

Family Capital of Family Firms

Bridging Human, Social, and Financial Capital

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The purpose was to present a family capital typology based on Sustainable Family Business Theory II and to document its relative contribution to short-term firm achievements and long-term sustainability using National Family Business Survey panel data. Family capital was defined as total owning-family resources composed of human, social, and financial capital. Family capital significantly contributed to firm achievements and sustainability. In the short term, all family capital types explained 13.5% of gross revenue variance and 4% of owner's success perception variance. In the long term, all family capital types explained 26.7% of gross revenue variance and 11.6% of owner's success perception variance.

Keywords: *family business; family capital; financial capital; human capital; social capital*

This study of owning family capital's impact on family firm success is the first to bridge human, social, and financial capital. It differs from previous research in several ways. Family capital conceptual and operational definitions are different and family capital is captured operationally by both stock and flow measures over time. Family capital is conceptually defined as the total resources of owning family members with components of human, social, and financial capital. The empirical study linking family capital to

firm performance addresses both family capital content and the process of capital creation and development in family firms. The study recognizes capital of all family members, whether or not employed in the firm. In previous family firm research, focus has been on owning family member actions rather than on family capital. Family members not working in the firm can have a substantial influence (Van Auken & Werbel, 2006) not only monetarily but also through injection of family values into firm goals, decision systems, and ways of interacting at the family/firm interface (Chell & Baines, 1998).

This study also incorporates multiple dimensions of firm success. Whereas most firm studies use financial performance measures, a growing number are incorporating nonfinancial measures of performance (Danes, Loy, & Stafford, 2008; Oughton & Wheelock, 2003). In fact, Gimeno (2005) argued that owner expectations, such as firm goals, must also be considered in addition to financial criteria for firms to be considered successful. The financial bottom line is essential for continued firm viability, but when financial performance is the sole measure of firm success, understanding firm sustainability is compromised.

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Recent advancements to Sustainable Family Business Theory (SFBT II) clarified concepts by elucidating a family capital typology: human, social, and financial capital (Danes, Lee, Stafford, & Heck, 2008). In SFBT II, family capital includes all capital forms that family members may contribute to the firm. Rather than using any previous classification of family effects on firms, this study uses the typology of family and firm inputs in SFBT II to analyze family capital effects on short-term achievements and longer term sustainability. Most family firm studies investigating family capital influence on firm success have been cross-sectional. Longitudinal studies capture compounding effects of capital over time via family processes and the family/firm interface. Thus, this study examines the same firms in 1997 and 2000.

The purpose of the study is to (a) present a typology for classifying various types of family capital and (b) document the relative contribution of these types of family capital to short-term firm achievements and longer term sustainability. The study uses National Family Business Survey (NFBS) panel data, a representative, random, national sample of firm-owning families. The study contributes to the literature by introducing a more comprehensive definition of family capital by incorporating multiple dimensions of firm success, using longitudinal data, and being grounded in a family firm theory that explicitly includes family capital of those family members who work in the firm and those who do not.

Literature Review

Multidimensionality of Firm Success

Habbershon and Williams (1999) contended that family firms' uniqueness arises from their family/firm integration, thus making firm success multidimensional (Paige & Littrell, 2002). Although most business studies use financial performance as the indicator of firm success, a growing number are beginning to use nonfinancial measures to address measurement issues associated with using solely financial data (Kotey & Meridith, 1997). Subjective, nonpecuniary firm success measures provide more insight into the owner's commitment to or passion for the firm (Stanforth & Muske, 2001). Danes, Loy, et al. (2008), in their study of family firm quality management, found support for the multidimensionality of firm success.

Small firm failure is often attributed to poor firm management, but personal and family reasons also account for closures. In the 2000 NFBS, 69% of all firms closing between 1997 and 2000 did so for personal or family reasons (Winter,

Danes, Koh, Fredericks, & Paul, 2004). Many small firms survive because the family works without pay or uses family assets to secure loans. Olson et al. (2003) found that family/firm interface management accounted for 22% of revenue variance and 33% of perceived success variance.

Certain owner and family characteristics affected firm income, profitability, and growth. Education, managerial skills and experience, and to some extent gender (being male) were found to increase earnings (Rowe, Haynes, & Bentley, 1993). Lack of management skills and experience decreased firm success (Olson et al., 2003), whereas firm success increased when family members helped in the firm and provided emotional support to owners (Danes & Lee, 2004; Danes & Morgan, 2004). Success was negatively affected by heavy family demands and goal conflict between active and nonactive family members (Danes, Haberman, & McTavish, 2005) and by tension levels (Danes & Olson, 2003; Danes, Zuiker, Kean, & Arbuthnot 1999). Higher family integrity levels were positively linked to firm success (Duncan, Stafford, & Zuiker, 2003). Number of firm generations significantly impacted owners' management (Olson et al., 2003). In addition, family responses to normative and nonnormative change significantly affected gross revenues and owner's perceived firm success (Olson et al., 2003), and in the family context, changes were consistent with their norms (Arregle et al., 2007).

Family interactions were another contributor to firm success (Masuo, Fong, Yanagida, & Cabal, 2001). The long-held belief that work and family life are separate spheres operating independently has been challenged by studies that have suggested there are extensive positive and negative bidirectional influences between work conditions and family outcomes and vice versa (Heck & Trent, 1999; Stafford, Duncan, Danes, & Winter, 1999). Family may be either a stress buffer or a resource drain producing more stress. If owning families have built a resilience capacity, when change is encountered, the store of trust and creativity in problem solving can be more easily and quickly tapped and adapted to new situations (Danes, Rueter, Kwon, & Doherty, 2002; Sundaramurthy, 2008). Resilience is the owning family's use of an ability to adjust resource and interpersonal processes to change (Danes, 2006) in either family or firm. Family interactions such as family adjustment strategies are actually implicit rules guiding member behavior that are the result of rationally making previous financial and social decisions and devising solutions to problems (Moen & Wethington, 1992). These behavior patterns or implicit rules can be drawn upon when needed and enhance resiliency; stress occurs when capital is threatened, lost, or believed to be unstable or when family members cannot protect their capital (Hobfoll, 2001).

Family Capital

Family capital is the total bundle of owning-family member resources composed of human, social, and financial capital. The process of drawing upon this family capital stock creates a change in that resource stock (either enhancement or reduction) that when added to the original level is the current period's output becoming input for the next time period. Whereas previous family firm research has emphasized either family members' human capital investments in firms (Sirmon & Hitt, 2003), current social capital rooted in close family ties (Hoffman, Hoelscher, & Sorenson, 2006), or family members' financial capital investment in the firm (Harvey & Evans, 1995), this study includes all three. Family resources may be more than the sum of resource endowments because resources can be combined in different ways in varying circumstances. Family capital supports family firm managerial functions directly through the use of family money and labor or indirectly by creating relationship and activity patterns to be drawn upon.

