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How family firms can avoid the trap of strong social ties and still achieve innovation:

Critical roles of market orientation and transgenerational intent

Abstract

Purpose: To extend family business research, this article proposes and tests a curvilinear relationship between social ties and family firm innovation, with the firm's market orientation and transgenerational intent as moderators.

Design/methodology/approach: Representatives from a sample of 150 family firms in the United Arab Emirates completed self-administered questionnaires. Regression analyses on the collected data test the conceptual model and proposed hypotheses.

Findings: The empirical study reveals an inverted U-shaped relationship, such that a high market orientation mitigates the diminishing returns of social ties on enhancing family firm innovation. Similarly, at high levels of transgenerational intent, family firm innovation increases due to social ties, instead of exhibiting diminishing returns.

Originality: These results help explain contradictory outcomes previously attributed to social ties and offer clear guidelines for how family firms can leverage these ties more effectively to enhance their own innovation.

Keywords: Family firms, social ties, innovation, market orientation, transgenerational intent, United Arab Emirates.

Article classification: Research paper

Introduction

Strong social ties influence family firm innovation, but theoretical predictions about the precise direction of this influence vary across social capital and social embeddedness theories. That is, extant research suggests access to social capital supports family firm innovation (Bennedsen and Foss, 2015; Heirati and O’Cass, 2016; Pruthi, 2014), noting these firms’ tendency to adopt long-term orientations and establish enduring, trusting ties that facilitate knowledge exchanges and information transfer (Zellweger *et al.*, 2012). As Le Breton-Miller and Miller (2009) predict, family firms often develop stable, reciprocal relationships with narrow sets of customers, suppliers, and partners, because their owners prefer to maintain control, as a key characteristic of socioemotional wealth (SEW). Yet social embeddedness predictions instead caution that strong social ties constrain access to novel opportunities and diverse resources (Arregle *et al.*, 2015). Network boundaries can limit the formation of new social relationships and restrict the firm’s resources and information to sources involving only existing, personal relationships (Granovetter, 1973). According to Steier and Muethel (2014), if the family firm becomes over-embedded in existing, shared knowledge and resources, the future of the family business is at risk.

To address and reconcile these conflicting theoretical views, we pose a central research question: *Do stronger social ties produce greater family firm innovation?* In our efforts to answer this practically relevant question, we predict that when social ties grow stronger, innovation increases, though possibly at a declining rate. The benefits of social ties for family firms’ innovation may diminish if the firm becomes over-embedded (i.e., inverted U-shaped relationship). Avoiding such diminishing effects may be difficult, because social ties naturally

tend to grow stronger over time, especially among family firms that seek continuity and adopt long-term orientations (Hoffmann *et al.*, 2016).

To avoid such detrimental developments, we need to answer another key research question: *How can family firms mitigate the diminishing effects on innovation as their social ties grow stronger?* We propose that two moderators might be particularly relevant: (1) market orientation and (2) transgenerational intent to ensure continued family control. Both factors might mitigate the risk reflected in the cautions against allowing “the ties that bind turning into ties that blind” (Smith-Doerr and Powell, 2010, p. 393). Market orientation improves the firm’s sensing capability, such that it can explore new trends in the marketplace actively, using various methods (Al-Surmi *et al.*, 2020; Teece, 2009). Such an outward orientation can help the family firm break free from constraining, reciprocal bonds and seek out realistic, transactional gains through marketing and network diversity. Transgenerational intentions are future-oriented and induce initiatives to keep the business on track (Gilding *et al.*, 2015), such as by encouraging subsequent generations of family leaders to build their own business networks and social ties (Daspit and Long, 2014; Venter *et al.*, 2005). Such efforts may diminish the risk of over-embedded social ties and mitigate the potential threat to the family firm’s innovation.

To assess these arguments, we investigate small and medium-sized family firms in the United Arab Emirates (UAE). Several unique characteristics of the UAE make it particularly appropriate for addressing our theoretical predictions. In this highly collectivistic country, social ties are critical to business (Ma *et al.*, 2019; Pai and More, 2018; Zeffane, 2014), and communities rely on *wasta* to get things done. Hutchings and Weir (2006) define *wasta* as social networks of interpersonal relations established in family and kinship attachments. Because of its widespread use, business transactions depend on social obligations developed through asking for

and granting favours. Families often develop strong attachments, commitment, and loyalty to a group of trusted stakeholders (Lalonde, 2013). Furthermore, the UAE is the most innovative Arab country, according to the Global Innovation Index, and firms in this nation serve diverse markets (Cornell University *et al.*, 2020). More than 80% of the UAE's population are expatriates; many international firms have offices in Dubai and Abu Dhabi. Therefore, firms tend to be market-oriented and undertake expansive, persistent marketing activities (Genc *et al.*, 2019). Finally, Arab family firms express strong intentions to maintain the business for future generations, and many of them use the family name as their brand or corporate name (Alrubaishi *et al.*, 2021; Ng *et al.*, 2019; Samara, 2021).

With these predictions, in this setting, we seek to make several contributions. First, we advance current discourses about family firm innovation based on social capital theory with a specific focus on social ties, which refer to social relationships with nonfamily employees, suppliers, customers, and communities. By also considering conflicting arguments derived from social embeddedness theory, we establish the need for family firms to strike a balance in managing social ties, because when these ties grow stronger, their benefits for innovation diminish. Second, moving beyond the question of why family firms innovate, we generate insights into *how* they do so, by examining connections among social ties, innovation, market orientation, and transgenerational intent. These results offer novel solutions to help family firms avoid an overreliance on social ties that can undermine their innovation efforts (Bennedsen and Foss, 2015; Cassia *et al.*, 2012). Prior research identifies long-term orientations and persistent family control as hindrances to family firm innovation (Gomez-Mejia *et al.*, 2014); we instead clarify more precisely how these elements can benefit innovation by detailing how they interact with the value of social ties.

To establish these contributions, in the next section, we present the theoretical framework and hypotheses. After explaining the methodology and presenting the empirical analysis, we discuss the main findings in terms of their theoretical and managerial contributions. Finally, we conclude with some limitations and suggestions for further research.

Theoretical background and hypotheses development

Social capital is defined as the “network of relationships held by an individual or social unit, and the sum of actual and potential resources embedded within, available through, and derived from such network” (Nahapiet and Ghoshal, 1998, p. 243). Social capital in family firms exhibits two notable features: (1) network centrality, such that the family maintains strong control over its ties throughout the network, and (2) network closure, so all family members in the firm have close relationships (Coleman, 1988). Motivated to preserve their socioeconomic wealth (SEW), family firms express intentions “to shape and pursue the vision of the business held by a dominant coalition controlled by members of the same family or a small number of families in a manner that is potentially sustainable across generations of the family or families” (Chua *et al.*, 1999, p. 25). Prior research into family social capital outlines its capacity to support knowledge integration, family identity, and collaborations among family members (Chirico and Salvato, 2008; Herrero and Hughes, 2019). But to advance social capital theory, we also seek to determine if social ties involving nonfamily stakeholders might contribute to family firm innovation.

Social embeddedness instead refers to non-economic connections that influence experiences, goals, and actions, which in turn affect economic behaviours, including firm innovation (Granovetter, 2005). It determines access to resources and resource acquisition (Hernández-Carrión *et al.*, 2017; Wigren-Kristoferson *et al.*, 2022). Family firms are often

tightly controlled, which can create an unfriendly environment toward external influences (Dekker *et al.*, 2015; Stewart and Hitt, 2012). Yet the knowledge, resources, and collaborations they can access through their strong social ties and the social capital thus obtained may help them pursue innovation (Florin *et al.*, 2003; Sinha *et al.*, 2021). Uzzi (1996) proposes limits on the positive effect of social embeddedness, such that beyond some certain number, social ties offer only redundant information. Kreiser *et al.* (2013) also note that the costs of preserving many strong ties may exceed the benefits (e.g., new knowledge, information). Such over-embeddedness even can create reciprocity obligations or closed networks that function like echo chambers of overlapping, inward-focused information (Adler and Kwon, 2002). Strong relationships with a few ties can produce homogeneous ideas and priorities, because values often are shared within groups. The extent to which over-embeddedness determines family firm innovation has not been examined empirically though.

To extend the benefits received from social capital through social ties, family firms need to reduce the costs and increase the benefits of maintaining strong ties (e.g., new expertise, resources for innovation). Putnam (2000) suggests that restricted ties may result in conformity that hinders innovation, but weaker ties with diverse parties can create more pathways to innovation. Thus, family firms need to embrace an *externally* focused market orientation, act swiftly through active sensing, respond to market environments (Lee, 2010), identify relevant external collaborators, and find and employ new employees with relevant skills. A future orientation, as manifested in transgenerational intent, then represents an *internal* effort to define the family business (Gomez-Mejia *et al.*, 2011, Liu *et al.*, 2015), with likely influences on social ties and engagement. With this parsimonious, coherent argument involving two moderators, we suggest a possible means to disrupt the negative impact of overly strong social ties on family

firm innovation, as depicted in the conceptual framework in Figure 1. In detail, we predict that innovation benefits gained from social ties diminish when the ties exceed a certain threshold, because the family firm's over-embeddedness in its social ties constrains access to new information, knowledge, and collaborations. However, its market orientation and transgenerational intent can buffer these effects.

[Insert Figure 1 around here]

Social ties and family firm innovation

From a relational governance perspective, social ties represent channels for knowledge exchange, involving business activities but based in interpersonal relationships (Sheng *et al.*, 2011; Tiwasing and Sawang, 2021; Yenziaras *et al.*, 2020). When family firms use social relationships to develop business ties and reciprocal bonds, they generate relational trust and interpersonal solidarity with a potentially wide set of stakeholders, such as nonfamily employees, suppliers, contractors, customers, and communities (Berrone *et al.*, 2012; Sorenson *et al.*, 2008). Such binding social capital enhances the firm's resources and capabilities (Gao *et al.*, 2019; Lindvert *et al.*, 2017; Spriggs *et al.*, 2013), so it can enable the family business to expand its innovation horizon. For example, the firm can find employees with relevant talent and diverse expertise (Heider *et al.*, 2022). Frequent exchanges provide safe spaces for collaborations (Feranita *et al.*, 2017), through which family firms can spread the costs and risks of new product development (Brinkerink *et al.*, 2017; Hernandez-Perlines *et al.*, 2020; Park and Luo, 2001). Because family firms, especially smaller ones, tend to experience resource constraints (Fernández and Nieto, 2005, Gronum *et al.*, 2012), social capital can have especially strong effects on their organizational performance (Peng and Luo, 2000). As Zeng *et al.* (2010)

emphasise, inter-firm cooperation with intermediary institutions encourages innovation among small and medium-sized enterprises.

