Family firm innovativeness: an investigation of family governance, commitment, and generation involvement

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Abstract

This study empirically investigates the relationship between family governance and innovativeness in family firms, along with the moderating effects of a family's commitment to the firm and whether members of the founding generation are still involved in firm activities. Recent work has highlighted the lack of research into the different effects of generation involvement (i.e., that of founding or succeeding generations) on family firm outcomes. Drawing from agency theory, our focus on how governance influences firm innovativeness in relation to family commitment and generation involvement aims to fill this research gap related to family firm heterogeneity. Employing a sample of 332 family firms across multiple countries and industries, we use moderated regression analysis to find that family commitment and founding family generation involvement strengthen the relationship between family governance and firm innovativeness. Additionally, when family members from the founding generation are no longer involved, firms with a strong family commitment enhance the relationship between family governance and firm innovativeness more than firms with weaker family commitment. Our findings contribute to agency theory by providing boundary conditions within a family firm context, including the extent of family commitment and if the founding generation is still involved in the family business with these moderators influencing the family governance to firm innovativeness relationship.

Keywords: Firm innovativeness; Family firms; Family governance; Family commitment; Founding generation involvement; Innovative behaviour.

Introduction

Agency theory asserts that a family firm is more likely to be successful when there is an alignment of goals between the family owners, who are external to the firm, and the family members, who are responsible for day-to-day firm operations (Schulze et al. 2001). Although agency theory has been leveraged to explain family firm heterogeneity in strategic behavioural responses (Prigge and Thiele 2018), there remains an incomplete understanding of how the governance relationship between the family owners and the internal family managers influence firm behaviours (i.e., innovativeness), resulting in calls to further develop our understanding of how family governance and goals align with the family firm (see Madison et al. 2016). Innovativeness is vital for family firms concerning performance outcomes and long-term competitiveness (Block et al. 2023; Casado-Belmonte et al. 2021; De Massis et al. 2015; Dekker et al. 2013; Duran et al. 2016). To partially address Madison et al.'s (2016) calls, we consider how the business family governance (i.e., governance of the relationship between the family and the firm) along with the extent that a family is committed to the family firm (i.e., public support and caring for the family's business), and the family generation involved in the family firm (i.e., founding or non-founding) influence firm innovativeness. Specifically, we analyse the interaction of family commitment and founding or non-founding generation involvement on the relationship between family governance and firm innovativeness.

In addition to the theoretical gap, our study is motivated by the preponderance of family firms (i.e., those predominantly owned and managed by a single family) which become unsustainable within the first two generations of being founded (Jones et al. 2013). This low success rate is often attributed to family governance issues influenced by family dynamics, such as reciprocal altruism (Karra et al. 2006; Madison et al. 2016). Family governance can lead to reluctance by the venture founders to involve the succeeding generation in the family business

(Strike 2012) and/or to cause families to limit innovative processes due to the risks associated with innovativeness (Clinton et al. 2020). Notwithstanding this reluctance, family firms do succeed across generations through firm innovativeness (i.e., the openness of a company to finding new and novel approaches to competing in their market) based in part on the founding generation's entrepreneurial legacy (Block et al. 2023; Casado-Belmonte et al. 2021; Decker and Günther 2017; Duran et al. 2016; Jaskiewicz et al. 2015). However, there remains a risk of poor innovativeness in family firms (Jocic et al. 2023). For instance, when there is a dominant influence of risk-averse family members in decision-making positions; this may result in strategic decisions that are more conservative than those of their predecessors (Binacci et al. 2016). An increased and more transparent family governance structure (e.g., formalized mechanisms to reduce reciprocal altruistic behaviours) provides the family with a better understanding of how they will engage with the firm (Jones and Li 2017). Nonetheless, if additional governance is needed and the non-founding generation becomes less committed, a higher probability of lower commitment to the family firm (i.e., family members are not supportive of the family firm) among the larger family coalition (e.g., a loss of trust among family members who are actively managing the firm and those who are passive owners) may exist among the non-founding generation family members. In essence, how does family commitment and the managing generation influence a family's relationship with the success of their business? Or stated more precisely, how do family commitment and the type of generation involvement moderate the family governance to firm innovativeness relationship?

By considering family governance practices and firm innovativeness and questioning how firms manage family dynamics across generations, our work enables scholars to gain a greater understanding of how varying levels of family commitment and the type of family generation involvement influence the family governance to firm innovativeness relationship. In empirically

investigating 332 family firms with differing family generation involvement from multiple countries (i.e., the United States of America (USA), Ireland, the United Kingdom (UK), Canada, Spain, and France) through two-way and three-way moderated regression analyses, we consider the extent that family commitment and the type of generation involvement act as boundary conditions on the family governance-family firm innovativeness relationship. Unexpectedly, we do not find a hypothesized direct relationship between family governance practices and firm innovativeness, suggesting that family governance may not influence firm innovativeness directly.

However, when considering a three-way interaction between family governance, family commitment, and type of generation involvement, we find that family firms led by the non-founding generation that also have a high level of family commitment, accrue more elevated levels of firm innovativeness compared to other family firms with lower levels of commitment to the business and non-founding generation leadership. Lastly, we contribute to the conversation on how founding generation involvement is associated with higher levels of innovative behaviour. In comparison with subsequent non-founding generation involvement, we find that family firms are innovative when the founding generation is involved, regardless of family commitment.

The remainder of this article is structured as follows. First, the theoretical framing for the study is discussed, resulting in a set of hypotheses. Next, our methodological approach and design are detailed. Our key findings in relation to the hypotheses are then presented and analysed in terms of our contributions. Finally, we consider managerial implications, limitations, and avenues for further research.

Literature review and hypotheses

Theoretical positioning Agency theory is regarded as a dominant theoretical paradigm in relation to corporate governance and the resulting relationship between principals and agents (see Cuevas-Rodríguez et al. 2012; van Essen et al. 2015). Agency theory assumes opportunistic attributes of the managers (i.e., agents) due, in part, to information asymmetries between the principals and agents or the wrong incentives, leading to a misalignment of goals between the owners and managers (Cuevas-Rodríguez et al. 2012). Managers behaving opportunistically will result in negative ramifications in terms of principal value and stakeholder relations. Moreover, governance and related agency costs exist even when the principals are also the internal managers, whether through altruistic agency costs (Karra et al. 2006; Steier 2003) or information asymmetries between the external owners (i.e., family members not working inside of the firm) and internal owners (i.e., family members who work as managers in the firm) (Madison et al. 2016; Wolff et al. 2022).

Under an agency theory lens, family firms are considered uniquely different from other business forms due to their ability to heavily monitor management, and their undiversified wealth position suggests that family owners are motivated to oversee the effective management of their business (Schulze et al. 2001). Thus, agency costs are generally assumed to be lower in family firms (e.g., Anderson et al. 2003; Madison et al. 2016). However, because owning families can suffer from internal family conflicts (e.g., reciprocal altruism agency costs) and may experience a misalignment of goals between the business family and the family business, family firms may be less efficient in their development of the business (i.e., failure to undertake innovative behaviours necessary for ensuring the longevity of the business) (Calabrò et al. 2019; Decker and Günther 2017).

