


# “Family firms, risk-taking and financial distress”

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# FAMILY FIRMS, RISK-TAKING AND FINANCIAL DISTRESS

## Abstract

The authors investigate the question of which qualitative characteristics are likely to explain the survival of family firms in case of financial distress and whether these variables improve the explanatory power of quantitative variables in clarifying the different probability of distress between family and non-family firms. They focus their attention on the impact of the controlling owner and, using the Socioemotional Wealth theory (SEW), study the role of the family involvement in mitigating or accentuating the likelihood of distress. Using a dataset of 1,137 Italian family and non-family firms during 2004–2013, the authors found that family firms are significantly less likely to incur distress than non-family firms. The board dimension and the number of family members on board affect the probability of distress even controlling for some firm risk characteristics such as beta and ROA volatility, and there is also evidence of a gender mitigating effect in case of a female CEO.

## Keywords

family firms, risk-taking, financial distress,  
socioemotional wealth

## JEL Classification

M41, G32, G33

## INTRODUCTION

The evaluation of a company's financial status and probability of financial distress has long been discussed in finance and accounting studies (Beaver, 1966; Altman, 1968, 2000; Altman et al., 1977; Ohlson, 1980; Zavgren, 1985; Lau, 1987; Sun, 2008). Family business studies have addressed the issue of survival in terms of persistent control by the same family over time (Colli, 2012), but the issue of survival in terms of a family firm's durability as a viable entity is still relatively unexplored, though this field of study has widely addressed the issue of performance and the assumption of risk. Literature has engaged in the comparison between family and non-family businesses' performance in different countries, providing mixed findings (Anderson & Reeb, 2003a; Villalonga & Amit, 2006; Barontini & Caprio, 2006; Miller et al., 2007; Sacristán-Navarro et al., 2011, Gottardo & Moisello, 2015). Some studies on family firms' capital structure point out that family firms are more prone to use debt financing than non-family firms (King & Santor, 2008; Setia-Atmaja et al., 2009; Croci et al., 2011, Gottardo & Moisello, 2016), although they are risk averse (Naldi et al., 2007; Huybrechts et al., 2013), pursue stability and avoid risky investment strategies (Harris et al., 1994; Tagiuri & Davis, 1992). As a matter of fact, families are "risk willing", in terms of performance hazard, in order to maintain a firm's control and preserve the non-financial returns they derive from the business, but, at the same time, they are averse to entrepreneurial risk (Gomez-Mejia et al., 2007). Moreover, family businesses' risk-taking changes over time (Zhara, 2005).

It is, therefore, very interesting to explore how these features reflect in terms of financial distress probability. Wilson et al. (2013) addressed this issue when studying a large sample of UK private firms for the period 2007–2010, finding that family businesses are more likely to survive than non-family firms. To the best of our knowledge, no study has developed these issues after this pioneering research, which analyzes firms operating in a market-based economy.

Therefore, there is a need for further studies addressing these issues, including the studies in different institutional and cultural contexts. We address this need by analyzing family firms' financial distress probability, focusing on a sample of 1,137 Italian private firms for the period 2004–2013. This context is of interest because Italy has a bank-based economy and families are particularly committed to maintaining control of the firm: empirical studies (Franks et al., 2009) report that, for family businesses starting from a 100 percent stake, diluting ownership below 25 percent of voting rights would take 20 years on average in the UK, 30 years in Germany, 35 in France and more than 90 years in Italy.

We study family firms' financial distress probability using accounting variables, different measures of risk, qualitative information related to the CEO, and the presence of family members on the board.

We address this issue from the Socioemotional Wealth perspective, which refers to the non-financial utilities owning families derive from their controlling position in the business (Gomez-Mejia et al., 2007). Our findings highlight that family businesses are less likely to lapse into financial distress than non-family firms. The results suggest that family businesses are more effective in their risk management than their non-family counterparts. Nevertheless, the presence of a female CEO in a non-family business and the presence of numerous family members on a family firm's board moderate the differences in financial distress probability.

This paper contributes to the literature on financial distress probability by exploring family firms in a bank-based economy. We also contribute to the Socioemotional Wealth literature by answering the call for empirical studies grounded on this framework (Berrone et al., 2012). The remainder of the paper is structured as follows: section 1 presents the theoretical framework and the literature review; section 2 describes data and methodology; section 3 provides the results and discussion; final section concludes by highlighting the implications of the research, its limitations and some suggestions for further studies.