Still, entrepreneurship literature offers the general caveat that weak ties might be better than strong ties for sensing opportunities (Elfring and Hulsink, 2003; Granovetter, 1973). An over-embedded, confined system of social relations limits options for forming new relationships, which then limits the amount of new knowledge and information available (Bennedsen and Foss, 2015; Ruef, 2002). Thus, entrepreneurs should seek a moderate level of embeddedness that balances their strong and weak ties (Arregle *et al.*, 2015). In a similar sense, firms need both indirect and direct collaborations (Ahuja, 2000). Family firms often are inward focused, reluctant to seek external assistance, and determined to maintain family control (Chrisman *et al.*, 2015; Gómez-Mejía *et al.*, 2007), so they tend toward strong social ties already. This scenario implies the presence of social capital liabilities (Bennedsen and Foss, 2015; Herrero and Hughes, 2019), such as if strong bonds with existing suppliers cause the family firm to ignore new suppliers that offer better prices or materials. Long-term business partnerships also might mean that the firms only have access to the same skill sets or redundant expertise, which can lead to conformity or groupthink (Ruef, 2002). Such concerns are particularly relevant for firms seeking innovation.

In line with this review, mixed empirical results about the role of social ties in firm's innovation reflect the idea that there can be too much of a good thing (Gronum *et al.*, 2012; Martinez and Aldrich, 2011; Tomlinson, 2010; Zhang *et al.*, 2020). When family firms are overly embedded in current social relations and depend excessively on their strong ties, they enter into a closed network that does not allow for entry by other actors that otherwise could provide diverse knowledge (Herrero and Hughes, 2019). The benefits of social ties may diminish

in this scenario and even become liabilities. Accordingly, we propose that the effect of family social ties on family firm innovation increases at a declining rate.

H1: The relationship between social ties and family firm innovation is curvilinear, such that social ties enhance family firm innovation but at a declining rate.

Moderating role of market orientation

Market-oriented firms actively use marketing strategies to attract customers; they conduct regular activities to gather new information from the market (Cui and Wu, 2016; Sharp, 1991). Such activities represent business efforts to satisfy customers' needs effectively and efficiently by offering superior value, which can support the firm's continuously superior performance (Narver *et al.*, 2004). Through the assimilation and coordination of marketing activities, the firm pursues long-term profits. Kohli and Jaworski (1990) also link market orientation with marketing intelligence collection, dissemination, and responsiveness, which support innovation activities such as new product development. Market-oriented firms are sensitive to information, engage in environmental scanning and sensing, and adapt to market changes to achieve innovation (Jones and Rowley, 2011). This outward orientation may overcome the closed networks that arise when firms become overly embedded.

For family firms in particular, strategic behaviours associated with a market orientation might have positive performance effects (Basco, 2014; Martens *et al.*, 2016; Thrassou *et al.*, 2018), though we know of few studies that investigate this influence specifically. Family firm owners, driven to maintain profitable businesses that they can pass on to future generations, likely take a long-term view, so they may recognize the need to engage with the market. If it fails to address market expectations, the family would risk losing its influence and control over the business (Kellermanns *et al.*, 2014). Furthermore, an outward market orientation encourages

family firms to engage in frequent interactions with the market (Tokarczyk *et al.*, 2007), which reduces the risk of over-embeddedness. Beck *et al.* (2011) confirm that a market orientation affects innovation success in family firms; if they exhibit a strong market orientation, family firms even might achieve radical innovations (Covin *et al.*, 2016). For example, good external connections with customers boost innovation ability (Prahalad and Ramaswamy, 2004). All these factors combine to increase the likelihood that family firms that adopt a market orientation, in their effort to understand customers, scan and sense the external environment, and respond to market changes, can avoid the diminishing benefits of social ties on their innovation. In ongoing marketplace interactions, the firm receives valuable flows of information, knowledge, and resources, beyond network barriers or redundant social ties (Basco, 2014). It also might be able to duck pressures to conform and pursue innovativeness to fulfil market demands (Ruef, 2002, Thrassou *et al.*, 2018). We thus propose:

H2: The curvilinear relationship between social ties and family firm innovation is moderated by the firm's market orientation, such that the decline in the rate at which social ties enhance family firm innovation is weaker at higher levels of market orientation.

Moderating role of transgenerational intent

With their transgenerational intent, family firms aim to ensure continuity (Liu *et al.*, 2015; Wang *et al.*, 2004). As a future orientation, it may encourage the development of new social ties, active recruitment of nonfamily employees, and dynamic collaborations with multiple stakeholders. When the current generation of firm leaders seeks to engage the next generation (Holt *et al.*, 2010), it should introduce new knowledge that expands the firm's business aspirations, reflecting the novel interests of the successors (De Clercq and Belausteguigoitia,

2015). Clearly articulated transgenerational intent can instil a sense of stability and trust among both internal and external stakeholders. Mokhber *et al.* (2017) affirm the positive effect of transgenerational intent on the performance of small to medium-sized family firms; other studies confirm that long-term growth concerns encourage investments in innovation (Bammens *et al.*, 2021; Wang *et al.*, 2019). Furthermore, a future orientation affects both innovation motives and new product development activities (Cassia *et al.*, 2012; Diaz-Moriana *et al.*, 2020).

We thus predict that a future orientation, in the form of transgenerational intent, weakens the curvilinear relationship between social ties and innovation in family firms. When the founding generation expresses a clear intention to relinquish control to the next generation, the firm initiates identification and planning processes to prepare the successors. Assuming the next generation wants to take over the business, these successors become strongly involved, which likely leads them to develop their own personal networks (De Clercq and Belausteguigoitia, 2015). The new connections can disrupt the limited scope and boundaries associated with a sole reliance on existing social ties (Dou and Li, 2013; Nordqvist *et al.*, 2013). The next generation introduces new information, knowledge, and resources to the family firm, which should reduce the risk of it becoming over-embedded or dominated solely by ties that offer redundant resources and information. Because the family firm can better avoid the risk of social over-embeddedness when successors expand the firm's networks and access to expertise, we posit that transgenerational intentions serve as buffers against the declining rate of family firm innovation when social ties grow stronger.

H3: The curvilinear relationship between social ties and family firm innovation is moderated by the firm's transgenerational intent, such that the decline in the rate at which

social ties enhance family firm innovation is weaker at higher levels of transgenerational intent.

Methods

Sample and data collection

In line with current literature (Schell *et al.*, 2018), we define a family firm as one in which at least 50% of its shares are owned by one family, with members who actively manage and develop the business. The target sample for this study includes small or medium-sized family firms, which we gathered from a list of 182 family firms associated with the Khalifa Fund for Enterprise Development, as well as 56 family firms in the network of an innovation and entrepreneurship research group at a major research university in the UAE. Thus, our initial sample comprises 238 family firms. All businesses were in either Abu Dhabi or Al Ain; Appendix A provides further sample characteristics. To enhance the generalizability of the findings, we sought family firms of different generations and sizes, across various industries.

Before issuing the structured questionnaires to this sample, we validated them through pre-tests with four family firm practitioners and two experts, whose contact information we obtained from the university. Two of the family firm representatives were owner-managers, and the other two were nonfamily managers; the experts were academics with extensive experience conducting surveys with family firms. The practitioners assessed the content and meaningfulness of the survey items, and the academics checked their consistency with extant research (Dayan *et al.*, 2013; Zacca *et al.*, 2015). Their suggestions led to some minor alterations. Then, to translate the English versions of the surveys into Arabic, a native Arabic speaker, also fluent in English, translated the survey instruments. The research team and translator made minor changes and reconciled any discrepancies (Zacca and Dayan, 2018). Finally, before initiating the main study,

we confirmed that the 238 firms in the initial sample met the aforementioned inclusion criteria (i.e., 50% of company shares owned by one family, and family members actively managed the business).

A full-time research assistant distributed and collected the surveys personally, providing each family firm with two sets of questionnaires, one to be completed by a family member owner-manager and another by a nonfamily manager. The former questionnaire included items pertaining to social ties and transgenerational intent; the latter version featured items about the firm's market orientation and innovation. Collecting data from two respondents from each company helps avoid common source bias (Zacca *et al.*, 2017). We received 176 responses, but 26 of the questionnaires were incomplete. After excluding these incomplete responses, the final sample size was 150, reflecting a response rate of 63%.

Measures

The measures of the focal constructs rely on previously validated scales, with five-point Likert anchors (“strongly disagree” to “strongly agree”), except for the market orientation construct. The full list of measurement items is in Appendix B.

Family firm innovation. To measure the extent to which the family firm adopts an innovative posture, we applied a four-item scale of firm-level innovativeness (Jambulingam *et al.*, 2005). Two sample items were, “Our company is known as an innovator among businesses in our industry” and “Our company is constantly experimenting with new products/services” (Cronbach's alpha = .87).

Social ties. To assess the extent to which family firms maintain strong social relationships with external stakeholders, we used a five-item scale of binding social ties (Berrone *et al.*, 2012). Respondents rated, for example, whether “Building strong relationships with other institutions

(i.e., other companies, professional associations, government agents, etc.) is important for my family business” and “In my family business, contractual relationships are mainly based on trust and norms of reciprocity” (Cronbach’s alpha = .78).

Market orientation. We measured the extent to which family firms allocate resources to different marketing activities, with the goal of fulfilling customer demands, using a five-item scale of market orientation (Basco, 2014), assessed on five-point Likert-type anchors that ranged from “not used” to “widely used”. The activities include “promote and advertise” (spending above the industry average), “innovation in marketing techniques”, “process-oriented R&D”, “serve specific geographic markets”, and “build brand identification” (Cronbach’s alpha = .93).

Transgenerational intent. To evaluate the extent to which the firm’s current and next generations plan to maintain control, we used a three-item scale of transgenerational intent (Holt *et al.*, 2010). Participants indicated their agreement with the following statements: “This business will be controlled by the same family in five years”, “The senior generation wants the business to stay in the family”, and “The next generation is committed to long-term business ownership” (Cronbach’s alpha = .71).

Control variables. We controlled for **two** variables: firm size (log number of employees), and firm age. These variables have appeared in prior empirical studies, because of their likelihood of affecting family firm innovation (Bammens *et al.*, 2021; Filser *et al.*, 2018).