Family Governance to Family Firm Innovativeness

Multiple authors have emphasized the need to explore different effects on family firm outcomes based on whether or not the business is controlled by the founding or succeeding generations (e.g., San Martin-Reyna and Duran-Encalada 2012). Additionally, Madison et al. (2016) call for further research into how different generations view corporate governance and how these varying governance mechanisms influence strategic behaviours. This raises the question of how governance mechanisms can facilitate the interactions between the business family and the family business. Therefore, our focus on the relationship between family governance and innovativeness aims to address these research gaps related to family firm heterogeneity. Our study adopts agency theory to explain the relationship that exists between governance and innovativeness in family firms.

A governance structure should regulate opportunistic behaviour (e.g., reciprocal altruistic agency) and mitigate against performance reduction (Gubitta and Gianecchini 2002). Further, governance directly influences firm outcomes such as innovative behaviour, which is deemed to be high-risk and could place the family firm in future danger of failure (Naldi et al. 2007). Calabrò et al. (2019) maintain that lower agency costs, combined with a governance structure that facilitates less opportunistic resource allocations, initiate higher levels of innovativeness in family firms. Moreover, family governance should mitigate agency conflict within strategic decision-making areas, such as R&D investment (Tsao et al. 2015). In essence, family governance should positively impact firm innovativeness. Based on these arguments, we propose the following hypothesis:

Hypothesis 1: *Family governance will positively influence family firm innovativeness.*

Moderating impact of family commitment on the governance–innovativeness relationship

Various unique aspects of the business family, when considered alongside its idiosyncratic governance structure, are arguably problematic for firm innovativeness (Matzler et al. 2015). One such aspect is the level of family commitment to the business, which may impact the relationship between family governance and innovativeness (Hatak et al. 2016). Family members' commitment to the family business is manifested through shared values and a strong family identification, as well as an emphasis on the long-term survival of the business (Klein et al. 2005; Zahra et al. 2008). The commitment among family members towards the family firm is attributable to the family taking pride in the values and tradition of running the business (Brockhaus 2004). Thus, commitment varies across both families and firms (Pongelli et al. 2021).

Previous work examining the influence of family commitment (i.e., shared values, loyalty, goal alignment, etc.) has established that increased levels of commitment promote positive financial performance (see Eddleston et al. 2008; Miller and Breton-Miller 2006). Similarly, a high degree of commitment to the family firm has been shown to increase enduring efforts towards the long-term goals of the business (Eddleston et al. 2008). It should be acknowledged, however, that the family governance structure is not only individualistic, but also context specific. Thus, family commitment towards financial resources may fundamentally alter the family's governance and, by proxy, the firm's goals (e.g., innovativeness). Family firms with a high degree of family commitment but low agency costs due to their governance structure are more likely to engage in new product development processes (i.e., innovative behaviours) that are successful (Cassia et al. 2011).

Strong familial attachments to the firm reinforce a strong commitment among family members to the family firm and its long-term success. This commitment also facilitates an environment of trust that enables strategic flexibility, which can be aimed towards innovative

behaviours (Carnes and Ireland 2013; Hatak et al. 2016; Sherlock et al. 2023). Family members who are committed to the family firm may be motivated to make decisions in the organization's best interest (Hatak et al. 2016), which would support firm innovativeness due to performance advantages (Eddleston et al. 2008) and increase the possibility of transgenerational success (Jaskiewicz et al. 2015). Accordingly, we hypothesize how family commitment positively moderates the governance–innovativeness relationship:

> Hypothesis 2: *Family commitment will moderate the relationship between family governance and innovativeness in family firms, such that as family commitment increases, the effect of family governance on firm innovativeness will strengthen.*

Moderating impact of family generation on the governance–innovativeness relationship

Generation involvement is a phenomenon that manifests in family firms as they transition across generations (Howorth et al. 2010; Westhead and Howorth 2006). Madanoglu, Altinay, and Wang (2016) suggest that the founding generation is motivated for the family's business to be an entrepreneurial family legacy which generates wealth for the family. In contrast, the motivations and goals of the succeeding generation of leaders may change over time (Miller et al. 2003). When this occurs, subsequent generations may become more focused on continuity of the business rather than primarily on wealth accumulation, by becoming more concerned with potential loss of firm control, resulting in a more risk-averse orientation. With such generational changes, it is worthwhile to consider how the involvement of the founding generation compared to later generation family members (i.e., non-founding) influences the relationship between family governance and innovativeness.

Founding generation involvement is typically characterized as being more innovative than subsequent generations (Block et al. 2013; Kellermanns et al. 2008). Without the entrepreneurial

direct influence of the founding generation, the firm's innovativeness may be adversely affected under the management of subsequent generations (Jaskiewicz et al. 2015). Moreover, when the founding generation is involved, this involvement seems to spur innovativeness, which translates into greater performance levels than family firms with multiple generations involved, revealing the potential consequences of generations behaving differently (Decker and Günther 2017; Roed 2016). For example, non-founding generation involvement may place a greater emphasis on firm continuity rather than engaging in perceived high-risk strategic decisions, such as firm innovativeness (Fang et al. 2018). Thus, without the founding generation influence, innovativeness may suffer. Cruz and Nordqvist (2012) postulate that family firms exclusively controlled by third-and-beyond generations, on account of their long-term established management and governance structures, will fail to efficiently exploit opportunities to be innovative unless they can cultivate an eclectic range of managerial skills. As subsequent generations seek to reduce high-risk strategic initiatives (e.g., innovativeness), there is a greater propensity for a negative moderating effect on the governance to firm innovativeness relationship. Building on this argument, we posit that non-founding generation involvement will have a weakening effect on the governance to family firm innovativeness relationship. As such, we formally hypothesize:

> Hypothesis 3: *Non-founding generation involvement will moderate the relationship between family governance and innovativeness in family firms, such that when the non-founding generation is the only generation involved, the relationship between family governance and innovativeness will weaken.*

Three-way interaction among governance, family commitment and generation involvement on firm innovativeness

Founding generation involvement not only facilitates sustainable control of the family firm but can also increase levels of family commitment (Chrisman et al. 2012). The capacity to maintain high levels of family commitment is necessarily contingent on the persevering influence of the founding generation due to their substantial investment of time, resources, and risk (Lansberg 1999). This influence may manifest as behaviour modelling, in which the founding generation transmits – through verbal or non-verbal communication channels – their elevated sense of commitment to the succeeding generation (Jaskiewicz et al. 2015, Sharma and Irving 2005). In situations where the founding generation is still involved and levels of commitment are high, Lansberg (1999) proposed associated high levels of business development, initiative, and risk taking. In examining intra-family leadership succession, Hauck and Prügl (2015) find that a family member's closeness to the firm is positively associated with perceiving the succession phase as an opportunity for innovation. In addition, Kraiczy, Hack, and Kellermanns (2015) observe that early generation influence positively impacts innovativeness, suggesting a prevailing influence of the founding generation.

When members of the founding generation are involved and families have a lower level of commitment, family commitment is subject to dilution in succeeding generations (Bennedsen et al. 2007; Ward 2016). Thus, if family commitment levels are reduced and the founding generation is still involved, we would anticipate a diminishing effect on the governance-innovativeness relationship. Although low family commitment may increase altruistic agency costs, the presence of the founding generation would reinforce the significance of innovativeness for firm success through the prevailing influence of the founder's entrepreneurial legacy (Jaskiewicz et al. 2015).

