

The Intermingling of Family and Business Financial Resources: Understanding the Copreneurial Couple

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Couples who share a personal relationship and a business are referred to as copreneurs. This study compared the financial intermingling behaviors of copreneurial and noncopreneurial family business owners using the 1997 and 2000 panels of the National Family Business Survey (NFBS). Copreneurs (n = 211) intermingled financial resources more often than noncopreneurs (n = 462). Business property secured loans to meet family needs while family assets and household income were used for business needs. Viewing success over time, the use of the home as collateral increased business profit while using business cash for the family decreased the feeling of success. Couples that transitioned to copreneurs status during those 3 years were less likely to intermingle than on-going or discontinued copreneurial couples. Understanding what triggers intermingling by professionals can assist in supporting copreneurs.

Key Words: copreneur, family business, financial intermingling

Developing a solid financial plan and determining if a system is reaching its financial goals requires an understanding of where a system, family or business, or both obtains its income and spends its money. In order to do that, authors recommend that there be a clear trail of funds entering (receipts) and exiting (expenses) a system (Ingram, Albright, Baldwin, & Hill, 2001; Rittenberg, Martens, & Landes, 2007; Tyson, 1994). Without a clear financial picture, whether for the family's internal financial manager, an external accountant, or a financial advisor/counselor, accurate forecasting, decision making, and planning are difficult. Such discrepancies make it difficult for the outside professional to offer specific suggestions in helping the system, whether it is a family or a family business, improve its financial position (Burns & McCullough, 2001).

For many families within the United States, the flow of resources, both financial and nonfinancial, is tied to the family's ownership and participation in a family business. Astrachan and Shanker (2003), Heck and Stafford (2001), and Heck and Scannell Trent (1999) have all estimated that approximately 14% of households in the United States own at least one family business. This percentage represents 8 to 10 million businesses. Within that segment, 30% of these enterprises are comprised of husbands and wives in business together (Fitzgerald & Muske, 2002; Muske, Fitzgerald, & Haynes, 2003). This represents a significant number of businesses where the couple has decided to blend both their personal and professional relationships. The numbers of businesses defined as "copreneurial" does vary as Muske and Fitzgerald (2006) noted. Their research found couples, while remaining together, were dynamic

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as copreneurs. Sometimes they worked as a business team and met the definition of being copreneurs, while at other times they changed their working relationship and were no longer considered a copreneurial business.

The finding of Muske and Fitzgerald (2006) supported the idea of separate but joined systems in the group of businesses defined as a family business. Similarly, Zuiker et al. (2002) identified interdependence between the family and business systems, while Haynes, Walker, Rowe, and Hong (1999) reported that financial intermingling was a significant issue for family businesses. Muske, Fitzgerald, and Haynes (2003) further established that copreneurs had a greater likelihood of intermingling financial resources than did family businesses in general. The idea of linkages or shared resources makes it difficult for counselors and planners to, as a 2006 National Endowment for Financial Education report encouraged, work with clients “where they are” (p. 76). If intermingling of financial resources does exist and occurs frequently, financial counselors and planners need to understand the types of resources intermingled as well as how often such intermingling occurs. However, it is unclear in the literature as to the frequency and type of intermingling found as well as how intermingling may influence success of the business over time. For example, is using home equity to finance the business similar to tapping into a family member’s income to support business needs? Similarly, a better understanding of the direction of intermingling would be helpful, such as using business cash flow for the family as compared to using household income for the business.

The purpose of this paper was to expand the understanding of financial intermingling especially as used by one subset of family businesses, those operated by copreneurs. The study will examine financial intermingling patterns in three areas: (a) among copreneurs as compared to other family businesses in terms of level and type, (b) the characteristics that might help identify which copreneurs may be more likely to use some form of financial intermingling, and (c) the degree to which financial intermingling enhances or is detrimental to the success of the business. These issues, as informed by the Sustainable Family Business model, represent the broad framework that is employed throughout this study.

Review of Literature

Family businesses represent a substantial part of the United States economic engine. Heck and Stafford (2001) identified nearly 10 million business owning households using

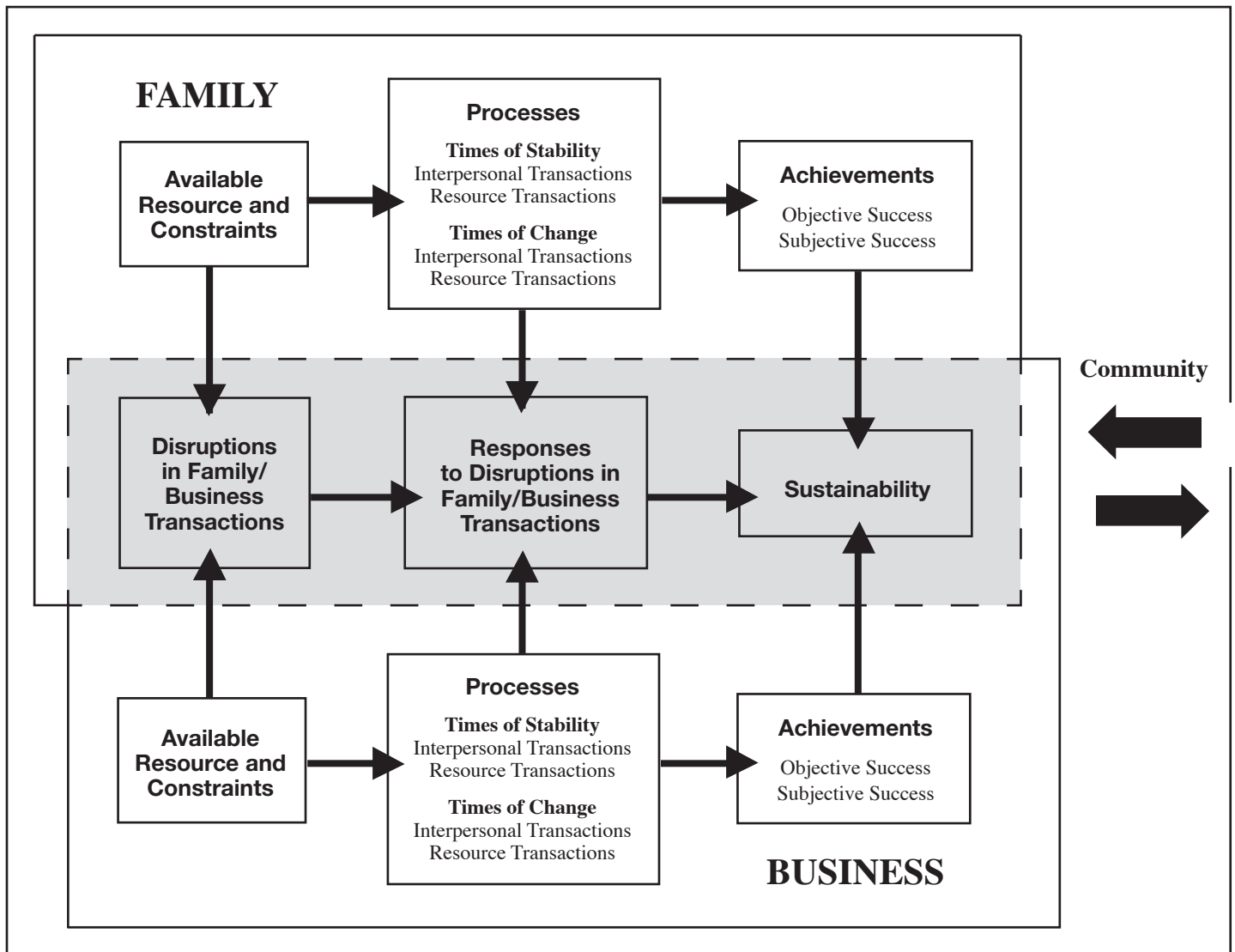
the National Family Business Survey selection criteria. In total, these businesses produced nearly \$10 trillion in gross revenues yearly, employed over 69 million people, and provided nearly \$350 billion in household income.

Researchers have acknowledged that a family business is not a single system nor two entirely separate systems but rather two systems with varying degrees of overlap. The Sustainable Family Business (SFB) model (Stafford, Duncan, Danes, & Winter, 1999) that informs this study identifies that the resources in either system may be utilized as a response to a need or disruption within the opposite system (see Figure 1). The SFB model incorporates attributes of both the family and the business in a manner that allows *business outcomes* to be viewed as a function of family and business characteristics; likewise, *family outcomes* can be viewed as a function of business and family characteristics. “The goal of research based on this model is to identify family and business resources and constraints, processes, and transactions that are most likely to lead to business and family achievement and sustainable family business” (Stafford et al., p. 203).