This is a more comprehensive definition than most, although it is similar to Oughton and Wheelock's (2003) household endowments. Hoelscher (2002) described family capital as a special case of social capital, more intense, enduring, and immediately available. Family scientist Bubolz (2001) described family capital as a form of social capital. Psychologist Marjoribanks (2001) included both human and social capital in a more inclusive construct called family capital. All three authors referred to family relationships as integral to social capital. Hoffman et al. (2006) noted that only two of three components of social capital pertain to family capital, namely, structural and relational components. None of these constructions of family capital included financial capital. Given Sirmon and Hitt's (2003) description of survivability capital as the integration of the family's human, social, and financial capital, one might argue that survivability capital is a type of social capital akin to resilience capacity. In this study, family functioning, adjustment strategies, and financial intermingling practices could be considered indicators of Sirmon and Hitt's survivability capital.

Three characteristics of family capital components facilitate bridging those components into a single analysis: *storability*, *transformability*, and *interaction*. According to Light (2001), owners can store human capital and social capital just like financial capital. Just as financial capital can be transformed into physical assets or vice versa, social and human capital can be transformed into financial capital. For example, when family members have committed to firm success by volunteering to work in the firm

during high demand times, that family's social capital has been transformed into a member's human capital and money for the firm. Interaction of the various capitals is a significant portion of the family capital bundle of family firms. For instance, consider the use of family financial capital that is used to purchase firm inventory. The decision by the family firm to utilize money supplied by the family requires expenditure of social and human capital. Social relationships between family and firm will determine the family's willingness to offer financial capital. Undoubtedly, the financial capital transfer from family to firm will impose some stress on the social relationships, causing expenditures of both types of capital. In addition, more educated and experienced individuals may be more willing to allow the fund transfer than others with less education and experience. Again, some human capital has been expended to allow this money transfer. Therefore, all three forms of capital interact whenever transfers take place between family and firm.

Portes (1998) viewed family capital as a primary source of information, influence, control, and social solidarity. Increased family capital leads to improved productivity for family members (Dollahite & Rommel, 1993). According to Hoelscher (2002), family capital allows family firm members to communicate effectively and efficiently. Family firms with high levels of family social capital were found to have a competitive advantage over nonfamily firms or family firms with lower levels of family social capital (Hoelscher, 2002; Hoffman et al., 2006). Family capital is rooted in strong family ties (Heck et al., 2006).

Sustainable Family Business Theory

Any theory used to study complex, ever-changing interactions among small firms, owning-family cultures, and communities in which they operate would need to be flexible and dynamic. Sustainable Family Business Theory (SFBT) is such a theory that draws on general systems theory and gives equal recognition to family and firm. It emphasizes firm sustainability rather than revenue. It posits that sustainability is a function of both firm success and family functionality and focuses on how family members exchange resources across systems. SFBT was first introduced in 1999 by Stafford, Duncan, Danes, and Winter. In 2008 several changes were introduced to clarify tenets and introduce advancements, leading to SFBT II (Danes, Lee, et al., 2008).

In SFBT II, family and firm structure were added; resources and constraints were separated; family capital inputs were identified as social, human, and financial capital; greater detail was provided about output content;

and a distinction was made between short-term viability and long-term sustainability. SFBT II tenets that are most relevant to this study are: (a) resource processes (use or transformation of capital) and interpersonal processes (e.g., conflict management, communication, personal relationships) in either firm or family may facilitate or inhibit family firm sustainability (Danes et al., 2008), (b) family and firm interact by exchanging resources across boundaries (Danes, Stafford, & Loy, 2007), and (c) owning families manage firm and family jointly to optimize achievements (Paul, Winter, Miller, & Fitzgerald, 2003).

Hobfoll (1989) described capital inputs as objects, personal characteristics, conditions, or energies that are valued in their own right or because they act as conduits to the protection or achievement of a valued goal. Capital is inherently limited and thus imposes constraints. Constraints impose limits on alternative resources, processes, and achievements (Oughton & Wheelock, 2003). SFBT II recognizes the potential for capital to have simultaneous positive and negative effects on firm performance, depending on the capital and circumstances.

Family human capital. Family human capital is skills, abilities, attitudes, and values of family members (Danes, Lee, et al., 2008). Human capital theory posits a positive correlation between human capital and productivity, and thus human capital measures are often used as proxies for people's productivity (Zuiker, Katras, Montalto, & Olson, 2003). Prior to 1960, when theoretical and empirical foundations of human capital theory were established, labor was the most frequently used human capital measure (Sweetland, 1996). For family firms, a distinction is frequently made between family and nonfamily labor. A unique feature of family firms is that family members often work in the firm without pay. This human capital can be a resource or constraint depending on the life-cycle stage of family or firm. For example, during early years of a family venture, family often provides firms with a steady supply of trustworthy human resources (Dyer, 2006).

Owner gender entails a set of human capital characteristics that differ by gender such as management abilities and attitudes toward resource use. Bird and Brush (2002) described masculine management as strategic and competitive with centralized decision making, low people commitment with clear boundaries between owners and employees, and growth leading to hierarchy. On the other hand, feminine management is personal and influenced by familial history, has participative decision making and high commitment to people, and resists growth. Bird and Brush further indicated that resources are managed differently by gender; the masculine approach is to find ways to obtain

and use them by leveraging rather than sacrificing the owner's resources. The feminine approach is more personal; the individual is fully at risk and makes a deeper personal commitment to both the opportunity and the resources, including employees.

Having both positive and negative human capital attributes heightens the importance of human capital management in achieving firm success (Astrachan & Kolenko, 1994). Positive attributes of family firms' human capital include strong commitment (Horton, 1986), friendly and intimate relationships (Horton, 1986), and potential for deep firm-specific tacit knowledge. Early involvement of children in the firm can produce deeper levels of firm-specific tacit knowledge. This knowledge, which is difficult to codify, can be transferred through direct exposure and experience (Lane & Lubatkin, 1998), giving family employees of family firms the potential to have deeper levels of firm-specific knowledge than employees of nonfamily firms.

