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FAMILY-OWNED BUSINESSES: DETERMINANTS OF BUSINESS SUCCESS AND PROFITABILITY

by

Jeffrey S. Wallace

A thesis submitted in partial fulfillment
of the requirements for the degree

of

MASTER OF SCIENCE

in

Family, Consumer, and Human Development
(Consumer Science)

Approved:

Yoon G. Lee, Ph.D. Major Professor	Kathleen W. Piercy, Ph.D. Committee Member
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UTAH STATE UNIVERSITY
Logan, Utah

2010

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ABSTRACT

Family-Owned Businesses: Determinants of Business Success and Profitability

by

Jeffrey S. Wallace, Master of Science

Utah State University, 2010

Major Professor: Dr. Yoon G. Lee
Department: Family, Consumer, and Human Development

The purpose of this study was to examine many factors associated with family-owned businesses that lead to business success and profitability. The panel data used in this study came from the 1997 and 2000 waves of the National Family Business Study (NFBS). Many independent variables from the 1997 wave (e.g., age, gender, managerial activities, business size, home-based, business problems) were tested to predict business success and profitability (dependent variables), which were variables from the 2000 wave.

Some of the descriptive analyses indicated that, compared to female managers, male managers perceived less business success, participated more in managerial activities, managed older businesses, experienced more business problems, and experienced fewer business cash-flow problems. Compared to businesses that are not home-based, home-based businesses reported less perceived business success, less business profitability, were smaller businesses, experienced fewer business problems, had fewer business liabilities, and had managers with poorer health and less education.

Overall, the ordinary least squares regression analyses yielded results indicating that managerial activities, home-based businesses, business age, business problems, and business cash-flow problems were all statistically significantly associated with perceived business success. Business size was shown to be significantly associated with business profitability. Implications of the findings, limitations of the current study, and recommendations for future research were presented in the final section.

(96 pages)

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I sincerely thank and recognize the many individuals who have contributed to the completion of this research study. It would be obvious for anyone who knows me personally to see that this project was beyond anything that I could have accomplished by myself. To say that I have benefitted greatly by the many contributions of several people including family, friends, and brilliant educators, would be an understatement.

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Jeffrey S. Wallace

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CHAPTER I

INTRODUCTION

Family-Owned Businesses

Previous research indicates that business owner-managers reside in approximately 10% of North American households (Heck & Trent, 1999). Sharma (2004) explained that the predominant justification provided by scholars for conducting research on family-owned businesses has been the realization of the magnitude and dominance of these businesses in the global economic landscape. In other words, family-owned businesses, particularly the small-to-medium sized, are the grassroots of the global economy, and are clearly the majority of all the businesses in the world (Heck & Trent, 1999), and are as old as civilization (Aronoff, 1998). The estimates of the percentage of family businesses relative to total businesses in the United States range anywhere from 42% to 95% (Davis & Stern, 1980; Dyer, 1986; Kanter, 1989; Larsen, 2006; Ward & Sorenson, 1987).

Many scholars have attempted to define family-owned businesses, and have focused primarily on distinguishing family-owned businesses from other businesses (e.g., Chua, Chrisman, & Sharma, 1999; Handler, 1989; Litz, 1995). However, none of these definitions appears to have yet gained widespread recognition or approval (Sharma, 2004). The majority of definitions seem to focus on the vital role of family in terms of determining the management and control methods used in the business (e.g., Chrisman, Chua, & Litz, 2003; Habbershon, Williams, & MacMillan, 2003). It is important to note that “family business” and “small business” are not necessarily analogous. There are

many large corporations that are considered to be family-owned businesses, but the clear majority of family businesses are considered small businesses with less than 20 employees (U.S. Small Business Administration, 1997).

Empirical research seems to be leaning toward the assumption that businesses are only rarely an either-or scenario between no family influence and complete family influence and control (Tsang, 2002). Instead, most businesses appear to vary in terms of degree of family involvement (Sharma, 2004). Astrachan and Shanker (2003) developed three operational definitions of family businesses in terms of family involvement. The most liberal definition of a family-owned business uses the condition that the family has voting control over the business. The mid-range definition includes businesses that have direct family involvement in the everyday business procedures. The most conservative definition classifies family businesses as businesses owned by families with voting control of the business, and multiple generations that are involved in the everyday business procedures. Regardless of how broadly or narrowly family businesses are defined, it is critical to recognize that they make significant contributions to the gross domestic product and total wages earned in the United States (Glueck & Meson, 1980; Ibrahim & Ellis, 1994; Shanker & Astrachan, 1996; Ward, 1987).

Identifying an appropriate definition and measure of business success is especially important in the study of family businesses (Hienerth & Kessler, 2006). The definitions of success that have previously been used in family business research are often ambiguous, considering that each business strives to achieve a host of differing financial and nonfinancial goals (Olson et al., 2003; Stafford, Duncan, Danes, & Winter, 1999). It is important to use both objective and subjective measures in examining business success

(Jones, 2003; Walker & Brown, 2004). Success in this study is defined and measured subjectively by the business owner/manager rating how successful they perceive their business is. To measure business success objectively, this study measured profitability by asking how much profit the business produced in terms of dollar amount.

