Small Bus Econ (2012) 38:85–101
DOI 10.1007/s11187-010-9268-5

Innovativeness in family firms: a family influence perspective

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Accepted: 25 January 2010 / Published online: 6 March 2010
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Abstract This paper investigates the relationships between family influence and family firm performance. Specifically, we investigate how generational ownership dispersion, family management involvement, and family member reciprocity affect firm performance. We also consider the moderating role of innovativeness. Our findings indicate that family firm influence can have both positive and negative consequences for family firm performance. Implications and areas for future research are discussed.

Keywords Family firms · Family influence · Innovation · Family firm performance

JEL Classifications C12 · L26 · L25

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1 Introduction

Family firms are often criticized for being reluctant to invest in new ventures (Cabrera-Suarez et al. 2001), induce change (Levinson 1987; Vago 2004), and assume risk (La Porta et al. 1997; Morris 1998). However, recently a more complex view of family firms and their propensity toward risk has been revealed (e.g., Gómez-Mejia et al. 2007; Naldi et al. 2007; Zahra 2005). Some have begun to acknowledge the innovativeness and aggressiveness of family firms. For example, a study by Gómez-Mejia et al. (2007) discovered that family firms often take bold steps to preserve their independence when faced with economic and noneconomic concerns surrounding family control. Factors such as reciprocal altruism (Corbetta and Salvato 2004; Eddleston and Kellermanns 2007), care for future generations (Le Breton-Miller and Miller 2006; Miller and Le Breton-Miller

2005), and the social capital created by familiness (Arregle et al. 2007; Habbershon et al. 2003) have been identified as unique family-based characteristics that help family firms to be entrepreneurial and engage in innovative behavior (Gómez-Mejia et al. 2007; Naldi et al. 2007; Zahra 2005).

Acknowledging that "family firms are not a homogeneous group of organizations" (Corbetta and Salvato 2004, p. 360), we draw from both agency and stewardship theory as complementary perspectives (e.g., Nicholson and Kiel 2007) to explore how innovativeness interacts with family influences to affect family firm performance. Specifically, we build on recent research which identifies various aspects of family influence (e.g., Klein et al. 1995; Rutherford et al. 2008; Uhlaner 2005) and try to "tap the primary means by which a family can exert influence over a business" (Cliff and Jennings 2005, p. 342). Accordingly, we argue that the family can be both a help and a hindrance to the firm, and that the various dimensions of family influence impact the effectiveness of family firm innovativeness in terms of firm performance.

This article makes three main contributions to the literature. First, we apply a multidimensional view of family influence and draw from agency and stewardship theories to support our arguments. As such, this is one of only a few studies that utilize a multidimensional view of family influence in investigating firm performance (see also Rutherford et al. 2008). Second, by investigating innovativeness and behavior between family members, our study has the opportunity to inform the wider entrepreneurship literature, which has often focused on innovativeness (for a recent meta-analysis see Rauch et al. 2009). Third, since our study investigates both family influence and firm innovativeness, our study is in line with recent calls for research that considers both the family and the firm (Aldrich and Cliff 2003; Heck 2004), for there is no family business without the family, just as the family business does not exist without the firm.

Our paper is organized as follows. We begin with an introduction of the three dimensions of family influence utilized in this paper, followed by an explanation of how each dimension is expected to influence family firm performance. We then offer a concise review of the extant literature regarding innovativeness in family firms and then offer hypotheses regarding how we expect innovativeness to moderate the family influence–performance relationship.

2 Literature review

2.1 Dimensions of family influence

The study of family firms has been plagued by disagreement and is largely disjointed regarding what constitutes a family business. The need for a distinct definition to unify the field of family business and elucidate what is meant by "family business" is consequently a pertinent issue. Chua et al. (1999) sought to eliminate this lack of consensus in the field by offering this definition to capture the essence of family business:

> a business governed and/or managed with the intention 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.

However, without a means to quantify or operationalize this definition, it is difficult to draw comparisons across studies and integrate theory. Indeed, examples of how the definitions of family firms affect the strengths of the relationships can be easily found in the literature (Sirmon et al. 2008; Villalonga and Amit 2006). The multidimensional view of family influence offered by Astrachan and colleagues (2002), consisting of power, experience, and culture, offers a solution to this "family business definition dilemma." This perspective is not meant solely to channel businesses into family and nonfamily firm categories, a distinction which is often ambiguous at best. Rather, this multidimensional view is aimed at assessing the degree of family influence and involvement that an owning family wields over a business (Astrachan et al. 2002). We build on previous operationalizations pertaining to family influence (Klein et al. 2005; Rutherford et al. 2008; Uhlaner 2005), and follow Astrachan and colleagues' (2002) suggestion that various dimensions of family influence should be considered independently. Below, we discuss three central aspects of family influence that we chose to examine in our study: family management involvement, generational ownership dispersion, and family member reciprocity.

Previous research has stressed that the family's ability to exercise dominance over the business is an

important aspect of family influence (Klein et al. 2005). While this influence can be measured in a variety of ways, for example, the proportion of board seats, top management positions, and shares held by family representatives (Klein et al. 2005), we focus on the level of family involvement in the management of the firm. Indeed, according to Steier (2003), the family's control over firm management offers much in the way of explaining family firm behavior.