As suggested by the model, people respond to disruptions from outside or within the family or business, often in regular patterns (Miller, Winter, Fitzgerald, & Paul, 1999). These disruptions may require a response from both the family and the business. The response patterns involving exchanges between the two systems may take the form of adjustment strategies in relationship to time management (Fitzgerald, Winter, Miller, & Paul, 2001; Winter, Puspitawati, Heck, & Stafford, 1993) or intermingling when pertaining to financial resources (Haynes et al., 1999).

Sustainability of family businesses results from family success, business success, and appropriate responses to disruptions. In order to achieve sustainability, the family and the business are required to cooperate in responding to disruptions in a manner that facilitates success. Intermingling resources between the family and the business may be a positive response option when demands from either domain or from outside create disruptions. Bhargava and Lown (2006) noted that self-employed business owners were more likely than non-business owners to meet emergency fund guidelines allowing them to cope with potential disruptions. Spencer and Fan (2002) found that self-employed individuals had a tendency to be simultaneous savers and debtors. Intermingling though may also have negative impacts on the family and the business (Haynes et al., 1999; Muske et al., 2003). Previous research is also not

Figure 1. The Sustainable Family Business Model



clear on whether the levels of intermingling vary among business types (i.e., the copreneurial business) and the effects of such intermingling immediately and over time.

Copreneurs

A specific subset of family businesses is the entrepreneurial couple who decided to go into business as a team. Barnett and Barnett (1988) coined the term “copreneurs” and said these couples have joint ownership, commitment, and responsibility to a business. Fitzgerald and Muske (2002), in a review of literature, summarized additional factors that have been used to identify copreneurs. Copreneurs have been portrayed as having a unique opportunity

to achieve control and satisfaction in both the work and family domains. They are incorporating family values, seeking to nurture family relationships, finding greater intimacy, and injecting human concerns into a business (Cox, Moore, & VanAuken, 1984; Jaffe, 1990; Thompson, 1990; Ward & Arnoff, 1990).

Yet, this blending of work and family dimensions creates new opportunities for tensions, often underestimated by the couple (Jaffee, 1997). In the literature, boundaries (Marshack, 1993), conflict (Dyer, 1992; Foley & Powell, 1997), roles (Marshack, 1993), neglect of personal needs (Garrett, 1993), inequitable division of responsibilities

(Goffee & Scase, 1985), time and financial pressures (Jaffee, 1997), and loss of the ability for the uninvolved spouse to act as a sounding board for new ideas or for ways to reduce work tension (Garrett, 1993) are discussed as possible tensions. Some management theorists have deemed family involvement in an enterprise as being antithetical to effective business practices leading to corruption and nonrational behavior (Dyer, 1994; Perrow, 1972). The results of family involvement may imply a shortened, less profitable business life with increased operational difficulties.

Limited research has examined whether or not copreneurial couples remain in business over time. Muske and Fitzgerald (2006) noted that business success, measured in terms of number of employees and business profit as well as the manager's subjective view of the success of the business, had some influence in determining which copreneurs remained in business, which copreneurs discontinued working in the business together, and which businesses decided to later add the spouse at a level to be defined as a copreneurial business. Their work supported Jaffee's (1997) hypothesized relationship between a copreneurial business and financial pressures.

The Intermingling of Resources

A variety of resources may be exchanged between the family and the business. In addition to considering the income flow generated by the business for the family, the operation of a family business often involves family members who spend time working in the business. Having multiple family members participate in the business may facilitate the exchange of resources that occurs between two domains. Family businesses represent a unique business type that allows both family and business relationships to coexist simultaneously. Not only do the domains coexist, but each provides part of the inputs for the family business (Chua, Chrisman, & Sharma, 1990; Dyer & Handler, 1994).

Haynes et al. (1999), using data from the National Family Business Survey (NFBS) 1997 panel, found that two thirds of households in their sample intermingled household and business financial resources. The finances of the business and of the family were "inextricably intertwined" (p. 237). Haynes et al. examined whether intermingling occurred in general as well as the direction of the intermingling including from the family to the business and from the business to the family. They identified significant characteristics in predicting intermingling overall such as legal organization, rural or urban location, borrower status, and gender of the business manager. Business-to-family intermingling was

more likely to occur when the location of the business was in a rural or small town as opposed to an urban area, if the business borrowed money, or if it operated as a corporation (both C-corporations and S-corporations). Specifically looking at family-to-business intermingling, sole-proprietorships were more likely to use family resources in the business than other legal organizations as were borrowers, younger managers, and managers without children. Using the same NFBS 1997 data and similar equations to study copreneurial couples, Muske et al. (2003) noted that operating a copreneurial business was the only significant predictor of overall intermingling, typically family-to-business intermingling.

The intertwining of financial resources is not completely positive and without cost to the business. A possible negative is the failure to capture these interchanges in the financial records of either the family or the business. The lack of such data, while confusing for the family's financial picture, may be catastrophic to a business. Simply put, if intermingling is not properly recorded in the business records, inaccuracies in the profit analysis may be generated, perhaps even jeopardizing the business's long-term future. The establishment and maintenance of separate financial accounts is crucial to business management (Burns & McCullough, 2001). Separation of business and personal records remain key in keeping accurate financial business and family records and responding to bankers and governmental entities. Separation of accounts is recommended by the Small Business Administration (2008) and the Internal Revenue Service (1995). Another negative impact of intermingling includes the possible inability to repay the debt at the time needed. Also when borrowing business capital, the lending agency assumes that the money will be used in the business venture. Any intermingling that might redirect the money flow makes it virtually impossible to predict the impact the loan had on business success.

Similarly for the family, financial intermingling may have severe consequences. Proper and complete documentation of relevant financial transactions is necessary for filing personal income taxes. Also, the transfer of funds between family and the business has been shown to create discord among family members (Burns & McCullough, 2001; Haynes et al., 1999).

Muske et al. (2003) noted that copreneurs were more likely to intermingle finances between the business and the household. Based on this finding, the literature, and the aforementioned SFB model, the expectation would be that

copreneurs intermingle with greater frequency because of the significant intertwining between the two systems and the desire among both individuals to be able to sustain the copreneur's lifestyle choice.

Financing a Business

A primary task of the business owner is the generation of financial resources for business start-up and maintenance during the early developmental years. Many new business ventures begin with limited outside capital, deriving initial funds from entrepreneurs' own savings (Aldrich, 2005). Van Auken (2005), along with others, defined the idea of starting with limited financing as "bootstrapping" (Bhide, 1995; Freear, Sohl, & Wetzel, 1995; Gibson, 1992; Van Auken, & Neeley, 1996; Windborg & Landstrom, 2001). Windborg and Landstrom identified 28 methods of bootstrapping. Intermingling, using family finances in the business, is a method of bootstrapping similar to delaying payment of outstanding bills. According to Van Auken, firms more often utilized methods that increased cash inflow than those that reduced cash outflow.

Researchers have found that both household and business characteristics as well as characteristics of the business manager may influence the degree and direction of the intermingling. Berger and Udell (1998) contended that the opportunity to raise capital was a function of the firm size. Smaller firms were forced to turn to insider funding, such as personal or family money, with greater frequency than larger firms. Timmons (1990) noted that capital structure had an impact on raising needed capital with sole proprietors having the greatest difficulty.

Other factors have been noted that can influence the ability of a business to obtain financing. Increased personal wealth was noted to decrease the chance of loan denial (Cavalluzzo & Wolken, 2005). Gregory, Rutherford, Oswald, and Gardiner (2005) found that as the number of employees increased, a firm was more likely to use outside financing. Galbraith (1983) stated that industry type was a primary determinant of firm performance. Firm performance, in turn, influenced the ability to generate cash internally. This finding was supported by Romano, Tanevski, and Smyrniotis (2001). Dorado (2006) noted that industry type would influence capital acquisition. In a study of small businesses in Great Britain, Michaelas, Chittenden, and Poutziouris (1999) found that capital financing was related to the industry in which the firm operated. Myers (1984) and Berger and Udell (1998) both discovered a relationship between the age of the firm and its ability to

raise capital. Older firms, by definition, had more opportunities to accumulate profit and thus were more able to finance growth internally. Business location also influenced the ability to obtain external funding (Dorado, 2006; Sorenson & Audia, 2000).