Family social capital. Family social capital is goodwill among family members and between families and their community members that can be input to the owning family and their firm to facilitate action. Unlike human capital, embodied in individuals, social capital is embodied in relationships among people and formal social institutions. As described by Nahapiet and Ghoshal (1998), social capital is "embedded within, available through, and derived from the [social] network" (p. 243). Social capital provides information, access to technological knowledge, markets, and complementary resources (Hitt, Ireland, Camp, & Sexton, 2001, 2002). Social capital theory focuses on how quality, content, and structure of social relationships affect other resource flows and facilitate sustainability (Salvato & Melin, 2008; Wright, Cullen, & Miller, 2001).

Coleman (1990) identified family as the key institution through which social capital is transmitted via investment of time and effort, development of affective ties, and guidelines about acceptable and unacceptable behaviors (Wright et al., 2001). These relational behaviors are based on contextual values, beliefs, and norms that emanate out of family structure, roles, and rules (Arregle et al., 2007). Social capital can be relied upon to uphold social norms and reciprocate favors (Zuiker et al., 2003) for the firm's benefit.

Four factors shape the creation and development of family social capital (Nahapiet & Ghosal, 1998); they are stability, interaction, interdependence, and closure. "Together, these four factors affect the flow of social capital that, in turn, influences social capital stock. Alterations in any of these factors will likely impact . . . social capital stock over time" (Arregle et al., 2007, p. 76). Thus, to study the process of social capital creation and development, more than one

point of data collection is needed. For example, the use of available social capital stock develops a sense of trust based on shared norms and values, principles of obligations, and norms of cooperation. Of course, the use of social capital may also lead to the destruction of trust as the result of norms and values that are not shared. Social networks have been long considered important to firm success (Field, 2003), as information resources for identifying and exploiting firm opportunities (Hendry, Jones, Arthur, & Pettigrew, 1991; Mulholland, 1997), for providing access to finance (Bates, 1994), and for increased customer and worker loyalty and commitment (Bates, 1994). Networks contribute to management consistency that in turn enables firms to withstand external shocks (Field, 2003; James, 2000).

According to Coleman (1988), social capital influences the creation of human capital in subsequent generations. Thus, a family firm with strong social capital may be unusually effective in developing the human capital of the next generation (Sirmon & Hitt, 2003). Van Auken and Werbel (2006) suggested that family members may be likely to provide financial resources through outside sources of earned income, emotional support through encouragement, or instrumental support through knowledge or physical assistance.

Family financial capital. Family financial capital is composed of both monetary and physical assets owned by family members, individually or together. Financial assets are cash or readily converted into cash; they include pooled money of the entrepreneur and nuclear and extended families as well as funds from financial institutions. Physical assets are less readily converted into cash; they are such things as real estate, equipment, and production infrastructure. Assets are the traditional form of family capital and have been analyzed more extensively than the others.

Small firm finance literature acknowledges the intermingling of firm and family resources (Zuiker et al., 2002) and indicates that many of those small firm owners fund their firms through their own personal savings, supplemented by family money and community resources (Kushnirovich & Heilbrunn, 2007). Cole and Wolken (1995) reported that 39.2% of small firms used personal credit card debt for firm use. These financial commitments represent sacrifices of not only individual owners but also their families.

Financial capital alone is not sufficient for firm sustainability (Bates, 1985); it is only when matched with high human or social capital inputs that sustainability is achieved. A major aspect of financial capital is the relationship between small firms and their lenders, a form of social capital. Larger banks impose indirect transactions costs on small firm borrowers because they are more likely to have

loan officers with less longevity; hence, it is harder for small firms that depend on relationship lending to establish and maintain that relationship (Canadian Federation of Independent Business, 1994). Within family firms, family and firm have been found to compete for resources of individual family members and of family collectively (Stafford et al., 1999). Family firms use strategies that juggle resources to address needs during high demand times. Examples of strategies include family members helping in the firm without pay, transferring less firm income to family for a short time, or hiring temporary help in either family or firm (Winter, Puspitawati, Heck, & Stafford, 1993).

Data

Two waves of National Family Business Survey (NFBS), 1997 and 2000, were analyzed. For the 1997 NFBS, a household probability sample of owning firms was drawn from all 50 states by the Center for Survey Statistics and Methodology at Iowa State University. Interviewers screened more than 14,000 household telephone numbers to ascertain whether a household member was a family firm owner. More than 1,100 households met the restrictive criteria that the firm owner had to be in business at least a year, had to spend at least 6 hours a week or a minimum of 312 hours annually working in the firm, and had to live with at least one family member. Qualifying households were administered two different 30-minute telephone interviews: family and firm owner/manager. When those roles were held by the same individual, a 45-minute combined interview was administered. In 1997, response rates for the screen and interviews were 82.3% and 71.1%, respectively. The 1997 sample was 673 family firms with complete firm and household data. The largest sample firm had 250 employees, classifying them as small firms by the U.S. Small Business Administration (SBA, 2006). The 2000 NFBS reinterviewed 1997 NFBS households with parallel questions. Data were gathered from 553 households, more than 75% of the 708 households surveyed in 1997. The 2000 study subsample was 311 family firms that were still open and had the same firm owner as 1997 with complete data.

Analysis

To investigate the relative contribution of types of family capital on both short-term and long-term outcomes, 1997 data were used to estimate short-term models and 1997 and 2000 data were used to estimate long-term models. Operational definitions are in the appendix. Two family firm

outcomes were used for each time period, one financial and one nonfinancial. Family function, adjustment strategies, and financial intermingling variables, processes classified as control variables in the 1997 model, were reclassified as family social capital stock indicators in the 2000 model. These variables measured family processes that created family social capital in 1997, but over time, the outputs from these processes became part of the stock of social capital available in 2000. The four models are specified as follows where the subscripts indicate the relevant year:

$$\text{LGBI}_{97} = \alpha_0 + \alpha_1 \text{CNTRL}_{97} + \alpha_2 \text{HC}_{97} + \alpha_3 \text{SC}_{97} + \alpha_4 \text{FC}_{97} + \varepsilon$$

$$\text{PS}_{97} = \alpha_0 + \alpha_1 \text{CNTRL}_{97} + \alpha_2 \text{HC}_{97} + \alpha_3 \text{SC}_{97} + \alpha_4 \text{FC}_{97} + \varepsilon$$

where LGBI_{97} is log of gross business income in 1997; PS_{97} is perceived success in 1997; CNTRL_{97} is business structure, household structure, family functioning, adjustment strategies, and intermingling practices; HC_{97} is human capital; SC_{97} is social capital; and FC_{97} is financial capital.

$$\text{LGBI}_{00} = \alpha_0 + \alpha_1 \text{CNTRL}_{00} + \alpha_2 \text{HC}_{00} + \alpha_3 \text{SC}_{00} + \alpha_4 \text{FC}_{00} + \varepsilon$$

$$\text{PS}_{00} = \alpha_0 + \alpha_1 \text{CNTRL}_{00} + \alpha_2 \text{HC}_{00} + \alpha_3 \text{SC}_{00} + \alpha_4 \text{FC}_{00} + \varepsilon$$

where LGBI_{00} is log of gross business income in 2000; PS_{00} is subjective success in 2000; CNTRL_{00} is business structure and household structure; HC_{00} is human capital; SC_{00} is social capital (SC_{97} plus family functioning, adjustment strategies, and intermingling practices); and FC_{00} is financial capital.