An additional aspect of family influence is the desire to transfer ownership to the next generation (Chua et al. 1999; Klein et al. 2005; Uhlaner 2005). The idea of maintaining family control beyond the current generation is a central goal (e.g., Gómez-Mejia et al. 2007; Kets de Vries 1993; Seymour 1993; Ward 1997) and a defining feature of family firms (Chua et al. 1999; Uhlaner 2005). Specifically, we focus on generational ownership dispersion in our study, since Gersick and colleagues' (1997) research portrays generational ownership dispersion as a key factor that dictates the goals and strategies of the firm.

Lastly, we focus on a relational aspect of family influence–family member reciprocity, because family members' support for the organization, willingness to contribute to the business, and desire to be a part of the business are of utmost importance (Carlock and Ward 2001; Klein et al. 2005). Indeed, Rutherford et al. (2008) have called for a measure of family influence that assesses a family's active role in the family firm, and not simply the family's *potential* influence on the firm. Accordingly, we focus on family members' support for one another. Drawing from Seers' (1989) research on effective teams, we consider family member reciprocity as an aspect of family influence that embodies commitment, teamwork, and family support. Drawing from stewardship and agency theories, each of these dimensions of family influence and their expected relationship with performance are more fully discussed below.

3 Theoretical development

3.1 Family management

A family's involvement in management may be a double-edged sword. While family firms with only one or a few dominant individuals managing the firm may suffer from inefficiencies, restricted growth, and lower-quality decision-making (Daily and Thompson 1994; Eddleston and Kellermanns 2007; Lansberg 1988; Mintzberg 1994), firms with extensive family involvement in management may be vulnerable to agency conflicts developed from conflicting goals among the different branches of the family and nepotism (Dyer 2006). However, despite the agency threats associated with family involvement, studies grounded in agency theory have routinely shown that firms with greater family involvement in management experience superior performance (or firm value) (e.g., Maury 2006).

Although family firms are often criticized for limiting family members' participation in the firm's management and decision-making (Eddleston and Kellermanns 2007; Stavrou 1999), fast-growing, high-performing family firms have been found to encourage family member participation in developing long-term goals and strategies (Upton et al. 2001). Arguments in line with the stewardship perspective propose that involving family members in firm management allows family members to gain a better understanding of where the organization is headed, appreciate the challenges facing the firm, and make decisions that they believe will maximize firm performance (Eddleston and Kellermanns 2007). Family firms that encourage family members to partake in the management of the firm should benefit from the development of psychological ownership and shared destiny among family members, thereby enhancing family members' sense of responsibility and commitment to the firm. Thus, while there may be some potential negative effects associated with extensive family involvement in management, we argue that the positive influence of the involvement of family members in management offers more benefits than harm. Therefore, we hypothesize:

Hypothesis 1 A high level of family member involvement in management is positively related to firm performance.

3.2 Generational ownership dispersion

Research suggests that generational ownership dispersion of the family firm is largely what defines the family business (Gersick et al. 1997) and subsequently dictates the decision-making processes of the

firm. The level of generational ownership dispersion within the firm denotes the number of family generations that hold ownership control. Family firms are heterogeneous and differ in their degree of ownership concentration. Ownership dispersion may range from unitary control by a founding generation to control held by multiple generations (Gersick et al. 1997). The ownership structure of the firm likely mirrors the developmental stage of the firm (Hoy 2006). When ownership concentration is consolidated, ownership resides with one generation, and ownership is usually held by the founder or a married couple, thus indicative of a business in the early stages of its life cycle. Conversely, high dispersion of ownership indicates ownership control by multiple family branches. When ownership control is held by multiple generations, i.e., cousins from different sibling branches, the firm is likely in a later stage of development. This organizational control pattern has been denoted the "cousin consortium" stage of the family business (Gersick et al. 1997).

The phenomenon of generational ownership dispersion can be approached from both a stewardship and agency perspective. From an agency perspective, there are costs and benefits associated with each degree of ownership. As the business enterprise becomes more complex and ownership resides with multiple generations, the potential for discord and competing interests rises exponentially above that of the controlling ownership stage (Gersick et al. 1997). Indeed, Davis and Harveston showed that "there is a pattern of rising conflict with each succession in family generations" (1999, p. 319), supporting previous research that intergenerational succession exacerbates organizational conflicts (Beckhard and Dyer 1983; Harvey and Evans 1994). Because ownership control is held by competing branches of the family, relationships tend to be more combative and politically motivated than those among siblings from a single generation (Gersick et al. 1997). Political dynamics often emerge as a result of the competing interests and information asymmetries. Although the shareholders are still related and benefit from kinship ties, the close personal connections and ties that tend to bind immediate family members are lacking. These arguments are supported by research that has shown that founder-controlled firms perform highest, while the performance of successor generations declines (e.g., Cucculelli and Micucci 2008; Miller et al. 2007; Pérez-González 2006). Similarly, Rutherford and colleagues (2008) found generational involvement in ownership and governance to be negatively related to various measures of performance.

A stewardship-guided approach leads to similar conclusions. Familial altruism often erodes as the family becomes larger and the dispersion of ownership increases across the generations. In essence, with each additional generation, family members become further removed from the founding generation, dampening family ties and commitment to the founder's vision. Conflict increases as "brothers and sisters, aunts and uncles, cousins and in-laws argue about money, managerial roles, ownership and control, and the future direction of the family business" (Davis and Harveston 1999, p. 319; Dyer 2006). Factions and competing camps will likely form in accordance with each competing branch within the firm (Gersick et al. 1997). Thus, in family firms with high levels of cross-generational ownership dispersion, competing interests of family members may act to divide the family in a way that impedes firm performance. For these reasons we argue:

Hypothesis 2 A high level of generational ownership dispersion is negatively related to firm performance.