Other characteristics that have influenced entrepreneurial ventures include elements such as the age, gender, and years of education of the business manager (Brush, 1992; Dorado, 2006; Haynes et al., 1999; Schreiner, 1999). Dorado suggested the consideration of the resources of the manager. Resources could be measured in terms of stock such as net worth or flow such as income. These resources, especially for start-up or growing businesses, could come not only from the business but also from the family. Schreiner supported the idea that available household resources influenced who might become an entrepreneur.

Research Questions

The SFB model examines the interface between family and business systems and acknowledges that systems will overlap to varying degrees based on the characteristics of both the business and the family. Researchers have documented that the exchange of resources between family and business systems occurs with regard to time and money. Preliminary analysis indicated that copreneurs, like other family businesses, intermingle resources between business and family realms (Muske et al., 2003). Yet little research has been conducted on the forms and direction of financial intermingling in copreneurial couples. Using the NFBS 1997 data, results related to the first three research questions will provide a baseline understanding of financial intermingling:

1. Do copreneurs report greater financial intermingling overall than noncopreneurs?
2. Do the methods of financial intermingling differ between copreneurs and noncopreneurs?
3. Are there characteristics of copreneurial couples that predict the occurrence of financial intermingling?

Additionally, the NFBS 1997 and 2000 data will examine the influence of intermingling on both subjective and objective measures of success over time and the changes in copreneurial status through the following two questions:

4. Does financial intermingling among copreneurs during 1997 predict financial or perceptions of success that same year or in 2000?

5. Does financial intermingling vary between ongoing, discontinued and newly started copreneurial couples?

Data and Methods

Data are from the 1997 and 2000 National Family Business Surveys (NFBS). The NFBS used a household sampling frame, which is unique because most studies of family businesses use a business sampling frame. The rationale for using a household sampling frame and the methodology in gathering the 1997 data are discussed at length in Winter, Fitzgerald, Heck, Haynes, and Danes (1998); the 2000 methodology has been discussed by Winter, Danes, Koh, Fredricks, and Paul (2004). A strength of the NFBS was that data were collected from the family manager as well as the business manager, important in the study of copreneurs. Using a single respondent to represent the business and the family may distort what the family business is really like.

The NFBS sample was limited to families who shared a common residence in which at least one person owned or managed a business. Work intensity in the business was included as a criterion and was assessed by length of time in business (1 year or more) and the number of hours per week of involvement. The owner-manager had to have worked at least 6 hours per week (around a minimum of 312 hours per year) in the business, had to be involved in the day-to-day management, and had to reside with another family member.

More than 14,000 U. S. households, from all 50 states, were screened in 1997 resulting in 1,116 eligible family households. Three survey instruments were used for data collection including one for the household manager, one for the business manager, or a combined schedule if one person managed both the business and the family. In this paper, responses from 673 households with complete data from both the business and household managers were used, a response rate of 60.3%.

In 2000, an attempt was made to locate the same households. Of the initial households, 444 households were located and completed both the business manager and household manager interviews or a combined interview if one person held both roles. Winter et al. (2004) established the parameters of sample bias due to attrition in the NFBS between 1997 and 2000. They concluded that attrition affected the representativeness in the NFBS sample because those who remained in the sample had established and

stable businesses and provided information on correcting this bias (see Winter et al., 2004 for details).

Identification of Copreneurs and Noncopreneurs

Copreneurs were selected in both 1997 and 2000 following Fitzgerald's and Muske's (2002) seminal work that defined copreneurs based on the following: (a) the business manager reported that he or she was married or involved in a marriage-like partnership and the household manager reported that he or she was the partner or spouse of the business manager; (b) household managers worked in the business and that participation was acknowledged by the business manager, however no minimum number of hours criteria was set for the participation of the household manager (spouse/partner) in the business; and (c) the spouse was a major decision-maker in the business but not necessarily considered a co-owner by the business manager. Not using co-ownership as a criterion differs from other researchers (see Barnett & Barnett, 1988; Marshack, 1993; Marshack, 1994; Ponthieu & Caudill, 1993; Wicker & Burley, 1991). This decision was made because of the very small number of respondents who specifically reported current legal ownership as "joint with spouse," yet initial analysis identified high levels of involvement based on other criteria. Spouses were not required to be paid by the business (see Tompson & Tompson, 2000). Payment in the form of salary or wages does not seem to capture the spouse's commitment to the business.

Using the criterion above, the sample of 673 family business owners in 1997 and 444 family businesses in 2000 were divided into groups of copreneurs (211 in 1997 and 130 in 2000) and noncopreneurs. In the businesses labeled "noncopreneurs," the spouse either did not work in the business or worked in the business but was not involved in the decision making. This definition does not evaluate the role of other family members who may be involved in the business such as sons, daughters, or other relatives.

Independent and Dependent Variables

Independent Variables

Ando (1988), Bates (1990, 1991), Scherr, Sugrue, and Ward (1993), and Haynes et al. (1999) identified several of the variables that predict intermingling. Their work, the Sustainable Family Business model, and the literature cited earlier form the basis for the variables included in the analysis. The variables came from three areas including: business characteristics, characteristics of the business manager, and household characteristics. Variables were both categorical and continuous in nature. In Table 2, continuous variables are categorized to easily view and

compare descriptive statistics. Correlations among the independent variables in the 1997 panel were analyzed for the three sets of characteristics. None of the correlations exceeded a probability equal to or greater than .8, which according to Bohrnstedt and Knoke (1988) is the point above which a statistical analysis may result in large standard errors and potentially misleading conclusions. The correlation tables for the independent variables are not included in this paper but are available upon request.

Business characteristics. Based upon related research, the number of employees was included in the analysis (Headd, 2003; Winter et al., 1993; Zuiker et al., 2002). Consistent with Haynes et al. (1999), the type of legal structure of the business (sole proprietor, partnership, subchapter S corporation, or C-corporation), whether or not the business had borrowed money, business location (rural, small town, or urban), and the age of the business (measured in number of years from its original start-up year until 1996) were included. In addition, whether or not the business was based at home and business profits as reported by the business manager for the year 1996 (the year prior to data collection) were included.

Business type was coded using the North American Industrial Classification System. Businesses were classified as either product or service based on the first digit of the assigned business code. Codes 1 through 3, including agriculture, mining, and manufacturing, were identified as product businesses. All other codes (4 through 9) were considered services (U.S. Census Bureau, 2005).

Business manager and household characteristics. The variables used to describe the business manager were those suggested by the literature. The variables included gender, age of the business manager, and education level of the business manager coded as the last year of formal education completed (Aldrich, 2005; Brush, 1992; Haynes et al., 1999; Muske, Fitzgerald, & Haynes, 2003; Schreiner, 1999; Scherr, Sugrue, & Ward, 1993). Household characteristics included household income and household size. These variables served as a parallel to the business characteristics and helped in understanding how the availability or lack of resources may influence intermingling.

Dependent Variables

Three dependent variables were used based on responses given during the 1997 interviews. The three dependent variables included: financial intermingling from the family to the business, financial intermingling from the business to the family, and any intermingling that occurred regardless of direction (Haynes et al., 1999; Muske et al., 2003).

Within the business intermingling variables, significant relationships were noted between the use of the business property and other business assets ($r = .346, p < .01$), the use of business property for collateral and business income used by family ($r = .166, p < .05$), and other business assets used as collateral and business income used by family ($r = .250, p < .01$). Two other significant relationships were noted in terms of the business intermingling variables. Those were between business income used by family and household income used in business ($r = .269, p < .01$) and

Table 1. Correlations Among Intermingling Methods (N = 673)

	1	2	3	4	5	6	7	8
Business property used for family loan	X							
Business assets used for family loan	.346**	X						
Borrow from business	.084	.096	X					
Bus income used by family	.166*	.250**	.038	X				
Home used for bus loan	.116	-.006	-.049	.019	X			
HH assets used for bus loan	.011	.022	.090	.054	.057	X		
HH income used in bus	-.016	.055	-.038	.269**	.073	.040	X	
Borrow from family	.029	-.020	.145*	-.089	-.004	.037	.026	X

* $p < .05$, ** $p < .01$.

borrowing from the business for family needs and borrowing from the family for business needs ($r = .145, p < .05$). An index was formed by adding up the positive responses (respondents answers were coded yes = 1 and no = 0) from several questions. Family-to-business intermingling consisted of: (a) using the home or using other household real estate to finance the business, (b) using household income in the business, or (c) borrowing from the household for business needs. Business-to-family intermingling occurred if: (a) business real estate or other business assets were used to secure financing for family needs, (b) business income was used for household needs, or (c) family members borrowed from the business. Overall intermingling was simply the total of family-to-business and business-to-family intermingling activities. Developing the three dependent variables as continuous variables differed from Haynes et al. (1999) and Muske et al. (2003) where the variables were simply categorical in nature. A different perspective can be achieved by analyzing the intensity of intermingling rather than just whether or not it occurred.