SPSS hierarchical regression was used to estimate models and obtain contribution measures of each family capital type to the explanation of variance in firm outcomes. Change in R^2 measured the proportion of variance in firm outcomes explained by each family capital type. R^2 was used rather than adjusted R^2 because the sum of R^2 's for each step was model R^2 . Both model R^2 and R^2 for each step were tested for significance. Whereas R^2 is regression sum of squares divided by total sum of squares, change in R^2 for each step is the difference in regression sum of squares between the previous and current step divided by total sum of squares. If R^2 increases were significant, then that capital type explained variance in firm outcomes.

Results

This study examines the importance of family capital (human, social, and financial) to financial and nonfinancial

family firm success in 1997 and 2000. The means and standard deviations of variables used in the regression models are summarized in Tables 1 and 2. Tables 3 and 4 summarize the predictors of short-term achievements and longer term sustainability.

In 1997, mean gross firm income was \$952,042 and, on average, owners perceived their firms to be relatively successful in 1997 (Table 1). Firms had just less than seven nonfamily employees, 28.5% were corporations, and more than 60% of firm owners had a primary long-term firm goal related to financial success. Households had just more than three people, more than 92% of firm owners were married, and more than 40% of owning families' long-term goals were "financial in nature." The composite measure of family integrity was relatively high in 1997, 20.5 out of 25, indicating that the family had high functional integrity. The composite measure of the family/business congruity in 1997 also was relatively high (32.1 out of 35), indicating a high level of harmony between family and firm systems. Family functioning was measured by three indicators: negotiate with each other (11.6), act as individuals (6.1), and ordered decision making (9.9). Each of these family functioning indicators was relatively high, suggesting that for each family type there was a consistent pattern in their relationships. Adjustment strategies during hectic times were measured by five variables. The firms were least likely to use hired help or volunteers in high demand times and more likely to take firm tasks home or reallocate tasks to other family members in high demand times. Intermingling practices were separated between family-to-firm and firm-to-family financial intermingling. Just less than 50% of these family firms engaged in family-to-firm intermingling and just more than 32% engaged in firm-to-family intermingling.

Human capital measures included demographic characteristics of firm owner and family labor. Owners had more than 13 years of firm experience, and more than 28% of 1997 firms were female owned. On average, they hired nearly two family employees. In 1997, social capital measures were scarce; ones selected were thought to convey transmission of family values across generations. Social capital included owner's perception of firm purpose and number of firm generations. Nearly 45% of owners perceived the firm as a "way of life." On average, owners were first-generation owners. Financial capital was measured by net worth (wealth) in household and firm. The average household net worth was \$194,397 ($SD = \$318,584$), whereas the mean firm net worth was \$783,954 ($SD = \$6,109,049$).

Most 2000 means were very similar to 1997 means (Tables 1 and 2). Fewer owning families indicated that their long-term goal was financial (40.4% in 1997; 15.4% in 2000), owners had more experience, and household and firm net worth were somewhat higher in 2000. Tables 3 and

Table 1
Characteristics of the Sample, 1997

Variable	Mean	Standard Deviation
Dependent		
Gross business income (in thousands)	952.0	5,263.2
Subjective success	3.990	0.796
Input controls		
Business structure		
Number of nonfamily employees	6.978	27.534
Legal organization, corporation (sub s or regular)	0.285	0.452
Most important long-term goal is financial success	0.603	0.490
Family structure		
Number of people in the family	3.400	1.372
Marital status of the business owner	0.924	0.265
Family goal was financial in nature	0.404	0.491
Process controls		
Family integrity	20.501	3.389
Family/business congruity	32.100	3.901
Family functioning: Negotiate with each other	11.602	2.634
Family functioning: Act as individuals	6.123	2.768
Family functioning: Ordered decision making	9.949	2.685
Adjustment strategies: Business tasks done at home	3.006	0.896
Adjustment strategies: Hires help	2.019	0.959
Adjustment strategies: Reallocate to other family members	2.924	0.986
Adjustment strategies: Reallocate to spend time with family	2.800	0.936
Adjustment strategies: Use of volunteers in hectic times	2.285	1.008
Family-to-business intermingling	0.475	0.500
Business-to-family intermingling	0.321	0.467
Forms of family capital		
Human capital		
Years of business experience	13.281	11.486
Gender of business owner	0.281	0.450
Number of family employees	1.701	1.600
Social capital		
Way of life (business first)	0.447	0.498
Business generation of current owner	1.204	0.522
Financial capital		
Family net worth (in thousands)	194.4	318.6
Business net worth (in thousands)	783.9	6,109.1

Note: Number of observations = 673.

Table 2
Characteristics of the Sample, 2000

Variables	Mean	Standard Deviation
Dependent		
Gross business income, 2000 (in thousands)	659.1	2,458.1
Subjective success, 2000	3.960	0.788
Input controls		
Business structure		
Number of nonfamily employees, 2000	5.704	21.064
Legal organization, corporation (sub s or regular), 2000	0.309	0.463
Most important long-term goal is financial success, 2000	0.566	0.496
Family structure		
Number of people in the family, 2000	3.170	1.423
Marital status of owner, 2000	0.929	0.257
Family goal was financial in nature, 1997	0.154	0.362
Forms of family capital		
Human capital		
Years of business experience, 2000	17.267	11.434
Gender of business owner, 1997	0.289	0.454
Number of family employees, 2000	0.518	1.801
Social capital		
Way of life (business first), 2000	0.312	0.464
Business generation of owner in 1997	1.257	0.594
Family integrity, 1997	20.682	3.054
Family/business congruity, 1997	32.035	3.672
Family functioning: Negotiate with each other, 1997	11.637	2.614
Family functioning: Act as individuals, 1997	6.055	2.749
Family functioning: Ordered decision making, 1997	9.913	2.743
Adjustment strategies: Business tasks done at home, 1997	3.055	0.944
Adjustment strategies: Hires help, 1997	2.119	0.980
Adjustment strategies: Reallocate to other family members, 1997	2.992	0.963
Adjustment strategies: Reallocate to spend time with family, 1997	2.801	0.925
Adjustment strategies: Use of volunteers in hectic times, 1997	2.307	1.025
Family-to-business intermingling, 1997	0.479	0.500
Business-to-family intermingling, 1997	0.354	0.479
Financial capital		
Family net worth, 2000 (in thousands)	223.4	347.7
Business net worth, 2000 (in thousands)	778.1	4,160.8

Note: Number of observations = 311.