3.3 Family member reciprocity

An important aspect of family influence is reflected in family members' support for organizational tasks and their reciprocity towards each other (Astrachan et al. 2002; Klein et al. 2005). When family members assist other members, share responsibilities, and help each other accomplish organizational tasks, they can be seen as stewards of the firm. Specifically, we see family member reciprocity as a mechanism which facilitates stewardship behavior, as family members put aside their personal interests for the sake of the firm. Accordingly, family member reciprocity is a means through which altruism and familial bonds are channeled to support the family firm (Eddleston and Kellermanns 2007).

Family member reciprocity is based on the idea that relationships are the "building blocks of organizational structure" (Seers et al. 1995, p. 21). Reciprocal behaviors exchanged act to reinforce an individual's sense of belonging and importance, and

help to create a sense of shared purpose and identity (Seers et al. 1995). In contrast, family firms that are laden with family members that pursue self-interests and individualistic goals may suffer from agency problems (e.g., Schulze et al. 2003b, 2001). Therefore, because family member reciprocity encourages family members to pull together to accomplish firm goals, aligning their interests with that of the firm, agency costs and opportunism should be reduced. Accordingly, we expect family member reciprocity to facilitate family firm performance. We hypothesize accordingly,

Hypothesis 3 Family member reciprocity is positively related to firm performance.

3.4 The moderating role of innovativeness

Lumpkin and Dess (1996, p. 142) define innovativeness as: "a firm's tendency to engage in and support new ideas, novelty, experimentation, and creative processes that may result in new products, services, or technological processes." The willingness to engage is such behavior is likely to vary considerably in a population (Brockhaus 1980), and therefore innovativeness has been of interest to researchers from multiple domains of study.

Dating back to Schumpeter (1934), innovation has been cited as one of the most important aspects of the entrepreneurial process and is considered one of the dimensions of entrepreneurial orientation (Lumpkin and Dess 1996). For the purpose of this study and consistent with prior research, we view innovativeness as an independent construct dimension (e.g., Lumpkin and Dess 2001; Naldi et al. 2007). More recently, researchers have begun to focus on the need for family firms to be innovative (e.g., Naldi et al. 2007). The study of innovative behavior in family firms is essential since these firms are governed by a unique set of norms, cultures, and processes that are not found in nonfamily firms. Understanding how family influences can help or hinder a family firm's ability to exploit its innovativeness is important, since innovation helps to "renew companies, enhance their competitive advantage, spur growth, create new employment opportunities and generate wealth" (Hayton and Kelley 2006, p. 407). In the following paragraphs, we will blend arguments from the general entrepreneurship literature with the family firm literature to explain how the interaction between innovativeness and the dimensions of family influence play a key role in predicting family firm performance.

The decision for a family firm to partake in innovative behavior can be quite complex, since family firms often serve two, sometimes competing goals: that of economic efficiency and that of family social interests (Astrachan and Jaskiewicz 2008; Chua et al. 2003). For example, the business is expected to achieve financial and market success, while at the same time managing the family needs of employment, identity, and wealth. These idiosyncratic characteristics of family firms make the pursuit of innovation and the uncertainty that ensues quite complex (Gómez-Mejia et al. 2007).

Due to the overlapping nature of the family and business, family firms are more apt to be risk adverse (Allio 2004). Family ownership imposes capital constraints that can inhibit a family firm from investing in innovation (Carney 2005). For the family firm, the costs associated with failure often outweigh the benefits of success, since the firm is the lifeblood of the family. Because of the family firm's strong desire to keep the business going for multiple generations (Habbershon and Williams 1999), family firms are often thought to avoid the pursuit of new opportunities that might chip away at their assets. When faced with risky opportunities, "people tend to act differently when they have assets to protect" (Corbett and Hmieleski 2007, p. 106). Indeed, the unique qualities of family firms complicate their ability to assess the trade-offs of the risks associated with innovation and the expected return. Furthermore, family firms can be reluctant to change (Beckhard and Dyer 1983; Vago 2004), whereby family members develop emotional attachments to their firm's original strategies. By not exploring or exploiting innovative ideas, family firms can become stagnant and experience a loss in market share.

However, innovation is a necessary condition for family firm continuity; firms must constantly seek ways to recognize and exploit new opportunities as well as refine existing resources in order to successfully grow and compete (Zahra 2005). Recently, some researchers have discovered that the interaction between the family unit and business can actually enhance entrepreneurial behavior (Gómez-Mejia et al. 2007). While family firms are often presumed

to be less innovative than their nonfamily counterparts, Zahra and colleagues (2004) found that being a family firm was positively associated with corporate entrepreneurship, as measured by initiative, ingenuity, and risk-taking. They also found organizational culture to have a greater influence on the entrepreneurship of family firms than that of nonfamily firms, highlighting the importance of familiness in promoting entrepreneurship. Likewise, it may be that family influence helps a family firm to benefit from its innovativeness. Accordingly, we argue that innovativeness facilitates the performance of family firms by acting as a moderator of the family influence–performance relationship.

