaction of belonging needs, the preservation of family dynasty, etc. (Gómez-Mejía *et al*., 2007). Such non-financial priorities exert a significant influence on strategic decision-making, with notable implications for capital structure choices.

Consistent with the pecking order theory, the SEW theory suggests that family firms tend to prefer internal resources and, when external financing is unavoidable, opt for debt rather than issuing new equity, whether from within or outside the family (Jansen *et al*., 2023). As argued by (Blanco-Mazagatos *et al*., 2024), family members often use their influence to shape capital structure decisions in ways that maximize control and ensure the continuity of the family legacy. This tendency is especially pronounced when the firm's long-term succession is envisioned within the family. Indeed, unlike issuing equity, debt financing is a reversible decision, which gives family owners greater flexibility to adapt their financial strategy without permanently altering the ownership structure (Blanco-Mazagatos *et al*., 2024).

Furthermore, while debt may introduce some degree of creditors' monitoring, it does not fundamentally challenge the family's dominant role in governance and strategic decision-making. Conversely, issuing external equity will result in new shareholders imposing constraints on the pursuit of family-centered objectives, as non-family investors may prioritize short-term financial returns over long-term family goals (Blanco-Mazagatos *et al*., 2024). Hence, driven by SEW considerations, family firms often develop a positive attitude toward debt financing as a mechanism that aligns financial needs with control preservation.

Empirical findings lend substantial support to this theoretical proposition. For instance, the study by Ramalho *et al*. (2018), demonstrates that family ownership is positively associated with both the probability of using debt and the overall level of indebtedness in Portuguese firms. Similarly, the study by Gottardo and Maria Moisello (2014), based on 3,006 Italian firms, shows that family-owned medium and large firms exhibit significantly higher leverage levels compared to their non-family counterparts. Indeed, an important volume of literature reports a positive effect of family ownership on debt financing (i,e, (ElBannan, 2017; Gottardo and Moisello, 2019; Moussa, 2025)), suggesting a marked preference for debt financing in family firms compared to their non-family counterparts (Croci *et al*., 2011).

In the Moroccan context, empirical investigations into the relationship between family ownership and capital structure remain scarce. However, evidence from Rigar and Ougougil (2022) indicates that family-owned firms tend to exhibit higher leverage compared to their non-family counterparts. Similarly, the comparative analysis by Cherkaoui and Dembele (2023) highlights that public family firms maintain higher levels of debt relative to non-family firms.

While preliminary, these findings underscore the relevance of family ownership in shaping financing behavior, even in emerging market contexts where institutional environments differ from those of developed economies.

Taken together, both theoretical and empirical insights support the expectation that family ownership has a positive effect on leverage decisions. This is because debt financing serves as a strategic tool that allows family firms to meet their financial needs while safeguarding the socioemotional wealth dimensions that are central to their identity and long-term orientation. Therefore, we formulate the following research hypothesis:

Hypothesis 1. Family ownership stake has a positive impact on indebtedness of Moroccan listed firms

ii. Family CEO and debt policy

The presence of family members in executive positions has significant value for creditors (Gottardo and Moisello, 2019). Further, the literature suggests that the attachment of family members to the firm increases when the company is led by family members (Berrone *et al*., 2012). Indeed, appointing a family CEO enables the firm the ability of directly influence decisions making in family businesses (Berrone *et al*., 2012). Further, the presence of a family CEO would facilitate the pursuit of family-centered goals and avoidance of strategic decisions that may ham family's socioemotional wealth (Ginesti *et al*., 2023). In effect, a family CEO is more sensitive toward SEW preservation than an outsider. Consequently, family CEO is more likely to be risk averse to loss in SEW and especially with regard to the risk of losing control (Baixauli-Soler *et al*., 2021). Unlike family CEO, an outsider CEO is not concerned with SEW considerations and may prioritize economic goals and take more risk (Baixauli-Soler *et al*., 2021). Indeed, it is argued that a non-family CEO is more inclined to make decisions, including financing decisions, that prioritize the organization's best interests. Consequently, this reduces the influence of family-centered objectives on decision-making (Jansen *et al*., 2023). Indeed, the active involvement of family members in management appears to be a critical factor, as family ownership alone does not necessarily affect leverage ratios in family firms. It is specifically the participation of family members in managerial roles, whether as board members or CEOs, that significantly shapes the firm's leverage decisions (Ampenberger *et al*., 2013).