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## 1. THEORETICAL FRAMEWORK AND LITERATURE REVIEW

Several studies addressing the issues of the determinants of a firm's financial distress, or family firms' performance (Le Breton-Miller et al., 2011; Schulze et al., 2001; Villalonga & Amit, 2006) refer to Agency Theory, which asserts that the separation of ownership and control results in conflicts of interest and asymmetric information between owners and managers (Fama & Jensen, 1983). Empirical studies suggest that agency costs are minimized in family businesses, because ownership involvement in the business aligns the interests of owners and managers (Schulze et al., 2003). Empirical research on the effect of the CEO's characteristics – family member or professional, founder or descendent – on a family firm's performance highlights that non-family firms bear high-

er agency costs than family firms led by a founder CEO, but that the contrary occurs in the case of a descendent CEO (Villalonga & Amit, 2006). Family firms suffer lower agency costs than non-family companies, although these costs are not negative (Chrisman et al., 2005). These costs relate to two different types of agency conflict: on the one hand, between management and family owners (vertical conflicts), on the other hand, between family and non-family shareholders (horizontal conflicts) (Schulze et al., 2001; Villalonga & Amit, 2006; Le Breton-Miller et al., 2011). However, Agency Theory alone cannot fully explain the differences between family controlled firms and non-family firms managed by their owners, nor can it explain the differences among family firms, as they are not a homogeneous group (Corbetta & Salvato, 2004). Literature on family firms points out the limitations of Agency Theory, which as-

sume that individuals behave opportunistically in economic exchanges, without taking into account the social context in which they operate (Wiseman & Gomez-Mejia, 1998), and suggests the extension of Agency Theory outside its current contextual boundaries, coupling this framework with other theoretical perspectives in order to counter its drawbacks (Cuevas-Rodríguez et al., 2012).

According to the Socioemotional Wealth framework, based on the Behavioral Agency Model (Wiseman & Gomez-Mejia, 1998; Gomez-Mejia et al., 2000), family businesses are not mainly driven by financial goals, but they behave in order to preserve and increase the stock of affect-related values invested in the firm (Gomez-Mejia et al., 2007). The SEW has been also defined as the affective endowment of the family into the business (Cruz et al., 2012), an emotional value perceived by family owners (Zellweger & Astrachan, 2008) that comes from the interweaving between the family and the firm. Empirical evidence underlines that when a family member sells his/her stake, the aim is to obtain a higher price from non-family than from family buyers in order to reintegrate the loss of socioemotional wealth suffered by the family (Zellweger et al., 2012).

This emotional value consists of several dimensions, namely: family control and influence, emotional attachment, binding social ties, sense of identification, and the renewal of family bonds to the firm through dynastic succession (Berrone et al., 2012). The first dimension refers to the emotional returns that a family derives from its controlling position by exerting its influence on the business. The preservation of control is a main concern for families and affects their risk-taking behavior. Gomez-Mejia et al. (2007) assert that family firms have a contingent view of risk. They are prone to lapse into performance hazard and accept a below-target performance in order to maintain the control of the business, despite this risk increasing the probability of running into bankruptcy and the definitive loss of socioemotional wealth. Family firms take this gamble, as they think that performance risk is endogenous and could be managed (Gomez-Mejia et al., 2007). Family firms are also prone to taking the risks related to debt financing in order to preserve the SEW, and they are more levered than non-family companies (Gottardo &