Construct validity

To assess the validity of the focal constructs, we performed a confirmatory factor analysis on a four-factor measurement model. This model generated adequate fit: $\chi^2(113) = 226.27$, comparative fit index = .91, incremental fit index = .91, Tucker-Lewis index = .89, root mean squared error of approximation = .08, and standardized root mean squared residual = .06. In

support of convergent validity, the factor loadings ($p < .001$) of each item on its corresponding construct are strong (Hair *et al.*, 2006). The average variance extracted (AVE) values for the four central constructs—family firm innovation, social ties, market orientation, and transgenerational intent—are .63, .42, .74, and .48, respectively, such that they are somewhat low but acceptable and not uncommon in understudied cultural settings (De Clercq *et al.*, 2020; Kashif *et al.*, 2017). In support of the presence of discriminant validity, each AVE value was greater than the squared correlations of the corresponding construct pairs. Furthermore, the fit of all six models that included unconstrained construct pairs, in which the correlation between constructs was free to vary, was significantly better than the fit of the constrained equivalents with fixed correlations (Hair *et al.*, 2006).

Among the statistical procedures available to test for common method variance (Huang *et al.*, 2020; Podsakoff and Organ, 1986), Harman's single-factor test is pertinent; it determines whether the first extracted factor accounts for a significant proportion of the total data variance, which would imply a high risk of common method variance. In an unrotated factor analysis, which produces a four-factor solution, Factor 1 accounts for just 24.86% of the variance. That is, a single factor does not emerge, and Factor 1 does not explain most of the variance, so common method bias is unlikely to be a concern.

Results

Table I contains the correlations and descriptive statistics; Table II provides the hierarchical regression results: [Model 1 includes the control variables](#); [Model 2 adds social ties to Model 1](#); [Model 3 adds market orientation and transgenerational intent to Model 2](#); [Model 4 adds the squared value of social ties to Model 2](#); [Model 5 adds the squared value of social ties to Model 3](#); [Model 6 includes the control variables, social ties, market orientation, transgenerational](#)

intent, and the linear interactions between social ties and the two moderators; Model 7 adds the social ties \times market orientation and social ties squared \times market orientation interactions to Model 5; Model 8 adds the social ties \times transgenerational intent and social ties squared \times transgenerational intent interaction terms to Model 5; and Model 9 features each of the linear and quadratic interaction terms. Although some of the models are redundant in relation to the hypotheses, we report them all, for completeness and transparency. For each model, we provide the adjusted R-squared value, the difference between the focal adjusted R-squared value and the adjusted R-squared value of the relevant nested benchmark model, Akaike information criterion (AIC) and Bayes information criterion (BIC) values, link test p -values, and Ramsey reset test p -values.¹

Models 2 and 3 indicate a positive relationship between social ties and family firm innovation ($\beta = .402, p < .001$, and $\beta = .422, p < .001$, respectively). Models 4 and 5 in turn reveal a significant, if somewhat weak, negative relationship between the squared value of social ties and family firm innovation ($\beta = -.171, p = .059$, and $\beta = -.162, p = .078$, respectively). The differences in adjusted R-squared values reach .016 between Models 4 and 2 ($p = .059$) and .014 between Models 5 and 3 ($p = .078$). These p -values reflect conservative two-tailed tests; the curvilinear effects instead would be significant at $p < .05$ in one-tailed tests—which arguably are acceptable in light of the theory-based specification of the *nature* of the curvilinear effect predicted in H1. The AIC values of Models 4 and 5 (298.323 and 301.646, respectively) are slightly lower than the corresponding values of Models 2 and 3 (300.025 and 302.924,

¹ The link test regresses the dependent variable of a focal model against its prediction and squared prediction. If the squared prediction regressor in the test model is significant, the focal model is misspecified; if it is not significant, the specification of the focal model is adequate (Pregibon, 1980). The Ramsey reset test compares the fit of a focal model with that of a test model that includes the squared and cubed values of the predicted values of the dependent variable. If the F-statistic of the change in the R-squared value of these two models is significant, the focal model is misspecified; if this F-statistic is not significant, the specification of the focal model is adequate (Ramsey, 1969).

respectively), implying that Models 4 and 5, which include the squared social ties term, achieve a slightly better fit than their counterparts without this term. The values of the BIC, which is a more conservative fit test, are slightly higher in Models 4 and 5 (316.387 and 325.731, respectively) compared with the corresponding values in Models 2 and 3 (315.078 and 323.998, respectively), which suggests slightly worse fit of the former compared with the latter. Yet the link and Ramsey reset tests indicate that Models 2 and 3 are misspecified (link test $p = .028$ and $p = .101$, respectively; Ramsey reset test $p = .028$ and $p = .026$, respectively), whereas Models 4 and 5, which include the squared value of social ties, are adequately specified (link test $p = .421$ and $p = .606$, respectively; Ramsey reset test $p = .128$ and $p = .304$, respectively). Taken together, these results support H1 and the predicted curvilinear effect of social ties on family firm innovation, even if the effect is not very strong. Figure 2 depicts this curvilinear effect, in which family firm innovation increases at a diminishing rate as social ties increase, then starts to decrease beyond a certain level of social ties.

[Insert Tables I and II and Figure 2 about here]

We followed a suggestion by Lind and Mehlum (2010) to undertake an additional check of the presence of a significant inverted U-shaped relationship. By leveraging Sasabuchi's (1980) approach, we tested for the joint significance of the direct and squared terms of social ties and affirmed that the effect of social ties on firm innovation does not (1) increase at low values of family firm social ties or (2) decrease at high values of social ties. We also estimated the extreme point of the effect of family firm social ties and calculated confidence intervals based on Fieller's standard error and the Delta method (Lind and Mehlum, 2010). These confidence intervals fall within the data limits. Thus, the collected evidence indicates that the inverted U-shaped relationship is significant (see Table III).

[Insert Table III about here]

Model 7 in Table II indicates a positive, significant relationship between the social ties squared \times market orientation interaction term and family firm innovation ($\beta = .144, p = .043$), and Model 8 features a similarly positive and significant relationship between the social ties squared \times transgenerational intent interaction term and family firm innovation ($\beta = .277, p = .038$). The differences of the adjusted R-squared values of Model 7 and 8, compared with the corresponding values of the nested benchmark Model 5, equal .017 ($p = .091$) and .034 ($p = .022$), respectively.² The AIC values of Models 7 and 8 (300.536 and 297.570, respectively) are slightly lower than the AIC value in Model 5 (301.646); the BIC values of Models 7 and 8 (330.642 and 327.676, respectively) are slightly higher than that of Model 5 (325.731). The link and Ramsey reset test results indicate that Models 7 and 8 are adequately specified (link test $p = .246$ and $p = .695$, respectively; Ramsey reset test $p = .111$ and $p = .716$, respectively). These findings offer support for H2 and H3. Figure 3 shows that the diminishing returns of social ties disappear at high levels of market orientation and that family firm innovation steadily increases across the entire range of social ties in that scenario. Figure 4 indicates an even more pronounced pattern, such that family firm innovation increases more than proportionally with social ties at higher levels of transgenerational intent, instead of exhibiting a pattern of diminishing returns.

[Insert Figures 3 and 4 about here]

To confirm the robustness of our findings regarding the *moderated*, inverted, U-shaped relationship between social ties and firm innovation, we performed a simple slope test (Aiken *et al.*, 1991) of the statistical significance of various parts of the regression curve. It included high and low levels of the moderator terms, at one standard deviation above and below the mean, and

²The social ties squared \times market orientation and social ties squared \times transgenerational intent product terms become insignificant in Model 9, indicating that Model 7 and 8, which include the moderating effects of market orientation and transgenerational intent separately, better isolate and represent the effects.

high and low levels of social ties at one standard deviation above and below the inflection point of the regression curve. For high levels of market orientation, the simple slope of the regression curve is positive and significant at low levels of social ties ($\beta = 2.15, p < .001$) and negative and significant at high levels ($\beta = -.68, p < .05$). Similarly, for high levels of transgenerational intent, the simple slope of the regression curve is positive and significant at low levels of social ties ($\beta = 1.98, p < .001$) and negative and significant at high levels of social ties ($\beta = -1.87, p < .001$). In line with our hypotheses, when both market orientation and transgenerational intent are low, the simple slopes are not statistically significant ($\beta = .33, p > .10$ for low market orientation; $\beta = .41, p > .10$ for low transgenerational intent). These findings provide further support for the [contingent nature of the](#) inverted U-shaped pattern. Figures 5 and 6 depict how market orientation and transgenerational intent moderate the nonlinear relationship; in line with our expectations, the decline in the rate at which social ties enhance family firm innovation is lower at higher levels of market orientation and transgenerational intent.

[Insert Figures 5 and 6 about here]

Finally, we evaluate potential bidirectional relationships between social ties and firm innovation with a non-recursive structural equation modelling approach, such that we derive a non-recursive cross-sectional model that contains links from social ties and the square term of social ties to firm innovation, as well as from firm innovation to social ties/squared term of social ties. Social ties positively ($\beta = .33, p < .001$) and the square of social ties negatively ($\beta = -.21, p < .05$) influence firm innovation, but firm innovation does not affect either social ties ($\beta = -.07, p > .10$) or their square term ($\beta = .11, p > .10$). These results support our original model specification: Social ties have a curvilinear effect on family firm innovation.

Discussion

This study seeks two main objectives: to explain the impact on innovation when social ties get stronger and to examine how these effects might be altered. Our empirical results confirm the presence of a “too much of a good thing” phenomenon (Pierce and Aguinis, 2013), such that a curvilinear relationship exists between social ties and family firm innovation. But family firms can mitigate this curvilinear relationship by leveraging their external market orientation and internal transgenerational intent. In contributing to social capital and social embeddedness literature, we reveal both positive and negative influences of social ties on family firm innovation. We know of no prior, combined considerations of the roles of social ties, market orientation, and transgenerational intent in explaining family firm innovation; our novel view thus offers several theoretical and managerial implications.

Extending Herrero and Hughes' s (2019) finding of a curvilinear relationship between family firm social capital and financial performance, our study provides new insights into the impact of social ties on innovation, which represents a contribution to family business literature (Calabrò *et al.*, 2019; Kellermanns *et al.*, 2012; Weimann *et al.*, 2021), as well as to embeddedness literature that does not always account sufficiently for over-embeddedness (Wigren-Kristoferson *et al.*, 2022). Strong, enduring ties can induce inertia, such that family firms fail to capitalize on novel, up-to-date knowledge or else resist change in their effort to protect their existing ties. The cost of protecting strong ties can quickly exceed the benefits gained, which highlights the need for a good balance. As some entrepreneurship literature has suggested, weak ties may lead to greater opportunities for identifying innovative ideas (Elfring and Hulsink, 2003). Continuous development of varied social ties thus might be optimal for innovation efforts.