Nonetheless, the literature offers no clear consensus on whether family involvement in management leads to higher or lower levels of debt financing. Moreover, theoretical arguments concerning the leverage of family-managed firms point in contrasting directions (López-Delgado and Diéguez-Soto, 2020), reflecting the complexity and context-dependent nature of this relationship. One perspective suggests that family-managed firms are more likely to maintain low levels of debt. This view is grounded in the assumption that the disciplinary role of debt is less relevant in family firms, as family members involved in management are presumed to act as stewards and to prioritize the interests of the family. Consequently, the traditional agency conflict between owners and managers is mitigated, reducing the need for debt as a governance mechanism (Jensen and Meckling, 1976; López-Delgado and Diéguez-Soto, 2020; Memili *et al*., 2016). A substantial body of scholarly research lends support to this perspective. For instance, the study by Ginesti *et al*. (2023) shows that the presence of a family CEO has a negative effect on long term debt. Similarly, the study by Baek *et al*. (2016) suggests that the positive association between family ownership and debt financing is offset by family control through occupation of the CEO position. In the same line, the study by Ampenberger *et al*. (2013) demonstrates that family management is the major determinant of debt financing decisions in family firms. Specifically, the study suggests that founder CEO has a strong negative effect on the debt financing among German firms.

The opposite perspective, indeed, suggests that family-managed firms are likely to increase debt financing insofar as debt financing enables the preservation of family control and influence over the firm (López-Delgado and Diéguez-Soto, 2020). In effect, the desire to ensure intergenerational succession and maintain the strategic benefits of family control compels families to actively defend their controlling stake in the business. In this vein, the study by Moussa (2025) demonstrates that the presence of family and founder CEOs, particularly when coupled with CEO duality, tends to increase the firm's use of debt financing, reflecting a strong need to maintain control and to preserve family dominance over the firm.

The positive association between family management and debt financing can further be attributed to the privileged access to external funding that family-managed firms typically enjoy, particularly through reduced borrowing costs (Gill *et al*., 2022). Indeed, The presence of family members in executive positions has significant value for creditors (Gottardo and Moisello, 2019). For instance, the study by Li *et al*. (2021) demonstrates that family involvement in management can function as a substitute for costly external auditing in alleviating creditors' concerns regarding risk, thereby contributing to a reduction in the cost of debt. Specifically, family involvement helps mitigate information opacity, which in turn enhances lenders' confidence and lowers the cost of debt.

Overall, both theoretical frameworks and empirical findings offer conflicting insights regarding the impact of family management on debt financing. However, we expect that in the Moroccan context, this relationship is likely to be positive, as family firm managers tend to prioritize family-centered goals over purely economic considerations. This is particularly relevant in the case of listed firms, where ownership is relatively dispersed compared to private firms, in which family ownership is more strongly protected. In public family firms, the risk of losing control is more pronounced. Given the sensitivity of family members toward maintaining control and influence, we expect that family managers are more inclined to rely on debt financing rather than issuing equity in order to safeguard the family's power and control. Accordingly, the following hypothesis is proposed:

Hypothesis 2. The presence of a family CEO has a positive impact on indebtedness of Moroccan listed firms

3. Materials and methods

a. Sample and Data sources

This study explores the impact of family involvement in ownership and management on the debt financing of companies listed on the Casablanca Stock Exchange (CSE) in Morocco. The Moroccan capital market comprises 76 firms and ranks as one of the largest financial markets in Africa. This study investigates the effect of family involvement on corporate debt levels using secondary data collected from multiple sources. Information on ownership and management structures was manually retrieved from annual reports published on firms' official websites and the Moroccan Capital Market Authority (AMMC) platform. Financial and accounting variables were obtained from the Orbis database, provided by Moody's Analytics (formerly Bureau van Dijk). The analysis covers Moroccan publicly listed firms over the 2018–2022 period.