Moisello, 2016). On the other hand, they are averse to entrepreneurial risk, and they avoid high outcome variance investments in order to protect the financial and affective stocks, which are concentrated in the firm. The concern for SEW protection is more salient when a firm is led by a family CEO owing to the higher emotional returns derived by a direct family influence on the business. The preservation of the family's socioemotional wealth also assures stability for a family CEO's professional status. There is evidence that a family CEO assumes lower entrepreneurial risk than a professional CEO, but that the latter tends to become risk averse when their tenure increases and the ties with the family business are deeper (Huybrechts et al., 2012). As a matter of fact, family firms develop strong social ties with their employees, who become members of the extended family, and with their external stakeholders such as suppliers, customers and the wider community (Berrone et al., 2012). They engage in long-term associations with their stakeholders in order to build social capital (Arregle et al., 2007). On the one hand, this social capital may enhance a firm's probability of survival, since suppliers and financiers may be more prone to extending credit terms when trading difficulties occur (Wilson et al., 2013). On the other hand, these social relations are, in themselves, a source of socioemotional wealth, because they reinforce a family's status and a situation of financial distress would jeopardize these ties, resulting in a loss of socioemotional wealth. Families tend to tie their identity to that of the firm because of the tight bonds with the business (Dyer & Whetten, 2006). This results in "a level of affect and concern for the firm and its perception in the public that is absent among other controlling actors" (Zellweger et al., 2013). The business is perceived as the mirror image of the family because of the strong sense of identification of the family with the business. The more a family's identity fits with the business, the more it is concerned with the firm's reputation (Zellweger et al., 2013) and, therefore, with the financial distress drawbacks on the owning family's reputation.

Family firms avoid risky strategies. There is evidence that they are more likely to dismiss top executives when outcome variation grows (Gomez-Mejia et al., 2001), as they pursue long-term survival rather than the maximization of profitabil-

ity or market returns (Athanassiou et al., 2002). Family companies present a long-term orientation, as their desire is to transfer a healthy business to future generations. Succession is the means of renewing the “family bonds to the firm” to grant the persistence of business control by the same family over time, to perpetuate the family dynasty (Berrone et al., 2012) and to ensure a durable self-concept of the family (Zellweger et al., 2013). They are concerned for the family business’ survival over generations, they see the firm as a long-term investment, therefore, they are more risk averse than non-family firms and they are risk-willing only when there is a threat to family control, and, consequently, on their socioemotional wealth (Gomez-Mejia et al., 2007).

On the other hand, the concern for socioemotional wealth preservation may limit the use of strategies lowering a firm’s risk. There is evidence that family firms are less likely to engage in corporate diversification and international diversification for several reasons. The first is that these strategies require more capital and families avoid diluting their stakes. A second reason is that implementing corporate or international diversification might call for professional managers, thus, reducing the direct influence of the family on the business and the identity fit between the family and the firm. The final reason is that corporate diversification could lead to a change in the balance of power between the family members involved in the business, resulting in conflicts (Gomez-Mejia et al., 2010). Consistent with these arguments, empirical research points out that family ownership is negatively related to the volume and value of acquisitions (Miller et al., 2010). Literature also suggests that family firms are less likely to invest in innovation and engage in technological diversification, despite their moderating effect on risk, because it may require a search for expertise, knowledge and capital outside the family, thus, increasing the information asymmetries between the owning family and the rest of the firm, as well as reducing the extent of family control (Gomez-Mejia et al., 2011).

Nevertheless, family firms are not a homogeneous group and the SEW’s salience varies from company to company according to the specific context of the family and the firm. The transgenera-

tional sustainability intent, for example, may differ depending on whether there is a possible heir, or whether the company is big enough to assure the subsistence of the heir/heirs’ family. Literature identifies some contingency variables, which have a moderating effect on the socioemotional wealth, such as the presence of non-family blockholders, which may change the relevance of financial objectives such as firm size and family stage (Gomez-Mejia et al., 2011). Gomez-Mejia et al. (2007), in their study on Spanish oil mills, found that larger family firms are more likely to join coops – losing family control and identity fit – than smaller family businesses. Firm size would have a moderating effect on socioemotional wealth, because, in a larger organization, the founder has to share his influence with professionals, and a firm’s identity tends to be less close to the owning family identity. Although the reduction of the SEW relevance can modify a firm’s risk taking behavior, a large enterprise can count on capital requirements barriers and has more resources to deal with a crisis (Hall & Weiss, 1967), and so, size, ultimately, would still reduce the likelihood of financial distress.

As the company moves through generations, the concern for the preservation of the SEW lessens and its behavior is mainly guided by financial objectives. There is evidence that family businesses are more likely to remove underperforming family executives in later generational stages (Gomez-Mejia et al., 2001). Therefore, the perception of risk is likely to change: a family firm may be less averse to entrepreneurial risk and venture into investment with high outcome variance, thereby enhancing the probability of financial distress.

Research question: How family’s influence and control affect a firm’s probability of financial distress?