But at high levels of market orientation, the diminishing returns of social ties dissipate, and family firm innovation steadily increases. Family firms with a strong market orientation have good access to market information, which mitigates concerns about overly embedded network relationships (Basco, 2014). If they pursue strategic marketing activities, they can create a supportive environment for innovation, even if their social ties constrain innovation somewhat. From a broad, theoretical perspective, a market orientation can help family firms innovate, to their notable benefit (Zachary *et al.*, 2011). Transgenerational intent also buffers the curvilinear relationship between social ties and family firm innovation, by encouraging open communication about the future of the business (Mokhber *et al.*, 2017; Sharma *et al.*, 2003). As members of the next generation join the firm, power structures tend to shift, and firms might become more willing to consider new social ties rather than remaining exclusively loyal to existing business partners. In this sense, our empirical findings support the broader assertion of Bennesen and Foss (2015) that involvement by younger generations can prevent family firm assets (e.g., social ties) from becoming liabilities.

Another notable and pertinent feature of this study's contributions involves the research setting. Krueger *et al.* (2021) call for research that examines family business theories using context-sensitive approaches, because contexts inevitably constrain and shape behaviours. Yet most research on social capital, social embeddedness, family firms, and innovation prioritizes Western settings. For example, Weimann *et al.* (2021) investigate German family firms; Herrero and Hughes (2019) focus on Spain and provide a different outlook on social relationships. In Arab contexts, families and social relations are central to business dealings (Ng *et al.*, 2019; Zahra, 2011), and social ties are especially critical resources, as manifest in the concept of *wasta* (Berger *et al.*, 2015). In the UAE, Arab family firm owners tend to prioritize close relations

based on social class and tribes (Basco, 2017), which is unlike the norms that predominate in Western societies and business cultures. As noted, we collected social ties data from a family member, whereas a nonfamily manager responded to questions related to firm innovation. With this multi-informant approach, we can explain how social ties involving a personal (family) resource can affect firm-level outcomes (innovation). Furthermore, family social ties constitute one of the main elements of SEW, so our findings advance understanding of both SEW and family firm innovation in an Arab context (Calabrò *et al.*, 2019; Ng *et al.*, 2022). By moving beyond exclusively Western family firms and their innovation, we identify a concern linked to *wasta*: The benefits of close social connections may be less valuable if the focal firm fails to achieve a balance between its strong and weak ties.

Management and policy implications

First, family firms should work to expand their business networks to avoid the detrimental effects of stronger social ties. Diversified networks, with both strong and weak ties, can provide continuous flows of new information and encourage an innovative mindset (Granovetter, 1973; Ruef, 2002; Zhou *et al.*, 2019). Devoting sufficient attention to marketing efforts is also important, beyond relying on *wasta* and connections to obtain customers and business contracts. Family firms, and Arab family firms in particular, should actively engage in market scanning and sensing to understand customers' needs and desires. Such an outward orientation is more conducive to productive interactions with external stakeholders that can reveal novel ideas and support innovation (Cui and Wu, 2016).

Second, clear transgenerational intentions are critical. It may be common for Arab family members to work together to ensure business continuity, but beyond that, they should communicate clear intentions to pass the business on to the next generation. A recent survey

indicates that only 31% of Middle Eastern family firms have a formal, well-communicated succession plan (PWC, 2019), notwithstanding their strong intentions to hand over control of the business to family members rather than outsiders (Basly, 2017, Samara, 2021).

Transgenerational planning should begin as early as possible, considering the implications for family firm innovation. To the extent that family firms have strong social ties, clear and timely transgenerational intent can buffer against diminished innovation. That is, with a future orientation and a clear succession plan, family firms can limit the detrimental impacts of social ties on their innovation.

Limitations and directions for further research

A few limitations of this study suggest avenues for further research. First, we measured social ties at the firm level, without considering the possibility of new social ties introduced by individual members (e.g., nonfamily employees) or external sources (e.g., family members who do not work for the business). It also might be helpful to differentiate business and political ties and thereby elucidate their unique effects on family firm innovation (Sheng *et al.*, 2011). Second, continued research might identify pertinent mediators of the curvilinear relationship between social ties and innovation, such as organizational flexibility or entrepreneurial orientation. Third, the characteristics and effects of social ties clearly can change (Hsueh and Gomez-Solorzano, 2019), yet we did not track their shifts over time, which would require longitudinal research. Fourth, multi-country studies, including a wider set of Arab countries, could be useful for investigating the influence of cultural factors on the conceptual framework. Family firms in the UAE might be slightly different from those in other Arab countries, because the UAE has achieved great advances in innovation and entrepreneurship in recent years, which might alter the way social ties are managed in society and business. Fifth, using subjective measures to

proxy for innovation and social ties is common (e.g., Genc *et al.*, 2019), but this approach could be complemented with objective measures of both family firm innovation and social ties. Sixth, the study's sample size is relatively small, which is an empirical limitation. Yet this approach enables a *conservative* test of the proposed relationships. That is, we find empirical support for the relationships even with a somewhat restricted sample, so the results likely would be even stronger with larger sample sizes (Hair *et al.*, 2006). Continued research could aim to increase statistical power by collecting larger samples.

Conclusion

This study extends extant research by specifying the relationship between social ties and family firm innovation, as well as pinpointing relevant moderators, in an understudied context. When social ties in family firms grow stronger, the benefits for family firm innovation diminish. However, this detrimental process can be contained by a market orientation and transgenerational intent. We hope these insights will be leveraged in further investigations of how family firms enhance their competitive positioning by maintaining elevated innovation levels, along with the role of social relationships in this process.

References

- Adler, P. S. and Kwon, S.-W. (2002), "Social capital: Prospects for a new concept", *Academy of Management Review*, Vol. 27 No. 1, pp. 17-40.
- Ahuja, G. (2000), "Collaboration networks, structural holes, and innovation: A longitudinal study", *Administrative Science Quarterly*, Vol. 45 No. 3, pp. 425-455.
- Aiken, L. S., West, S. G., & Reno, R. R. (1991). *Multiple regression: Testing and interpreting interactions*. Sage.
- Alrubaishi, D., Mcadam, M. and Harrison, R. (2021), "Culture, Islamic capital and the entrepreneurial behaviour of family firms in Saudi Arabia", *International Journal of Entrepreneurial Behavior Research*, Vol. 27 No. 6, pp. 1476-1501.
- Al-Surmi, A., Cao, G. and Duan, Y. (2020), "The impact of aligning business, IT, and marketing strategies on firm performance", *Industrial Marketing Management*, Vol. 84, pp. 39-49.
- Arregle, J. L., Batjargal, B., Hitt, M. A., Webb, J. W., Miller, T., and Tsui, A. S. (2015), "Family ties in entrepreneurs' social networks and new venture growth", *Entrepreneurship Theory and Practice*, Vol. 39 No. 2, pp. 313-344.
- Bammens, Y., Hünermund, P., and Andries, P. (2021), "Pursuing gains or avoiding losses: The contingent effect of transgenerational intentions on innovation investments", *Journal of Management Studies*. Accessed 3 May 2022, <https://doi.org/10.1111/joms.12787>
- Basco, R. (2014), "Exploring the influence of the family upon firm performance: Does strategic behaviour matter?" *International Small Business Journal*, Vol. 32 No. 8, pp. 967-995.
- Basco, R. (2017), "Epilogue: the multiple embeddedness of family firms in the Arab world", *Family Businesses in the Arab World*. Springer.
- Basly, S. (2017), *Family Businesses in the Arab World*, Springer.
- Beck, L., Janssens, W., Debruyne, M., and Lommelen, T. (2011), "A study of the relationships between generation, market orientation, and innovation in family firms", *Family Business Review*, Vol. 24 No. 3, pp. 252-272.
- Bennedsen, M. and Foss, N. (2015), "Family assets and liabilities in the innovation process", *California Management Review*, Vol. 58 No. 1, pp. 65-81.
- Berger, R., Silbiger, A., Herstein, R., and Barnes, B. R. (2015), "Analyzing business-to-business relationships in an Arab context", *Journal of World Business*, Vol. 50 No. 3, pp. 454-464.
- Berrone, P., Cruz, C., and Gomez-Mejia, L. R. (2012), "Socioemotional wealth in family firms: Theoretical dimensions, assessment approaches, and agenda for future research", *Family Business Review*, Vol. 25 No. 3, pp. 258-279.
- Brinkerink, J., Van Gils, A., Bammens, Y., and Carree, M. (2017), "Open innovation: A literature review and recommendations for family business research". *Routledge companion to family business*, 241-266.
- Calabrò, A., Vecchiarini, M., Gast, J., Campopiano, G., De Massis, A., and Kraus, S. (2019), "Innovation in family firms: A systematic literature review and guidance for future research", *International Journal of Management Reviews*, Vol. 21 No. 3, pp. 317-355.
- Cassia, L., De Massis, A., and Pizzurno, E. (2012), "Strategic innovation and new product development in family firms: An empirically grounded theoretical framework", *International Journal of Entrepreneurial Behavior Research*, Vol. 18 No. 2, pp. 198-232.
- Chirico, F., and Salvato, C. (2008). Knowledge integration and dynamic organizational adaptation in family firms. *Family Business Review*, 21(2), 169-181.