In regards to managerial involvement, research has suggested that family firm performance improves when owner-managers involve other family members in the business (Eddleston and Kellermanns 2007). When only one person is in charge of making the decisions to pursue innovation, conflict may result as other family members worry about the risk versus return and future stability of the business. By including family members in the decision-making process, they are more apt to critically assess the benefits of innovative behavior from various viewpoints, improving the decision quality and leading to better risk management (March and Shapira 1987). High levels of family involvement in management may therefore benefit innovative behavior, since family members are better able to identify and understand the challenges and opportunities that face the company (Zahra 2005). Similarly, because family members' involvement extends beyond decision-making to the implementation of decisions, family members may find it easier to adjust course in the face of unanticipated outcomes, potentially helping to mitigate losses. This also enables the firm to better capture the gains of innovative behavior.

In comparison, the internal control processes common for family firms with few family managers may hinder the family firm's ability to exploit opportunities associated with their innovations. When a family firm must concern itself with the opportunism of nonfamily managers, the resulting internal controls may lessen the firm's ability to respond effectively to environmental changes or to pursue market opportunities as they arise (Zahra et al. 2004). Organizational structures that hamper environmental responsiveness, decentralization, and entrepreneurial alertness seem less capable of pursuing new opportunities associated with innovation (Hayton and Kelley 2006). Therefore, we expect family firms with greater family member involvement in management to benefit more from innovative behavior than those with little family involvement in management.

Hypothesis 4a The relationship between family member involvement in management and family firm performance is moderated by the family firm's innovativeness. Specifically, innovativeness has a more positive effect on the performance of family firms with high levels of family member involvement in management than firms with low levels of family member involvement in management.

Concerning generational ownership, we argue that low levels of generational ownership dispersion are more likely to result in performance advantages when the firm engages in innovative behavior. This is likely due to the "founder effect" of first-generation family firms. Founders, by definition, are entrepreneurs (Salvato 2004). Indeed, recent research has shown that founder-led family firms outperform nonfamily firms as well as family firms led by later generations (e.g., Miller et al. 2007), as innovation and wider entrepreneurial behavior are necessary conditions to start any business. As such, first-generation family firms are unique in that they are headed by entrepreneurial founders who recognized a business opportunity that they were able to exploit through the creation of a new business (Aldrich and Cliff 2003). In turn, these founders may be most capable of exploiting their firm's innovativeness in order to further its success. Being entrepreneurs, many founders are able to create firms that stress the continuous exploitation of innovations, thus remaining successful, entrepreneurial, and growth oriented (Poza 1988, 1989). As such, founding generations may be best able to capitalize on their innovativeness.

However, unlike the founders of family firms, successors are more likely to be conservative and interested in preserving the family's wealth. Since there is no guarantee of financial success, subsequent generations may be less willing to support innovation, focusing instead on how the expenses of pursuing innovations may threaten their family wealth. Inertial forces, which help firms to replicate themselves on a daily basis and to follow previously successful strategies (Hannan and Freeman 1984),

may limit succeeding generations' ability to exploit their innovations. Because succeeding generations tend to focus on conserving family wealth, they often institutionalize "best practices," and thus innovation becomes less important to their success (Mitchell et al. 2009). That is, these firms have been established long enough to have developed a solid customer base and reputation in the industry that can sustain firm performance simply by following tried and true practices and through word-of-mouth. Thus, members of subsequent generations may prefer to maintain their steady level of income by following well-established practices. Therefore, innovative behavior may be much more integral to the performance of single-generation family firms as they strive to establish themselves in their industry in comparison with multigeneration family firms. For these reasons we argue:

Hypothesis 4b The relationship between generational ownership dispersion and family firm performance is moderated by the family firm's innovativeness. Specifically, innovativeness has a more positive effect on the performance of family firms with low levels of generational ownership dispersion than firms with high levels of generational ownership dispersion.

Lastly, we need to discuss family member reciprocity and innovative behavior. The entrepreneurship literature has stressed the important influence of processes, in addition to the environment and strategy, when investigating in venturing activities (e.g., Eisenhardt and Schoonhoven 1990). For example, trusting and highly coordinated teams (Stichcombe 1965) with the ability to work together (Hoegl et al. 2004) and collaborate (Hayton and Kelley 2006) tend to be the most successful innovators.

In cases of reciprocal exchanges, a strong sense of shared ownership and group identity (Ford and Seers 2006) may channel family members' support and efforts toward assisting innovative efforts and thereby improving firm performance. When a family firm decides to engage in innovative behavior, the family may need to extend greater assistance and cooperation in order to reap the benefits of the venture. By nature, the resources and capabilities needed to support this task cannot be perfectly predicted, and thus a family that is able to coordinate responsibilities and support one another's efforts should be in a beneficial position. For example, the success of corporate entrepreneurship appears to be linked to the spontaneous help of employees who essentially act as volunteers to support their firm's innovations (Hayton and Kelley 2006). Thus, family member reciprocity should provide the flexible support and dedicated assistance necessary to exploit a firm's innovativeness successfully.

In contrast, families that are reluctant to help family members, complete tasks, or offer additional assistance may fail to see the fruition of their innovative behavior. Indeed, teams that lack communication, coordination, support, and cohesion suffer from low work quality (Hoegl et al. 2004). When employees refuse to assist their coworkers or to perform tasks beyond their formal job responsibilities, corporate entrepreneurship is believed to suffer (Hayton and Kelley 2006). Thus, if a family firm lacks reciprocity, their innovations may not receive the necessary support to succeed, thus debilitating family firm performance. As such, a family firm low in family member reciprocity may further suffer from poor performance.

Hypothesis 4c The relationship between family member reciprocity and family firm performance is moderated by the family firm's innovativeness. Specifically, innovativeness has a more positive effect on the performance of family firms with high levels of family member reciprocity than firms with low levels of family member reciprocity.