## 2. DATA AND METHODOLOGY

We included in the sample non-financial private firms present in the Aida Database (the Italian database present in the Bureau van Dijk portfolio) during the period 2004–2013 with recorded data for a minimum of four years and sales above € 40 millions for one year or more. All financial firms and the firms that merged in the sample period were excluded. We chose only non-financial companies to

avoid the effect of financial sector regulation and peculiarities on firms' financing decisions and we established a minimum threshold on revenues to maximize the availability of qualitative and quantitative data for our analysis. The accounting information in the database was completed by entering the data on ownership and governance for each firm. We collected the financial distress data in the same database searching for every case of a distress procedure. The final sample contains 138 firms, which entered some form of financial distress procedure in one year from 2005 onward, while the other 999 firms don't have a registered procedure in the sample period. There are four registered type of distress procedure: 1) financial restructuring; 2) voluntary liquidation; 3) insolvency; 4) concordato preventivo (a form of composition with creditors regulated by the Italian bankruptcy law).

For every firm-year observation, the dependent variable assumes value 1 if the firm has a registered procedure in that year, and 0 otherwise.

The independent variables include accounting ratios and information related to ownership, governance and composition of the board. The accounting ratios include size (natural log of assets), leverage (debt to equity ratio), ROA (return on asset ratio), liquidity (current ratio), interest coverage ratio, receivables duration, stock turnover and fixed assets coverage. Firm governance characteristics may impact the probability to end up in distress, therefore, we control for the presence of a family in ownership, management and board using two dummies to identify whether the firm is a family company (Fam), the presence of a family CEO (Fceo), and the number of family members on the board (NumFB). One more dummy detects the presence of women leaders in our firms holding the position of CEO in the sample period. The definition of family firm assumes that family is the ultimate owner, with a minimum control threshold of 50%, which is commonly used for private firms (e.g., Lopez-Gracia & Sanchez-Andujar, 2007; Amore et al., 2011). We also use as independent variables the ROA volatility in the previous five years and the industry beta estimated with market data in the previous three years.

To estimate the probability of financial distress, we use a simple form of hazard model expressed in the form of a-period logit model:

$$P(y_{i,t} = 1 | x_{i,t}) = h(t | x_{i,t}) = \frac{1}{1 + e^{-x_{i,t}\beta}}, \quad (1)$$

where the explanatory variables,  $x_{i,t}$ , are time varying and without a baseline hazard function (Shumway, 2001; Nam et al., 2008). This is a duration independent model and the individual hazard rate,  $h_i(t | x_{i,t})$ , for firm  $i$  will be independent of a particular point of time. The hazard model has the same likelihood function of the logit model, they share the same asymptotic variance-covariance matrix. In applications of hazard models to bankrupt firms calculating correct test statistics requires an adjustment because standard logit models assume the sample size to be equal to the number of observations. But in a failure model, firm-year observations of a given firm are not independent, since the firm cannot fail in period  $t+1$  if it failed in period  $t$ . Likewise, if the firm survives to period  $t+1$ , it cannot have failed in period  $t$ . This, in general, does not hold true in the case of financial distress, because a firm could be in procedure in period  $t+1$ , even if it was in procedure in period  $t$ , it can also change the procedure type from one period to the other, and likewise, it can exit a financial distress procedure and return viable in period  $t+1$ , even if it was in procedure in period  $t$ . For this reason, we don't adjust the  $\chi^2$  test statistics of the logit program.

### 3. RESULTS AND DISCUSSION

We apply the above hazard model to all the stacked data, and separately to the family and non-family subsamples. Table 1 shows summary statistics for family and non-family firms, which entered or not a financial distress procedure in the sample period.

In Table 2, we report the parameter estimates for our forecasting model. The hazard model estimates use of all the available data for each firm, in the first column are the results for the whole sample, while the other two show the results for family and non-family firms separately.