- Chrisman, J. J., Chua, J. H., De Massis, A., Frattini, F., and Wright, M. (2015), "The ability and willingness paradox in family firm innovation", *Journal of Product Innovation Management*, Vol. 32 No. 3, pp. 310-318.
- Chua, J. H., Chrisman, J. J., and Sharma, P. (1999), "Defining the family business by behavior", *Entrepreneurship Theory and Practice*, Vol. 23 No. 4, pp. 19-39.
- Coleman, J. S. (1988). Social capital in the creation of human capital. *American Journal of Sociology*, 94, S95-S120.
- Cornell University, INSEAD, and Wipo (2020), *Global Innovation Index 2020: Who Will Finance Innovation?* Ithaca, Fontainebleau, and Geneva.
- Covin, J. G., Eggers, F., Kraus, S., Cheng, C.-F., and Chang, M.-L. (2016), "Marketing-related resources and radical innovativeness in family and non-family firms: A configurational approach", *Journal of Business Research*, Vol. 69 No. 12, pp. 5620-5627.
- Cui, A. S. and Wu, F. (2016), "Utilizing customer knowledge in innovation: antecedents and impact of customer involvement on new product performance", *Journal of the Academy of Marketing Science*, Vol. 44 No. 4, pp. 516-538.
- Daspit, J. J. and Long, R. G. (2014), "Mitigating moral hazard in entrepreneurial networks: Examining structural and relational social capital in East Africa", *Entrepreneurship Theory and Practice*, Vol. 38 No. 6, pp. 1343-1350.
- Dayan, M., Zacca, R. and Di Benedetto, A. (2013), "An exploratory study of entrepreneurial creativity: Its antecedents and mediators in the context of UAE firms", *Creativity and Innovation Management*, Vol. 22 No. 3, pp. 223-240.
- De Clercq, D. and Belausteguigoitia, I. (2015), "Intergenerational strategy involvement and family firms' innovation pursuits: The critical roles of conflict management and social capital", *Journal of Family Business Strategy*, Vol. 6 No. 3, pp. 178-189.
- De Clercq, D., Haq, I. U., and Azeem, M. U. (2020), "The relationship between workplace incivility and depersonalization towards co-workers: Roles of job-related anxiety, gender, and education", *Journal of Management Organization*, Vol. 26 No. 2, pp. 219-240.
- Dekker, J., Lybaert, N., Steijvers, T., and Depaire, B. (2015), "The effect of family business professionalization as a multidimensional construct on firm performance", *Journal of Small Business Management*, Vol. 53 No. 2, pp. 516-538.
- Diaz-Moriana, V., Clinton, E., Kammerlander, N., Lumpkin, G. T. and Craig, J. B. (2020), "Innovation motives in family firms: A transgenerational view", *Entrepreneurship Theory and Practice*, 44(2), 256-287.
- Dou, J. and Li, S. (2013), "The succession process in Chinese family firms: A guanxi perspective", *Asia Pacific Journal of Management*, Vol. 30 No. 3, pp. 893-917.
- Elfring, T. and Hulsink, W. (2003), "Networks in entrepreneurship: The case of high-technology firms", *Small Business Economics*, Vol. 21 No. 4, pp. 409-422.
- Feranita, F., Kotlar, J., and De Massis, A. (2017), "Collaborative innovation in family firms: Past research, current debates and agenda for future research", *Journal of Family Business Strategy*, 8(3), 137-156.
- Fernández, Z. and Nieto, M. J. (2005), "Internationalization strategy of small and medium-sized family businesses: Some influential factors", *Family Business Review*, Vol. 18 No. 1, pp. 77-89.
- Filser, M., De Massis, A., Gast, J., Kraus, S., and Niemand, T. (2018). Tracing the roots of innovativeness in family SMEs: The effect of family functionality and socioemotional wealth. *Journal of Product Innovation Management*, 35(4), 609-628.

- Florin, J., Lubatkin, M., and Schulze, W. (2003), "A social capital model of high-growth ventures", *Academy of Management Journal*, Vol. 46 No. 3, pp. 374-384.
- Gao, Z., Li, L., and Lu, L. Y. (2019), "Social capital and managers' use of corporate resources", *Journal of Business Ethics*, pp. 1-21.
- Genc, E., Dayan, M., and Genc, O. F. (2019), "The impact of SME internationalization on innovation: The mediating role of market and entrepreneurial orientation", *Industrial Marketing Management*, Vol. 82, pp. 253-264.
- Gilding, M., Gregory, S., and Cosson, B. (2015), "Motives and outcomes in family business transgenerational intent", *Entrepreneurship Theory Practice*, Vol. 39 No. 2, pp. 299-312.
- Gomez-Mejia, L. R., Campbell, J. T., Martin, G., Hoskisson, R. E., Makri, M., and Sirmon, D. G. (2014), "Socioemotional wealth as a mixed gamble: Revisiting family firm R&D investments with the behavioral agency model", *Entrepreneurship Theory Practice*, Vol. 38 No. 6, pp. 1351-1374.
- Gomez-Mejia, L. R., Cruz, C., Berrone, P., and De Castro, J. (2011), "The bind that ties: Socioemotional wealth preservation in family firms", *Academy of Management Annals*, Vol. 5 No. 1, pp. 653-707.
- Granovetter, M. (2005). The impact of social structure on economic outcomes. *Journal of Economic Perspectives*, 19(1), 33-50.
- Granovetter, M. S. (1973), "The strength of weak ties", *American Journal of Sociology*, Vol. 78 No. 6, pp. 1360-1380.
- Gronum, S., Verreyne, M. L., and Kastle, T. (2012), "The role of networks in small and medium - sized enterprise innovation and firm performance", *Journal of Small Business Management*, Vol. 50 No. 2, pp. 257-282.
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., and Tatham, R. L. (2006), *Multivariate Data Analysis*. Pearson Prentice Hall: Upper Saddle River, NJ.
- Heider, A., Hülsbeck, M. and von Schlenk-Barnsdorf, L. (2022). The role of family firm specific resources in innovation: an integrative literature review and framework. *Management Review Quarterly*, 1-48.
- Heirati, N. and O'Cass, A. (2016), "Supporting new product commercialization through managerial social ties and market knowledge development in an emerging economy", *Asia Pacific Journal of Management*, Vol. 33 No. 2, pp. 411-433.
- Hernández-Carrión, C., Camarero-Izquierdo, and J. Gutiérrez-Cillán. 2017. "Entrepreneurs' Social Capital and the Economic Performance of Small Businesses: The Moderating Role of Competitive Intensity and Entrepreneurs' Experience." *Strategic Entrepreneurship Journal* 11 (1): 61–89. doi:10.1002/sej.1228.
- Hernandez-Perlines, F., Ribeiro-Soriano, D., and Rodríguez-García, M. (2020), "Transgenerational innovation capability in family firms", *International Journal of Entrepreneurial Behavior Research*, Vol. 27 No. 1, pp. 1-25.
- Herrero, I. and Hughes, M. (2019), "When family social capital is too much of a good thing", *Journal of Family Business Strategy*, Vol. 10 No. 3, pp. 100271.
- Hoffmann, C., Wulf, T., and Stubner, S. (2016), "Understanding the performance consequences of family involvement in the top management team: The role of long-term orientation", *International Small Business Journal*, Vol. 34 No. 3, pp. 345-368.
- Holt, D. T., Rutherford, M. W., and Kuratko, D. F. (2010), "Advancing the field of family business research: Further testing the measurement properties of the F-PEC", *Family Business Review*, Vol. 23 No. 1, pp. 76-88.

- Hsueh, J. W.-J. and Gomez-Solorzano, M. (2019), "Social tie heterogeneity and firms' networking strategy", *Entrepreneurship Theory and Practice*, Vol. 43 No. 2, pp. 352-359.
- Huang, W., Shen, J., Yuan, C., and Li, M. (2020), "Roles of gender and basic need satisfaction in decent work perception and voice behavior", *Employee Relations*, Vol. 43 No. 1, pp. 263-278.
- Hutchings, K., & Weir, D. (2006). Guanxi and wasta: A comparison. *Thunderbird International Business Review*, 48(1), 141-156.
- Jambulingam, T., Kathuria, R., and Doucette, W. R. (2005), "Entrepreneurial orientation as a basis for classification within a service industry: the case of retail pharmacy industry", *Journal of Operations Management*, Vol. 23 No. 1, pp. 23-42.
- Jones, R. and Rowley, J. (2011), "Entrepreneurial marketing in small businesses: A conceptual exploration", *International Small Business Journal*, Vol. 29 No. 1, pp. 25-36.
- Kashif, M., Braganca, E., Awang, Z., and De Run, E. C. (2017), "You abuse but I will stay: The combined effects of job stress, customer abuse, and emotional intelligence on employee turnover", *Journal of Management Development*, Vol. 36, pp. 899-914.
- Kellermanns, F. W., Dibrell, C., and Cruz, C. (2014), "The role and impact of emotions in family business strategy: New approaches and paradigms", *Journal of Family Business Strategy*, Vol. 5 No. 3, pp. 277-279.
- Kellermanns, F. W., Eddleston, K. A., Sarathy, R., and Murphy, F. (2012), "Innovativeness in family firms: A family influence perspective", *Small Business Economics*, Vol. 38 No. 1, pp. 85-101.
- Kohli, A. K. and Jaworski, B. J. (1990), "Market orientation: the construct, research propositions, and managerial implications", *Journal of Marketing*, Vol. 54 No. 2, pp. 1-18.
- Kreiser, P.M., P.C. Patel, and J.O. Fiet. (2013), "The influence of changes in social capital on firm-founding activities", *Entrepreneurship Theory and Practice* 37 (3): 539–568.
- Krueger, N., Bogers, M. L., Labaki, R., and Basco, R. (2021), "Advancing family business science through context theorizing: The case of the Arab world", *Journal of Family Business Strategy*, Vol. 12 No. 1, pp. 100377.
- Lalonde, J. F. (2013), "Cultural determinants of Arab entrepreneurship: An ethnographic perspective", *Journal of Enterprising Communities: People Places in the Global Economy*, Vol. 7 No. 3, pp. 213-232.
- Le Breton-Miller, I. and Miller, D. (2009), "Agency vs. stewardship in public family firms: A social embeddedness reconciliation", *Entrepreneurship Theory and Practice*, Vol. 33 No. 6, pp. 1169-1191.
- Lee, R. P. (2010), "Extending the environment–strategy–performance framework: The roles of multinational corporation network strength, market responsiveness, and product innovation", *Journal of International Marketing*, Vol. 18 No. 4, pp. 58-73.
- Lind, J. T., & Mehlum, H. (2010). With or without U? The appropriate test for a U - shaped relationship. *Oxford bulletin of economics and statistics*, 72(1), 109-118.
- Lindvert, M., Patel, P. C., and Wincent, J. (2017), "Struggling with social capital: Pakistani women micro entrepreneurs' challenges in acquiring resources", *Entrepreneurship Regional Development*, Vol. 29 No. 7-8, pp. 759-790.
- Liu, C., Eubanks, D. L., and Chater, N. (2015), "The weakness of strong ties: Sampling bias, social ties, and nepotism in family business succession", *The Leadership Quarterly*, Vol. 26 No. 3, pp. 419-435.