In contrast, when considering levels of family commitment with only non-founding generation involved in the family business, the founder's entrepreneurial legacy is more contingent on the extent of family commitment. Family firms which have a strong family commitment to the business may lead to decreased altruistic agency costs among family members with the family committed to the business succeeding, and the strong family commitment will reinforce the founding generation's entrepreneurial legacy, resulting in increasing levels of firm innovativeness. Nonetheless, when only the non-founding generation is involved and the family has a lower level of commitment to the family business, we argue that the corresponding family governance to innovativeness relationship will weaken compared to when the founding generation is involved and the family exhibits high commitment (Hatak et al. 2016; König et al. 2013). In the absence of founding generation involvement, a substitute effect may be attributable to, for instance, a range of contextual factors including increasing professionalization of the family firm through recruitment of non-family members with less sentimental interest in the business (Ricotta and Basco 2021), a greater orientation towards growth (Casillas et al. 2010; Kellermanns et al. 2008), less attachment between family members (Gersick et al. 1997) and/or the concomitant rise of individualism exhibited by family members (Dyer 1988).

Although it is generally agreed that family firms with more formalized family governance mechanisms perform more effectively overall when compared to their non-formal counterparts (Schulze et al. 2001), the literature suggests that these results may be subject to an inherent lack of family commitment to back riskier strategic approaches, such as innovation, due to wealth accumulation (Morck and Yeung 2003). Assuming opportunistic attributes from management (Cuevas-Rodríguez et al. 2012), these issues may also extend to shortcomings in innovativeness related to governance control entrenchment by later generations (Dyer 2006). Matzler et al. (2015) acknowledge how the ostensible lack of innovativeness in family firms can be traced to a lack of

commitment to innovation in later (non-founding) generations as families become more financially conservative and less willing to take financial risks.

Consequently, we argue that founding generation involvement and high family commitment to the firm will enhance the family governance to firm innovativeness relationship relative to when only the non-founding generation is involved in the firm and there is lower family commitment. Therefore, we formally hypothesize:

Hypothesis 4: There is a three-way interaction effect among family governance, family commitment, and founding generation involvement on firm innovativeness, such that the relationship between family governance and firm innovativeness is stronger when family commitment is high and the founding generation is involved.

Research methods

Sample and data collection

Following previous literature, we define a family business as a venture that is primarily owned and managed by a family with the intention of transferring the business to the next generation of family members (Chua et al. 1999). Given our definition and interest in studying family businesses and following the logic of other scholars who have worked with university family business centres to study family business phenomena (see Debicki et al. 2009, Nicholson et al. 2009), we focused on family firms which were involved with university family business centres and had at least second-generation family involvement in management or ownership, as well as control of the family business through voting rights to allow for the possible inclusion of publicly traded firms. The potential respondents were first selected if they had at least second-generation family involvement in management or ownership of the firm through a stratified random sample selection process

drawn from a pool of respondents associated in some way (e.g., national family association or training programmes) with each university family business centre.[1]

Through our data collection design, selection bias is a concern, given the association with the university family business centres. However, we argue that our chosen selection process is appropriate and representative of our desired sample in order to maximize our survey response rate by establishing the legitimacy of the survey through collaborating with an institution familiar to the potential respondents (Dillman et al. 2014). Such an approach was also deemed apposite given that family businesses, the focus of our investigation, are more likely to be identified through affiliation with a university family business research centre (Holt et al. 2010) than through a random selection from the general population of firms (Blanco-Mazagatos et al. 2016). Furthermore, university-affiliated family business centres (Calabrò et al. 2021; Williams et al. 2019) and entrepreneurship centres (Marshall et al. 2019) are good sources to provide a strong sample pool for studying innovativeness and innovation-related phenomena in family firms as these family firms are often seeking best practice in order to be more competitive. Lastly, the university family business centres are located in a diverse group of developed countries that have a tradition of long-running family firms due, in part, to their family values (Bertrand and Schoar 2006), which increases the generalizability of findings (Sharma et al. 2007).

With the willingness of the university family business centres to collaborate in the data collection, questionnaires were sent out to 2,462 family firms based on their relationship to 12 university family business centres located in the USA, Ireland, the UK, Canada, Spain, and France.[2] There was a single university family business centre in each country, with the exception of the USA, where seven university family business centres were recruited for the data collection.

[1] This sample was part of a larger data collection effort on entrepreneurship in family firms.
[2] For the family business research centres in Spain and France, the questionnaire was translated from English to Spanish and French, and then back translated to English.

The questionnaire was answered by respondents who were family members in strategic decision-making positions (e.g., founders, senior management team members, owners, or members of the board of directors) with direct knowledge of the strategies and strategic direction of the family business. As previously mentioned, our research design maximized the number of family firms with founding and non-founding generations involved that were willing to take part in the study, as shown through their participation with university family business centres. This approach resulted in the return of 431 questionnaires for analysis. Given that our research aim focuses on family governance, we chose to exclude all micro-enterprises with 10 or fewer employees (OECD 2019), which may be less likely to have a family governance structure in place. This reduced the sample to 332 mostly completed surveys for a response rate of 13.49%, which compares favourably to other studies using this approach (e.g., Zahra et al. 2008).

We examined the extent of common method bias in our sample by employing the common method factor technique recommended by Podsakoff, MacKenzie, and Podsakoff (2012), whereby we calculated variance differences through confirmatory factor analyses between a measurement model of only the latent constructs, compared to the measurement model with the latent constructs and the addition of a single latent common method factor. The variance difference between these two models was only 6.98%, which is lower than the critical threshold of 25%. Overall, the effects of common method bias appear to be limited.

For non-response bias, we checked for differences between early versus late respondents on the following variables: multigenerational family control intentions (Chrisman et al. 2012), firm age, total number of firm employees, gross firm sales for the most recent year of the survey, and firm financial performance. Late respondents are more indicative of potential non-respondents versus early respondents, with the desired outcome of no statistical differences between early and

late respondents (Armstrong and Overton 1977). After employing *t*-tests on the variables between the two groups, no statistical differences between early versus late respondents were found.

The studied sample consists of family firms with origins in multiple countries from North America and Europe, including: Canada (n = 23; 7% of the sample), France (n = 19; 6% of the sample), Ireland (n = 53; 16% of the sample), Spain (n = 87; 26% of the sample), the UK (n = 22; 7% of the sample), and the USA (n = 128; 39% of the sample). To give an overview of the firmographics, firm sizes ranged from those with 11–100 full-time employees (n = 184; 55% of the sample), to those with 101–499 full-time employees (n = 89; 27% of the sample), and to much larger firms with 500 or more full-time employees (n = 59; 18% of the sample). Overall, the average firm size was 688 full-time employees, with the median number of full-time employees being 79.25. Similarly, the gross annual sales categories for the sampled firms ranged from two sampled family firms with less than US $500,000 in sales to twenty-six firms which had more than US $500 million in sales, resulting in median responding family firm sales in the range of US $15–20 million. Thirteen of the respondent firms were publicly traded. The average age of the sampled firms was 54.45 years, with a median age of 41 years.

Measures

For all scales in our study that included multiple items, we used the mean score for the construct. A summary of the hypothesized measures and items can be found in Table 1.