Need for Study

Even though family businesses are fundamentally the keystone of, and more or less sustain our economy and society, their pervasiveness often goes unnoticed (Cox, 1998). Because family-owned businesses are the majority of all businesses in the world (Heck & Trent, 1999), and they have been understudied relative to other businesses (Winter, Fitzgerald, Keck, Haynes, & Danes, 1998), it is clear that there is a prevailing need for more research conducted on this important topic.

It is clear to observe, based on the number of published articles, the funding and support of many contributors, and the number of peer-reviewed scholarly journals, that the amount of research conducted on family-owned businesses is significantly increasing. According to Sharma (2004), there were only 33 articles written on the subject in 1989, compared to 110 by 1999, and 195 by 2003. Research conducted on the topic of family-owned businesses has appeared in many research journals, including the *Family Business Review*, *Journal of Finance*, *Academy of Management*, and *Organizational Science*. Although family business research has increased, many researchers consider it an understudied field (Winter et al., 1998). It seems as though the research that has been conducted has been narrowly focused on certain aspects of family-owned businesses, such as succession issues. Thus, there are many aspects of family-owned businesses that

have yet to be given more attention, such as family business success and profitability issues.

In addition, even if a family business beats the odds and survives beyond the first few years, only one-third of family firms continue beyond the first generation, and fewer make it to the third generation or beyond (Beckhard & Dyer, 1983). In order to help family business owners and managers better understand business issues related to success and profitability and to help them succeed in their businesses, more research should be conducted to determine what factors are associated with business success and business profitability.

Objectives of the Study

The main principle that should guide all professional and scholarly investigations within the social sciences is to convey further clarification in terms of our understanding of a particular field of study (Lindblom & Cohen, 1979). This study examined several demographic variables of family business managers, as well as characteristics of family businesses, and determined how these variables impact family business success and business profitability. The characteristics of family business managers explored in this study were gender, age, education, race, health status, managerial activities, and satisfaction with community support. The characteristics of family businesses investigated in this study are business size, based from home or somewhere else, business age, business problems, business liabilities, and business cash-flow problems. Each of these variables are explained in further detail in subsequent chapters.

There are three main objectives of this study: (1) To examine the relationship between the characteristics of family business managers and perceived business success and business profitability; (2) To examine the relationship between a variety of business characteristics and family business managers' perceived business success and business profitability; and (3) To investigate the determinants of perceived business success and business profitability in family-owned businesses.

Research Questions

In order to accomplish the three main objectives for conducting this study, the following research questions will be addressed.

1. Which characteristics of family business managers (i.e., gender, age, education, race, health, managerial activities, and satisfaction with community support) are associated with perceived family business success and business profitability?
2. Which characteristics of family businesses (i.e., business size, based from home or somewhere else, business age, business problems, business liabilities, and business cash-flow problems) are associated with perceived family business success and business profitability?

Benefits of the Study

The benefits of this research can be far-reaching. Not only can this research contribute to the existing literature and provide information for further scholarly research, it has the potential to give family business managers and consultants information that can help them in their business endeavors. There are many family business managers who

are currently struggling in terms of perceiving their business to be successful and maintaining business profitability. Though the data used in this study were collected during an up cycle in the economy, family business owners and managers can still benefit from the information explored in this research. From a systems theory perspective, it is reasonable to assume that if family business owners/managers could benefit from the information provided in this study (e.g., business problems that lead to less perceived business success and business profitability), then the individuals, families, and communities associated with the businesses might be able to experience positive influence or change as well.

CHAPTER II

LITERATURE REVIEW

This section begins with a summary of the research and literature presented about family-owned businesses in general terms, including a summary of other literature reviews. The section then continues with a review of the studies on business success and profitability. A discussion of the characteristics of business owners and managers is followed by the investigation of business characteristics. The final sections of this chapter are comprised of the conceptual framework of this study and a list of hypotheses.

Overview of Family Business Research

In order to abridge much of the research that had been conducted on family businesses, Sharma (2004) conducted an overview project that outlined the general topics of interest, methodological frameworks, and conclusions of 217 refereed articles that had been published prior to 2004. The author organized the literature into several leveled categories (i.e., individual, interpersonal or group, organizational, societal) based on the specific topic on which the authors focused. By organizing the information into these categories, the author was able to illustrate the focus within each article. Sharma also indicated that the entire field of family business research is moving in a positive direction toward more sophisticated research that is guided by generally established theory.

Stafford et al. (1999) presented an article that developed a new conceptual framework, the Sustainable Family Business Model (the conceptual framework used in the present research study), to add to some of the existing models used in family business

research. The focus of this article was to explain how a systems model could be used to guide family business research. Many of the scholars that conducted family business research prior to this article used variations of the systems theory model. The authors suggest that a single system paradigm as well as a dual system paradigm should be used in family business research. It is according to this suggestion that this Sustainable Family Business (SFB) Model will be used to guide the present thesis project. This conceptual framework will be discussed further in a following section in this chapter.