The initial sample consisted of 76 firms but was subsequently reduced to 55 after excluding financial companies based on their Nace Rev 2. activity classification code and those with missing information. Despite the restricted size of our sample, it meets the recommended minimum of 5 observations per independent variable as proposed by Hair (2010), ensuring adequacy for statistical tests with sufficient statistical power. Moreover, this sample has been the subject of numerous recent studies in the field of corporate finance (Boumlik *et al*., 2023;

Jabbouri and Jabbouri, 2021).

b. Variables

The core dependent variable in this study is the firm's level of indebtedness. Both market leverage ratio and book leverage ratio have been used in capital structure literature. In this study, we adopt the book debt ratio insofar as is reflects the real level of indebtedness regardless of market fluctuations considered in the market leverage ratio (Haider *et al*., 2021). Therefore, we capture firm indebtedness using the total debt ratio (***TD***), measured as the total amount of debt scaled by total assets (Baixauli-Soler *et al*., 2021; Gottardo and Moisello, 2019).

Family involvement is captured through two alternative proxies. The first variable is related to family's involvement in ownership (***FAM_OWN***). It is measured by the percentage of shares held by family members or individuals in each firm (ElBannan, 2017; Gottardo and Moisello, 2019; Villalonga and Amit, 2006). The second variable is related to family involvement in management and is captured by the presence of a family CEO in a family-owned firm. It is measured by a dummy variable (***FAM_CEO***) that takes the value of 1 when the CEO is a family member and 0 otherwise following (Li *et al*., 2021). In this study, a firm is classified as a family firm if a family is the largest shareholder, holding more than 20% of the voting rights (Sener, 2014).

Consistent with prior empirical research on the determinants of the capital structure of family businesses (Baixauli-Soler *et al*., 2021; Ginesti *et al*., 2023; Jansen *et al*., 2023), we incorporate the following control variables: Firm profitability, liquidity, assets tangibility, growth opportunities, firm age and firm size. Firm's profitability is expected to have a negative association with firm's leverage insofar as profitable firm would rely on earnings to finance investments (Villalonga and Amit, 2006). Liquidity is considered insofar as it reflects internal resources availability (Jansen *et al*., 2023). Assets tangibility is measured by the tangible fixed assets to total assets (Baixauli-Soler *et al*., 2021). Further, literature shows that Growth opportunities have a significant influence on capital structure (Díaz-Díaz *et al*., 2016). Growth opportunities are measured by the Tobin's Q ratio (Chou *et al*., 2009). Firm size in natural logarithm of total assets (Baixauli-Soler *et al*., 2021; Li *et al*., 2021). It is expected to be positively associated with debt as large firms have better access to external financing as they are transparent. Firm age is included as a determinant of capital structure, measured by the number of years since its establishment (Ginesti *et al*., 2023).

Moreover, we use industry dummies and year dummies to control respectively for industry effect and time effect. The following Table I. presents research variables.

Table I. Variables

Variables	Definition	Measurement	Source
Td	Debt policy	Total debt divided by total assets	Gottardo and Moisello (2019)
Fam_own	Family ownership	The percentage of shares held by family members or individuals	(ElBannan, 2017; Gottardo and Moisello, 2019; Villalonga and Amit, 2006)
Fam_ceo	Family management	Dummy variable that equals 1 if the CEO is a family member, and zero otherwise.	Baixauli-Soler *et al*. (2021)
Roa	Profitability	Operating income to total assets	Villalonga and Amit (2006)
Liq	Liquidity	Current assets to current liabilities	Alipour *et al*. (2015)
Growth	Growth opportunities	Ratio of the firm's market value to total assets (Tobin's Q ratio)	Chou *et al*. (2009)
Tang	Assets tangibility	Tangible assets divided by total assets.	Baixauli-Soler *et al*. (2021)
Age	Firm age	Number of years since foundation	Ginesti *et al*. (2023)
Size	Firm size	Natural logarithm of total assets	Li *et al*. (2021)

Source: Authors' own work

c. Estimation techniques

This study uses panel data regression to analyze the effect of family involvement on debt financing. Fixed and random models were performed and Hausman test was carried out to choose the estimation model that fits better our data. For the first model that includes control variables only (Model 1), fixed-effect model is the most suitable for model estimation, as evidenced by the significance revealed in the Hausman test at 1%. Additionally, a heteroskedasticity test was conducted using the Xttest3 command in Stata 13 to examine whether our data violates the assumption of homoskedasticity. The results indicate that our data exhibit issues of heteroskedasticity. Therefore, we employed the option Vce (robust) in Stata. For the second model (2), where we added to the control variable the first independent variable family ownership (*FAM_OWN*), Hausman test indicated that random effects model is the most appropriate. Regarding the third model (Model 3), which includes control variables as well as the independent variables (*FAM_OWN*) and (*FAM_CEO*), the random effects specification was deemed the most appropriate. This choice is primarily due to the limited within-firm variation observed in the (*FAM_CEO*) variable over the relatively short study period.