Table 3
Determinants of Gross Revenue and Perceived Success for 1997

Variables	Gross Revenue		Perceived Success	
	Parameter Estimate	Change in R^2	Parameter Estimate	Change in R^2
Intercept	1.6189		3.2076***	
Input controls				
Business structure				
Number of nonfamily employees	0.0135***		0.0018	
Legal organization, corporation (sub s or regular)	0.9959***		0.0998	
Most important long-term goal is financial success	0.1904		-0.1259*	
Family structure				
Number of people in the family	0.1600**		0.0210	
Marital status of the business owner	0.0515		0.0047	
Family goal was financial in nature	-0.0485	0.254***	-0.0319	0.039***
Process controls				
Family integrity	-0.0345		0.0112	
Family/business congruity	0.0114		0.0098	
Family functioning: Negotiate with each other	0.0167		0.0044	
Family functioning: Act as individuals	0.0160		-0.0158	
Family functioning: Ordered decision making	-0.0275		-0.0065	
Adjustment strategies: Business tasks done at home	-0.3152**		-0.0405	
Adjustment strategies: Hires help	0.3738***		0.1083**	
Adjustment strategies: Reallocate to other family members	0.2542**		0.0589	
Adjustment strategies: Reallocate to spend time with family	-0.1953*		-0.0702*	
Adjustment strategies: Use of volunteers in hectic times	-0.3035***		-0.0235	
Family-to-business intermingling	0.1152		-0.2400***	
Business-to-family intermingling	0.0414	0.092***	0.0437	0.079***
Forms of family capital				
Human capital				
Years of business experience	0.0100		0.0051	
Gender of business owner	-0.1649		0.1721*	
Number of family employees	0.2266***	0.056***	0.0246	0.018**
Social capital				
Way of life (business first)	0.1524		0.1171	
Business generation of current owner	-0.0638	0.002	-0.0568	0.006
Financial capital				
Log of family net worth	0.1788***		0.0235	
Log of business net worth	0.3587***	0.100***	0.0453**	0.017**
Model R^2		0.504		0.158
Model F statistic ($df = 647$)		26.314***		4.861***

Note: Number of observations = 673.

* $p < .05$. ** $p < .01$. *** $p < .001$.

4 summarize the influence of family capital (human, social, and financial) on financial and perceived firm success for 1997 and 2000. Table 3 examines the predictors of 1997 gross revenue. The firm and household structure control variables contributed 0.254 points to R^2 , or 50.4% of total R^2 , whereas process controls contributed an additional 0.092

points to R^2 , or 18.3% of total R^2 . Human capital added 0.056 points, or 11.1% of total R^2 ; social capital added essentially no points; and financial capital added 0.100 points, or 19.8% of total R^2 . Changes in R^2 were significant for the sets of controls and human and financial capital. Number of family employees was the significant human

Table 4
Determinants of Gross Revenue and Perceived Success for 2000

Variables	Gross Revenue		Perceived Success	
	Parameter Estimate	Change in R^2	Parameter Estimate	Change in R^2
Intercept	4.5934***		2.8905***	
Input controls				
Business structure				
Number of nonfamily employees, 2000	0.0245***		0.0019	
Legal organization, corporation (sub s or regular), 2000	0.7754***		0.1622	
Most important long-term goal is financial success, 2000	-0.0406		-0.1475	
Family structure				
Number of people in the family, 2000	0.0561		0.0635	
Marital status of owner, 2000	-0.2311		0.0035	
Household goal was financial in nature, 1997	-0.1198	0.316***	0.2860*	0.067**
Forms of family capital				
Human capital				
Years of business experience, 2000	-0.0006		-0.0037	
Gender of business owner, 1997	-0.4475**		0.3333**	
Number of family employees, 2000	0.0805	0.075***	0.0099	0.028*
Social capital				
Way of life (business first), 2000	-0.2325		-0.1610	
Business generation of owner in 1997	-0.2489		-0.0574	
Family integrity, 1997	-0.0389		0.0041	
Family/business congruity, 1997	-0.0253		0.0201	
Family functioning: Negotiate with each other, 1997	0.0299		0.0213	
Family functioning: Act as individuals, 1997	0.0158		0.0176	
Family functioning: Ordered decision making, 1997	0.0258		-0.0139	
Adjustment strategies: Business tasks done at home, 1997	-0.1984*		-0.0784	
Adjustment strategies: Hires help, 1997	0.2544**		0.0439	
Adjustment strategies: Reallocate to other family members, 1997	0.0716		0.1152*	
Adjustment strategies: Reallocate to spend time with family, 1997	-0.0590		-0.0840	
Adjustment strategies: Use of volunteers in hectic times, 1997	-0.1733*		-0.0588	
Family-to-business intermingling, 1997	0.1348		-0.1552	
Business-to-family intermingling, 1997	-0.0572	0.066**	-0.0355	0.076*
Financial capital				
Log of family net worth, 2000	0.0748		0.0272	
Log of business net worth, 2000	0.3216***	0.126***	0.0360	0.012
Model R^2		0.583		0.183
Model F statistic ($df = 285$)		15.950***		2.551***

Note: Number of observations = 311.

* $p < .05$. ** $p < .01$. *** $p < .001$.

capital variable. Firms with more family employees had higher 1996 gross revenue. Family and firm net worth were both statistically significant financial capital variables. Families and firms with higher firm net worth had higher gross revenue.

Several 1997 controls warrant mentioning. Firms with more nonfamily employees and organized as corporations

had higher gross revenue. Firms with larger households had higher gross revenue. Firms with owners completing firm tasks at home, reallocating tasks to spend time with family, and using volunteers in hectic times had lower gross revenue. Firms hiring help and reallocating tasks to other family members in hectic times had higher gross revenue.