In an attempt to outline some of the methodological challenges, dilemmas, and possible alternative approaches to studying family businesses, Winter et al. (1998) critiqued previous research. The authors indicated that family businesses were vital to the economy from the community stage to the world level. It was suggested that previous research was limited in terms of sampling, definitions, and, therefore, limited in their conclusions. Winter et al. (1998) suggested using a methodological approach that allowed for greater consideration to be given to family characteristics and business characteristics, as well as the interaction between the two. It was also suggested that researchers use a representative sample of family businesses in the United States to provide a greater ability to generalize results to the larger population.

In 1999, Heck and Trent conducted an important study to determine the prevalence of family businesses in the United States. There were previous attempts by other authors (e.g., Barnes & Hershon, 1976; Holland, 1981) to determine the count of family businesses in the U.S.; however, these studies were based on U.S. Small Business Administration reports which did not differentiate between family and nonfamily businesses. Heck and Trent utilized the data from the 1997 National Family Business

Study (NFBS). This thesis project will use the same data that was used by Heck and Trent to understand the variables that contribute to business success and profitability. In order to determine the prevalence of family businesses in the U.S., Heck and Trent conducted a data analysis using frequencies, percentages, standard deviations, and means. It was concluded that a family business owner or manager resides in 10% of U.S. households.

Murphy (2005) conducted a study in which the author attempts to provide information in regards to the complexities of private family businesses. The methodological approach taken in this study was simple. A questionnaire was given to 187 family business owners, asking respondents to identify the five most important issues they faced, and to rank each on a one-to-five scale. Murphy found that family business managers were concerned more about short-term issues such as current business problems, than they were about ownership issues, a matter considered most important to managers of publicly traded companies.

In an effort to compare the differences between family businesses and non-family businesses, Beehr, Drexler, and Faulkner (1997) conducted a study (N = 38 businesses in Maine) in which it was concluded that there were many advantages to having family members work together in a family business (e.g., finding more ways to solve or deal with problems). The purpose of that study was to compare the problems of family businesses that have few working family members with family businesses that do not have many family members working in the business. The authors concluded that the advantages of having many family members working together in a family business outweighed the disadvantages. These findings were somewhat opposite to many previous

research studies, which concluded that there were many disadvantages and unique problems within family businesses when compared to other businesses on account of the added influence of family dynamics within family businesses.

Much of the literature that has been reviewed thus far has given suggestions regarding the use of theory and the importance of having a conceptual framework to guide research on family businesses. The prevalence and importance of family businesses to the economy, and differences between family businesses and other businesses were also addressed. It was also mentioned (Winter et al., 1998) that it would be beneficial for researchers to use a nationally representative sample for greater generalizability, and to focus future research on characteristics of family and businesses. This present study has taken into consideration, and has implemented many of the suggestions put forth by these several authors, including the use of a conceptual framework, the use of a large national data set, and a focus on the characteristics of managers and the characteristics of businesses as they relate to business success.

Business Success and Profitability

Bird, Sapp, and Lee (2001) conducted a study to explore how industry location and the owner's gender were related to business success among small businesses. Bird et al. measured business success by gross sales as reported by the business owner for 1994. Based on analyses of data from 423 small businesses owners in Iowa, the authors concluded that the business owner's gender had both direct and indirect effects on business success. Women business owners had significantly less work-related experience than men owners and were less likely to have previously owned a business. Men

business owners spent more hours at their businesses than did women owners, and hours spent at the business, in turn, improved small business success.

Endeavoring to determine a better way to measure success in family businesses, Hienerth and Kessler (2006) suggested that many of the problems associated with measuring success was due to the ambiguity and subjectiveness of the term "success." The purpose of their study was to analyze whether a success measurement using configurational fit could be used to overcome subjective biases. Configurational fit was a method used by a few researchers to attempt to reduce subjective biases from a measurement, in this case, the authors attempted to better measure business success in a manner that reduced biases. Using a sample of 103 family-owned businesses in Austria, Hienerth and Kessler reasoned that by using the configurational fit method, the authors were able to overcome some biases when measuring business success.

Walker and Brown (2004) examined success factors of small business owners, and indicated that although financial criteria have generally been considered to be the most appropriate measure of business success, finances may not be the best or only indicator of business success. They noted that business owners often have other business goals that are not necessarily financially-based, such as lifestyle, personal achievement, and pride in the business. The sample was comprised of 290 small business owner-managers in Australia. The respondents in the study surveyed were asked to rate the importance of items relating to lifestyle and financial measures which were used to judge business success. The results showed that a flexible lifestyle, pride in the job, and personal achievement were better indicators of business success than wealth creation or financial indicators. Thus, Walker and Brown concluded that a subjective measure of

business success may be more valuable to researchers than a financial objective measure of success.

Using a national survey of 673 business-owning households, Haynes, Walker, Rowe, and Hong (1999) conducted a study to evaluate factors associated with intermingling business and family finances, including the affect on family business profitability. Using a multivariate model, Haynes et al. concluded that those with legal partnerships were considerably less likely to intermingle resources than were those with sole proprietorships. Families with businesses that were located in urban areas were less likely to intermingle resources with their businesses than families with businesses in rural areas or small towns. The findings of this study suggested that households with established family businesses seemed to have finances intertwined with the businesses to such a degree that it was often difficult to separate. The authors also noted that the intermingling may be beneficial to the family that obtains money or resources from the business, but is likely an impediment to the future profitability of the family business.