Thus, our main model is as follows:

$$TDit = \alpha i + \beta 1FAM\_OWNit + \beta 2FAM\_CEOit + \beta 3Roait + \beta 4Growthit + \beta 5tangit + \beta 6Liqit + \beta 7ageit + \beta 8sizeit + \beta 9industrydummyit + \beta 10yeardummy + \mu it$$

Where *i* and *t* denote the cross-sectional and temporal dimensions of our data, respectively.

4. Results

a. Descriptive statistics

Table II presents descriptive statistics for the dataset. The mean value of our dependent variable, TD, is 55,5%, suggesting that the capital structure of Moroccan listed firms is marked by a significant proportion of debt financing. In our sample, family ownership has a mean value of 23%, consistent with the family ownership mean value (21%) reported by Quiddi and Habba (2021) for large firms in North Africa.

Table II. Descriptive Statistics

Variable	Mean	Std. Dev.	Min	Max
TD	55,5	29,3	3,3	220,5
ROA	3.255	8.082	-52.511	22.178
SIZE (Value)	12.191	1.549	8.636	15.781
GROWTH	1.119	0.973	0.03	5.082
LIQ	140,3	117,2	20,4	826,3
TANG	26.224	26.935	-39.064	127.938
AGE (Value)	49.071	27.147	2	103
FAM OWN	23,8	27,4	0	75,2
FAM CEO	28,6	45,3	0	100

Note. All values are expressed as percentages, except where otherwise indicated

Source: Authors' own work

b. Correlation and multicollinearity analysis

The correlation matrix presented in Table III. indicates that family ownership and family CEO exhibit positive associations with firm leverage, suggesting that family involvement is typically linked to higher levels of debt. Further, a strong negative association is pronounced between firm's profitability and indebtedness indicating that profitable firms would use less debt as suggested by the pecking order theory.

Moreover, significant negative associations were pronounced between growth opportunities, liquidity and tangibility with indebtedness. While firm age and firm size present negative, yet insignificant associations with firm debt level.

Table III. correlation matrix

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) TD	1.000								
(2) ROA	-0.629***	1.000							
(3) SIZE	-0.064	0.153**	1.000						
(4) GROWTH	-0.425***	0.604***	0.113*	1.000					
(5) LIQ	-0.522***	0.234***	-0.342***	0.161***	1.000				
(6) TANG	-0.352***	0.273***	-0.063	0.273***	0.142**	1.000			
(7) AGE	-0.048	0.067	-0.165***	0.089	-0.061	-0.079	1.000		
(8) FAM_OWN	0.277***	-0.148**	-0.145**	-0.168***	-0.084	0.020	-0.245***	1.000	
(9) FAM_CEO	0.209***	-0.126**	-0.160***	-0.123**	-0.007	-0.024	-0.165***	0.696***	1.0
*** p<0.01, ** p<0.05, * p<0.1									

Source: Authors' own work

As correlation and multicollinearity are not the same and that the later could not be assessed only through correlation analysis, there can still be multicollinearity issues even though all correlation coefficients are low (Alin, 2010). Hence, Variance Inflation Factor (VIF) test is performed to profoundly analyses multicollinearity. In effect, the correlation coefficient between family ownership and family CEO variables reported in the correlation matrix indicate a strong positive association (0,69). Therefore, VIF test is necessary to ensure that our dataset does not suffer from multicollinearity issues and that we can include all regressors simultaneously in the model (3). Vif's results are reported in the following Table IV. Indeed, all VIF values are under the threshold of 10 suggested by (Alin, 2010). Therefore, multicollinearity is not an issue in our dataset.

Table IV. Variance inflation factor

	VIF	1/VIF
FAM OWN	2.053	0.487
FAM CEO	1.979	0.505
GROWTH	1.688	0.593
ROA	1.672	0.598
LIQ	1.419	0.705
SIZE	1.403	0.713
AGE	1.154	0.867
TANG	1.135	0.881
Mean VIF	1.563	.