When analyzing 1997 perceived firm success, firm and household controls contributed 0.039 to the R^2 , or 24.7% of total R^2 , whereas process controls contributed an additional 0.079 points to R^2 , or 50.0% of total R^2 . Human capital added 0.018 points, or 11.4% of total R^2 ; social capital added 0.006, or 3.8% of total R^2 ; and financial capital added 0.017 points, or 10.8% of total R^2 . The changes in R^2 were statistically significant for the sets of control variables, human capital, and financial capital. Gender of the firm owner was the only significant human capital variable. Female firm owners perceived higher levels of success. Consistent with the gross revenue regression, higher firm net worth was associated with higher levels of perceived success. Firm owners considering financial success to be the primary long-term goal had lower levels of perceived success. Owners hiring help in hectic times had higher levels of perceived success, whereas firms reallocating time to spend with family had lower levels of perceived success. Owners engaged in family-to-firm intermingling had lower levels of perceived success.

Table 4 examines determinants of 2000 gross revenue. Firm and household controls contributed 0.316 to R^2 , or 54.2% of total R^2 ; human capital added 0.075 points, or 12.9% of total R^2 ; social capital, which now includes additional family social capital variables, added 0.066 points, or 11.3% of total R^2 ; and financial capital added 0.126 points, or 21.6% of total R^2 . The changes in R^2 were significant for all capital forms and the set of control variables. Women-owned firms had lower gross revenue. Firms hiring help in hectic times had higher gross revenue, whereas firms with owners completing firm tasks at home and using volunteers in hectic times had lower gross revenue. Firms with higher firm net worth had higher gross revenue. Firms organized as corporations and those hiring more nonfamily employees had higher gross revenue.

In the 2000 perceived success equation, firm and household controls contributed 0.067 to R^2 , or 36.6% of total R^2 ; human capital added 0.028 points, or 15.3% of total R^2 ; social capital added 0.076 points, or 41.5% of total R^2 ; and financial capital added 0.012 points, or 6.6% of total R^2 . The changes in R^2 were significant for all forms of capital except financial and the set of control variables. Gender was the only significant human capital predictor. Female firm owners had higher perceived success than male firm owners. Adjustment strategies were the only significant social capital predictor. Firm owners reallocating tasks to other family members in hectic times had higher perceived success. No other capital variables were significant. Only one control variable was statistically significant. Those firms associated with a family having goals that were more

financial in nature had higher perceived success. Within financial capital, firm net worth was the most influential capital form in 1997 and 2000 revenue models. It was much less influential in the perceived success models in both years, although higher levels of financial capital were associated with more successful firms. Human capital was the second most influential capital form in all models in both years. Social capital had minimal effects in the 1997 models but greater effects in the 2000 models.

Family capital made significant contributions to family firm achievements and sustainability. In the short term, human and financial capital significantly explained variance in gross revenue and owner's perception of success. All forms of capital explained 15.8% of the variance in log of gross revenue and 4.1% of the variance in owner's perception of success in the short term. In the longer term, human, social, and financial capital significantly explained variance in gross revenue, and human and social capital significantly explained variance in owner's perception of success. In the longer term, all capital forms explained 26.7% of the variance in gross revenue and 11.6% of the variance in owner's perception of success.

Discussion

Before discussing results, discussion of limitations on their interpretation is in order. The study sample is generalizable to the United States only, but although the sample is generalizable, the number of medium and large firms is small enough that estimates of family capital effects are unreliable. Although the panel feature of the data is a strength, it should be noted that the period of analysis is relatively short, only 3 years. Family capital is theorized to have snowballing effects and 3 years is such a short period that the estimates of the effects of family capital should perhaps be thought of as minimum estimates. Another limitation is the nature of implied boundaries between family capital components. In actuality, boundaries between one's human capital and a group's social capital accessed by an individual are fuzzy, but study measures were clearly placed in one category. For example, an argument could be made that owner values belong in human capital rather than social capital. Consequently, claims of greater impact for any particular capital component should be interpreted with caution and may underestimate impact.

Another limitation is the restricted set of social capital measures. This study did not include measures of the family members' connections with their community, an important form of social capital. Omission of these measures

means the impact of family social capital is underestimated. In the current study, family integrity and family/firm congruity assessed feelings and perceptions of relationships. However, the majority of social capital measures in this study directly addressed the nature of the family's norms about resource use rather than relationships. This study's measures were more precise about the nature of the norms but more limited in scope.

The 2000 sustainability models performed better than the 1997 achievement models, and family capital explained more variance in sustainability achievements. The model explained 8% more variance in gross revenue for 2000 than 1997. The model also explained 2.5% more variance in perception of success in 2000 than in 1997. Furthermore, family capital explained almost twice as much variance in revenue for 2000 as for 1997. Family capital explained almost three times as much variance in owner's perception of success in 2000 as in 1997.

In the preceding paragraph constructs were compared. If we were to compare the variables that represented 1997 processes and 2000 social capital stocks, a different pattern emerges. This variable set explained more variance in 1997 achievements than in 2000 sustainability. Family functioning, adjustment strategies, and financial intermingling practices explained 9.2% of the variance in 1997 gross revenue and 7.9% of variance in 1997 owner's perceived success. In 2000 models, those variables explained 6.6% of the variance in gross revenue and 7.6% of the variance in perceived success.

This difference in patterns between the comparison of constructs and variables highlights the distinction between measuring and analyzing capital as stocks or flows (processes in SFBT II). In SFBT II and this study, family capital is a stock, a resource amount available for use; actual use of family capital stocks is a process either creating or depleting future family capital stocks. The output of those processes added to the original resource stock is the resource input in future management functions of family and firm. This theoretical distinction between family capital stocks and processes explains why family functioning, adjustment strategies, and financial intermingling were classified as capital-creating processes in 1997 and available capital stock indicators in the subsequent 2000 equations. Sirmon and Hitt (2003) referred to capital stock use as resource management. Family resource management may be more important to firm achievements and sustainability than capital stocks available. Of course, family capital stock availability is a prerequisite to management. This difference in impact of capital stock available versus processes using that stock on firm achievements

and sustainability means that researchers should pay careful attention to whether stock or process measures of family capital are used when reviewing research. They should also, when possible, ascertain both stock available and stock used rather than assuming family capital stock available is used. For management researchers and consultants, this distinction is particularly important. Prior to recommending use of family capital, one should ascertain the stock available. It is also important to note that nonuse of family capital does not necessarily indicate absence of family capital.

In the short term, family human and financial capital contributed more to success perception than social capital, but in the long term, family social capital contributed more to success perception than human and financial capital combined. Family capital contributed more to 1997 gross revenue, but it contributed more to owner success perception in 2000. In 1997, family social capital contributed more to success perception and financial capital contributed more to gross revenue. In 2000 models, human and social capital contributed more to success perception and family financial capital contributed more to gross revenue. Financial capital contributed more than other forms of family capital to gross revenue in both 1997 and 2000.