The articles in this section have all related to the success and profitability of family-owned businesses. Many of the authors have indicated a general difficulty within the field to measure a business' success due to the subjective nature of the term "success." Many researchers have developed their own methods by which family business success could be measured. It is generally acknowledged by the authors that success and profitability of family businesses are important to study. Though family business success is often ambiguous and subjective, it may be just as important to study as businesses profitability (Walker & Brown, 2004). In order to apply the information presented by previous researchers in this present research study, both subjective and

objective measures will be employed. The subjective measure used in this study is the perceived business success of family business managers, and the objective measure is overall family business profitability. The measurement of variables will be discussed further in Chapter III where research methods are discussed. Based on the articles that have been reviewed in this section, hypotheses regarding perceived business success and business profitability have been developed are presented at the end of this chapter.

Characteristics of Family Business Managers

There have been several research articles published on the topic of ownership and management of family-owned businesses. Much of the research conducted focused on issues related to business succession, though it was evident that few family businesses were actually inherited (Ward, 1987; Westhead & Cowling, 1998). It is reasonable to assume that the characteristics of the owners and managers of family-owned businesses have an impact on the success and profitability of the businesses over which they administer (Westhead & Howorth, 2006). The present study partially focuses on many characteristics of family business managers, and attempts to explore the impact these characteristics have on family business managers' perceived business success and business profitability.

Managerial Activities

Westhead and Howorth (2006) conducted a study in which ownership and management issues were tested to determine how these issues influenced company objectives and family business performance. The results of a multivariate regression

analysis showed that management activities rather than the ownership structure of family businesses were significantly associated with family business performance and the accomplishment of company objectives. Ownership structure refers to how the business is held in ownership including the distribution of shares within a family, and the degree of non-family ownership. However, there is evidence to believe that family businesses with larger groups of directors and managers are associated with higher levels of growth in sales revenues. The authors also explicitly indicated that family businesses should not avoid appointing family members to positions of management or power within the family business.

In an article by Adams, Manners, Astrachan, and Mazzola (2004), the importance of owners and managers integrating goal setting was addressed. Integrating goal setting means the degree to which family business managers develop business goals and objectives, and then actually execute the goals and objectives. Adams et al. stated that a business needs to be managed in a way that would help it to stay alive, and the most common way to make sure that a business survived is for it to make money. Goal setting for profit and other objectives is an important task. The authors discussed the cost-of-capital, which is the amount of return on investment necessary to reach business goals. The cost-of-capital includes the cost of using debt, or other people's money, and the cost of equity. Adams et al. also concluded that adding discipline to the decision-making and goal-setting processes was greatly facilitated by using the cost-of-capital concepts.

Kellermanns, Eddleston, Barnett, and Pearson (2008) conducted a study on the entrepreneurial behavior of CEOs, and they examined how their entrepreneurial behavior was related to growth and development of family businesses. Kellermanns et al.

suggested that the entrepreneurial behavior of CEOs could be influenced by inherent characteristics such as tenure or age, and the degree of family influence in the family business. Using a survey from a sample of 50 CEOs in family businesses, Kellermanns et al. concluded that entrepreneurial behavior of family business CEOs was strongly related to employment growth. It was also concluded that the age of the CEO was not statistically significantly related to entrepreneurial behavior or employment growth. They also found that tenure in the family business was not related to entrepreneurial behavior by the CEO, but tenure was negatively related to employment growth and development.

Age

In an article by Peterson, Rhoads, and Vaught (2001), ethical beliefs were examined in terms of age, gender, and external factors. Using a mail questionnaire, Peterson et al. surveyed 280 family business professionals. The mean age of the business professionals was approximately 36 years. Using analysis of variance, the authors concluded that ethical beliefs increased with age, and business professionals over the age of 30 demonstrated higher ethical levels than younger professionals. The results also showed that business professionals over the age of 30 were less influenced by external factors (e.g., other people at work or home) than those 30 years of age or younger.

Other Management Issues

A study performed by McConaughy (2000) examined the CEO compensation of family businesses. The author attempted to test the family incentive alignment hypothesis, which predicted that family CEOs have greater incentives for helping the

family business grow and prosper and, therefore, needed fewer compensation-based incentives than nonfamily CEOs over family businesses. The sample consisted of 82 family businesses, 47 of which were controlled by CEOs who were members of the founding family, and the remaining 35 were controlled by nonfamily CEOs. Using univariate and multivariate analyses, it was concluded that family CEOs' compensation levels were lower than nonfamily CEOs' compensation levels. It was suggested that when family businesses moved from a family CEO to a nonfamily CEO, the owners should consider increasing compensation because there was less incentive to grow the business when the CEO was tied only to level of payment and not to other non-compensation factors associated with the family business.