Source : Authors' own work

To go further in causality analysis, regression models were estimated and presented in the following subsection.

c. Regression results

The following Table V reports results of the panel data analysis. The models exhibit a strong explanatory power. Specifically, Model 1 presents a within R-squared of 49,8%, while Models 2 and 3 report overall R-squared values of 54,9% and 55%, respectively. These results suggest that the independent variables included in the analysis are highly relevant in explaining the variation in firms' debt financing. Furthermore, the robustness of the model specifications is confirmed by the statistical significance of the F-test and the Wald chi-squared test, both of which are significant at the 1% level. This provides strong evidence supporting the overall adequacy and reliability of the estimated models.

Table V. Panel data regression results

	(1)	(2)	(3)
VARIABLES	Fixed effects model	Random effects model	Random effects model
FAM_OWN		0.133*	0.159*
		(0.075)	(0.090)
FAM_CEO			-0.027
			(0.071)
ROA	-0.006***	-0.007***	-0.007***
	(0.002)	(0.002)	(0.002)
SIZE	0.207***	0.013	0.014
	(0.063)	(0.016)	(0.016)
GROWTH	-0.015	-0.028**	-0.028**
	(0.009)	(0.012)	(0.012)
LIQ	-0.035**	-0.055***	-0.054***
	(0.014)	(0.014)	(0.014)
TANG	-0.006***	-0.002***	-0.002***
	(0.002)	(0.001)	(0.001)
AGE	0.007*	0.001	0.001
	(0.004)	(0.001)	(0.001)
Industry effect	YES	YES	YES
Year effect	YES	YES	YES
Constant	-2.107***	0.505**	0.502**
	(0.748)	(0.224)	(0.225)
Within	0.498	_____	_____
F-test	8.37***	_____	_____
R-squared	_____	0.549	0.550
Wald Chi 2		70.44***	71.73***
Observations	246	246	246
Number of id	55	55	55

Source: Authors' own work, *** *p<0.01*, ** *p<0.05*, * *p<0.1*

The findings presented in Table V (Columns 2 and 3) indicate that family ownership has a statistically significant effect on firms' indebtedness at the 10% significance level. Specifically, the coefficients for family ownership are (0.133*) and (0.159*) in Columns 2 and 3, respectively, making them the highest among the estimated coefficients of the explanatory variables. This suggests a strong positive relationship between family ownership and debt financing, thereby supporting Hypothesis H1, which posits that family involvement through

ownership leads to greater reliance on debt. This result may reflect the fact that family owners, while aiming to retain control and avoid equity dilution, may turn to debt as a preferred external financing option.

In contrast, the results show that family involvement in the CEO position is negatively associated with firms' indebtedness, although this relationship is statistically insignificant. As a result, Hypothesis H2 is not supported. This finding suggests that while family control through ownership appears to influence capital structure decisions, occupying a top executive role, such as CEO, does not exert a meaningful impact on the firm's leverage policy. One possible interpretation is that strategic financing decisions may be more influenced by ownership rights and control over equity than by managerial roles, particularly in contexts of public firms where ownership and management are separated or when broader governance mechanisms constrain CEO discretion.

The results reveal that both profitability and liquidity exert a significant negative influence on debt financing, supporting the predictions of the pecking order theory. Specifically, profitability shows a strong and robust negative association with leverage (0.006***). This suggests that more profitable firms tend to rely less on external debt, as they are able to finance their activities through retained earnings. This preference is particularly salient in family firms, which often prioritize financial autonomy and risk aversion. Similarly, liquidity is negatively associated with debt financing, with a coefficient of (-0.035**) in the first model, indicating that firms with greater internal financial resources are less inclined to issue debt. This pattern reflects a financing behavior commonly observed in family-owned firms, which tend to avoid external financing when sufficient internal funds are available (Jansen *et al*., 2023). Notably, the negative effects of both profitability and liquidity remain statistically significant across all three models, underscoring their consistent role in shaping capital structure decisions.

Asset tangibility also shows a significant negative effect on debt financing, with a coefficient of (-0.006***), which rejects the traditional predictions of agency cost theory. According to this theory, tangible assets serve as collateral, thereby reducing the risk faced by creditors and facilitating easier access to external financing at lower costs. Consequently, firms with higher asset tangibility are theoretically expected to hold higher levels of debt.