Table 1
Overview of measures

Variable	Item/description	Value of variable
Dependent variable:		
Firm innovativeness	1. Favours a strong emphasis on the marketing of tried and true products/services (left anchor)1 2 3 4 5 Favours a strong emphasis on R&D, technological leadership, and innovations (right anchor). 2. Has not introduced any new lines of products or services in the last 5 years (left anchor) 1 2 3 4 5 Has introduced many new lines of products or services in the last 5 years (right anchor). 3. Has introduced only minor changes in products or services in the last 5 years (left anchor)1 2 3 4 5 Has introduced quite dramatic changes in products or services in the last 5 years (right anchor).	1 = left anchored statement to 5 = right anchored statement; Paired-item scale
Independent variable:		
Family governance	1. Formal family meetings (with start time, end time, agenda) 2. Informal family meetings 3. Family constitution 4. Family protocols 5. Family foundation	1 = Not at all to 5 = Very much
Moderating variables:		
Family commitment	1. Are proud to be part of our family business 2. Feel loyal to our family business 3. Are willing to put in extra effort to help our family business be successful 4. Agree with the goals, plans, and policies of our family business 5. Publicly support our family business 6. Really care about the fate of our family business 7. Agree that our family and family business have similar values	1 = Strongly disagree to 5 = Strongly agree
Generation involvement	Respondent asked to indicate if the founding generation is presently involved in some capacity in the family business.	0 = No founding generation involvement or 1 = Founding generation involvement

Firm innovativeness

Drawing on the works of Miller and Friesen (1982), Richard, Barnett, Dwyer, and Chadwick (2004), and Stambaugh, Yu, and Dubinsky (2011), we employed a three-item scale to capture firm innovativeness. This scale was selected due to its focused emphasis on product/service innovativeness with the question stem of 'please select the choice that best describes the strategy of primary company.'

Family governance

This scale measured the extent to which business families have a governance system in place to provide guidance on how family members will interact with the family business. Since we were interested in the extent to which a family uses *family governance* to manage the relationship between the family and the family firm, we adapted a five-item measure of family governance from Suess-Reyes (2017) by transforming the scale from a binomial scale to a Likert-type scale, as families could adopt more than one form of governance.

Family commitment

For family commitment, we were interested in gauging the extent to which the family showed commitment to the family's business. Using a seven-item *family commitment* scale (Chrisman et al. 2012), the question stem for this measure was 'To what extent do you agree with each statement as it applies to the relationship between your family and the family business?'

Generation involvement

As the founding generation has been shown to be more innovative than subsequent generations (Kellermanns et al. 2008; Morck and Yeung 2003), we created a binomial measure of 1 = Founding generation involvement and 0 = No founding generation involvement. Involvement included any activity as an owner of the primary family business, a member of the board of directors, or a manager in the primary family business.

Control variables

We used seven control variables as part of our study. Following the guidance of other scholars, to control for country effects, such as gross domestic product (GDP) (e.g., Semrau et al. 2016), we took the natural *log of GDP* collected from the World Bank with a one-year lag from the year the survey was administered. Powell (1996) indicated that industry can greatly influence the strategic outcomes of incumbent firms. Since our sample is from a broad range of industries and industry conditions have been demonstrated to affect firm competitiveness – including firm performance and firm innovativeness (Arend 2014; Zahra et al. 2009) – we used the *industry hostility* scale (Green et al. 2008; Zahra 1993). The industry hostility scale measures the extent to which industry attributes may negatively impact a firm, which may deter innovations (Zahra et al. 2009). As firm size has been demonstrated to influence strategic decisions (Child 1997; Elbanna et al. 2013), we controlled for size through the *log of employees* who were full-time. Furthermore, we captured the extent of equity owned by the family who worked in the family firm and those who did not work in the family firm through the *log of family ownership,* and the level of family participation in the firm using the *log of family employees* who were full-time, in order to partial out potentially obfuscating effects on family governance (Daspit et al. 2018). Moreover, we controlled for the extent that a family focuses on developing future generations through the *next-generation development* scale (Sorenson 1999).

Lastly, the *family firm prevalence* in a country has been suggested to influence strategic decisions of those family firms (Carney et al. 2017; Carney et al. 2019). As such, we calculated the percentage of family firms that exist in each country to control for the effects associated with a country's family ownership density, resulting in a family firm prevalence score. The score was calculated based on the families who own and/or control both private and publicly traded firms relative to the total number of firms in a nation. For instance, in Spain, 85% of businesses are

family-owned and/or controlled (Galván et al. 2017). The percentage of family-owned/controlled firms relative to all firms for the remaining nations is as follows: Canada = 67% (Family Enterprise X Change Foundation 2019); France = 83% (Cambieri 2013); Ireland = 64% (O'Gorman and Farrelly 2020); the UK = 88% (Graham 2020); and the USA = 90% (Inc. 2021).

Analysis

To ascertain the extent of measurement invariance for our studied latent constructs, we employed covariance-based structural equation modelling with maximum likelihood estimation. For hypothesis testing, we utilized OLS regression through hierarchical moderated regression analysis (Jaccard and Turrisi 2003). Overall, we tested four regression models, first including only control variables, then adding the independent variables in the second step, before adding the interaction terms and lastly the three-way interaction term. All relevant scales were mean-centred for the moderated regression analysis to reduce the potential effects of collinearity.

Results

Along with the coefficient alphas, the descriptive statistics are presented in Table 2, and a correlation matrix is presented in Table 3, ranging from -.27 to .33. The correlations show little evidence of multi-collinearity. Furthermore, the coefficient alphas, which is a measure of reliability of internal consistency (DeVellis, 2005), are all equal to or above .70, with innovativeness ($\alpha = .71$) as the lowest and family commitment ($\alpha = .92$) the highest, indicating the measures are reliable with robust internal consistency.

Table 2
Descriptives and alphas[3]

	μ	σ	α	Min.	Max.	Obs.
1. Innovativeness	3.71	.82	.71	1.00	5.00	293
2. Log of GDP	10.68	.24	---	10.29	10.91	332
3. Industry hostility	3.23	.71	.77	1.33	5.00	291
4. Log of employees	4.71	1.57	---	2.40	11.00	332
5. Log of family ownership	4.50	.29	---	1.10	4.61	315
6. Log of family employees	1.11	.62	---	0.00	3.40	317
7. Next-generation development	3.91	1.11	---	1.00	5.00	301
8. Family firm prevalence	.82	.10	---	.64	.90	332
9. Family governance	2.25	1.10	.79	1.00	5.00	298
10. Family commitment	4.57	.58	.92	1.00	5.00	290
11. Generation involvement	.56	.50	---	0.00	1.00	328

[3] Pairwise deletion

Table 3

Correlation matrix[4]