- Ma, Z., Zhu, J., Meng, Y., and Teng, Y. (2019), "The impact of overseas human capital and social ties on Chinese returnee entrepreneurs' venture performance", *International Journal of Entrepreneurial Behavior Research*, Vol. 25 No. 1, pp. 67-83.
- Martens, C. D. P., Lacerda, F. M., Belfort, A. C., and De Freitas, H. M. R. (2016), "Research on entrepreneurial orientation: current status and future agenda", *International Journal of Entrepreneurial Behavior Research*, Vol. 22 No. 4, pp. 556-583.
- Martinez, M. A. and Aldrich, H. E. (2011), "Networking strategies for entrepreneurs: balancing cohesion and diversity", *International Journal of Entrepreneurial Behavior Research*, Vol. 17 No. 1, pp. 7-38.
- Mokhber, M., Gi, T. G., Rasid, S. Z. A., Vakilbashi, A., Zamil, N. M., and Seng, Y. W. (2017), "Transgenerational intent and family business performance in SMEs", *Journal of Management Development*, Vol. 36 No. 3, pp. 330-347.
- Nahapiet, J. and Ghoshal, S. (1998), "Social capital, intellectual capital, and the organizational advantage", *Academy of Management Review*, Vol. 23 No. 2, pp. 242-266.
- Narver, J. C., Slater, S. F., and MacLachlan, D. L. (2004), "Responsive and proactive market orientation and new - product success", *Journal of Product Innovation Management*, Vol. 21 No. 5, pp. 334-347.
- Ng, P. Y., Dayan, M., and Di Benedetto, A. (2019), "Performance in family firm: Influences of socioemotional wealth and managerial capabilities", *Journal of Business Research*, Vol. 102, pp. 178-190.
- Ng, P.Y., Dayan, M., and Makri, M. (2022), "Influence of socioemotional wealth on non-family managers' risk taking and product innovation in family businesses", *Cross Cultural & Strategic Management*, Vol. 29 No. 2, pp. 297-319. <https://doi.org/10.1108/CCSM-03-2021-0058>
- Nordqvist, M., Wennberg, K., and Hellerstedt, K. (2013), "An entrepreneurial process perspective on succession in family firms", *Small Business Economics*, Vol. 40 No. 4, pp. 1087-1122.
- Pai, R. J. and More, B. (2018), "Sustaining social entrepreneurship through networks in Dubai, United Arab Emirates", *Journal of Social Entrepreneurship*, Vol. 9 No. 3, pp. 215-233.
- Park, S. H. and Luo, Y. (2001), "Guanxi and organizational dynamics: Organizational networking in Chinese firms", *Strategic Management Journal*, Vol. 22 No. 5, pp. 455-477.
- Peng, M. W. and Luo, Y. (2000), "Managerial ties and firm performance in a transition economy: The nature of a micro-macro link", *Academy of management journal*, Vol. 43 No. 3, pp. 486-501.
- Pierce, J. R. and Aguinis, H. (2013), "The too-much-of-a-good-thing effect in management", *Journal of Management*, Vol. 39 No. 2, pp. 313-338.
- Podsakoff, P. M. and Organ, D. W. (1986), "Self-reports in organizational research: Problems and prospects", *Journal of Management*, Vol. 12 No. 4, pp. 531-544.
- Prahalad, C. K. and Ramaswamy, V. (2004), "Co - creating unique value with customers", *Strategy Leadership*, Vol. 32 No. 3, pp. 4-9.
- Pregibon, D. (1980), "Goodness of link tests for generalized linear models", *Applied Statistics*, Vol. 29, pp. 15-24.
- Pruthi, S. (2014), "Social ties and venture creation by returnee entrepreneurs", *International Business Review*, Vol. 23, No. 6, pp. 1139-1152.

- Putnam, R. D. (2000). Bowling alone: America's declining social capital. In *Culture and politics* (pp. 223-234). Palgrave Macmillan, New York.
- PWC (2019). Future-proofing Middle East family businesses.
- Ramsey, J.B. (1969), "Tests for specification error in classical linear least squares regression analysis", *Journal of the Royal Statistical Society, Series B (Statistical Methodology)*, Vol. 31, pp. 350–371.
- Ruef, M. (2002), "Strong ties, weak ties and islands: structural and cultural predictors of organizational innovation", *Industrial Corporate Change*, Vol. 11 No. 3, pp. 427-449.
- Samara, G. (2021), "Family businesses in the Arab Middle East: What do we know and where should we go?", *Journal of Family Business Strategy*, Vol. 12 No. 3, pp. 1-16.
- Sasabuchi, S. (1980). A test of a multivariate normal mean with composite hypotheses determined by linear inequalities. *Biometrika*, 67(2), 429-439.
- Schell, S., Hiepler, M., and Moog, P. (2018), "It's all about who you know: The role of social networks in intra-family succession in small and medium-sized firms", *Journal of Family Business Strategy*, Vol. 9 No. 4, pp. 311-325.
- Sharma, P., Chrisman, J. J., and Chua, J. H. (2003), "Transgenerational intent as planned behavior: Some empirical results", *Family Business Review*, Vol. 16 No. 1, pp. 1-15.
- Sharp, B. (1991), "Marketing orientation: more than just customer focus", *International Marketing Review*, Vol. 8 No. 4, pp. 20.
- Sheng, S., Zhou, K. Z. and Li, J. J. (2011), "The effects of business and political ties on firm performance: Evidence from China", *Journal of Marketing*, Vol. 75 No. 1, pp. 1-15.
- Sinha, K.K., Saunders, C., Raby, S. and Dewald, J. (2021), "The moderating role of previous venture experience on breadth of learning and innovation and the impacts on SME performance", *International Journal of Entrepreneurial Behavior & Research*, Vol. ahead-of-print No. ahead-of-print. <https://doi-org.uaeu.idm.oclc.org/10.1108/IJEBR-02-2021-0159>
- Smith-Doerr, L. and Powell, W. W. 2010. 17. Networks and Economic Life. *The handbook of economic sociology*. Princeton University Press.
- Sorenson, R. L., Folker, C. A., and Brigham, K. H. (2008), "The collaborative network orientation: Achieving business success through collaborative relationships", *Entrepreneurship Theory and Practice*, Vol. 32 No. 4, pp. 615-634.
- Spriggs, M., Yu, A., Deeds, D., and Sorenson, R. L. (2013), "Too many cooks in the kitchen: Innovative capacity, collaborative network orientation, and performance in small family businesses", *Family Business Review*, Vol. 26 No. 1, pp. 32-50.
- Steier, L., & Muethel, M. (2014). Trust and family businesses. *SAGE handbook of family business*, Sage, 498-513.
- Stewart, A. and Hitt, M. A. (2012), "Why can't a family business be more like a nonfamily business? Modes of professionalization in family firms", *Family Business Review*, Vol. 25 No. 1, pp. 58-86.
- Teece, D. J. (2009). *Dynamic capabilities and strategic management: Organizing for innovation and growth*. Oxford University Press.
- Thrassou, A., Vrontis, D. and Bresciani, S. (2018), "The agile innovation pendulum: family business innovation and the human, social, and marketing capitals", *International Studies of Management Organization*, Vol. 48 No. 1, pp. 88-104.
- Tiwasing, P. and Sawang, S. (2021), "Does membership of local Chambers of Commerce networks enhance rural SME performance?: An empirical analysis", *International*

- Journal of Entrepreneurial Behavior & Research*, Vol. ahead-of-print No. ahead-of-print. [hdoi-org.uaeu.idm.oclc.org/10.1108/IJEBR-07-2021-0614](https://doi.org/10.1108/IJEBR-07-2021-0614)
- Tokarczyk, J., Hansen, E., Green, M., and Down, J. (2007), "A resource-based view and market orientation theory examination of the role of "familiness" in family business success", *Family Business Review*, Vol. 20 No. 1, pp. 17-31.
- Tomlinson, P. R. (2010), "Co-operative ties and innovation: Some new evidence for UK manufacturing", *Research Policy*, Vol. 39 No. 6, pp. 762-775.
- Uzzi, B. (1997), "Towards a network perspective on organizational decline", *International Journal of Sociology Social Policy*, Vol. 17 No. 7/8, pp. 111-155.
- Venter, E., Boshoff, C., and Maas, G. (2005), "The influence of successor-related factors on the succession process in small and medium-sized family businesses", *Family Business Review*, Vol. 18 No. 4, pp. 283-303.
- Wang, Y., Watkins, D., Harris, N., and Spicer, K. (2004), "The relationship between succession issues and business performance: Evidence from UK family SMEs", *International Journal of Entrepreneurial Behavior Research*, Vol. 10 No. 1/2, pp. 59-84.
- Wang, Y.-Z., Lo, F.-Y., and Weng, S.-M. (2019), "Family businesses successors knowledge and willingness on sustainable innovation: The moderating role of leader's approval", *Journal of Innovation Knowledge*, Vol. 4 No. 3, pp. 188-195.
- Weimann, V., Gerken, M., and Hülsbeck, M. (2021). Old flames never die—the role of binding social ties for corporate entrepreneurship in family firms. *International Entrepreneurship and Management Journal*, 17(4), 1707-1730.
- Wigren-Kristoferson, C., Brundin, E., Hellerstedt, K., Stevenson, A., and Aggestam, M. (2022). Rethinking embeddedness: a review and research agenda. *Entrepreneurship & Regional Development*, 34(1-2), 32-56.
- Yeniaras, V., Kaya, I., and Dayan, M. (2020), "Mixed effects of business and political ties in planning flexibility: Insights from Turkey", *Industrial Marketing Management*, Vol. 87, pp. 208-224.
- Zacca, R. and Dayan, M. (2018), "Linking managerial competence to small enterprise performance within the dynamic capability logic", *Journal of Small Business Enterprise Development*, Vol. 25 No. 2, pp. 256-276.
- Zacca, R., Dayan, M. and Ahrens, T. (2015), "Impact of network capability on small business performance", *Management Decision*, Vol. 53 No. 1, pp. 2-23.
- Zacca, R., Dayan, M. and Elbanna, S. (2017), "The influence of conflict and intuition on explorative new products and performance in SMEs", *Journal of Small Business Enterprise Development*, Vol. 24 No. 4, pp. 950-970.
- Zachary, M. A., McKenney, A., Short, J. C., & Payne, G. T. (2011). Family business and market orientation: Construct validation and comparative analysis. *Family Business Review*, 24(3), 233-251
- Zahra, S. A. (2011), "Doing research in the (new) Middle East: Sailing with the wind", *Academy of Management Perspectives*, Vol. 25 No. 4, pp. 6-21.
- Zeffane, R. (2014), "Does collectivism necessarily negate the spirit of entrepreneurship?", *International Journal of Entrepreneurial Behavior Research*, Vol. 20 No. 3, pp. 278-296.
- Zellweger, T. M., Kellermanns, F. W., Eddleston, K. A., and Memili, E. (2012), "Building a family firm image: How family firms capitalize on their family ties", *Journal of Family Business Strategy*, Vol. 3 No. 4, pp. 239-250.