4 Methodology

4.1 Sample

Two hundred thirty-two surveys were mailed to family firms, from a contact list of two family business centers associated with two universities in the Northeastern USA. The survey approach is consistent with recent research in family firms (e.g., Chrisman et al. 2002; Schulze et al. 2003a). We included only those firms which identified themselves as family firms and only those organizations where ownership lies within the family and at least two family members are employed by the business.

In order to obtain the richest information possible, we attempted to gather information from multiple

respondents in top management positions from each family firm (Chua et al. 1999; Sharma et al. 2003). Accordingly, each family firm was mailed a packet consisting of five questionnaires to distribute to key family members working in the business. Self-addressed envelopes were included with each survey to ensure anonymity. Overall, 126 questionnaires were returned, resulting in 70 family firms with usable data for the purposes of this study and a 29.6% response rate. The multiple-respondents approach holds multiple advantages. For example, aggregated data help minimize individual-level biases and help to obtain more accurate performance assessment (Simons and Peterson 2000).

Although we strived to obtain multiple respondents from each firm, we were able to obtain multiple respondents from only 37 family firms. For the remaining 33 firms, only one family member from top management responded, most often the chief executive officer (CEO). We believe that this does not pose a problem for our study, since CEOs are considered reliable key informants (Kumar et al. 1993; Seidler 1974). Furthermore, we calculated the coefficient of agreement (r_{wg}) of the multi-item constructs for those firms with multiple respondents (James et al. 1984, 1993). Since all the coefficients indicated high levels of agreement ($r_{wg} > 0.79$), it seemed appropriate to also include our single respondents in the data analysis (Eddleston et al. 2008). Please refer to the Appendix for the items of the multi-item constructs, and α and r_{wg} values.

In addition, we tried to assess potential nonresponse bias by utilizing analysis of variance (ANOVA) to determine potential differences between early and late respondents (for a recent example see Chrisman et al. 2005). This approach is based on the assumption that nonrespondents are more similar to late respondents than to early respondents (Kanuk and Berenson 1975; Oppenheim 1966). No statistically significant differences were discovered, mitigating the concern for potential nonresponse bias.

Furthermore, we investigated potential multicollinearity concerns. While the control variables sales and number of employees were correlated at $r = 0.535$ ($p < 0.001$), the other variables only showed modest levels of correlation. Accordingly, we calculated the variance inflation factors (all <1.313) and the condition indices (all <8.966) to check for multicollinearity. All indices were below the suggested warning level (Hair et al. 1998); thus, multicollinearity seems not to be a problem in our study.

Lastly, since our data was collected via a single questionnaire, we performed tests for common method bias, as suggested by Podsakoff and Organ (1986). We entered the items of the control, independent, moderator, and dependent variable into one-factor analysis. Five factors with eigenvalues >1.0, which accounted for 75.81% of the variance, were extracted. The first factor accounted for 22.59% of the variance, while the remaining factors accounted for 53.219% of the variance. Since no common method factor emerged and no single factor emerged, we concluded that common method bias was not a significant concern in the current study.

4.2 Measures

We measured all constructs using Likert-type scales with a seven-point response format anchored by "strongly disagree" to "strongly agree" unless otherwise noted. We will discuss the independent variables first, followed by the description of the dependent variables and the controls. All α values are reported in the Appendix and showed acceptable values with $\alpha > 0.76$.

4.3 Independent variables and moderator

We measured the three dimensions of family influence as follows. First, we measured *family management involvement* by asking "Management control of the company is concentrated in the hands of." This item was measured with a seven-point Likert-type scale anchored by "one family member" and "several family members." Second, *generational ownership dispersion* was measured by providing our respondents with the choice of "One generation", "Two generations," and "Multiple generations" to the question: "In our family firm, the ownership is concentrated within how many generations?" As opposed to asking respondents in which generation the family firm resides, this construct has the advantage of assessing whether ownership is concentrated in the hands of one generation or is shared among multiple generations. Thus, this measure helps to capture the degree to which multiple generations are involved in the ownership and control of the family firm.

We assessed *family member reciprocity* by adapting a scale on teamwork by Seers (1989) to focus on the quality of exchange among family members. We therefore see our scale in the tradition of recent stewardship theory literature that views positive reciprocal and helping behaviors among family members as a key advantage to family firms (Eddleston and Kellermanns 2007; Kellermanns and Eddleston 2004). The items are listed in the Appendix. Lastly, we assessed our moderator, *innovativeness*, with two items: "Our firm has emphasized taking bold, wide-ranging actions in positioning itself and its products or services over the past 3 years" and "Our firm has shown a strong commitment to research and development, technological leadership and innovation." These items were originally developed by Miller (1983) as part of a wider corporate entrepreneurship construct. The relevance of this measure to family firms has been noted in earlier studies (e.g., Kellermanns and Eddleston 2006; Zahra 2005).

4.4 Dependent variable

4.4.1 Performance

We asked our respondents to compare their organizational performance with their competitors' performance in the last 3 years. The questions related to growth in sales, growth in market share, growth in employees, growth in profitability, return on equity, return on total assets, profit margin on sales, and the ability to fund growth from profits. For each item, the choices "much worse," "about the same," and "much better" were provided, thus by comparing themselves with the competition, we were able to control indirectly for industry influences in the performance measure. Due to the multifaceted nature of performance, a multitude of performance indicators is advisable (e.g., Cameron 1978), particularly in privately held family firms where objective performance measures are not available and respondents are hesitant to respond to objective performance questions. In such scenarios self-assessment of performance is common (Love et al. 2002). However, prior research has shown that such assessments are valid and highly correlated with current objective performance (Dess and Robinson 1984; Love et al. 2002; Venkatraman and Ramanujam 1987). Lastly, we then averaged the individual performance indicators to obtain an overall performance score, where higher values indicated higher performance levels (e.g., Dess and Robinson 1984; Love et al. 2002).