	1	2	3	4	5	6	7	8	9	10
1. Innovativeness										
2. Log of GDP	-.08 (.20)									
3. Industry hostility	-.15* (.07)	-.17** (.02)								
4. Log of employees	.09 (.03)	-.01 (.01)	-.06 (.03)							
5. Log of family ownership	.01 (.17)	-.01 (.05)	.01 (.15)	-.07 (.31)						
6. Log of family employees	-.03 (.08)	.16** (.02)	-.04 (.07)	.12* (.14)	-.05 (.03)					
7. Next-generation development	.13* (.04)	.09 (.01)	.05 (.04)	-.13* (.08)	.11 (.02)	.06 (.03)				
8. Family firm prevalence	.10 (.49)	-.27** (.13)	-.17** (.42)	.03 (.88)	.06 (.16)	.01 (.35)	-.02 (.65)			
9. Family governance	.08 (.04)	-.09 (.01)	.01 (.04)	.23** (.08)	.08 (.02)	.12* (.03)	.12* (.06)	.06 (.01)		
10. Family commitment	.12* (.08)	.21** (.02)	.07 (.07)	-.15** (.16)	.06 (.03)	.06 (.06)	.33** (.11)	-.05 (.01)	.08 (.11)	
11. Generation involvement	.13* (.10)	-.04 (.03)	.03 (.09)	-.22** (.17)	-.07 (.03)	.02 (.07)	.07 (.13)	-.02 (.01)	-.11 (.13)	.03 (.07)

*p < .05

**p < .01

Standard error in parentheses

[4] Pairwise deletion

For the confirmatory factor analysis, we tested for differences between a baseline factor analysis and an unconstrained factor analysis (Gerbing and Anderson 1988). First, we tested the four latent factors (i.e., firm innovativeness, family governance, family commitment, and industry hostility) in a baseline factor analysis where the Φ matrix was set to one, and then compared these results to the unconstrained model where the latent constructs were allowed to correlate in the Φ matrix. As expected, the unconstrained model fit the data significantly better than the baseline factor model ($\Delta\chi^2$ = 1172.31; *d.f.* = 10; $p < .05$) and demonstrated the best overall model fit (CFI = .98; Delta2 = .98; RMSEA = .042; SRMR = .055).

Given the model comparison results, we proceeded to test for convergent and discriminant validities for the latent construct using the unconstrained model. All items loaded ($p < .05$) on their respective latent constructs, indicating convergent validity with the completely standardized factor loadings ranging from .43 to .88. The informal family meeting item from the family governance construct was dropped from further analysis due to having a low item loading of .20, which is below the recommended .40 threshold (Kelloway 1998). Likewise, we tested for discriminant validity through average variance extracted (AVE), which was close to or exceeded the recommended .50 level (Fornell and Larcker 1981) for the hypothesized latent factors: innovativeness (AVE = .52), family commitment (AVE = .63), and family governance (AVE = .49). Each scale demonstrated discriminant validity as the AVE for each latent construct was greater than the squared correlation of the respective construct and the other studied factors reported in Table 1 (Fornell and Larcker 1981). These results indicated that we could proceed with the testing of our hypotheses.

Table 4

Results of moderated regression analysis with firm innovativeness as the dependent variable[5]

Variable	Model 1[6]	Model 2	Model 3	Model 4[7]
Family governance		.04 (.05)	-.05 (.07)	-.07 (.07)
Family commitment		.20* (.09)	.26* (.12)	.30** (.12)
Generation involvement		.25** (.10)	.24** (.10)	.28** (.10)
Family governance x Family commitment			.14† (.10)	.30* (.14)
Family governance x Generation involvement			.14† (.09)	.17* (.09)
Family commitment x Generation involvement			-.04 (.18)	-.16 (.19)
Family governance x Family commitment x Generation involvement				-.37* (.21)
Log of GDP	-.29 (.23)	-.34 (.23)	-.37 (.23)	-.34 (.23)
Industry hostility	-.17** (.07)	-.18** (.07)	-.19** (.07)	-.20** (.07)
Log of employees	.05 (.03)	.07† (.03)	.07* (.04)	.08* (.03)
Log of family ownership	-.12 (.23)	-.06 (.23)	-.08 (.23)	-.08 (.23)
Log of family employees	-.06 (.08)	-.08 (.08)	-.08 (.08)	-.10 (.08)
Next-generation development	.10* (.05)	.06 (.05)	.06 (.05)	.07 (.05)
Family firm prevalence	.39 (.53)	.36 (.52)	.42 (.53)	.38 (.52)
R^2	.054	.096	.111	.121
R^2 (adjusted)	.028	.060	.064	.071
F-value	2.06*	2.64**	2.36**	2.43**
ΔR^2		.042	.015	.011
Partial F (for ΔR^2)		3.86**	1.37	3.03*

† $p < .10$; * $p < .05$; ** $p < .01$

Standard error in parentheses. Significance levels are reported as two-tailed test for control variables and as one-tailed tests for independent and moderating variables.

[5] Listwise deletion (n = 261)

[6] Unstandardized beta coefficients

[7] Variance Inflated Factors ranged from 1.04 to 2.61.

As seen in Model 4 of Table 4, Hypothesis 1 was rejected (*b* = -.07; n.s.), with the governance of the family not having a direct effect on the level of firm innovativeness, possibly suggesting that family governance is separate from firm innovativeness. However, we did find in our results that when the business family is committed to the business, this has a positive moderating effect between family governance and firm innovativeness, providing initial support for Hypothesis 2 ($b = .30$; $p < .05$) and building off the non-significant direct relationship between family governance and firm innovativeness. To determine the directionality of the beta coefficient from the analysis, we followed the procedures put forth by Aiken and West (1991) and Dawson (2014) to interpret these relationships. We employed graphing software to plot the impact of the interaction term to indicate the directionality of low and high family commitment (Dawson 2014). As indicated in Figure 1, we found support for Hypothesis 2.

Hypothesis 3 posited generational differences, with non-founding generation involvement in the firm resulting in negative moderation between family governance and firm innovativeness. The moderating effect was significant ($b = .17$; $p < .05$), and Figure 2 provides evidence depicting the directionality of the relationship as a negative moderating effect when only the non-founding generation was involved supporting Hypothesis 3.

Concerning Hypothesis 4, we tested for a three-way interaction among family governance, family commitment, and founding generation involvement. Through our analyses, we first discovered in Table 4 that the R^2 in Model 1 increased from .054 to .121 in Model 4 and was statistically significant ($F = 3.03$, $p < .05$) with an overall increase of Model 4 explaining an additional 9.3 percent. In addition, we discovered a statistically significant three-way interaction ($b = -.37$; $p < .05$) shown in Model 4 in Table 4 indicating preliminary support for Hypothesis 4.