Short-term results for 1997 in this study differ from Hoelscher's (2002), but the discrepancy may be explained by a difference in the family capital definition and measures used for the constructs. Hoelscher defined family capital as a type of social capital, and his measure of family capital was derived from responses to 10 items intended to encapsulate obligations norms, identity, information channels, and moral infrastructure. The items used to measure moral infrastructure and identity were very different from the two included in the present study. Way of life in the present analysis was part of family moral infrastructure. Generation of the firm owner could be construed as a measure of family identity. The two adjustment strategies and one financial intermingling practice measured aspects of family behavior that could be considered a reflection of obligations and norms, but in this study they were used as controls in the 1997 analysis.

This study contributed both to conceptualization and measurement of family capital. Its results are the first longitudinal analyses of family capital effects on family firm performance. In long-term analyses, family capital had significant effects on both gross revenue and owner's success perception. All three components of family capital had variables that had significant effects on gross revenue; however, financial capital did not have a significant effect on success perception. Whereas Hoelscher (2002) described family capital as a social capital type, the five family capital

dimensions included in his family capital scale were scattered among three forms of family capital in this study. Moral infrastructure and identity were included as social capital, as were obligations and norms. Family information channels were indicated by family functioning styles. Number of family employees was considered a family human capital measure in this study but could be construed as a measure of reliance on relatives, one of Hoelscher's family social capital items indicating obligations and norms.

Conceptually, it is clear that scholars disagree on the breadth of the family capital concept and very little empirical research has been done on effects of family capital on family firm outcomes. Much more empirical research needs to be done. There does not appear to be disagreement about inclusion of family social capital, nor about its dimensions, but there has been little discussion of stock versus flow measures of family capital, their advantages and disadvantages, and implications for theoretical models. Sirmon and Hitt (2003) made the distinction and also made the point that availability of resource (capital) stocks was necessary but not sufficient for sustained competitive advantage. SFBT II is an alternative to the Sirmon and Hitt model that makes the distinction between stocks and flows of capital. Future theoretical and empirical work about the distinctions between family capital flows and stocks is also needed.

Throughout this discussion, the point has been made that family capital had different effects on gross revenue and perception of success. These differences are consistent with other studies that have included both measures of success (Danes et al., 2007; Olson et al., 2003). The qualitative nature of differences in effects that specific types of capital had on these two dependent variables once more suggests that financial and nonfinancial outcomes are not simply objective and subjective measures of the same construct. Rather, this study's results indicate that family firm owners have financial and nonfinancial objectives for their firms. Studies that predict success should account for these multiple objectives and their qualitative difference.

The revised Sustainable Family Business Theory, SFBT II, on which this study was based, proved to capture more of the important social system features of family firms than the original SFBT model. The results of the present study reinforce the importance of distinguishing among types of resource inputs and support the usefulness of the capital typology in SFBT II. The results also reinforce the importance of distinguishing between achievements and sustainability, a distinction missing from the earlier SFBT model (Stafford et al., 1999). SFBT II continues the distinction between capital stocks and processes that draw upon those stocks first made in 1999, and the present study results

drive home the importance of this distinction when reviewing past analyses in the literature, designing studies, and consulting with firm owners.

SFBT II is a more comprehensive theory and at the same time more specific than Sirmon and Hitt's (2003) model of competitive advantage, the resource-based view of the firm (Tokarczyk, Hansen, Green, & Down, 2007), and familiness (Habbershon & Williams, 1999). However, study results indicate that SFBT II has not sacrificed critically important features of family/firm interaction. SFBT II is capable of seamless synthesis with economic theory of the firm and/or sociological theories of social capital. The present study results support the relevance of the owning family to analyses of family firm performance and indicate that SFBT II is useful for designing interdisciplinary analyses.

Policy Implications

This study has shown that family capital is an important determinant of monetary and perceived success of family-owned small firms. Financially successful small firms are more likely to provide adequate net income to their owners, and subsequently, one would expect these owners will make larger financial contributions to their community (Fitzgerald, Haynes, Schrank, & Danes, 2005). Small firms with higher levels of net worth (or wealth) and those hiring labor are most likely to generate more gross revenue and make these contributions to their community (Fitzgerald et al., 2005; Olson et al., 2003). These types of family capital are important to lenders and agencies, such as the Small Firm Administration, when deciding to allocate debt capital to "growth" firms. Based on this study, wealthier small firms with the capacity to hire employees are more likely to "grow" and prosper. In addition, these small firms generate more tax revenue, in the form of property, income, and sales taxes, to finance other projects in their communities.

Wealthier small firms with more assets and those hiring employees are more likely to generate more revenue (Fitzgerald et al., 2005). After a natural or manmade disaster they may be "better bets" for the allocation of federal and state disaster assistance because they can combine their strong family capital with financial capital provided by disaster assistance to successfully recover and prosper. Firms without this stock of family capital may be less likely to efficiently utilize public funds allocated for disaster assistance. Moreover, these firms may be better stewards of private financial capital, such as bank loans and private investment capital, because they are less likely to face a foreclosure, which is very costly to private lenders and investors. And, they may be generally less risky to society

because they are less likely to declare bankruptcy, which imposes substantial social costs.

Not all aspects of small firm success are purely financial. Firm owners reallocating their work schedule for more family time and female firm owners have higher subjective scores for their firm's success than other owners. Although it's important to have some separation between firm and family, owners allocating more time to their families place a higher subjective value on their firm than other owners. Perhaps special family-friendly deductible firm expenses, such as allowing some family member expenses to be deducted for firm travel, would allow small firm owners to spend more time with family and indirectly increase their satisfaction with small firm ownership. Strong firms supported by strong families produce strong family firms.

The case of female firm owners is somewhat more complex. The lower financial performance for female owners is mitigated by higher subjective performance assessments. Female owners are simply more satisfied with the performance of their firm than male owners. On one hand female owners may be less likely to "grow" the firm and subsequently collect less tax revenue in the short run; on the other hand, they may be more likely to survive over the long run, especially during difficult times. It's the objective and subjective factors working together that determine the net effect. This conclusion supports earlier work by Oughton and Wheelock (2003). While female owners may not satisfy the growth expectations of some loan programs, they would seem to be excellent candidates for disaster assistance funding, Small Business Administration loan guarantees, and other programs designed to build sustainable communities.