Development of such multi-item scales has been discussed by Nunnally (1978) and is commonly used in the literature (DeVillis, 1991). Intermingling was not intended to include the regular support that the business system provided to the family system. Although not shown in Table 2, it is important to realize that 46%, or an average of \$26,598, of copreneurial total household income of \$57,492 comes from business transfers to the household. This amount is similar to the 49%, or \$37,219, of the \$75,818 transferred by noncopreneurial businesses to the household.

Longitudinal categorization of copreneurs. Following the work of Muske and Fitzgerald (2006), family businesses were not only examined at a static point in time but over time. Copreneurs were divided into three groups. The first group of copreneurs, “on-going,” were those who were defined as copreneurial couples in 1997 and again in 2000. The second group, “dropped,” were copreneurs in 1997 but did not fit the definition in 2000. Finally, the third group, those who “started,” did not meet the definition of copreneurs in 1997 but were found to meet the definition in the 2000 study.

Results

Copreneurs and noncopreneurs were significantly different from each other in the three characteristic areas in 1997 (See Table 2). Within business characteristics, copreneurial businesses hired significantly fewer employees ($\chi^2 (5, N = 673) = 40.009, p < .000$) and borrowed less often from financial institutions ($\chi^2 (1, N = 673) = 8.212, p < .01$) than

noncopreneurs. Over 80% of copreneurial businesses had fewer than four employees. Only 51% of copreneurs borrowed from financial institutions as compared to 61% of noncopreneurial businesses. Copreneurs were more often located in rural locations ($\chi^2 (2, N = 673) = 17.384, p < .000$) than noncopreneurs with 58% of copreneurs located in rural areas. Copreneurial businesses were more likely to be home-based than noncopreneurs, 73% versus 57% ($\chi^2 (1, N = 673) = 15.053, p < .000$), and less often operated product-type businesses, 70% versus 90% ($\chi^2 (1, N = 673) = 45.249, p < .000$).

Among copreneurial households, total household incomes were lower with average earnings of approximately \$57,000 as opposed to \$76,000 for noncopreneurial households ($\chi^2 (1, N = 673) = 8.804, p < .05$). Copreneurial households were larger in size averaging 3.6 household members as opposed to 3.3 members in noncopreneurial households ($\chi^2 (1, N = 673) = 7.811, p < .05$).

Table 3 provides descriptive information on each of the three dependent variables, family-to-business intermingling, business-to-family intermingling, and overall intermingling. Family-to-business intermingling was utilized by 45% of copreneurs and 28% of noncopreneurs ($\chi^2 (3, N = 673) = 21.538, p < .000$).

The majority of copreneurs (66.8%) and noncopreneurs (68.4%) reported no business-to-family intermingling, with copreneurs reporting a slightly higher level of business-to-family intermingling (33% vs. 32%, respectively). Copreneurs were more likely to utilize two or more methods of business-to-family intermingling than noncopreneurs ($\chi^2 (3, N = 673) = 28.701, p < .000$).

Overall, about 58% of copreneurs reported one or more forms of intermingling as compared to 47% of noncopreneurs. Twenty-eight percent of copreneurs reported using one intermingling method, while approximately 30% reported using two or more intermingling methods. Noncopreneurs similarly reported 32% using one intermingling method, but only 15% reported using two or more methods. Again, the differences were significant ($\chi^2 (5, N = 673) = 25.391, p < .000$).

Table 4 examines the specific methods of intermingling used in 1997 by copreneurs and noncopreneurs. Copreneurial couples were more likely than noncopreneurial couples to use family property, other than the home, as collateral for a loan to the business ($\chi^2 (1, N = 673) = 5.143, p < .05$) and use household income in the business ($\chi^2 (1,$

Table 2. Characteristics of Copreneurs and Noncopreneurs

Variables	Copreneurs (n = 211)		Noncopreneurs (n = 462)		χ^2	p
	Mean/ Frequency	%	Mean/ Frequency	%		
Business characteristics						
Number of employees					40.009	.000***
	Mean	3.85		9.19		
None		43	20.4	168	36.4	
1 to 4		126	59.7	167	36.1	
5 to 9		27	12.8	58	12.6	
10 to 19		7	3.3	34	7.4	
20 to 99		8	3.3	23	5.0	
100 or more		0	0	12	2.6	
Legal organization					6.071	.108
Sole proprietor		138	65.7	269	58.2	
Partner		25	11.9	48	10.4	
Subchapter S-corporation		18	8.6	63	13.6	
C-corporation		29	13.8	82	17.7	
Borrow					8.21	.004**
Yes		103	51.2	280	60.6	
Business age					9.166	.057
	Mean	19.86		16.66		
1 year		12	5.7	28	6.2	
2-5 years		53	25.4	111	24.4	
6-10 years		37	17.7	85	18.7	
11-20 years		36	17.2	118	25.9	
21 or more years		71	34.0	113	24.8	
Location					17.384	.000***
Rural		123	58.3	195	47.2	
Small town		55	26.1	140	30.3	
Urban (MSA)		33	15.6	127	27.5	
Home-based business					15.053	.000***
Yes		154	73.0	265	57.4	
Profit					8.349	.080
	Mean	27,435		118,993		
\$0 or less		47	22.3	65	16.0	
\$1-\$24,999		88	41.7	185	38.6	
\$25,000-\$49,999		37	17.0	80	17.1	
\$50,000-\$99,999		22	10.5	59	12.8	
\$100,000 or more		17	8.5	68	14.7	

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

Table 2. Characteristics of Copreneurs and Noncopreneurs continued

Variables	Copreneurs (n = 211)		Noncopreneurs (n = 462)		χ^2	p
	Mean/ Frequency	%	Mean/ Frequency	%		
Business net worth					5.294	.381
	Mean	161,071		200,686		
\$20,000 or less		24	15.3	38	10.4	
\$20,001- \$75,000		38	24.2	79	21.6	
\$75,001 - \$125,000		22	14.0	73	19.9	
\$125,001 - \$250,000		40	25.5	88	24.0	
\$250,001 - \$500,000		23	14.6	59	10.1	
\$500,001 or greater		10	6.4	29	7.9	
Business type – by NAICS code					45.249	.000***
Product business		147	69.7	417	90.3	
Business Manager Characteristics						
Gender					1.80	.180
Male		159	75.4	325	70.3	
Female		52	24.6	137	29.7	
Age					3.405	.492
	Mean	46.14		46.02		
30 or younger		9	4.3	34	7.4	
31-40		56	26.5	123	26.6	
41-50		84	39.8	161	34.8	
51-60		39	18.5	94	20.3	
61 or older		23	10.9	50	10.8	
Education					8.723	.068
	Mean	13.76		14.35		
Some high school		12	5.7	17	3.7	
High school		71	33.6	125	27.1	
Some college		67	31.8	136	29.4	
College		37	17.5	118	25.5	
More than college graduate		24	11.4	66	14.3	
Business Experience						
	Mean	14.54		12.69		
Less than 1 year		10	4.7	29	6.3	5.987 .200
1-5		55	26.1	123	26.6	
6-10		42	19.9	87	18.8	
11-20		48	22.7	133	28.8	
21 or more		56	26.5	90	19.5	

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

Table 2. Characteristics of Copreneurs and Noncopreneurs continued

Variables	Copreneurs (n = 211)		Noncopreneurs (n = 462)		χ^2	p
	Mean/ Frequency	%	Mean/ Frequency	%		
Household characteristics						
Household income					8.804	.032*
	Mean	57,492		75,818		
\$0-\$24,999		25	11.8	43	9.3	
\$25,000-\$49,999		67	31.8	128	27.7	
\$50,000-\$99,999		92	43.6	188	40.7	
\$100,000 or more		27	12.8	103	22.3	
Household net worth						
	Mean	170,924		205,117		
\$20,000 or less		38	18.0	72	15.6	3.835 .573
\$20,001 - \$75,000		48	22.7	89	19.3	
\$75,001 - \$125,000		31	14.7	83	18.0	
\$125,001 - \$250,000		50	23.7	104	22.5	
\$250,001 - \$500,000		31	14.7	73	15.8	
\$500,001 or greater		13	6.2	41	8.9	
Household size					7.811	.020*
	Mean	3.61		3.31		
2 or less		59	28.0	173	37.4	
3-4		103	63.0	214	46.4	
5 or more		49	9.0	74	16.2	

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

$N=673$) = 13.288, $p < .000$). It must be noted, however, that for both copreneurs and noncopreneurs the number of business managers reporting using “other family property to finance the business” was relatively small with only 13 copreneurs and 12 other family business managers indicating such use. Over 31% of copreneurs and nearly 19% of other family businesses used household income to support business needs.