As shown in Table 2, the signs are consistent with expectations, but the effect of leverage, ROA, liquidity, assets coverage and board size on the probability of distress is significantly different be-

**Table 1.** Summary statistics of firm characteristics for family and non-family firms

variable	Family		Non-family	
	Healthy	In distress	Healthy	In distress
	Mean (Stdev)	Mean (Stdev)	Mean (Stdev)	Mean (Stdev)
Size	17.66 (2.50)	10.87 (1.08)	17.61 (2.62)	10.66 (1.29)
Leverage	1.05 (3.81)	3.17 (10.95)	1.03 (9.93)	3.32 (11.00)
Interest coverage	25.72 (52.87)	5.41 (19.04)	23.77 (47.44)	6.63 (19.12)
ROA	5.51 (9.30)	-4.69 (19.81)	5.57 (10.12)	-5.36 (23.66)
Receivables duration	91.89 (67.61)	123.7 (100.6)	84.88 (62.45)	120.1 (147.0)
Stock turnover	62.68 (53.09)	93.66 (77.48)	57.66 (54.34)	76.09 (80.85)
Current test	1.52 (0.84)	1.13 (0.58)	1.50 (0.85)	1.20 (0.99)
Fixed Assed Coverage	3.13 (20.88)	1.22 (2.50)	2.93 (19.96)	2.25 (35.91)
Board size	5.10 (2.55)	3.97 (2.23)	4.4 (1.96)	3.36 (2.07)
Fboard	2.35 (1.72)	2.62 (1.95)	-	-
ROA volatility	23.38 (112.1)	100.4 (210.0)	20.79 (106.0)	117.0 (222.0)
Female CEO	0.10 (0.30)	0.11 (0.31)	0.05 (0.21)	0.03 (0.18)
Beta	0.70 (0.33)	0.76 (0.33)	0.79 (0.42)	0.88 (0.43)

tween family and non-family firms. The presence of a family CEO doesn't have a significant effect on a firm's probability of financial distress, the CEO effect is likely captured by the family effect, because the majority of our family firms are led by a family member.

The findings confirm that, ultimately, family firms have a lower probability of financial distress than non-family business (Wilson et al., 2013), providing evidence that this characteristic is strictly tied to the nature of family businesses and holds both in market and bank-oriented economies. Moreover, these results are of particular interest, because our sample operates in a country where families are particularly slow in performing control (Franks et al., 2009). Therefore, families are particularly concerned about maintaining their control and influence on the business and the firms they own should be more at risk of performance hazard (Gomez-Meja et al., 2007). These findings suggest that performance hazard is likely to be an endogenous risk that family firms can manage. A possible reason is related to the strong social ties, characterized by a sense of belonging and trust, that family firms bind with their stakeholders such as the employees, suppliers and external financiers who may be available to delay a firm's obligations when it experiences trading difficulties. Consistent with this view, family firms also seem to be better equipped in managing the risks related to debt financing, which has a significant effect on financial distress probability only for non-family business. As a matter of fact, our

results point out that family businesses produce a better coverage for interests. On the other hand, families' social ties do not have a positive influence on a firm's likelihood of survival when they result in excessive delays in receivables from customers, as our findings suggest. Larger firms have a lower probability of financial distress as, according to Hall and Weiss (1967), these firms are protected by a significant capital requirements barrier, which has a great effect on profit rates.

Our results suggest that size effect is a little lower for family businesses. It is likely to be due to the moderating effect of size on the concern for socio-emotional wealth preservation. On the one hand, larger firms are more visible and the concern for financial distress reputational drawbacks on a family's image is stronger (Gavana et al., 2016), but, on the other hand, family owners of larger firms may have to share their influence on the business with other parties and this would result in a lower sense of psychological ownership, identity fit and a lower entrepreneurial risk aversion (Gomez-Mejia et al., 2011).

Our findings point out that board size has a moderating effect on non-family firms' probability to suffer financial distress. Literature indicates that decisions of larger boards are more balanced, leading to less variability of monthly stock returns and ROA (Cheng, 2008), therefore, larger boards have a moderating effect on the higher entrepreneurial risk-taking propensity of non-family businesses and, as our study indicates,