Additional management issues were examined in a research study conducted by Hall and Nordqvist (2008) with special consideration and focus on the formal and cultural competencies of Chief Executive Officers (CEOs). The authors based their insights and conclusions on a review of selected literature within the professional management research field. Hall and Nordqvist argued that although most family businesses selected CEOs based upon their degree of formal competency, cultural competency was a more important factor to be considered. Formal competency refers to education and experience as it relates to running a business. Cultural competence was defined by the authors as the degree to which CEOs understand the family's goals and meanings of being in business. In other words, cultural competency is the CEO's understanding of the family's values and underlying reasons for which the family is in business. The authors indicated further that without cultural competency, a CEO of a

family business was less likely to work effectively, regardless of their degree of formal qualifications.

Much of the literature reviewed in this section has highlighted issues relating to family businesses managerial activities (Adams et al., 2004; Kellermanns et al., 2008; Westhead & Howorth, 2006). The articles indicated that managerial activities, including goal setting, and entrepreneurial behavior are related to business performance. The articles also indicated that a business manager's age is associated with ethical beliefs, and that older business professionals demonstrated higher ethical levels than younger professionals, and were less influenced by external factors (e.g., other people at work or home). The present study takes into consideration the results presented in the articles that have been reviewed in this section. Based on the information obtained from the literature that has been reviewed, hypotheses relating to business managers' characteristics have been developed that will be discussed in detail at the end of this chapter. Though the literature provides much information on issues such as managerial activities, the literature does not seem to focus on other factors relating to characteristics of business managers, such as gender, education, race, health status, and perceived community support. The present study seeks to explore these characteristics as they relate to perceived business success and business profitability.

Family Business Characteristics

Business Size

Walch and Merante (2007) conducted a study to determine what the appropriate staff size was for a business to be resilient and to prosper. Resilience was defined by the

authors as the business' ability to withstand an interruption or security breach and be able to continue to remain, or return to productivity within an acceptable amount of time. The authors developed a quantitative model from which a business could calculate the needed number of employees required to maintain productivity and resiliency. There were many factors incorporated in the model that include the consideration of industry type, the number of major systems within the business, the total number of applications or systems, and a rather ambiguous factor that weighed the complexity of the business infrastructure. Based on these factors, Walch and Merante concluded that this model was an objective measure by which a company could determine the number of employees that were needed.

Home-based Businesses

In an effort to explore home-based businesses, Soldressen, Fiorito, and He (1998) surveyed a sample of home-based businesses in the textile industry. Using OLS regression analysis, the authors investigated the predictability of demographic and business practice variables on the success factors of home-based businesses. Soldressen et al. concluded that some home-based family business owners supported themselves entirely through their home-based business. Because of their ability to support themselves through the home-based business, business managers/owners considered their business to be successful. One of the greatest self-reported factors related to perceived business success was the result that a clear majority of home-based family-owned business owners considered their business to be successful, based exclusively on the fact that they were working at something that they enjoyed, and not based upon business

profitability. It was also stated that home-based family-owned businesses were continuing to increase in number, and needed to be studied to a greater extent in order to better understand this rapidly growing subgroup of family-owned businesses.

Age of Business

Kale and Arditi (1998) conducted a study to reveal age-dependent business failure patterns within the business of construction in the United States. Using data that was collected from the Dun and Bradstreet Corporation on annual business starts and business failures, it was concluded that there is, in fact, a pattern of age-dependent business failure in the U.S. construction industry. It was also found that the risk of businesses failure was highest when the business is young, peaking near age three or four, and then the risk of failure decreases as the company increases in age.

To answer the question of whether family businesses are initially created as family businesses, or if they turn into family businesses after they are made, Chua, Chrisman, and Chang (2004) conducted an exploratory investigation. The cross-sectional data came from a study of the economic impact of the counseling activities of the Small Business Development Center (SMDC) program in 48 states. The sample consisted of 3,619 businesses that received five or more hours of counseling assistance from the SMDC. Using a regression analysis, the results indicated that the majority of family businesses were initially created as family businesses, but a considerable number of firms developed into family businesses over time. The authors compared younger family businesses with older family businesses, and suggested that the amount of total family involvement in older family businesses is less than in younger businesses.

Many families businesses, though the clear minority, desire that the business stay in the family from generation to generation (Westhead & Cowling, 1998). Because of this desire for some families to keep the business in the family, much research has been conducted on the subject. Getz and Petersen (2004) conducted a study to explore the barriers to inheritance among family businesses, with a focus on the tourism and hospitality industries. Getz and Petersen identified several barriers to inheritance including location (e.g., remoteness), nature of the work (e.g., long hours), viability of the business, and the stage of life of the parents and children. Though the authors admitted the limitation of generalizability due to the specificity of their research study, they suggested that the barriers to business succession they discovered could be used as a springboard for further research.

In an research article that addressed the training of next-generation family members in the family business (N = 18 family businesses), Mazzola, Marchisio, and Astrachan (2008) explored the benefits of strategic planning in terms of business succession by means of interviews, observations, and examining business records. The authors indicated that involving next-generation family members in the planning process was a great benefit to the family business. When involved in the succession planning, next generation business leaders are provided with knowledge, skills, and also build their credibility.