Growth opportunities do not show a significant effect on debt financing in Model 1, where only control variables are included (-0.015), suggesting that, in general, Moroccan listed firms do not base their financing decisions on the presence of growth opportunities. However, the relationship becomes significantly negative in Models 2 and 3, following the introduction of the family involvement variables (family ownership and family CEO). The significance of this relationship in the presence of family variables suggests that family governance plays a key role in conditioning how firms respond to investment opportunities in terms of financing strategy.

In addition, firm size is the most significant explanatory control variable in Model 1, with a coefficient of (0.207***), indicating a strong positive relationship with debt financing. This aligns with the view that larger firms tend to have higher levels of indebtedness due to their greater diversification, better ability to provide collateral, and lower perceived risk by creditors. Likewise, firm age shows a positive and significant coefficient (0.007*), suggesting that older firms rely more on debt financing, possibly because of their established credit history and accumulated trust. However, when family involvement variables are introduced in subsequent models, the effects of both firm size and firm age become statistically insignificant. This attenuation may suggest that family-related variables absorb part of the explanatory power initially attributed to size and age. Indeed, family firms often operate under distinct strategic and financing logics, driven essentially by socioemotional wealth considerations, that may

override the conventional influence of structural firm-level characteristics. As such, once family ownership or management is accounted for, the marginal effect of being larger or older may no longer significantly explain debt financing behavior.

5. Discussion

This article investigates how family involvement in both ownership and management shapes capital structure decisions, drawing on the socioemotional wealth (SEW) perspective. The findings confirm Hypothesis H1, indicating that family involvement in ownership is positively associated with firm indebtedness. This result aligns with the evidence presented by ElBannan (2017), who reported a positive relationship between family ownership and leverage in large Egyptian firms. Furthermore, our findings are consistent with those of Gottardo and Moisello (2019), who showed that the *family control and influence* dimension of SEW, as conceptualized by Berrone *et al*. (2012) and captured through family ownership, has a significant positive effect on firms' indebtedness. These results are also in line with the empirical evidence reported by Cherkaoui and Dembele (2023) and by Rigar and Ougougil (2022)., further reinforcing the conclusion that family ownership plays a critical role in shaping corporate financing strategies in emerging market contexts.

Nonetheless, our findings contradict those of Boumlik *et al*. (2023)and (Quiddi and Habba, 2021), who report that family ownership does not significantly affect capital structure decisions among publicly listed firms in North Africa. This divergence may be attributed to differences in sample characteristics and the distinct institutional and governance contexts across the region. Such differences underscore the importance of carefully accounting for contextual specificity when assessing the role of family ownership in corporate financing.

Overall, our results align with existing literature (Cherkaoui and Dembele, 2023; Rigar and Ougougil, 2022) and substantiate the control preservation perspective in family firms. Within the Moroccan context, where family firms are widespread and place a premium on maintaining control, the preference for debt appears as a deliberate mechanism to avoid ownership dilution. Consistent with Gottardo and Moisello (2019), our findings indicate that family firms are willing to bear heightened bankruptcy and default risks associated with increased leverage, as their risk assessment incorporates not only financial considerations but also non-monetary benefits. This confirms conclusions by Gómez-Mejía *et al*. (2007), who asserted that SEW serves as the primary reference point for family businesses. In effect, when the family's socioemotional endowment is threatened, decisions may be guided less by economic rationale and more by the desire to safeguard that endowment, even if doing so involves exposing the firm to significant risk (Berrone *et al*., 2012). Accordingly, the socioemotional wealth framework aligns with the logic of the pecking order theory in the context of family firms, where internal financing is preferred, and when external funding becomes necessary, debt is typically favored over equity, as it allows families to maintain control and avoid diluting their ownership stake.

Another possible explanation for our findings lies in the fact that family firms are perceived to be risk averse, to have a long-term vision and to better protect bondholders' rights which results in reducing agency costs of debt as suggested by Anderson *et al*. (2003). Consequently, they have better access to debt financing which may enhance their debt ratios. However, evidence from Jabbouri *et al*. (2019), based on a sample of Moroccan listed firms, indicates that family ownership does not significantly influence the cost of debt. This suggests that, despite not enjoying preferential borrowing terms, family firms in Morocco still exhibit a higher reliance on debt financing. Such behavior is indicative of a conscious effort to safeguard family control and preserve socioemotional wealth (SEW), underscoring that their financing choices are

motivated more by the desire to protect non-financial family interests than by financial incentives.