4.5 Control variable

Larger organizations and organizations with higher sales may have higher levels of slack in order to invest in new projects as well as more sophisticated organizational planning systems. Accordingly, we controlled for both the *number of employees* working in the family firm as well as *sales*, which was measured by providing the respondent with six options (ranging from less than US $499,999 to over US $10,000,000 in sales).

5 Results

The means, standard deviations, and zero-order correlations are shown in Table 1. In order to test the six hypotheses in our model, we utilized multiple regression analysis. Results are presented in Table 2.

Table 1 Descriptive statistics and correlations

Variables	Mean	SD	1.	2.	3.	4.	5.	6.
1. Number of employees	93.43	128.85						
2. Sales	4.47	1.57	0.535***					
3. Generational ownership dispersion	1.78	0.65	0.290*	0.212†				
4. Family management involvement	2.57	1.28	0.316**	0.228†	0.304**			
5. Family member reciprocity	4.83	1.49	−0.210†	−0.154	−0.118	−0.077		
6. Innovativeness	3.28	1.54	−0.005	0.265*	−0.062	−0.021	0.143	
7. Family firm performance	2.1652	0.43	−0.165	−0.048	−0.209	0.228†	0.219†	0.372**

$N = 70$, † $p < 0.10$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

Table 2 Multiple regression analysis, dependent variable: family firm performance

	Model 1	Model 2	Model 3	Model 4
Step 1: Controls				
Employees	−0.203	−0.193	−0.146	−0.254†
Sales	0.053	0.070	−0.057	−0.050
Step 2: Main effects				
Family management involvement		0.381**	0.386***	0.454***
Generational ownership dispersion		−0.267*	−0.237*	−0.261*
Family member reciprocity		0.206†	0.145	0.142
Step 3: Moderators				
Innovativeness			0.368***	0.477***
Step 4: Interaction effect				
Innovativeness × family management involvement				−0.009
Innovativeness × generational ownership dispersion				−0.319**
Innovativeness × family member reciprocity				−0.167
ΔR^2	0.032	0.178**	0.121***	0.108**
R^2	0.032	0.212	0.333	0.441
Adjusted R^2	0.003	0.148	0.267	0.354
F	1.088	3.327**	5.069***	5.084***

Regression coefficients are reported as β values

$N = 70$, † $p < 0.10$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

In the first model, we controlled for the number of employees and sales; however, no significant relationships were observed. In order to test our main effects (hypotheses 1–3), we entered both the controls and independent variables into a second model. A significant change in R^2 was observed ($\Delta R^2 = 0.178$, $p < 0.01$). Family management involvement had a positive effect on family firm performance ($\beta = 0.381$, $p < 0.01$), and generational ownership dispersion had a negative effect on family firm performance ($\beta = -0.267$, $p < 0.05$), thus supporting hypotheses 1 and 2. Lastly, family member reciprocity was positively associated with family firm performance; however, this relationship was only marginally significant ($\beta = 0.206$, $p < 0.10$).

In order to test the hypothesized moderation effects, we first entered the moderator (innovativeness) independently in model 3. Innovativeness was significantly positively related to family firm performance ($\beta = 0.368$, $p < 0.001$). In a last step, we entered our three interaction effects into model 4. A significant change in R^2 was observed ($\Delta R^2 = 0.108$, $p < 0.01$). Hypothesis 4b received strong support ($\beta = -0.319$, $p < 0.01$); however, the interactions between family management involvement and innovativeness ($\beta = -0.009$, n.s.) and family member reciprocity and innovativeness ($\beta = 0.167$, n.s.) were not significant.

To facilitate the interpretation of our significant moderator effect, we plotted the interaction in Fig. 1 (Aiken and West 1991; Cohen et al. 2003). The interaction between innovativeness and generational ownership dispersion proved to be complex. While innovativeness had a positive performance effect on all family firms, those with concentrated generational ownership benefited the most from innovativeness.

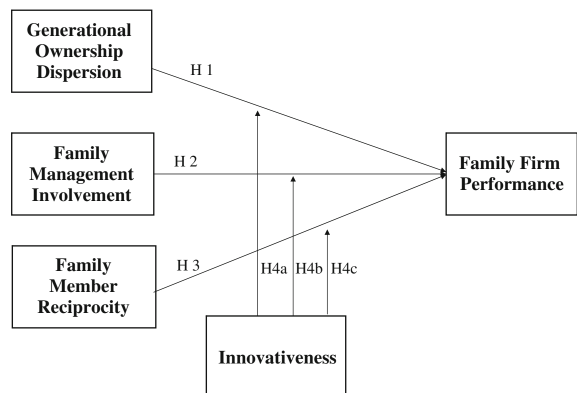

Fig. 1 Family influence, innovativeness, and family firm performance

Specifically, the highest performance levels were achieved from innovation when ownership was concentrated within one generation, while performance declined as ownership became more dispersed across generations.