Figure 1

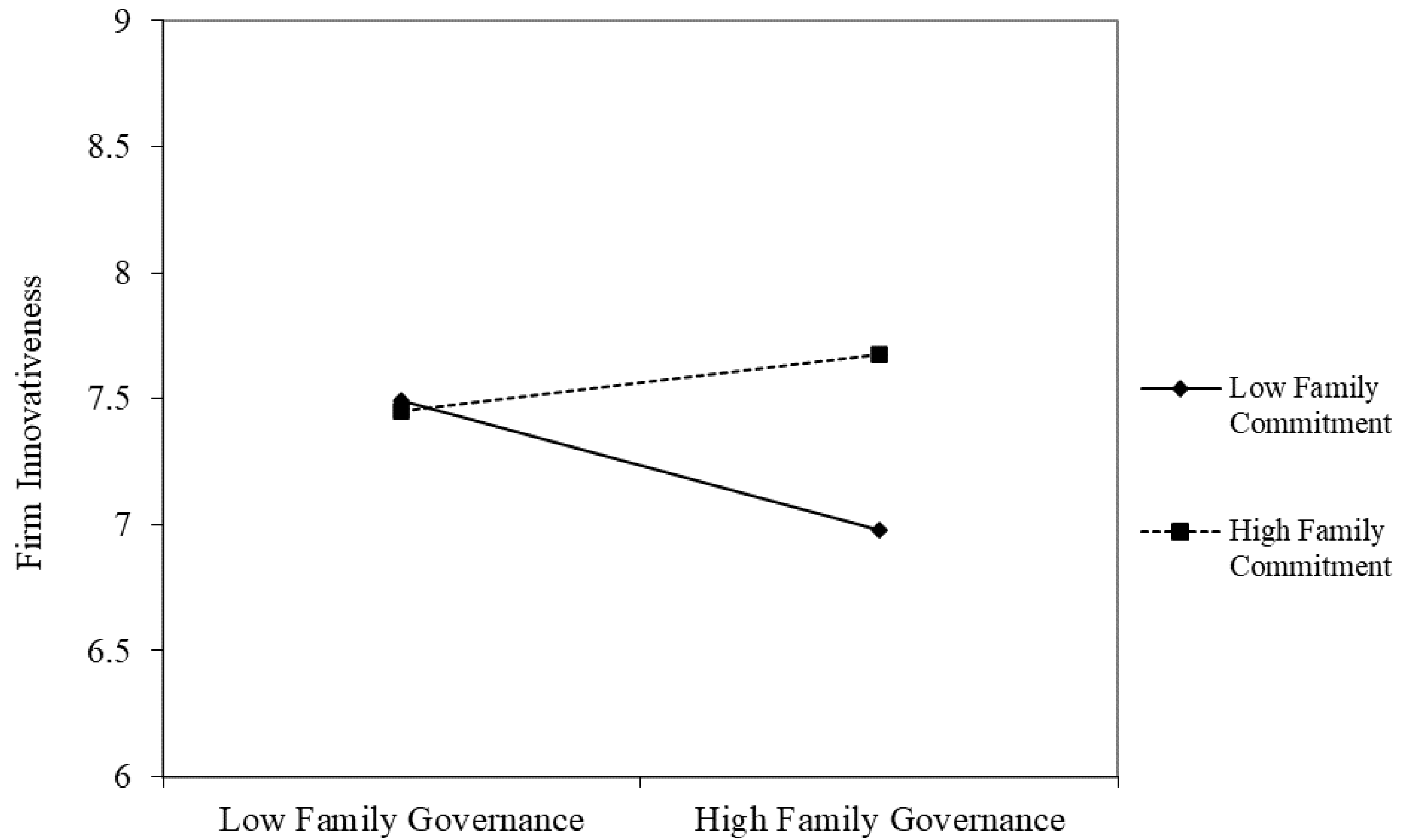

Figure 1 Graphed two-way interaction of family commitment on the relationship between family governance and firm innovativeness

Figure 2

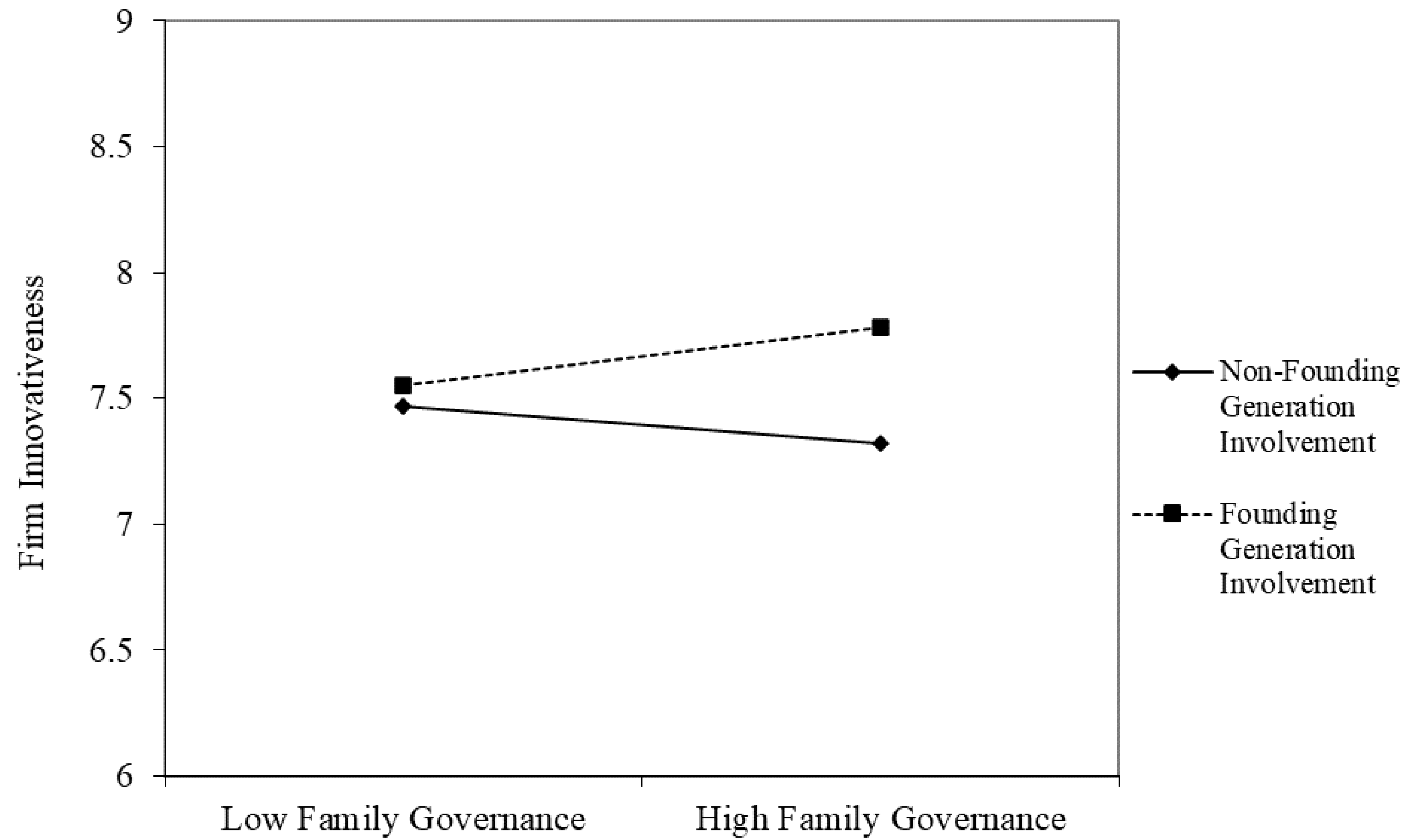

Figure 2 Graphed two-way interaction of generation involvement on the relationship between family governance and firm innovativeness

Following the guidance for graphical interpretation by Bing and Burroughs (2001) of a three-way interaction when one of the moderators is binomial, we employed their graphing programme which enabled us to interpret the directionality of the hypothesized relationships. The results presented in Figure 3 provide additional support for Hypothesis 4, with founding generation involvement and high family commitment each indicating positive directionality. Interestingly, when the founding generation is still involved in the firm, a family firm that has low family commitment has a similar level of innovativeness as a firm with high family commitment. Further, as illustrated in Figure 3, firms with high family commitment are slightly more innovative with a 7.82 on the y-axis than firms with low family commitment with a 7.78 on the y-axis, demonstrating the strength of the effect of founding generation involvement on firm innovativeness. For non-founding generation involvement, we discovered that high family commitment aids family firm innovativeness with 7.68 on the y-axis. Conversely, when family commitment is low, this effect seemingly acts as a constraint on a family firm's capacity to be innovative if the founding generation is no longer involved, suggesting the importance of the influence of family commitment on the family firm when the founding generation is no longer involved. Moreover, when the founding generation is present coupled with family governance and family commitment being high, we find that firm innovativeness is slightly higher than when the non-founding generation is only involved with high family governance and commitment. This finding demonstrates the strength of an innovative founding family legacy and the importance of family governance and family commitment. In addition, the control variables of *industry hostility* and *log of employees* were each statistically significant ($p < .05$).