**Table 2.** Duration independent hazard model with time varying covariates for the period 2004–2013

variable	All firms			Family firms			Non-family firms		
	Coeff.	$\chi^2$	p-value	Coeff.	$\chi^2$	p-value	Coeff.	$\chi^2$	p-value
Intercept	16.60	101.29	0.0001	14.55	60.15	0.0001	18.39	45.52	0.0001
Independent variables									
Size	-1.52	124.01	0.0001	-1.48	83.55	0.0001	-1.63	51.92	0.0001
Leverage	-0.01	0.04	0.8448	-0.03	0.36	0.5492	0.18	4.58	0.0323
Interest coverage	-0.05	62.15	0.0001	-0.04	33.01	0.0001	-0.06	17.86	0.0001
ROA	-0.06	5.61	0.0179	-0.06	5.24	0.0221	-0.05	1.29	0.2567
Receivables duration	0.01	32.69	0.0001	0.01	18.29	0.0001	0.01	6.72	0.0095
Stock turnover	0.01	25.32	0.0001	0.01	21.89	0.0001	0.01	9.96	0.0016
Current ratio	-0.078	10.25	0.0014	-0.24	0.58	0.4448	-0.92	5.44	0.0197
Fixed-assets coverage	-0.07	3.40	0.0650	-0.25	12.18	0.0005	-0.03	0.17	0.6783
ROA volatility	0.24	160.55	0.0001	0.22	102.73	0.0001	0.29	71.15	0.0001
Beta	0.02	0.00	0.9578	0.17	0.15	0.6966	0.10	0.04	0.8432
Nboard	-0.40	24.28	0.0001	-0.08	1.73	0.1884	-0.61	23.52	0.0001
Family	-0.68	6.95	0.0084	-	-	-	-	-	-
Family CEO	0.41	2.08	0.1493	-	-	-	-	-	-
NFboard	0.04	15.55	0.0001	-	-	-	-	-	-
Female CEO	-	-	-	-0.76	1.18	0.2774	-2.78	2.66	0.1000
Log-Likelihood	-	-272.02	-	-	-175.78	-	-	-101.64	-
Wald-test	-	250.52	0.0001	-	163.99	0.0001	-	99.96	0.0001
N (Obs.)	1,137	(5,942)	-	654	(3,574)	-	483	(2,536)	-

this type of risk is highly significant only for non-family firms' likelihood to experience financial distress. Family firms present larger boards in the multigenerational stages (Westhead et al., 2002), which are characterized by a more fractionalized influence of the family. The identity fit between the family as a monolithic entity and the business tends to lessen and, in turn, the SEW is no longer the reference point of a firm's behavior, the long-term survival goal gives way to profitability maximization (Gomez-Mejia et al., 2007). Therefore, for these firms, the moderating effect of board size is not significant. Consistent with these arguments, our results suggest that the presence of numerous family members on the board has a negative effect on a firm's survival likelihood, because this board characteristic is typical of later generational stages where fam-

ily members on boards belong to different, often conflicting, family branches whose short-run economic interests take the place of SEW (Le Breton-Miller, Miller, 2011).

Another board characteristic, which has different relevance for family and non-family firms, is the presence of a female CEO. She has a moderating effect on a non-family firm's probability of financial distress. This is consistent with empirical literature, which suggests that female CEOs present a risk-avoidance behavior resulting in less leverage and less earnings volatility (Faccio et al., 2016). The moderating effect of CEO gender is not significant in family firms which, in themselves, are entrepreneurially risk-averse in order to preserve and increase the owning family's socioemotional wealth.

## CONCLUSION

This study addresses the issue of family firms' probability of financial distress, analyzing a sample of 1,137 private firms operating in a bank-based economy. The results confirm that these firms have a higher survival probability than non-family firms and different institutional and cultural contexts than those examined by previous studies. Our study highlights that different types of risk and board charac-



teristics may assume different significance for family and non-family firms' financial distress probability because of the differing importance they attach to financial and non-financial goals. This study also has practical implications, as it gives family firms a warning on the effect of their receivables and stock politics on their financial distress probability. Moreover, it shows that the board composition, in terms of the strong presence of family members, may be detrimental to a firm's financial health.

Even so, this research suffers some limitations. It takes into account the presence of a female CEO, a family CEO, the number of family members on a board and board size, but it does not take into account other board characteristics such as the presence of the founder, CEO education and professional CEO tenure. These characteristics could affect, in different ways, a firm's concern for SEW preservation and they would be helpful to better highlight the differences in financial distress likelihood among family firms. Moreover, this study uses a firm's size as a SEW moderator, but it would also be of interest to consider other moderators, such as the presence of non-family blockholders and a firm's generational stage. Further research could overcome these limitations and provide cross-national studies in order to verify the robustness of these findings in different cultural and institutional contexts.

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