In terms of business-to-family financial intermingling, two methods were found to have significant differences, the use of business property to finance family needs ($X^2(1, N = 673) = 11.014, p < .001$) and the use of other business assets to finance family needs ($X^2(1, N = 673) = 12.475, p < .000$). Again, however, the frequency of such intermin-

gling was relatively small with only 6.6% of copreneurial businesses and under 2% of noncopreneurial businesses reporting using business property, and only 5.7% of copreneurs and about 1% of noncopreneurs reporting the use of other business assets.

Table 5 provides, for copreneurs only, the characteristics of the business, business manager, and household that predict financial intermingling. In the case of overall intermingling, a linear regression model was used with the dependent variable being the scale of variables, where each type of intermingling receives one point. The potential range of this dependent variable was between 0 and 8. In the cases of household-to-business and business-to-household inter-

Table 3. Intensity of Intermingling Used by Copreneurs and Noncopreneurs

Variables	Copreneurs (n = 211)		Noncopreneurs (n = 462)		χ^2	p
	Frequency	%	Frequency	%		
Family-to-business intermingling					21.538	.000***
Use no intermingling methods	115	54.5	334	72.3		
Use 1 method	73	34.6	103	22.3		
Use 2 methods	21	10.0	22	4.8		
Use 3 methods	2	.9	3	.6		
Business-to-family intermingling					28.701	.000***
Use no intermingling methods	141	66.8	316	68.4		
Use 1 method	52	24.6	142	30.7		
Use 2 methods	14	6.6	4	.9		
Use 3 methods	4	1.9				
Overall intermingling					25.391	.000***
Use no intermingling methods	88	41.7	243	52.6		
Use 1 method	59	28.0	149	32.3		
Use 2 methods	43	20.4	54	11.7		
Use 3 methods	16	7.6	15	3.2		
Use 4 methods	5	2.4	1	.2		

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

Table 4. Specific Method of Intermingling Used by Copreneurs and Noncopreneurs

Variables	Copreneurs (n = 211)		Noncopreneurs (n = 462)		χ^2	df = 1
	Frequency (yes)	%	Frequency (yes)	%		
Family-to-business intermingling						
Use home to finance business	19	9.0	24	5.2	$\chi^2 = 3.515, p = .061$	
Use family property as business collateral	13	6.2	12	2.6	$\chi^2 = 5.143, p = .023^*$	
Use household income in business	66	31.3	86	18.6	$\chi^2 = 13.288, p = .000^{***}$	
Borrow from family members	23	10.9	34	7.4	$\chi^2 = 2.343, p = .126$	
Business-to-family intermingling						
Use business property to finance family	14	6.6	8	1.7	$\chi^2 = 11.014, p = .001^{***}$	
Use other business assets to finance family	12	5.7	5	1.1	$\chi^2 = 12.475, p = .000^{***}$	
Use business cash for family	5	2.4	12	2.6	$\chi^2 = .031, p = .861$	
Family members borrowed from bus.	61	28.9	125	27.1	$\chi^2 = 66.057, p = .618$	

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

mingling, logistic regressions models were used to predict a dichotomous dependent variable, either *yes* intermingling occurred or *no* it did not.

The first model examined the predictors of total intermingling. Borrowing of funds from a financial institution was the only significant predictor in this model, where firms who borrowed money were more likely to intermingle ($\beta = 1.297, p < .05$). The equation was significant ($F 4, 211 = 2.331, p < .05$).

The second model utilized a logistic regression to examine the likelihood of business-to-family intermingling among copreneurs. In this model, being located in a town or city as opposed to a rural location indicated a greater likelihood that business-to-family intermingling would occur ($\beta = 1.249, p < .01$). Household income was also a significant variable in this regression ($\beta = .000, p < .05$). Businesses with higher household income had a higher probability of engaging in business-to-family intermingling than businesses with lower household income. It may reflect the

Table 5. Regression Analysis Predicting Intermingling Among Copreneurs (Model 1 is a linear regression model and models 2 and 3 use logistic regression) ($n = 211$)

Variables	Model 1: Total Intermingling		Model 2: Business-to-Family Intermingling		Model 3: Family-to-Business Intermingling	
	β	p	β	p	β	p
Constant	2.326	.014*	1.106	.594	3.759	.084
Business Characteristics						
Number of employees	.018	.570	-.019	.800	.180	.046*
Sole proprietorship	-.153	.479	-.187	.707	-.451	.351
Borrow	1.297	.035*	.000	.097	.000	.179
Business age	.004	.445	.007	.660	-.014	.345
Home-based business	-.222	.443	-.063	.922	-.724	.337
Profit	-.263	.250	.000	.772	.000	.010**
Business type – product (0) or service (1)	.019	.932	-.302	.555	.153	.759
Located in town/city	.102	.608	1.249	.008*	-.003	.994
Business Manager Characteristics						
Age	-.015	.201	-.017	.519	-.042	.117
Gender	-.085	.691	-.105	.832	-.447	.352
Education	-.052	.235	-.056	.575	-.175	.095
Business experience	.014	.219	.014	.640	.018	.523
Household characteristics						
Household income	-1.576	.328	.000	.019*	.000	.136
Household net worth	-7.217	.142	.000	.059	.000	.543
Household size	.046	.470	.180	.224	.000	.084

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

Model 1: $R^2 = .208, F = 2.331, p = .005$.

Model 2: -2 log likelihood= 169.266, Cox & Snell $R^2 = .213, \chi^2 = 35.779 (15) p = .002$.

Model 3: -2 log likelihood= 170.845, Cox & Snell $R^2 = .178, \chi^2 = 29.216 (15) p = .015$.

simple fact that copreneurial couples needed business income to support their household expenses. Further examination of whether or not either the copreneur and/or his or her spouse worked elsewhere may provide additional explanation for this finding.

The third model also utilized logistic regression to examine the likelihood of family-to-business intermingling. Two variables, number of employees ($\beta = .180, p < .05$) and profit ($\beta = .000, p < .01$), were significant in this model. As the number of employees increased in the business, the business was more likely to engage in family-to-business intermingling. In addition, more profitable businesses were more likely to engage in family-to-business intermingling than less profitable businesses. These findings seem somewhat contrary to what might be expected as both measures indicated that businesses that were more likely to be able to stand on their own often received family support. Useful information can also be gathered by looking at how the individual components of intermingling influence business success. One possible method, suggested by Vogt

(1999), is a univariate regression analysis. As noted in Table 6, four intermingling methods including using the home to finance the business, using household income in the business, borrowing from family members for the business, and using business cash for the family, influenced one or more success variables.

Two success variables were influenced by multiple intermingling methods. Household income was negatively influenced by the borrowing from family members for the business ($F(1, 211) = 5.875, p < .05$) but positively influenced by the use of business income for the family ($F(1, 211) = 4.185, p < .05$). The feeling of business success in turn was negatively influenced by the use of household income in the business ($F(1, 211) = 5.002, p < .05$) but positively influenced by the use of business cash for the family ($F(4, 211) = 2.331, p < .05$).

As already noted, borrowing from the family had a significant negative influence on household income. It also was found to be significant and negative in predicting the

Table 6. Univariate Regression Among Copreneurs; Success in 1997 and Change in Success from 1997 to 2000 as Predicted by Individual Intermingling Methods

1997 Copreneurs ($n = 211$)					
Intermingling Method	Success Variable Influenced	<i>r</i>	<i>F</i>	<i>p</i>	
Use home to finance business	Gross business income	.239	12.573	.000***	
	Number of employees	.193	8.086	.005**	
	Income from business to household	.166	5.875	.016*	
Use household income business	Feeling of business success	-.190	5.002	.027*	
Borrow from family members	Number of employees	-.029	7.486	.007**	
	Household income	-.022	5.875	.016*	
Use business cash for family	Household income	.171	4.185	.043*	
	Feeling of business success	.092	2.331	.039*	
Change in Success from 1997 to 2000 for Remaining Copreneurs ($n = 172$)					
Intermingling Method	Success Variable Influenced	<i>r</i>	<i>F</i>	<i>p</i>	
Use home to finance business	Change in business profit	.192	4.483	.036*	
Use business property to finance family	Change in household income	-.202	4.533	.035*	
Use business cash for family	Change in feeling of business success	-.263	4.864	.030*	

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

Note. Only significant variables are shown.

number of employees working for the business ($F(1, 211) = 7.486, p < .01$) The use of the home to finance the business had a significant influence on three success variables, gross business income ($F(1, 211) = 12.573, p < .000$), the number of employees ($F(1, 211) = 8.086, p < .005$), and the income transferred from the business to the household ($F(1, 211) = 5.875, p < .05$).