Figure 3

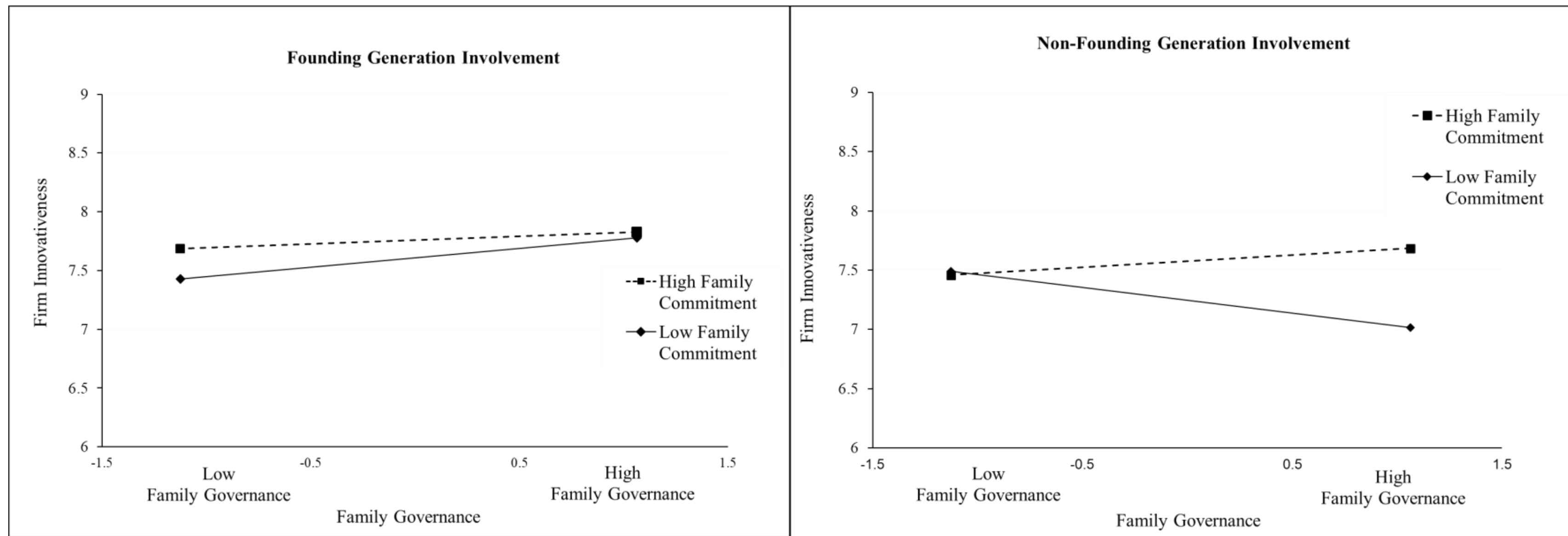

Figure 3 Moderating effect of family commitment on the relationship between family governance and firm innovativeness for founding generation involvement and non-founding generation involvement

Robustness checks

To validate our findings, we conducted additional statistical analyses. First, we replaced the log of GDP with binomial country dummy variables for each country and found comparable results. Second, we conducted slope difference testing on the interactions, which supported our results. Third, we ran the regression analysis using GLM regression with maximum likelihood estimation to relax the assumption of normal distribution with robust standard errors in order to consider the impact of heteroskedasticity on the results. The results from the GLM regression analysis with robust standard errors confirmed our initial findings. Fourth, we ran robust regression analysis which controls for the potential influence of outliers in our sample and confirmed our earlier results, suggesting that the influence of outliers had a limited impact on our findings.

Fifth, we split the sample into founding generation and non-founding generation involvement to validate our findings. Using the Chow Test to test the effect of founding generation versus non-founding generation involvement on the family commitment moderation for the relationship between family governance and firm innovativeness, our results were confirmed (F-value = 2.76; $p < .05$; $d.f. = 15, 240$).

Sixth, as family commitment could be artificially higher based on respondents providing more socially acceptable answers on this scale, we checked to see if all national cultures had comparable socially acceptable responses by testing for national cultural differences on this scale through an ANOVA. The analysis of variance was statistically significant ($F = 3.24$; $p < .01$) for national cultural differences. Through post-hoc analysis, we discovered statistical differences ($p < .05$) between France and the USA, Canada, and Ireland. Likewise, Spain had statistical differences ($p < .05$) with the USA, Canada, Ireland, and the UK. This finding suggests that respondents from different countries did not respond to this scale similarly. In addition, we correlated family commitment to three self-reported measures of family business outcomes for the business family,

including independence, tight-knit family, and respect in community, which were adapted from Sorenson (1999). Each item was anchored from 1 = Not at all to 5 = Very much. We anticipated family commitment to be positively correlated with business family outcomes of tight-knit family and respect in the community, but negatively correlated with independence. The family commitment measure was statistically correlated ($p < .001$) with the business family outcomes of tight-knit family and respect in community, but it was not significantly correlated with the business family outcome of being independent. These findings indicate that the potential obfuscating effects of socially acceptable responses for the family commitment measure do not seem to be prevalent in the sample.

Lastly, as recommended by Antonakis, Bendahan, Jacquart, and Lalive (2014), we considered endogeneity in our model using two-stage least square analysis for our two moderating variables. For our instrumental variable with family commitment, a family's financial capital was positively correlated with family commitment but not with firm innovativeness. Our analysis from the two-stage model yielded comparable results, with the weak instruments test being rejected for the financial capital variable, along with the resulting Wu-Hausman test indicating endogeneity was unlikely ($F(1, 245) = .38$; $p = .538$). We conducted additional analyses for our generation involvement moderation variable using the instrumental variable of firm age, which was correlated with the generation moderation variable and not with firm innovativeness. Firm age was an acceptable instrumental variable for our generation moderation variable, and endogeneity had limited effects ($F(1, 241) = .958$; $p = .329$) while producing comparable results.

Discussion and conclusions

Theoretical implications

In this study, we investigated the connection between family governance and firm innovativeness, with particular emphasis placed on the moderators of family commitment and generation involvement. Our results offer insights into how the variance in family commitment levels results in fluctuating outcomes for firm innovativeness, whereas founding generation involvement (versus non-founding generation involvement) has a subtler influence. Through our three-way interaction, these results offer unique insights into how family commitment and the type of generation involvement moderate the relationship between family governance and firm innovativeness, while providing a greater understanding of why some later generation family firms are more innovative than others.