Various capital forms are given different treatment by U.S. tax laws. Human and social capital are largely untaxed; therefore, gains in either of these capital types are realized with important productivity impacts but no tax implications. However, gains in physical or financial capital either through increases in profit or appreciation of capital assets

have important tax consequences. In addition, some physical capitals (e.g., machinery and equipment) can be depreciated, which effectively lowers the price of these capital assets and encourages investment in them. Tax laws have encouraged the purchase of capital assets and provided a financial incentive to substitute physical capital for human (labor) or social capital. Given the relative importance of human and social capital, perhaps tax laws should be changed to give more substantial incentives for human and social capital investments to offset the depreciation advantages of purchasing physical capital.

During financially difficult times, it could be that human and social capital sustain small firms. While human and social capital can be transformed into financial capital, it's during financially difficult times that financial capital may be scarce, forcing small firm owners to draw on other forms of capital for sustainability. Depreciation advantages afforded by physical capital are only useful if the firm is profitable. Additional public support for education (increasing human capital) and infrastructure (social capital) may be especially important in difficult times for small firm survival as other forms of capital are less available and useful to them.

In sum, this study has contributed both theoretically and methodologically to family firm research on family capital. Family capital, in this study, recognized capital of all family members, whether or not employed in the firm, and bridged human, social, and financial capital. This family capital definition is grounded in the SFBT II (Danes et al., 2008). Results reflected the relative contribution of each family capital component to firm success measured multidimensionally. The longitudinal nature of the analysis facilitated the study of family capital stocks on firm success but also the impact of the process (flow) of capital creation and development in family firms. Study results provided support for the premise that access and use of family capital is more critical to family firm success than actual family capital stocks.

Appendix

Operational Definitions for 1997 (Short-Term Viability) and 2000 (Long-Term Sustainability)

Variables of Interest	Survey Question/Computation	Values
Dependent variables		
Gross business revenue	What was the gross income of the business in 1996/1999?	Log amount
Perceived success	How successful do you think your business has been in achieving a business goal so far in 1997/2000?	1 = <i>not at all successful</i> through 5 = <i>very successful</i>
Independent variables		
Input controls (1997 and 2000)		
Business structure		
Number of nonfamily employees	Subtract employees who are relatives and family members from total employees (including the owner).	Number of people
Legal organization, corporation	What is the legal ownership of the business?	1 = <i>corporation</i> , 0 = <i>otherwise</i>
Most important long-term goal is financial success	In your opinion, which of the following is the most important long-range goal for the business?	1 = <i>financial goal</i> (adequate financing, profit, long-term viability, growth), 0 = <i>otherwise</i>
Family structure		
Number of people in the family	Count the number of people currently living in the household.	Number of people
Marital status of the owner	Is firm owner currently married or in a marriage-like relationship?	1 = <i>yes</i> , 0 = <i>no</i>
Family goal was financial in nature	In your opinion, which of the following is the most important long-range goal for your family?	1 = <i>financial goal</i> (adequate family income, secure future, secure retirement), 0 = <i>otherwise</i>
Process controls (1997)		
Social capital (2000)		
Family integrity	For each one, please tell me how often you are satisfied with the following aspects of your family life: adaptability, partnership, growth, affection, and resolve of the family.	Sum responses to these five questions, where 1 = <i>never</i> through 5 = <i>always</i>
Family/business congruity	Owners are asked about seven tensions in their home life generated by business issues (roles, decision authority, ownership, compensation, unresolved conflicts, workloads, resource competition).	Seven questions had scale where 1 = <i>not at all like your family</i> through 5 = <i>exactly like your family</i> , questions were reverse-coded and summed
Family functioning: Negotiate	Owners are asked about three activities that most closely describe their family (schedule coordination with each other, discussing what to do, family is open to new ideas).	Sum responses to these three questions, where 1 = <i>not at all like your family</i> through 5 = <i>exactly like your family</i>
Family functioning: Act as individuals	Owners are asked about three activities that most closely describe their family (friends of family you don't know in household, not many family decisions, family does not often know what each other does).	Sum responses to these three questions, where 1 = <i>not at all like your family</i> through 5 = <i>exactly like your family</i>
Family functioning: Ordered decisions	Owners are asked about three activities that most closely describe their family (rules never change, one member coordinates schedules preventing time conflicts, family does same things time after time).	Sum responses to these three questions, where 1 = <i>not at all like your family</i> through 5 = <i>exactly like your family</i>
Adjustment strategies: Business tasks	Firm owners are asked about how they respond to hectic times—family work usually completed at home is done at the business.	Average response to this question, where 1 = <i>never</i> through 5 = <i>always</i>
Adjustment strategies: Hires help	Firm owners are asked about how they respond to hectic times—family hires temporary help at home or firm.	Average response to this question, where 1 = <i>never</i> through 5 = <i>always</i>

(continued)

Appendix (continued)

Variables of Interest	Survey Question/Computation	Values
Adjustment strategies: Reallocate household tasks	Firm owners are asked about how they respond to hectic times—defer or skip routine household tasks to spend more time with family.	Average response to this question, where 1 = <i>never</i> through 5 = <i>always</i>
Adjustment strategies: Reallocate firm tasks	Firm owners are asked about how they respond to hectic times—defer or skip routine business demands to spend more time with family.	Average response to this question, where 1 = <i>never</i> through 5 = <i>always</i>
Adjustment strategies: Volunteers	Firm owners are asked about how they respond to hectic times—others not working in the business help out.	Average response to this question, where 1 = <i>never</i> through 5 = <i>always</i>
Family-to-business intermingling	Count the number of intermingling activities utilized by family to assist the business (secure loans, provide cash flow, borrow from family, provide labor).	Number of activities
Business-to-family intermingling	Count the number of intermingling activities utilized by business to assist the family (secure loans, loan money, cash flow).	Number of activities
Forms of family capital (1997 and 2000)		
Human capital		
Business experience	Subtract the age of the business owner when they first started working in the firm from the age of the business owner.	Years
Gender	What is your sex?	1 = <i>female</i> , 0 = <i>male</i>
Number of family employees	Count the number of household members who indicated that they “work for the business.”	Number of people
Social capital		
Way of life	Is the business a way of life or a way to earn income?	1 = <i>way of life</i> through 5 = <i>way to earn income</i>
Business generation of current owner	Is the current owner of the business first through fourth generation?	1 = <i>first generation</i> through 4 = <i>fourth generation</i>
Financial capital		
Log of family net worth	Family Assets – Liabilities	Log of amount
Log of business net worth	Business Assets – Liabilities	Log of amount

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