Our findings further indicate that the appointment of a family CEO does not exert a significant impact on the firm's level of indebtedness. This is surprising as previous literature widely documented a significant association between family management and firms' indebtedness (Ampenberger *et al*., 2013; Ginesti *et al*., 2023; Moussa, 2025). This suggests that family influence over financial decision-making may be predominantly exercised indirectly through ownership structures, whereby family members leverage their voting rights to shape board decisions and strategic outcomes (Gottardo and Moisello, 2019). This dynamic is particularly evident in publicly listed firms, where the separation between ownership and management, alongside governance mechanisms that restrict CEO discretion, elevates the board of directors as the principal mechanism through which family control is exercised over strategic financial decisions.

Regarding firm-level determinants of capital structure, findings show that the financing behavior of Moroccan listed firms tends to support assumptions of the pecking order theory. Indeed, results indicate a significant negative association between profitability and firm's debt level. This finding is consistent with the literature (Baek *et al*., 2016; López-Delgado and Diéguez-Soto, 2020), which suggests that profitable firms tend to rely more heavily on internal resources rather than external financing. This preference for internal financing is pronounced also through the negative association between firm's liquidity and debt ratio. This is in line with the findings by (Boumlik *et al*., 2023; Gottardo and Moisello, 2019). Moreover, a noteworthy negative relationship has been identified between growth opportunities and a firm's indebtedness. This implies that Moroccan publicly listed firms might choose to forgo the opportunity rather than resort to issuing debt. Further, an unexpected negative relationship emerged between asset tangibility and the level of debt. This result aligns with the findings of (Comino-Jurado *et al*., 2021). Such an outcome is surprising, as tangible assets are generally considered valuable collateral for creditors, which theoretically reduces their risk exposure and the cost of debt, thereby encouraging higher leverage.

Firm size exerts a positive influence on leverage, reflecting benefits such as greater diversification, enhanced collateral capacity, and reduced credit risk. This is in line with previous literature (Ampenberger *et al*., 2013; Boumlik *et al*., 2023; López-Delgado and Diéguez-Soto, 2020). Findings also confirms that older firms are likely to have increased debt financing. This corroborate findings by Ampenberger *et al*. (2013), and suggests that mature firms are likely to develop larger debt capacity compared to younger firms.

Overall, Moroccan listed firms tend to adopt a financial conservatist behavior as they rely on more use of internal financing rather than issuing debt even though they are facing interesting growth opportunities, and they present sufficient collaterals. Nonetheless, when external financing is unavoidable, debt remains the preferred option.

6. Conclusion, implications and future research directions

This study investigated the influence of family involvement in both ownership and management on the corporate financing policies of Moroccan listed firms. Employing fixed and random effects panel data regressions, the findings reveal a significant positive relationship between family ownership and the level of debt financing, underscoring the pivotal role of family shareholders in capital structure decisions. In contrast, family involvement in the CEO position was found to have no statistically significant effect on firms' capital structure choices, indicating that managerial family ties alone do not substantially influence financing behavior. These results suggest that the family's control over financial decision-making primarily

operates through ownership and voting rights rather than through managerial roles.

The findings lend strong support to the socioemotional wealth (SEW) theory, which posits that family firms are willing to undertake greater economic risk by increasing leverage to preserve their socioemotional endowments. This reinforces the relevance of SEW as a theoretical framework for understanding the financing behavior of family businesses. Additionally, the study confirms that Moroccan listed firms generally adhere to the pecking order theory, as evidenced by the negative relationship between profitability, liquidity, and leverage, reflecting a preference for internal over external financing sources.

Indeed, the results highlight that capital structure decisions in Moroccan listed firms are influenced by a blend of economic and non-economic factors. This interplay likely differentiates family firms from non-family firms, as well as creates heterogeneity within family firms themselves, depending on the relative emphasis they place on pursuing socioemotional objectives alongside financial goals.