Another way to examine the influence of intermingling is the effect it may have on success over time. This information is seen in the lower part of Table 6. The use of the home to finance the business was positive and significant in influencing the change in business profit ($F(1, 88) = 4.483, p < .05$.) The use of business property to finance the family had a negative influence on household income (F

Table 7a. Overall ANOVA Comparison of Copreneurs Intermingling Between On-going, Discontinued, and Started Copreneurs

	<i>df</i>	<i>F</i>	<i>p</i>
Overall intermingling	2	3.321	.038*
Business-to-household intermingling	2	1.361	.259
Household-to-business intermingling	2	3.158	.045*

* $p < .05$.

Table 7b. Post-hoc Analysis Comparison of Copreneurs Intermingling Groups 1 and 2 ($n = 130$); Groups 1 and 3 ($n = 132$); Groups 2 and 3 ($n = 86$)

Number of Methods Reported	% Reporting 1. On-going Copreneurs	% Reporting 2. Discontinued Copreneurs	% Reporting 3. Started Copreneurs	Groups Compared	<i>F</i>	<i>p</i>
Overall intermingling						
0	35.2	34.1	50.0	1 v 2	.026	.871
1	25.0	29.5	33.3	1 v 3	6.383	.013*
2	26.1	25.0	11.9	2 v 3	4.635	.034*
3	10.2	6.8	4.8			
4	3.4	4.5				
Business-to-household intermingling						
0	61.4	56.8	66.7	1 v 2	.392	.532
1	26.1	31.8	31.0	1 v 3	1.674	.198
2	11.4	4.5	2.4	2 v 3	2.694	.104
3	1.1	6.8	0.0			
Household-to business intermingling						
0	50.0	50.0	69.0	1 v 2	.811	.370
1	33.0	43.2	26.2	1 v 3	5.841	.017*
2	14.8	6.8	4.8	2 v 3	2.641	.108
3	2.3					

* $p < .05$.

(1, 88) = 4.533, $p < .05$). Finally, the use of business income for the family was significant and negative in the change in feeling of business success ($F(1, 88) = 4.864, p < .05$).

With the panel data, it is possible to compare groups of copreneurial couples using ANOVA. Three groups can be distinguished from the data set. Group 1, *on-going*, are those who were defined as copreneurs in 1997 and again in 2000. Group 2, *discontinued*, were those who fit the definition in 1997 but not in 2000. Finally, group 3, *started*, did not fit the definition in 1997 but did in 2000. The data in Table 7a indicate differences that are noted in both overall intermingling ($F(2, 174) = 3.321, p < .05$) and household-to-business intermingling ($F(2, 174) = 3.158, p < .05$). No significant difference was reported between the groups in terms of business-to-household intermingling.

By splitting the groups, shown in Table 7b, it is possible to conduct a post hoc analysis to determine more specifically where differences in intermingling occur. In terms of overall intermingling, on-going copreneurs differed significantly from those who started ($F(2, 132) = 6.383, p < .05$) and those who discontinued differed from those who started ($F(2, 130) = 4.635, p < .05$). In terms of household-to-business intermingling, on-going copreneurs, as opposed to the started copreneurs, showed a significant difference ($F(2, 130) = 5.841, p < .05$).

Conclusions and Implications

The findings of this study indicated that copreneurs are more likely to report intermingling between the business and the household than noncopreneurs (Haynes et al., 1999; Muske et al., 2003) and that it occurred with greater frequency. Being less hesitant to move financial resources back and forth between the family and business system supports the idea that copreneurs desire a balanced lifestyle and will take action to achieve that desire (Barnett & Barnett, 1988; Thompson, 1990). However, such intermingling makes it more difficult for advisors to offer suggestions on how the business and/or the family system might enhance their financial position given this fluidity (Burns & McCullough, 2001; Zuicker et al., 2002).

Related findings, that the direction of intermingling from business-to-household and household-to-business were also significant, strengthen the above argument. For the counselor or planner, this means that initial consultation and discovery must explore if intermingling is occurring and, if so, to what degree and in what direction. Such an understanding is important in formulating a financial plan for either the family or the business. These findings sup-

port the research suggesting that both the business and the family provide inputs for the family business (Chua, Chrisman, & Sharma, 1990; Dyer & Handler, 1994).

Not only do copreneurs intermingle more frequently but as shown in Table 7, different types of copreneurs tend to differ in their level and type of intermingling as suggested by Berger and Udell (1998). Copreneurial couples in both 1997 and 2000 were found to intermingle more than in businesses where the decision to operate as a copreneurial business occurred sometime during those 3 years. As one goes back to the descriptive data provided in Muske and Fitzgerald (2006), the businesses that were more likely to involve one's spouse at the later date had greater revenues and profits. This result along with the findings of this study suggests that intermingling is less necessary when the business and family are doing well financially. Thus, knowing something about the time that the copreneurial business was formed and the number of years in business would provide the consultant some idea of possible levels of intermingling.

Likewise, the "started" copreneurs were also less likely to intermingle than were those copreneurial couples that continued in business but had one spouse leave the copreneurial business relationship. The "discontinued" copreneurs noted in Muske and Fitzgerald (2006) did, on average, less well financially. The only difference in intermingling between the various copreneurial groups in terms of direction, business-to-household or household-to-business, was that "started" copreneurs were less likely to engage in household-to-business intermingling. Any analysis of intermingling among the three groups of copreneurs must take into account earlier research that noted on-going and discontinued businesses showed smaller profits, lower gross incomes, and had fewer employees than start-ups. These copreneurs probably intermingle because of need (see Muske & Fitzgerald, 2006 for more details). In the case of "discontinued" copreneurs, a reason for moving towards a new business relationship may not be a change in the desire to continue a fulfilling copreneurial relationship but simply a need to increase household income through outside employment.

The findings regarding copreneurs and their intermingling patterns indicate that financial counselors and planners must not only look at the static picture of "what is" current but must also go back to see what changes have occurred in the areas of finances and business structure. An interesting study question for future research is how changes in family structure influence intermingling patterns.

Not only did copreneurs intermingle financial resources more often, but such intermingling occurred more frequently based on percentage of use among all methods of intermingling except for the use of business income being transferred to the family, research question #2 (see Table 4). Significant differences were found in four intermingling methods between copreneurs and noncopreneurs including the use of other family property for financing the business, the use of household income in the business, the use of business property to finance the family, and the use of other business assets to finance the family. The most frequently reported intermingling method used by copreneurs was the use of household income in the family (31%) followed closely by family members borrowing from the business (29%).

The variances in the type of intermingling used offers some help to the financial counselor trying to work with a family business. This study only examined the type of intermingling that occurred; whether or not these exchanges were done on a formal or informal basis was not asked. Some methods, such as the use of property to finance the family or the business, are more easily tracked making it easier for the financial professional to evaluate if this method had taken place. Borrowing from family members or using income from one system for another system could be problematic. Hopefully, the amounts and frequency are recorded in some fashion or at least remain memorable in the minds of the participants. It is important for the financial professional to explore what is occurring in these areas. However, if the amounts are small, and anecdotal information suggests that this is a common occurrence, the intermingling is probably not recorded.

The literature on starting a business encourages looking to family members as an important source of start-up capital. It is also seen as a means to support the business operation during lean times (Cornwall, 2010). Although formal recordkeeping of such transactions is encouraged, in reality many small transactions seldom make it into the financial records of the home or business. It is crucial that family business owners are encouraged to maintain distinct and separate sets of records and bank accounts. All intermingling transactions must be noted and recorded so an accurate picture of the financial status of either the business or the family can be determined (Burns & McCullough, 2001).