- Zeng, S. X., Xie, X. M., and Tam, C. M. (2010), "Relationship between cooperation networks and innovation performance of SMEs", *Technovation*, Vol. 30 No. 3, pp. 181-194.
- Zhang, J. A., O'Kane, C., and Chen, G. (2020), "Business ties, political ties, and innovation performance in Chinese industrial firms: The role of entrepreneurial orientation and environmental dynamism", *Journal of Business Research*, Vol. 121, pp. 254-267.
- Zhou, J., Wu, R., and Li, J. (2019), "More ties the merrier? Different social ties and firm innovation performance", *Asia Pacific Journal of Management*, Vol. 36 No. 2, pp. 445-471.

Figure 1. Conceptual model

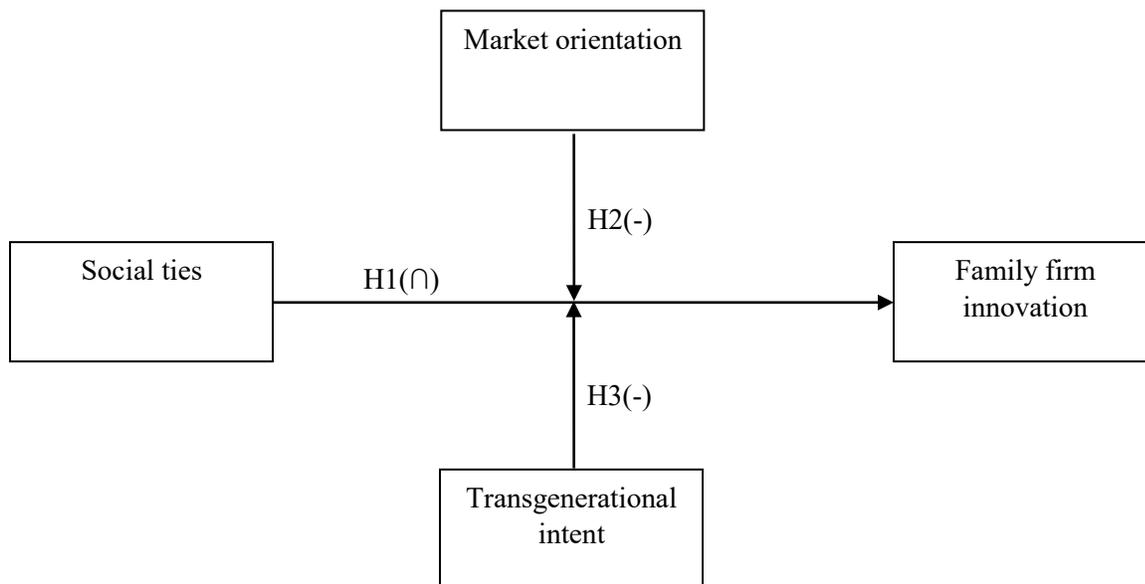


Figure 2. Curvilinear relationship between social ties and family firm innovation

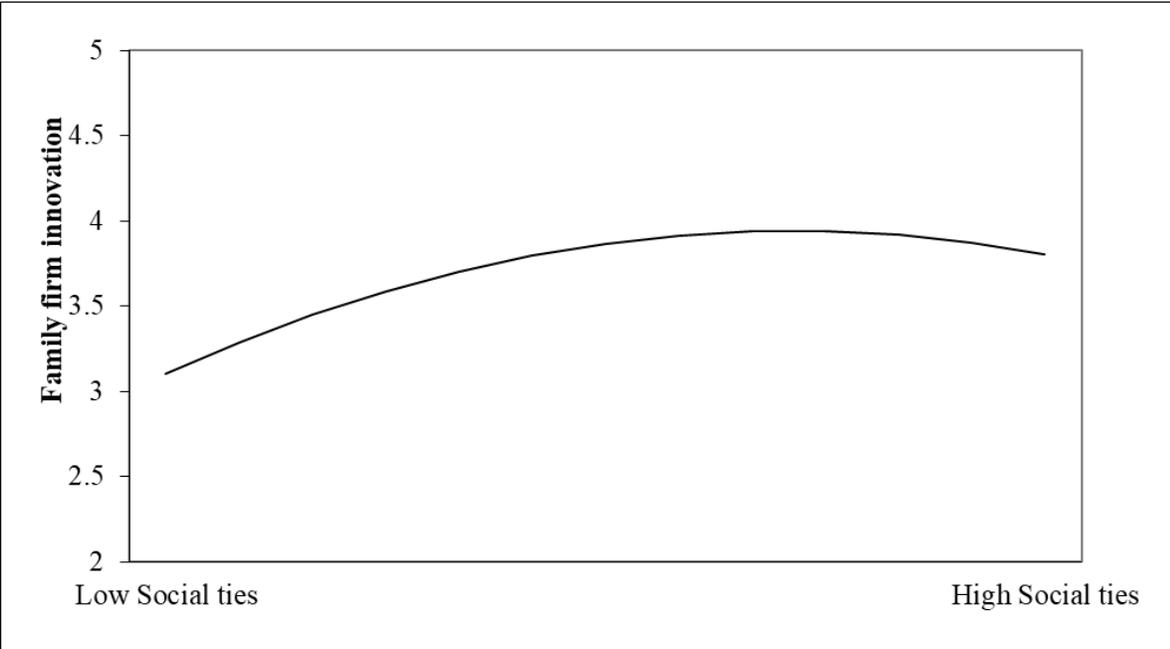


Figure 3. Moderating effect of market orientation on the curvilinear relationship between social ties and family firm innovation

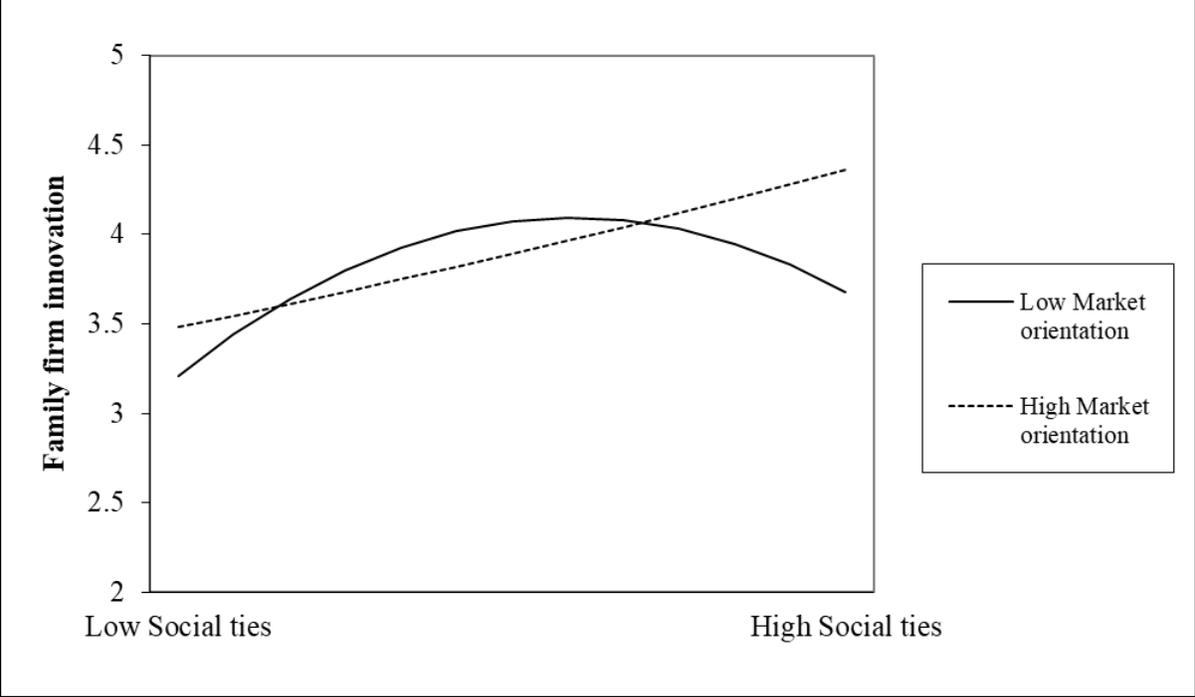


Figure 4. Moderating effect of transgenerational intent on the curvilinear relationship between social ties and family firm innovation

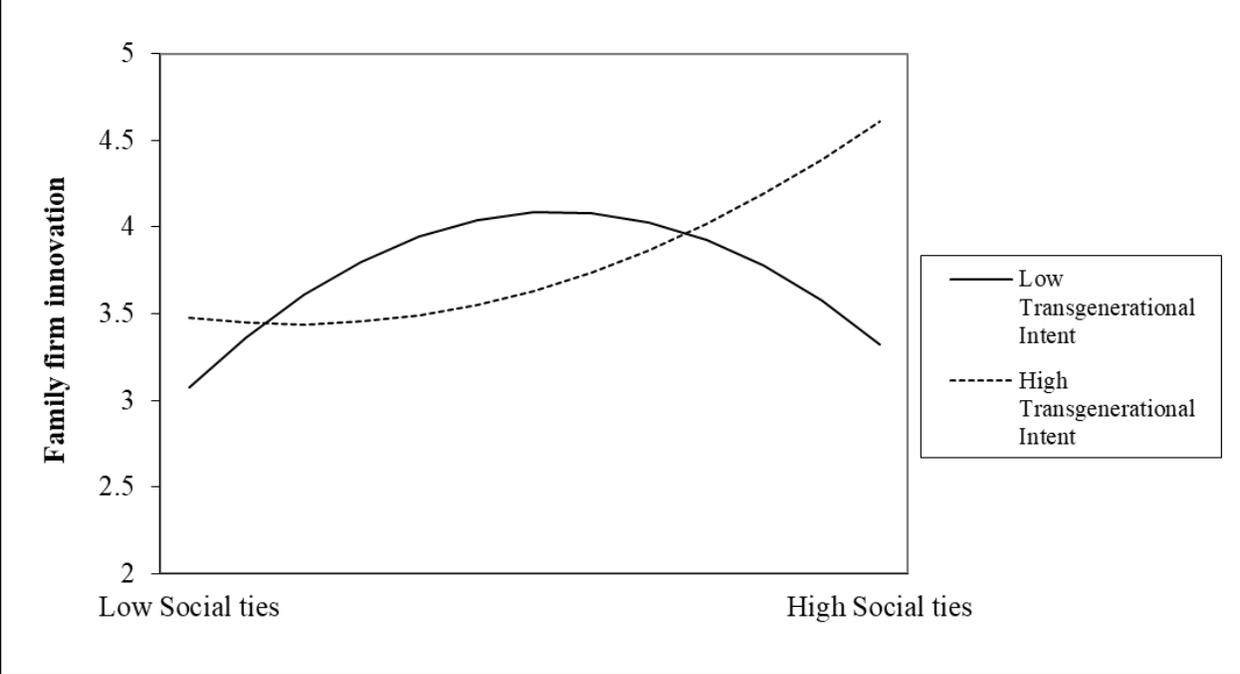


Figure 5. Moderating effect of market orientation on the relationship between social ties and family firm innovation.