This study contributes to literature in several ways. First, it provides new insights into the relationship between family involvement and corporate financing decisions contributing therefore to family firms finance literature in emerging markets. Indeed, research on family businesses is underdeveloped in emerging and Arab countries due to several challenges out of which the difficulty in accessing data (Basly, 2017), especially with regard to corporate finance. Thus, the little knowledge do we have is based on models, conclusions and theories established in developed economies, which often fail when tested in emerging market (Bekaert and Harvey, 2003; Jabbouri, 2016). This paper offers empirical evidence from an emerging Arab African country, thereby contributing to the existing literature and providing researchers with a comprehensive understanding of the impact of family involvement on debt policy. However, we note that the magnitude and nature of this relationship are likely contingent upon country-specific factors, including institutional frameworks and cultural norms regarding family ownership. Hence, while our findings elucidate key dynamics in Morocco, caution is warranted in extrapolating them to other contexts without a nuanced understanding of local conditions. Further, this study is a response for calls of Michiels and Molly (2017) for investigating financial behavior of family firms adopting behavioral theories to enhance our overall understanding of financial policies of family businesses. Indeed, we provide evidence supporting the assumptions of the SEW theory and highlight its convergence with the POT when explaining capital structure decisions in family businesses.

Beyond its theoretical contributions, this study provides actionable insights for financial stakeholders and managers of family firms. Our results indicate that family-controlled firms are more likely to rely on debt to preserve family control and influence. For managers, this highlights the importance of carefully balancing debt levels to maintain family influence while ensuring financial stability. Strategic choices regarding debt issuance, repayment schedules, and internal liquidity management have become critical to protect both family control and firm performance. For lenders and investors, these findings suggest anticipating higher leverage and adjusting financing terms, accordingly, including refining covenants, calibrating debt maturities, shorter to limit exposure or longer to stabilize repayment, and adjusting pricing to reflect the leverage risk associated with family involvement. Since family management appears to have little impact on leverage, family ownership rather than managerial ties should be the primary consideration in evaluating financing behavior. Furthermore, the negative relationship between profitability, liquidity, and debt reliance suggests that firms with stronger internal resources adopt more conservative financing policies. Overall, these insights enable managers, banks, investors, and policymakers to make more informed decisions, better forecast financing behavior, and design strategies or regulatory measures tailored to the unique characteristics of

family-controlled firms.

Moreover, this study offers valuable insights for practitioners and investors by deepening the understanding of the financing decision-making dynamics within Moroccan listed firms. By highlighting the significant influence of family involvement, particularly through ownership, on capital structure choices, the findings provide a clearer framework to anticipate the financing behavior of these firms. This knowledge can assist financial analysts and investors in more accurately assessing firms' risk profiles and debt capacity, ultimately improving the valuation process and investment decision-making. Furthermore, understanding the nuanced impact of family ownership on financing decisions enables creditors and policymakers to better assess the financial behavior and risk exposure of family firms. This insight can guide the development of more adapted lending practices and regulatory frameworks that account for the unique characteristics of family-controlled firms, ultimately supporting more effective financial management and stability within the Moroccan capital market.

While this study makes valuable contributions to both scholars and practitioners, it is important to acknowledge its limitations. Indeed, despite controlling for the effect of years, interpreting the results must be with caution because the analysis spans the years of the COVID-19 crisis, which could have potentially influenced the leverage behavior of Morocco listed firms during that period. Moreover, the study is conducted on a relatively small sample. Indeed, we would have like to add additional firms to the research sample to enhance the explanatory capacity. Nonetheless, the natural limitation related to Casablanca Stock Exchange size is out of our control.

Finally, our research opens interesting avenues for future inquiry. Specifically, while this study provides insights into the family control and influence dimension of socioemotional wealth (SEW), proxied by the family ownership and family management, and its impact on debt policy, it does not explicitly account for other important SEW dimensions. Future research could therefore investigate how factors such as emotional attachment, binding social ties, family identification with the firm, and the renewal of family bonds through dynastic succession shape debt financing decisions in family firms. Considering these dimensions would contribute to a more comprehensive understanding of how the multifaceted nature of SEW influences capital structure choices, thereby offering a richer and more nuanced explanation of family firms' financing behavior. Moreover, examining the role of the generational stage could further enrich our understanding of the financing dynamics within family firms, as the emphasis placed on preserving socioemotional wealth tends to evolve across generations, potentially resulting in varying financing behaviors among family businesses.

7. References

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