In terms of the variables significant in predicting intermingling, only the borrowing of money from a financial insti-

tution was noted for overall intermingling among copreneurs. This finding can be easily understood. If a business has to borrow from the bank, it is clearly understood that these funds will be repaid on a predetermined basis. In the early stages of a business, it may happen that as loan payments are due there may be insufficient funds to cover the payment; thus household resources are used to make the payment. In comparison, borrowing from a family member or friend is often done on a more informal basis, and there may not be the practice of holding to a strict repayment plan, even if such a plan was discussed when the initial loan was made. A person assisting a copreneurial business or a family owning such a business might get a quick idea of whether intermingling has occurred simply by asking if the business has borrowed any money from a financial institution, family members, or friends.

In terms of business-to-family intermingling, being located in a city or town and higher household income increased the likelihood of intermingling. Although this study did not take an in-depth look at the business location, one might hypothesize that because of the larger population base in a city or town, the business has greater potential for profitability and increased cash flow. This, in turn, allows for greater transfers to the family thus increasing household income. Finally, regarding the family-to-business model, the number of employees and level of profit influenced the level of intermingling.

Of interest to business consultants and counselors might be the results from Table 6 that identify which intermingling method had the greatest influence on some measure of success. The use of the home as a means of providing financial assistance to the business was most often a predictor of some measure of success. In all instances, it had a positive correlation meaning that doing so increased the level of success. The use of the home was important in terms of 1997 success and was one of the three variables found significant in predicting change in business profits from 1997 to 2000.

Several of the intermingling methods were negatively correlated with business success. The use of household income for the business decreased the feeling of business success. Borrowing from family members occurred more often in businesses with fewer employees and lower income households. In terms of change in the measure of success, using business property was negative indicating lower household income. Several of these findings might be a result of lower income households trying to start a

business and/or businesses that are struggling financially. Either situation would increase the likelihood of looking towards the other system for stabilizing resources. The use of business income for the family was significant in predicting 1997 success as measured by level of household income and the feeling of business success. Interestingly however, it had a negative correlation with the perceived levels of business success from 1997 to 2000.

Overall, the study confirms that families move financial resources back and forth between the family and business systems thus supporting Haynes' et al. (1999) findings. The findings also confirm Muske et al. (2003) extension that copreneurs are more likely to intermingle than other family businesses. The study supports that assumption that copreneurs not only intermingle more but also use different types of intermingling methods. Whether or not this is effective and efficient for the copreneurial business might be called into question. The exchanges would seem to favor support for the business more than the family. By intermingling, copreneurs have blurred the boundaries of the family and business systems. While similar in the significant predictors or triggers of intermingling, there are differences between the two business types so advisors need to clarify whether the business is operated as copreneurial or noncopreneurial. While intermingling can be seen as a means to an end by the business manager, there are potentially negative consequences in taking this action. Such consequences might include the inability to accurately set a profitable price point or depleting resources from one system with an inability to repay in a timely fashion, if at all. If a clear record of transfers is not kept, it also leaves the business and the family tax returns open to challenge should they be audited. Obtaining a bank loan could also be more difficult if the records do not provide the analyst with the data needed to make a loan decision.

Not only does intermingling occur, but it is also more likely to be a shift of resources from the household to the business. Again, copreneurs are more likely to do such shifting than noncopreneurs even though household income for copreneurial couples is significantly smaller than for noncopreneurial couples. This finding supports the idea that a copreneurial business has a heightened desire to ensure business success and maintain the special work/personal relationship than a noncopreneurial business offers. Household-to-business shifts may be the result of greater flexibility of household resources as opposed to business resources. This finding may also reflect greater flexibility in responding to family needs, as opposed to business needs,

or that decision-makers are more conservative in protecting business resources as opposed to family resources.

Just as the succession work of Lee, Jasper, and Gobel (2003) offers suggestions for working with family business owners, these findings have implications for financial counselors, financial service professionals, and family business consultants. Certainly, it is clear that when working with family businesses additional information must be gathered regarding intermingling occurrences with the expectation that transfers may be greater for copreneurial couples than other kinds of firms. There is also a high likelihood that not all transfers are captured in the formal records of the home or business. It may be that such transfers are not even recognized for what they are by the household or business manager. Consequently, the professional advisor must assist the family in identifying and recording such transactions. Development of an accurate tracking system may be crucial in the financial planning or counseling process.

Beyond the recognition that financial intermingling may exist, the results suggest that a professional working with a family business must develop a sense of what triggers the manager's use of one or more of the intermingling strategies. Questions regarding when transfers are made and how often they are used would help the professional in developing a management plan. The need for resource exchange may be manageable if demands are expected and/or occur infrequently. A "pile-up" of demands over a long period of time, however, may be too stressful for the parties involved and consequently affect the sustainability of either the family or the business.

Two caveats are important as one examines intermingling within copreneurial-owned businesses. The first caution is accuracy of the data. Do business owners fully recognize when intermingling occurs? Certainly this study provided some specific examples, but perhaps the owner only responds when a certain dollar level of intermingling is realized or only if a formal record is made of the transaction. The second issue has to do with the definition of being a copreneurial couple. While Fitzgerald and Muske (2002) have offered a multi-dimensional definition, they acknowledged the difficulty in developing a clear definition. With this in mind, questions may be raised about what constitutes a copreneurial firm at any given point in time.

References

- Aldrich, H. E. (2005). Entrepreneurship. In N. Smelser & R. Swedberg (Eds.), *Handbook of Economic Sociology* (pp. 451-477). Princeton, NJ: Princeton University Press.
- Ando, F. H. (1988). Capital issues and minority-owned business. *Review of Black Political Economy*, 17, 77-109.
- Astrachan, J. H., & Shanker, M. C. (2003). Family businesses contributions to the U.S. economy: A closer look. *Family Business Review*, 16(3), 211-218.
- Barnett, F., & Barnett, S. (1988). *Working together: Entrepreneurial couples*. Berkeley, CA: Ten Speed Press.
- Bates, T. (1991). Commercial bank financing of white- and black-owned small business start-ups. *Quarterly Review of Economics and Business*, 31, 64-80.
- Bates, T. (1990). Entrepreneur human capital inputs and small business longevity. *Review of Economics and Statistics*, 72, 551-559.
- Berger, A. N., & Udell, G. F. (1998). The economics of small business finance: The roles of private equity and debt markets in the financial growth cycle. *Journal of Banking and Finance*, 22, 873-897.
- Bhargava, V., & Lown, J. M. (2006). Preparedness for financial emergencies: Evidence from the Survey of Consumer Finances. *Financial Counseling and Planning*, 17(2), 17-26.
- Bhide, A. (1992). Bootstrap finance: The art of start-ups. *Harvard Business Review*, 70(6), 109-117.
- Bohrnstedt, G. W., & Knoke, D. (1988). *Statistics for social data analysis*. Itasca, IL: Peacock Publishers.
- Brush, C. (1992). Research on women business owners: Past trends, new perspectives and future directions. *Entrepreneurship Theory and Practice*, 16, 5-30.
- Burns, M. M., & McCullough, C. B. (2001). *Business savvy for today's entrepreneur*. Stillwater, OK: New Forum's Press.
- Cavalluzzo, K., & Wolken, J. (2005). Small business loan turn-downs, personal wealth and discrimination. *Journal of Business Venturing*, 78(6), 2153-2178.
- Chua, J. H., Chrisman, J. J., & Sharma, P. (1990). Defining the family business by behavior. *Entrepreneurship Theory and Practice*, 24, 19-39.
- Cornwall, J. (2010). *Bootstrapping*. Upper Saddle River, NJ: Prentice Hall.
- Cox, J. A., Moore, K. K., & VanAuken, P. M. (1984). Working couples in small business. *Journal of Small Business Management*, 22(4), 24-30.
- DeVillis, R. F. (1991). *Scale development: Theory and applications*. Newbury Park, CA: Sage.
- Dorado, S. (2006). Social entrepreneurial ventures: Different values so different process of creation, No? *Journal of Developmental Entrepreneurship*, 11(4), 319-344.
- Dyer, W. G., Jr. (1992). *The entrepreneurial experience*. San Francisco: Jossey-Bass.
- Dyer, W. G., Jr. (1994). Potential contributions of organizational behavior to the study of family owned businesses. *Family Business Review*, 7(2), 109-131.
- Dyer, W. G., Jr., & Handler, W. (1994). Entrepreneurship and family business: Exploring the connection. *Entrepreneurship Theory and Practice*, 19(1), 1-14.
- Fitzgerald, M., & Muske, G. (2002). Copreneurs: An exploration and comparison to other family businesses. *Family Business Review*, 15(1), 1-15.
- Fitzgerald, M. A., Winter, M., Miller, N., & Paul, J. (2001). Adjustment strategies in the family business: Implications of gender and management role. *Journal of Family and Economic Issues*, 22, 265-291.
- Foley, S., & Powell, G. N. (1997). Reconceptualizing work-family conflict for business/marriage partners: A theoretical model. *Journal of Small Business Management*, 35(1), 36-47.
- Freear, J., Sohl, J., & Wetzel, W. (1995). Angels: Personal investors in the venture capital market. *Entrepreneurship & Regional Development*, 7, 85-94.
- Galbraith, J. (1983). Strategy and organizational planning. *Human Resource Management* 22, 63.
- Garrett, E. M. (1993). And business makes three. *Small Business Reports*, 18(9), 27-33.
- Gibson, B. (1992). Financial information for decision making: An alternative small firm perspective. *Journal of Small Business Finance*, 1, 221-232.
- Goffee, R., & Scase, R. (1985). *Women in charge*. London: George Allen and Unwin.
- Gregory, B. T., Rutherford, M. W., Oswald, S., & Gardiner, L. (2005). An empirical investigation of the growth cycle theory of small firm financing. *Journal of Small Business Management*, 43(4), 382-393.
- Haynes, G. W., Walker, R., Rowe, B. R., & Hong, G. (1999). The intermingling of business and family finances in family-owned businesses. *Family Business Review*, 12(3), 225-239.
- Headd, B. (2003). Redefining business success: Distinguishing between closure and failure. *Small Business Economics*, 21, 51-61.
- Heck, R. K. Z., & Scannell Trent, E. (1999). The prevalence of family business from a household sample. *Family Business Review*, 12(3), 209-224.