From our empirical findings, we make the following contributions. First, our results contribute to agency theory by suggesting that family governance is not associated with superior firm innovativeness due to the non-significant findings. The non-significant finding of the direct relationship between family governance and family firm innovativeness was surprising; however, the lack of empirical research investigating the overall relationship between family firms and innovativeness, as attested by other scholars (see Frank et al. 2019; Gerulaitiene et al. 2020), implies that more research is necessary to fully understand the effect of family governance on firm innovativeness.

Second, our contribution relates to boundary conditions for agency theory which highlights that the commitment-infused prioritization of family preferences necessitates more controlled governance practices as a driver for innovativeness (Bodolica and Spraggon 2010). Although we did not find a direct relationship between family governance and firm innovativeness, we did find a positive moderating effect when the founding generation is present,

even when family commitment is low. This insight challenges the assumption that, for there to be a positive relationship between family governance and innovativeness in family firms with high commitment levels, there must be strong formalized mechanisms in place to authorize contractual means of control (Bodolica and Spraggon 2010), thus providing boundary conditions for the application of agency theory within a family firm context.

Third, we contribute to the family business literature by augmenting how founding generation involvement is associated with higher levels of innovative behaviour (Cruz and Nordqvist 2012; Martin and Lumpkin 2003). We provide empirical support for conceptual arguments in the literature that founding generation family firms are innovative (Calabrò et al. 2019). Moreover, from Figure 3, we find that when the non-founding generation family firm exhibits a high level of family commitment, the governance to firm innovativeness relationship is strengthened compared to family firms with low levels of family commitment. This finding addresses another key gap in the family firm research vis-à-vis innovativeness at distinct generational stages (De Massis et al. 2016; Duran et al. 2016).

Our findings also support the argument that non-founding generations can be entrepreneurial (Kellermanns et al. 2008) or may even point to the enduring entrepreneurial legacy that previous generations instilled in the business (Jaskiewicz et al. 2015). As our results reveal, when taking into account the extent of family commitment, we observe risk-averse behaviours associated with non-founding generation involvement are limited for innovativeness. We posit that the highest level of innovativeness is found when later generation family firms exhibit high levels of family commitment. When the founding generation is no longer involved, family managers should emphasize the familial and emotional ties between the family and business to strengthen the family commitment. These results also underscore the heterogeneity across family firms, and that when family commitment levels are elevated there exists a positive

relationship between governance and innovativeness. This finding explains the proclivity towards certain innovative behaviours with agency cost-reducing governance and high family commitment (Cassia et al. 2011).

Managerial implications

The managerial implications of this study are particularly salient for strategic decision making within family firms residing in our sampled nations, considering their well-established issues with remaining competitive in the market beyond their founding generation (Anderson et al. 2005; Jones et al. 2013). Family firms can benefit from substantial performance outcomes when they focus on the family governance to firm innovativeness relationship (Anderson and Reeb 2003; Castillo and Wakefield 2006). More specifically, we argue that the business family should strive to have the family more strongly committed to the success of the family business, especially when the founding generation is no longer involved in firm operations. Ultimately, our empirical findings may assist active family firms with augmenting their internal innovation processes in relation to how they respond to risk taking and how they approach decision making (Pitchayadol et al. 2018).

Some scholars have argued that the source of competitive sustainability in family firms revolves around family commitment due to the exigencies of trust and generation suitability (see Anderson et al. 2005; Steier 2001; Strike 2012). Our results suggest that strong family commitment has a positive effect on this relationship, which may, in part, be related to lower reciprocal agency costs with family members becoming more embolden and accountable for their actions and relationships with the family firm, resulting in a more innovative and competitive family business.

Limitations and future research directions

Our discussion suggests several possibilities in terms of future work to address some of the limitations of this study, which include our data being collected through a cross-sectional research design that could potentially confound the results. For instance, we employed a binomial founding generation involvement measure as a temporal variable to capture the corresponding generation differences in motivations and goals. A longitudinal analysis would facilitate measurement and examination of the extent of change among governance, family generation goals, family commitment, and firm innovativeness rather than using a proxy measure of founding generation involvement.

Additionally, our conclusions may be biased through our use of a sample derived from associations with corresponding university family business centres in our six sampled countries, creating a potential sample selection bias. Although we are confident that such an approach did assist with maximizing our sample size, our results may be biased to the sample selected and therefore may not be generalized beyond family businesses that share similar attributes as to those in our sample, such as awareness of best practices and residing in countries similar to the nations in our sample. Moreover, there may be potential survivor bias associated with our sample. A potential future research question might address how these findings compare against those from first-generation family businesses. Another possible future research question might ask failed family firms, through a qualitative research design, why the firm was unsuccessful (e.g., a lack of family commitment), which could complement a survey design through a mixed-method approach.

Likewise, some of our measures may have some influence of socially accepted bias (e.g., family commitment) in their responses. Although respondents did answer their questions differently from one another based on their nationality (e.g., France, Spain), more research should be conducted with more objective measures of how committed the family is to the family's

business (e.g., observed family behaviours toward the family firm through a grounded research design) and the extent that national culture may influence their perceptions. To remedy this limitation, we encourage scholars to replicate our study using a randomly selected sample of family firms across additional nations at different stages of economic and/or institutional development (e.g., developed versus emerging economies, democracy versus authoritarianism).

By drawing upon agency theory, we implicitly argue that family firms may have a lack of trust among the family owners, and when there is a lack of trust, more formalized governance mechanisms are needed to instil confidence among the family owners and managers of the family firm, especially when dealing with risky strategic initiatives, such as innovativeness, which often have unpredictable outcomes. Although we do not measure trust in our analysis, which is a limitation of our findings, we encourage others to give a deeper examination of trust between the different founding and non-founding generations to further generalize the findings on founding generation involvement and the extent that trust is either manifested through family commitment to the family business or due to the need to monitor managers more extensively.

There have also been calls for more research into tradition-driven innovativeness, in terms of sources of past knowledge and the roles of family members at distinct generational phases (see De Massis et al. 2016). Although our study does consider generation involvement aspects in relation to innovativeness, we do not specifically focus on the types nor the knowledge sources of innovation. We encourage future researchers to blend the type of generation involvement findings of our study with the conceptual model of innovation through tradition proposed by De Massis et al. (2016). This model incorporates sources of past knowledge from the firm and territorial levels and how this knowledge is reinvigorated through inclusion of the next generation with new perspectives. Finally, we use a coarse measure of founding generation involvement and encourage researchers to examine the microfoundations of innovation more thoroughly in family firms -

especially when it comes to the individual attributes and characteristics of the founder and other family managers from the founder's generation, as well as from subsequent generations. A deeper understanding of the individual's role in addressing decision making in innovation processes would contribute to an emerging microfoundations research stream in family business.

Conclusion

Innovativeness is key within family firms in terms of a range of performance outcomes and therefore long-term competitiveness within their respective markets (Block et al. 2023; Casado-Belmonte et al. 2021; Dekker et al. 2013; Duran et al. 2016). By providing insights into innovativeness within long-established family firms, we have demonstrated the complexities of how this performance indicator is contingent on not only governance, as other studies have shown, but more specifically on the variance in family commitment and whether the founding and future generations continue to be involved in the business operations of the firm.

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