In contrast to the conclusions of Murphy (2005) which was previously mentioned, Chua, Chrisman, and Sharma (2003) reported results of a survey, suggesting that out of 272 executives of Canadian family businesses, the most popular concern was business succession, not short-term issues. Chua et al. also indicated that the second greatest

concern of business executives was regarding their relationships with nonfamily managers. The statistical analysis revealed that the extent and the criticality of a business' dependence on nonfamily managers were determinants of the rating of concerns in terms of importance.

In an article by Drozdow (1998), continuity in terms of keeping the business and the family together was addressed. Drozdow defined continuity as "the preservation of one or more essential, unique core elements that in turn implicate a set of tradeoffs or elements that may be sacrificed," or that "a business continues beyond its founders." To further explore the concept of continuity, the author conducted four business case studies to explore how continuity has been approached in each of the four businesses. Two of the cases were large firms, whereas two were family businesses. The author attempted to highlight the differences in the way each business experienced, or struggled to experience continuity. The conclusions suggested that when a business was devoted to a core purpose or ideology that transcended any influence by a particular leader, strategy, or owner, then this business would experience continuity.

Business Problems

In an article by Ward (1997), the reasons for and the theories behind why most family businesses do not grow was explored. Ward elucidated the popular perception that the clear majority of family-owned businesses do not grow or develop, but simply remain stagnant. The author then proposed a set of family business "best practices" that could lead a family business away from stagnation and toward greater business success and profitability. Ward noted that there were many challenges facing family businesses

that impeded development and growth, including: intensifying competition, changing technology, limited capital as families grow and lifestyle expectations increase, disparate family goals and needs, and next-generation family members who have been deprived of motivation due to inherited security and wealth. The "best practices" suggested by the author that lead to greater business success included practices such as: accepting ongoing strategic insights, attracting and retaining exceptional non-family managers, creating a flexible and innovate organization, creating and preserving capital and other assets, and preparing successors for leadership within the family business.

Business Finances

In order to explore the financial management techniques of family businesses, Filbeck and Lee (2000) surveyed 61 family businesses in an attempt to understand the extent to which these businesses used risk adjustment techniques, capital budgeting techniques, and working capital management techniques. Working capital management techniques refer to the techniques used to manage the cash that the business is using to operate the business. Thirty-three percent of the firms surveyed were in their first generation, 43% were in their second generation, 15% were third generation, and 8% were fourth generation family businesses. The results showed that family firms used less modern financial management techniques than their nonfamily business counterparts. In addition, family businesses with outside (nonfamily) influence used more modern capital budgeting techniques than those with little or no outside influence. However, family businesses that had non-family influence within their management were less likely to use modern risk-adjustment techniques than those with little or no outside influence.

The research articles that have been presented in this section have provided much information regarding business size, home-based businesses, business age, business problems, and issues relating to business finances. However, most of the literature presented did not indicate how the characteristics of family businesses related neither to managers' perceived family business success nor to family business profitability. Also, specific characteristics of family business finances, including business liabilities and cash-flow problems have not been addressed in the literature. The several articles presented in this section regarding characteristics of family businesses, coupled with the guidance of a conceptual framework, have contributed to the development of several hypotheses that are listed at the end of this chapter.

Conceptual Framework

After a researcher develops research questions, it is important that the researcher identifies and organizes his or her thoughts within a conceptual framework, or a theory from which the researcher chooses to view the subject (Sharma, 2004). The distinguishing scholarly characteristic that lies exclusively within academia comes from theoretical knowledge and perspectives that offer legitimacy to the field of study (Elsbach, Sutton, & Whetten, 1999). When generally accepted theoretical frameworks are used within research, it assists in drawing the interest and attention of other scholars to contribute to, build upon, and further explore the studied field; while using familiar terminology and language (McKinley, Mone, & Moon, 1999).

Whether viewing this topic from the perspective of studying families that own businesses, or businesses owned by families, the popular theoretical direction is a systems

model (Stafford et al., 1999). Many of the authors who have contributed to the literature of family-owned businesses have used theories such as Systems Theory and Agency Theory (e.g., Gomez-Mejia, Larraza-Kintana, & Makri, 2003; Schulze, Lubatkin, Dino, & Buchholtz, 2001; Stafford et al., 1999).

According to systems theory, there are many components of any group or organization that constitute a system. Each component of the system is interdependent to some degree, and all have an influence and impact on each other as any of the components of the system changes by some degree. Many of the concepts and tenets of systems theory include the notions that each system includes subsystems, rules, change, goals, and equifinality, or the ability for a system to achieve a goal through a variety of methods or routes (Chibucos & Leite, 2005). According to Stafford et al. (1999), an overlapping systems theory or model (i.e., Sustainable Family Business Model) was used to develop the National Family Business Survey (NFBS), which provided the data used in this study.

In the present research study, a systems theory approach will be employed. Based on previous research and a systems theory perspective, it is assumed that family businesses are a type of system with rules, changes, and goals, and are made up of several components. It is assumed that each component within the family business system is interdependent to some degree, and adapts to changes within the family business system. It is also assumed in this study that the family business system is inter-reliant to some degree with other independent systems, including the family system.