- Heck, R. K. Z., & Stafford, K. (2001). The vital institution of family business: Economic benefits hidden in plain sight. In G. McCann & N. B. Upton (Eds.), *Family business gathering 2001: The holistic model* (pp. 9-17). Deland, FL: Stetson University, Family Business Center.
- Ingram, R., Albright, T. L., Baldwin, B. A., & Hill, J. W. (2001). *Accounting: Information for decisions*. Cincinnati, OH: Southwestern College Publishing.
- Internal Revenue Service (1995). *Starting a business and keeping records* (Publication 583). Washington, DC: U. S. Department of Treasury.
- Jaffe, D. T. (1990). *Working with the ones you love; Conflict resolution and problem solving strategies for successful family business*. Berkley, CA: Conari Press.
- Jaffee, A. (1997, March). Your business or your life. *Inc*, 19(3), 108-109.
- Lee, Y., Jasper, C. R., & Gobel, K. P. (2003). A profile of succession planning among family business owners. *Financial Counseling and Planning*, 14(2), 31-42.
- Marshack, K. J. (1993). Copreneurial couples: A literature review on boundaries and transitions among copreneurs. *Family Business Review*, 6(4), 355-369.
- Marshack, K. J. (1994). Copreneurs and dual-career couples: Are they different? *Entrepreneurship Theory and Practice*, 19(1), 49-69.
- Michaelas, N., Chittenden, F., & Poutziouris, P. (1999). Financial policy and capital structure choice in U.K. SME's: Empirical evidence from company panel data. *Small Business Economics*, 12, 113-130.
- Miller, N. J., Winter, M., Fitzgerald, M. A., & Paul, J. (1999). Family microenterprises: Strategies for coping with overlapping family and business demands. *Journal of Developmental Entrepreneurship*, 5(2), 87-113.
- Muske, G., & Fitzgerald, M. A. (2006). A panel study of copreneurs in business: Who enters, continues and exits? *Family Business Review*, 19(3), 193-206.
- Muske, G., Fitzgerald, M. A., & Haynes, G. (2003). The intermingling of financial resources among copreneurial couples. *17th Annual U. S. Association for Small Business and Entrepreneurship Conference Proceedings* (CD-ROM). Madison, WI: USASBE.
- Myers, S. C. (1984). The capital structure puzzle. *Journal of Finance*, 34(3), 575-592.
- National Endowment for Financial Education. (2006). Closing the gap between knowledge and behavior: Turning education into action. *Financial Counseling and Planning*, 17(1), 73-90.
- Nunnally, J. C. (1978). *Psychometric theory*. New York: McGraw-Hill.
- Perrow, C. (1972). *Complex organizations: A critical essay*. Glenview, IL: Scott, Foresman.
- Ponthieu, L. D., & Caudill, H. L. (1993). Who's the boss? Responsibility and decision making in copreneurial ventures. *Family Business Review*, 6(1), 3-17.
- Ritternberg, L. E., Martens, F., & Landes, C. E. (2007). Internal control guidance: Not just a small matter. *Journal of Accountancy*, 203(3), 46-51.
- Romano, C. A., Tanewski, G. A., & Smyrnios K. X. (2001). Capital structure decision making: A model for family business. *Journal of Business Venturing*, 16(3), 285-310.
- Scherr, F. C., Sugrue, T. F., & Ward, J. B. (1993). Financing the small business start-up: Determinants of debt use. *Journal of Small Business Finance*, 3(1), 17-36.
- Schreiner, M. (1999). Self-employment, microenterprise, and the poorest Americans. *The Social Service Review*, 73(4), 496-524.
- Small Business Administration. (2008). *Frequently asked questions*. Retrieved May 5, 2008, from <http://web.sba.gov/faqs/faqindex.cfm?areaID=1>
- Sorenson, O., & Audia, P. (2000). The social structure of entrepreneurial activity: Geographic concentration of footwear production in the United States. *American Journal of Sociology*, 106, 424-462.
- Spencer, H. L., & Fan, J. X. (2002). Savers, debtors and simultaneous debtors and savers. *Financial Counseling and Planning*, 13(2), 25-38.
- Stafford, K., Duncan, K. A., Danes, S., & Winter, M. (1999). A research model of sustainable family businesses. *Family Business Review*, 12(3), 197-208.
- Thompson, K. D. (1990). Married...with business. *Black Enterprise*, 20(9), 46-52.
- Timmons, J. (1990). *New Venture Creation in the 1990's*. (5th ed.). Homewood, IL: Irwin.
- Tompson, G. H., & Tompson, H. B. (2000). *Determinants of successful co-preneurship*. ICSB World Conference 2000. Brisbane, Australia.
- Tyson, E. (1994). *Personal finance for dummies*. San Mateo, CA: IDG Books.
- U. S. Census Bureau. (2005). North American Industrial Classification System. Retrieved March 12, 2005, from <http://www.census.gov/epcd/www/naics.html>
- Van Auken, H. (2005). Differences in the usage of bootstrap financing among technology-based versus nontechnology-based firms. *Journal of Small Business Management*, 43(1), 93-103.

- Van Auken, H., & Neeley, L. (1996). Evidence of bootstrapping financing among small startup firms. *Journal of Entrepreneurial and Small Business Finance*, 5, 245-250.
- Vogt, W. P. (1999). *Dictionary of statistics and methodology* (2nd ed.). Thousand Oaks, CA: Sage Publications.
- Ward, J. L., & Aronoff, C. (1990). Family business: Planning - Just what is a family business? *Nation's Business*, 78 (2), 32-33.
- Wicker, A. W., & Burley, K. A. (1991). Close coupling in work-family relationships: Making and implementing decisions in a new family business and at home. *Human Relations*, 44(1), 77-92.
- Winborg, J., & Landstrom, H. (2001). Financial bootstrapping in small business: Examining small business resource acquisition behavior. *Journal of Business Venturing*, 16(3), 235-254.
- Winter, M., Danes, S. M., Koh, S., Fredricks, K., & Paul, J. J. (2004). Tracking family businesses and their owners over time: Panel attrition, manager departure, and business demise. *Journal of Business Venturing*, 19, 535-559.
- Winter, M., Fitzgerald, M. A., Heck, R. K. Z., Haynes, G. W., & Danes, S. (1998). Revisiting the study of family businesses: Methodological challenges, dilemmas, and alternative approaches. *Family Business Review*, 11(3), 239-252.
- Winter, M., Puspitawati, H., Heck, R. K. Z., & Stafford, K. (1993). Time management strategies used by families with home-based work. *Journal of Family and Economic Issues*, 14, 69-92.
- Zuiker, V. S., Lee, Y. G., Olson, P. D., Danes, S. M., Van Guilder Dik, A. N., & Katras, M. J. (2002). Business, family, and resource intermingling characteristics as predictors of cash flow problems in family-owned businesses. *Financial Counseling and Planning*, 13(2), 65-81.
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