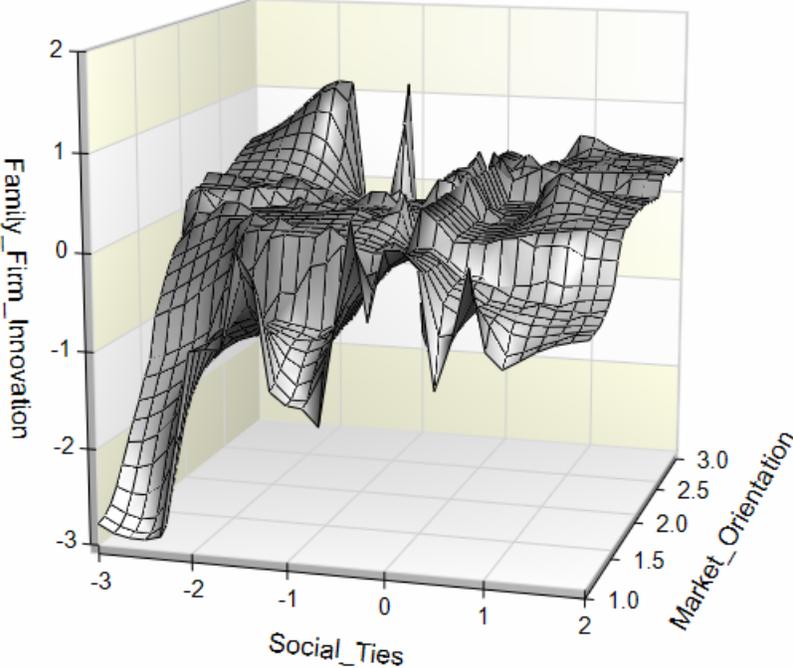


Figure 6. Moderating effect of transgenerational intent on the relationship between social ties and firm innovation.

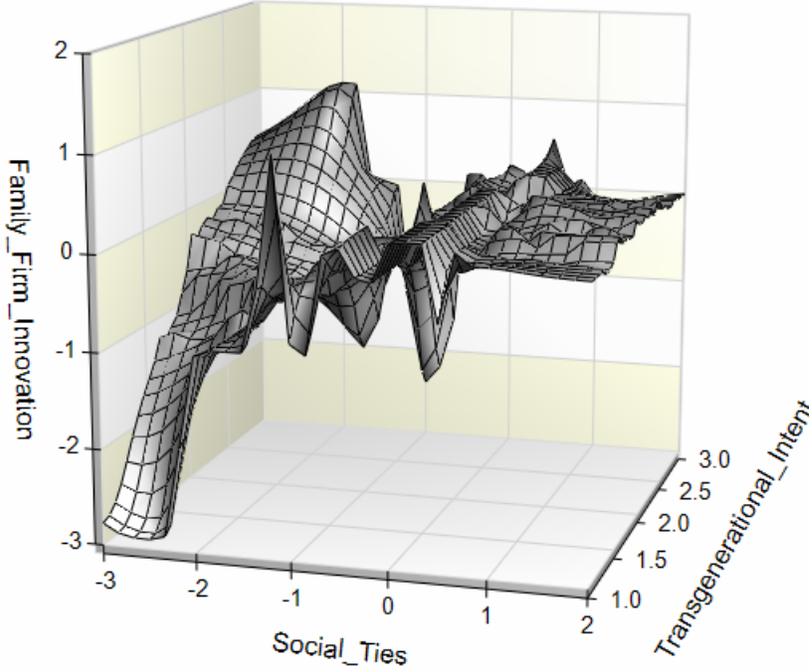


Table I. Correlation table and descriptive statistics

	Mean	SD	1	2	3	4	5	6
1. Family firm innovation	3.895	.681						
2. Social ties	3.921	.576	.331**					
3. Market orientation	2.499	1.117	-.041	.066				
4. Transgenerational intent	3.833	.572	.038	.282**	.199*			
5. Firm size (log)	4.228	1.622	-.031	-.242**	.001	-.202*		
6. Firm age	12.267	7.139	-.110	-.168*	.006	-.194*	.566**	

Note: N = 150; SD = standard deviation.

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

Table II. Regression results (dependent variable: family firm innovation)

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
<i>Controls</i>									
Firm size (log)	.019	.050	.048	.046	.045	.031	.032	.028	.025
Firm age	-.013	-.011	-.012	-.009	-.009	-.006	-.012	-.004	-.006
<i>Direct effects</i>									
Social ties		.402***	.422***	.262*	.283*	.416***	.251*	.263*	.263*
Market orientation			-.033		-.029	-.019	-.090	-.044	-.070*
Transgenerational intent			-.063		-.040	-.147	-.083	-.223 ⁺	-.207 ⁺
Social ties squared				-.171 ⁺	-.162 ⁺		-.125	-.093	-.083
<i>Moderating effect of market orientation</i>									
Social ties × Market orientation						-.036	.068		.050
Social ties squared × Market orientation							.144*		.078
<i>Moderating effect of transgenerational intent</i>									
Social ties × Transgenerational intent						-.243*		.126	.027
Social ties squared × Transgenerational intent								.277*	.184
Adjusted R squared	.000	.104	.098	.120	.112	.122	.129	.146	.139
Δ Adjusted R squared		.104	-.006	.016 ⁺	.014 ⁺	.024 ⁺	.017 ⁺	.034*	.027 ⁺
Benchmark model		Model 1	Model 2	Model 2	Model 3	Model 3	Model 5	Model 5	Model 5
AIC	315.504	300.025	302.924	298.323	301.646	300.827	300.536	297.570	300.690
BIC	327.546	315.078	323.998	316.387	325.731	327.922	330.642	327.676	336.817
Link test <i>p</i> -value	.810	.028	.101	.421	.606	.333	.246	.695	.681
Ramsey reset test <i>p</i> -value	.910	.028	.026	.128	.304	.166	.111	.716	.738

Note: N = 150; AIC = Akaike information criterion, BIC = Bayesian information criterion.

⁺ $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$ (two-tailed tests).

Table III. Test of an inverted U-shaped relationship between social ties and family firm innovation

	Family Firm Innovation
Test of joint significance of ST* variables [ST and ST-squared] (<i>p</i> -value)	.036
Sasabuchi-test of inverse U-shape in PPC (<i>p</i> -value)	.042
Estimated extreme point	2.963
95% confidence interval—Fieller method	(2.092, 3.776)
95% confidence interval—Delta method	(2.195, 3.524)
Test of joint significance of control variables (<i>p</i> -value)	.123
Test of joint significance of all variables in the model (<i>p</i> -value)	.014

Note: *ST =Social Ties

Appendix A. Characteristics of the Survey Sample

Respondents' Characteristics									
<i>Education</i>	Family Owner Manager		Nonfamily Manager		<i>Age</i>	Family Owner Manager		Nonfamily Manager	
	#	%	#	%		#	%	#	%
High School	39	26%	27	18%	20 to 30	15	10%	22	15%
Bachelor	60	40%	68	45%	31 to 40	38	25%	50	33%
Master	51	34%	52	35%	41 to 50	52	35%	40	27%
PhD	0	0%	3	2%	More than 50	45	30%	38	25%

Firms' Characteristics					
	<i>Age (years)</i>			<i>Number of Employees</i>	
	#	%		#	%
0 to 10	59	39.33%	0 to 50	44	29.33%
11 to 20	50	33.33%	51 to 100	50	33.33%
21 to 30	30	20.00%	101 to 150	42	28.00%
More than 31	11	7.33%	151 to 250	14	9.33%

<i>Venture Life Cycle Phase</i>					
	#	%		#	%
Start-Up		11%	Mature		29%
Growing		43%	Decline		17%

<i>Industry Type</i>			<i>Generation</i>		
	#	%		#	%
Manufacturing	40	27%	First	32	21%
Construction	33	22%	Second	48	32%
Wholesale	29	19%	Third	40	27%
Retail	27	18%	Fourth	26	17%
Service	21	14%	Higher	4	3%

<i>Primary Product</i>					
	#	%		#	%
Industrial	51	34	Consumer	67	45
			Both	32	21

Appendix B. Measurement items

Constructs	Indicators
Social ties	<p>My family business is very active in promoting social activities at the community level.</p> <p>In my family business, nonfamily employees are treated as part of the family.</p> <p>In my family business, contractual relationships are mainly based on trust and norms of reciprocity.</p> <p>Building strong relationships with other institutions (i.e. other companies, professional associations, government agents, etc.) is important for my family business.</p> <p>Contracts with suppliers are based on enduring long-term relationships in my family business.</p>
Family firm innovation	<p>Our company is known as an innovator among businesses in our industry.</p> <p>We promote new, innovative product/services in our company.</p> <p>Our company constantly experiments with new products/services.</p> <p>Our company provides leadership in developing new products/services.</p>
Market orientation	<p><i>Within this firm, we have activities, routines, business processes and behaviours for:</i></p> <p>Promotions and advertising</p> <p>Innovation in marketing techniques</p> <p>Process-oriented R&D</p> <p>Serving specific geographic markets</p> <p>Building brand identification</p>
Transgenerational intent	<p>Our business will be controlled by the same family(ies) in five years.</p> <p>The senior generation wants the business to stay in the family.</p> <p>The next generation is committed to long-term business ownership.</p>