To guide this research study, the Sustainable Family Business Model (SFB) (Figure 2; Stafford et al., 1999) was used (see Appendix A for SFB model diagram).

This conceptual framework is an overlapping systems model that considers families and businesses as separate social systems, and focuses on the intersection of the family and business systems. Astrachan (2003) declared that the study of the reciprocal impact of family on business is essentially at the core of the family business field, a focus that no other field can own.

One of the main premises of the SFB Model is that sustainable family-owned businesses necessitate both minimally functional families and successful businesses. Another assumption of this conceptual framework is that each system, independent from each other, has some resources (e.g., money, time, goals, values) and processes (e.g., functioning of the system, management methods; Danes & Lee, 2004; Stafford et al., 1999). However, some resources may not be independent within the separate systems, but rather occur at the intersection of the business and family systems (Lee, Danes, & Shelley, 2006).

Motivation is another important premise within the SFB Model. When the level or degree of resources does not meet the self-standard from which people assess their resources, then people are motivated to proceed with change. To use an example, if a very important family goal has not been achieved to an acceptable self-standard, then a course of action will commence to lessen the difference between the present level of that goal and the standard which the person has set (Danes, 1998; Lee et al., 2006). The SFB Model also presumes that there are both objective and subjective measures of achievement (Zuiker et al., 2002).

According to Lee and colleagues (2006), objective measures of achievement are concrete items (e.g., profits, income, sales, assets, liabilities) that can often be easily

obtained from business records. On the other hand, perception dictates the subjective measures of achievement (e.g., social status, lifestyle, respect) for all who possess a subjective standard. Understanding how the resources and processes of each system affects achievement is the essence of the SFB Model.

The SFB Model provides an attractive conceptual framework from which the hypotheses of this research study was generated. Based upon the findings and contributions of the many preceding studies within the field of family businesses, and from the generally accepted theoretical perspective of the Sustainable Family Business Model, the following arrangement of hypotheses for this study have been developed.

Hypotheses

Age of Businesses Manager

Stated previously were the conclusions of Peterson and colleagues (2001) that ethical beliefs increase with age, and that business professionals over the age of 30 demonstrated higher ethical levels than younger professionals. The results also suggest that business professionals over 30 years of age were less influenced by external factors (e.g., peers, corporate culture, code of ethics, global culture, ethical climate). It is also reasonable to assume that older business managers are more experienced and knowledgeable regarding businesses. This knowledge and experience can contribute to the perceived business success and business profitability of the family business. Therefore, it was hypothesized (H1) that older business managers experience greater family business success and profitability.

Gender of Business Manager

According to Bird and Sapp (2004), men-owned businesses are more successful in both urban and rural settings, and also that men-owned businesses are even more successful in urban settings than they are in rural communities. Based on these findings, it was hypothesized (H2) in this study that male family business managers experience greater perceived business success and greater business profitability than women managers.

Education of Business Manager

Lepoutre and Heene (2006) stated that small business owners/managers are often in charge of a wide variety of tasks in their business, but sometimes lack practical specialization and expertise as a result of being in charge of many tasks and responsibilities. These authors also indicated that the knowledge and skills of business owners/managers are essential to the performance of their businesses. According to these statements regarding the knowledge of a business manager, it was hypothesized (H3) that the more educated business managers are, the greater the degree of perceived business success and business profitability.

Race of Business Manager

According to Igbaria and Wormley (1992), due to many external factors related to discrimination and limited opportunities, Whites experience less negativity and more community support in regards to business than other ethnic groups. Therefore, it was hypothesized (H4) in this study that White family business managers experience greater perceived business success and greater business profitability than other ethnic groups.

Health Status of Business Manager

It is reasonable to assume, based upon the Sustainable Family Business Model, that the good health of family business managers is likely to have a positive impact on family business success and profitability. Likewise, the poor health of businesses managers is likely to have a negative impact on business success and profitability. Therefore, it was hypothesized (H5) in this study that business managers who are in good health experience greater degrees of perceived business success and more business profitability than managers with poor health.

Managerial Activities

As discussed previously regarding the research conducted by Ward (1997), the "best practices" of business owners and managers are stated to lead to greater success and profitability of family-owned businesses. According to the Sustainable Family Business Model, behaviors of the management system affect other systems associated with that system. Therefore, it was hypothesized (H6) in this study that business managers who report a higher rate of business managerial activities experience greater perceived business success and business profitability than business managers who report lower rates of business managerial activities.

Community Support

According to Bird and Sapp (2004), community support and access to resources may increase the chances for business success and profitability. Also, according to the chosen theoretical framework, an outside system can affect the business system. Therefore, it was hypothesized (H7) in this study that business managers who express

more satisfaction with community support experience greater perceived business success and business profitability.

Business Size

According to Walch and Merante (2007), a minimum number of employees are needed to provide resiliency in times of business turmoil. Businesses with more employees are larger businesses, and have many more resources available to them than smaller businesses. Therefore, it was hypothesized (H8) in this study that family businesses managers with more total employees perceive more business success and greater business profitability than smaller family-owned businesses.