6 Discussion

Our hypothesized main effects were widely supported, suggesting that the identified dimensions of family influence impact family firm performance. Specifically, generational ownership dispersion was negatively related to family firm performance, while family management involvement was positively and family member reciprocity was marginally positively associated with family firm performance. This suggests that family influence is a complex and multifaceted phenomenon that can have both positive and negative effects on family firms. Therefore, the influence of the family on family firms should not be viewed solely through a positive (e.g., stewardship behavior) or a negative lens (e.g., agency theory).

Although not explicitly hypothesized, we found that higher innovativeness in family firms is associated with greater performance, thereby adding to the literature on entrepreneurial orientation that shows a positive relationship between this construct and performance (for a recent meta-analysis see Rauch et al. 2009). Our study also complements a recent study by Naldi et al. (2007), who found a marginally positive relationship between innovativeness and family firm performance. Additionally, our findings suggest that generational factors may be key to understanding the importance of innovativeness to family firm success and survival.

Indeed, unlike nonfamily firms, the idiosyncratic characteristics of the family firm pose unique opportunities and challenges for the firm when engaging in any entrepreneurial behavior (e.g., Kellermanns and Eddleston 2006; Zahra 2005). By analyzing the interactive effect of innovativeness with three unique family influence dimensions, we attempted to discount the general assumption that family firms are prone to be risk averse (La Porta et al. 1997; Morris 1998), unwilling to change (Levinson 1987; Vago 2004), and reluctant to invest in new ventures (Cabrera-Suarez et al. 2001). However, only the interaction between generational ownership dispersion and innovativeness was significant; the interactions of innovativeness with family management involvement and family member reciprocity were not significant. This suggests that the benefits of innovativeness vary depending on the generational ownership dispersion of the family firm.

As the interaction in Fig. 2 suggests, the strongest performance was realized when ownership was concentrated in the hands of a single generation and innovativeness was high. Additionally, we see the importance of innovativeness to the success of family firms with multigenerational ownership, particularly since generational ownership dispersion was found to be negatively related to performance. However, while firms with single-generational and multigenerational ownership profit from innovativeness, single-generational firms appear to gain much more of an advantage from innovativeness. One may speculate whether or not this suggests a "founder effect," where the decisions of the founding generations (or the founder) are superior to the innovative behavior in multigenerational firms, where ownership is dispersed. Perhaps high levels of generational ownership dispersion raise conflict, misaligning interests and in effect damaging the potential benefits that innovation has on firm performance. Or, there may be differences in their strategies for exploiting

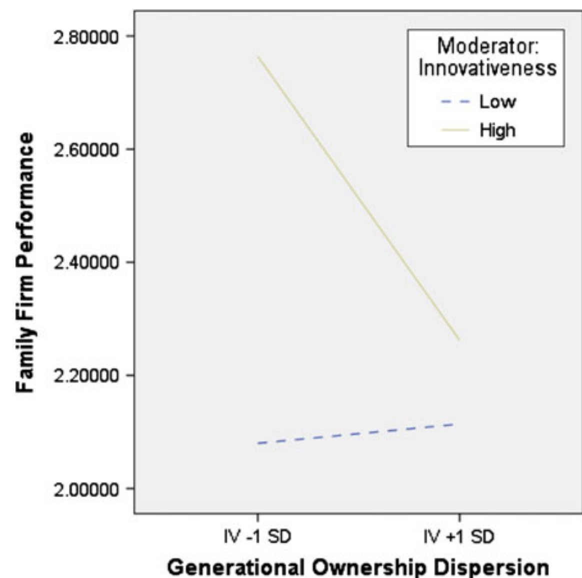

Fig. 2 Interaction: generational ownership dispersion and innovativeness

innovation. Since the correlation matrix indicates that firms owned by multiple generations appear to be as innovative as those owned by a single generation, apparently there are differences in how these firms exploit their innovations. Certainly more research should investigate why the innovativeness of single-generational firms is more successful than that of multigenerationally owned firms.

We also want to draw attention to our scale of family member reciprocity, which describes an important quality of family member interactions. We argued that a cooperative family culture, embodying a sense of kinship and reciprocal altruism, would benefit family firm performance. This is consistent with a stewardship perspective, whereby family members present a united front and act in ways counter to their own self-interest for the sake of the firm (Eddleston and Kellermanns 2007). Such a view, however, is in contrast to research that portrays family firms as prone to conflict (e.g., Kellermanns and Eddleston 2004; Levinson 1971) and agency costs (e.g., Chrisman et al. 2007; Schulze et al. 2001), problems that are not conducive to shared risk-taking and family firm performance.

Our discussion of family influence helps to further explain the unique effect of the family on family firm performance and the specific interactions of such influence with innovativeness to affect performance. In so doing, we add to the family firm research paradigm. The idiosyncratic traits of the family must be considered in conjunction with other contingencies to fully understand family firm behavior. We further developed a parsimonious construct to assess an interactive aspect of family influence, namely family member reciprocity, which was inspired by Seers' (1989) discussion of the quality of the exchange between team members.

While our study's main contribution is to the family firm literature, it should also be seen as informing the entrepreneurship literature. As our and other research have demonstrated, the family is an important component in understanding corporate entrepreneurship and innovativeness (Kellermanns and Eddleston 2006; Naldi et al. 2007; Zahra 2005). Since the overwhelming majority of firms worldwide are family businesses (e.g., Chang et al. 2008; Shanker and Astrachan 1996), research needs to further explore the role of the family in firm performance and the success of innovative behavior.

7 Limitations and implications for future research

We need to mention limitations and future research opportunities of our study. Family firms, as an organizational form, are distinguishable from other forms of governance owing to the overlapping nature of family ownership and management. The unique characteristics of family firms are thought to afford performance advantages over their nonfamily firm counterparts (e.g., Anderson and Reeb 2003). However, family firms in and of themselves are not homogenous. The union of these two subsystems, family and firm, influences firm decisions and guides firm behavior in diverse ways across family firms. Varied levels of family member involvement persist within family firms as a function of their age, size, and family values. Furthermore, family influence has more dimensions than utilized in this study (Astrachan et al. 2002; Klein et al. 2005; Rutherford et al. 2008; Uhlaner 2005). While previous operationalizations of family influence (Klein et al. 2005) have been criticized on a variety of dimensions (Cliff and Jennings 2005), we see our study not as a critique of previous measurement choices but as an attempt to utilize more parsimonious measures of family influence that still cover and expand the richness of the family influence dimensions. While we believe that our study is a step in this direction, future studies will need to complement our initial effort.

We further need to mention that our research design was cross-sectional and thus subject to the threat of common method bias. However, our common method test suggests that this does not pose a concern for this study (Podsakoff and Organ 1986), and even if an effect were present, it generally would not significantly affect the results (Doty and Glick 1998; Spector and Brannick 1995). This is particularly the case for the purpose of our study, since Monte Carlo studies have shown that common method variance cannot create significant interaction effects (Evans 1985).

The sample size of our study and the generalizability of our findings may also be a concern. However, considering the observed effect size (Cohen 1988), the power of our study still compares favorably with many studies in the realm of strategy (e.g., Mazen et al. 1987). Accordingly, we do not think that our findings were adversely affected by sample size considerations. We have to acknowledge, however,

that the data were obtained from family firms that were associated with family firm centers. However, when we compared our sample with larger-scale national studies, our sample was similar in nature in most demographic aspects but slightly larger and older, probably due to their location in the Northeastern USA (for more details see Eddleston et al. 2008).

In addition, we relied on self-reported performance measures, since objective data is generally not available for private firms, i.e., family firms. However, these subjective measures tend to correlate well with objective data and are widely used in both family and nonfamily research (e.g., Brush and Vanderwerf 1992; Dess and Robinson 1984; Eddleston and Kellermanns 2007; Love et al. 2002) and have the advantage that they control indirectly for industry effects and distortions from rent appropriation (cf., Coff 1999). We have to acknowledge, however, that objective performance data from a second dependent variable more specifically tailored to innovation would have strengthened our design. Furthermore, additional control variables from the realm of the governance literature would have been desirable (for examples see Villalonga and Amit 2006) to account for negative effects such as nepotism induced by the family in the business (Chrisman et al. 2007; Schulze et al. 2001). However, as agency costs are generally lower in family than nonfamily firms (Chrisman et al. 2004), the positive aspects of family influence on our findings should have outweighed any negative impacts.

Entrepreneurial behavior may manifest itself in many ways. Future research may look at additional dimensions of such behavior (e.g., Covin and Slevin 1989; Miller 1983). Furthermore, wealth levels could affect willingness to engage in innovative behavior. To the extent that family wealth is undiversified (Morck and Yeung 2003) and family wealth is concentrated in the family firm, family businesses may perceive the investment in innovation as risky. Future research could specifically investigate the relative proportions of independent wealth held outside the family business, and study the effects of such independent wealth on family businesses' willingness to invest in innovation.

The construct family member reciprocity may be a fruitful addition to the family business literature and should be applied to further research on venturing and innovative behavior. Furthermore, our finding that family member reciprocity impacts family firm performance complements research that links teamwork quality (e.g., Hoegl and Gemuenden 2001) and team behavior (e.g., Hoegl et al. 2004) to innovative, continuously changing organizations (e.g., Brown and Eisenhardt 1997) and venturing team relationships (e.g., Francis and Sandberg 2000).

In conclusion, since family firms comprise between 65% and 80% of all worldwide enterprises (Gersick et al. 1997), understanding the effects of family influence on family firm performance and their interaction with innovativeness is of the utmost importance. Our study showed that the family can have both a positive and negative influence on firm performance, and that innovativeness is more beneficial in family firms with concentrated generational ownership. We hope that this research will inspire others to more closely investigate innovativeness in particular and entrepreneurship in general in family firms, since some family firms appear to reap more benefits than others.

Appendix Scale items and reliabilities

Construct	Items	Individual	Firm	r_{wg}^{a}
Independent variables				
Family member reciprocity	When a family member is busy, other family members often volunteer to help them out to manage their workload.	0.92	0.93	0.79
	Family members are flexible about switching responsibilities to make things easier for each other.			
	Family members are willing to help each other complete jobs and meet deadlines.			

Appendix continued

Construct	Items	Individual	Firm	r_{wg}^{a}
Moderator				
Innovativeness	Our firm has emphasized taking bold, wide-ranging action in positioning itself and its products or services over the past 3 years.	0.76	0.79	0.88
	Our firm has shown a strong commitment to research and development, technological leadership and innovation.			
Dependent variable				
Family firm performance	How would you rate your firm's performance as compared to your competitors? Past 3 years:	0.90	0.90	0.99
	Growth in sales			
	Growth in market share			
	Growth in number of employees			
	Growth in profitability			
	Return on equity			
	Return on total assets			
	Profit margin on sales			
	Ability to fund growth from profits			

[a] r_{wg} is reported for family firms with multiple respondents only

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