Home-Based Businesses

As Soldressen and colleagues (1998) explained, home-based family businesses are smaller than other businesses in terms of employees. Also, many home-based businesses are considered sole proprietorships, which according to the U.S. Small Business Administration (2009), are less profitable than other businesses. Therefore, it was hypothesized (H9) that home-based family-owned businesses experience less perceived business success and less business profitability than business based from another location.

Business Age

As stated previously by Kale and Arditi (1998) regarding the failure rate of businesses according to the age of the business, it was concluded that the risk of business failure is highest in the first few years of age, and then the risk of failure decreases as the

business gets older. Therefore, it is reasonable to assume, and hypothesized (H10) in this study that managers of older family-owned businesses perceive more business success and experience greater business profitability than younger businesses.

Business Problems

In accordance with the Sustainable Family Business Model, it is assumed that when a system experiences troubles or problems, other areas of the system may also be negatively impacted. To maintain harmony with this guiding model, it is hypothesized (H11) in this study that managers of family businesses with smaller degrees of business problems perceive a greater degree of business success and more business profitability than family businesses with a higher degree of business problems.

Business Liabilities

Davidson and Dutia (1991) stated that most small businesses rely on debt instead of equity, and have much higher debt ratios than larger businesses. In order to obtain a loan, a business must agree to pay loan origination fees, and other fees in addition to interest payments. Therefore, it was hypothesized (H12) that family businesses managers with more business liabilities perceive less business success and experience less business profitability.

Business Cash-Flow Problems

Coleman and Carsky (1999) explained that cash-flow is often needed to satisfy capital needs during the early stages of family businesses. In accordance with previous research, and the Sustainable Family Business Model which assumes that problems in

one area of a system can negatively affect other areas of the business system, it is hypothesized (H13) that family business managers that have cash-flow problems perceive less business success and experience less business profitability.

The following is a summary of the hypotheses of this study:

H1: Older family business managers would experience greater business success and profitability.

H2: Male family business managers would have greater business success and profitability.

H3: More educated family business managers would have greater success and profitability.

H4: White family business managers would experience greater business success and profitability.

H5: Family business managers in good health would experience greater business success and profitability.

H6: Family business managers who report a higher rate of regular business managerial activities would have greater business success and profitability.

H7: Family business managers with greater satisfaction with community support would experience greater business success and profitability.

H8: Family business managers with more total employees would experience greater success and profitability.

H9: Family business managers with businesses based in or from the home would experience less business success and profitability.

H10: Managers of older family businesses would experience greater success and profitability.

H11: Family businesses with a higher degree of business problems would experience less business success and profitability.

H12: Family businesses with greater amounts of liabilities would experience less business success and profitability.

H13: Family businesses with cash-flow problems would experience less business success and profitability.

CHAPTER III

METHODS

This chapter provides information regarding the sample and methods of analysis used in this study. The variables used are discussed in detail in this chapter, including how they were measured. A survey methodology was employed to collect the data. Because the data used in this study includes data from the 1997 and 2000 waves of the National Family Business Study (NFBS), the nature of this study is longitudinal. The final section in this chapter presents the analyses of data that were conducted, including descriptive, bivariate, and multivariate analyses.

Data and Sample

Data for the study were drawn from the 1997 and 2000 waves of the National Family Business Study (NFBS). The NFBS is a multistate research project that is supported by the Cooperative States Research, Education, and Extension Service (CSREES) which is part of the U.S. Department of Agriculture. The NFBS sampling structure differs from previous family business studies (e.g., Astrachan & Kolenko, 1994; Covin, 1994; Gundry & Welsch, 1994; Loscocco & Leicht, 1993) in that it consisted of households rather than businesses in order to keep a family business perspective (Winter, Danes, Koh, Fredericks, & Paul, 2004).

Interviewers from the Iowa State University Statistical Laboratory screened a probability sample of all 50 states that consisted of over 14,000 household telephone numbers to determine if someone in the household was either a family business owner, or

the manager of a family business that he or she expected to inherit. A total of 1,536 households included someone who met the qualifications, and were subsequently referred to as the "business manager" throughout the study. Businesses were defined as family-owned businesses if the manager/owner considered it to be a family business. However, additional restrictions were placed on the sample to qualify for the study, considering the focus of the NFBS was the interaction of the business and the family in a family business situation. The additional qualifications included business managers had to have been in business at least one year, had to live in a household with at least two members, and had to spend at least an average of six hours per week working in the family business. Based upon these additional conditions, 1,100 households further qualified to participate (see Figure 2 for participant diagram).

The qualifying households were administered one 30-minute telephone interview for the business manager, and one 30-minute interview for the family manager. None of the respondents had difficulty determining who the family manager in the household was (Winter et al., 2004). However, when the family manager and the business manager were the same person, a combined interview was administered that took approximately 45 minutes. A total of 794 families participated in at least one of the interviews. Eighty-six households participated in only the family manager interview, while 35 households were administered only the business manager interview.

Researchers decided to conduct a follow-up interview to the 1997 NFBS three years later in order to obtain additional data regarding family businesses over time. An attempt was made to re-interview each participant that was interviewed previously in 1997. For the households where only one individual was interview in 1997, only that

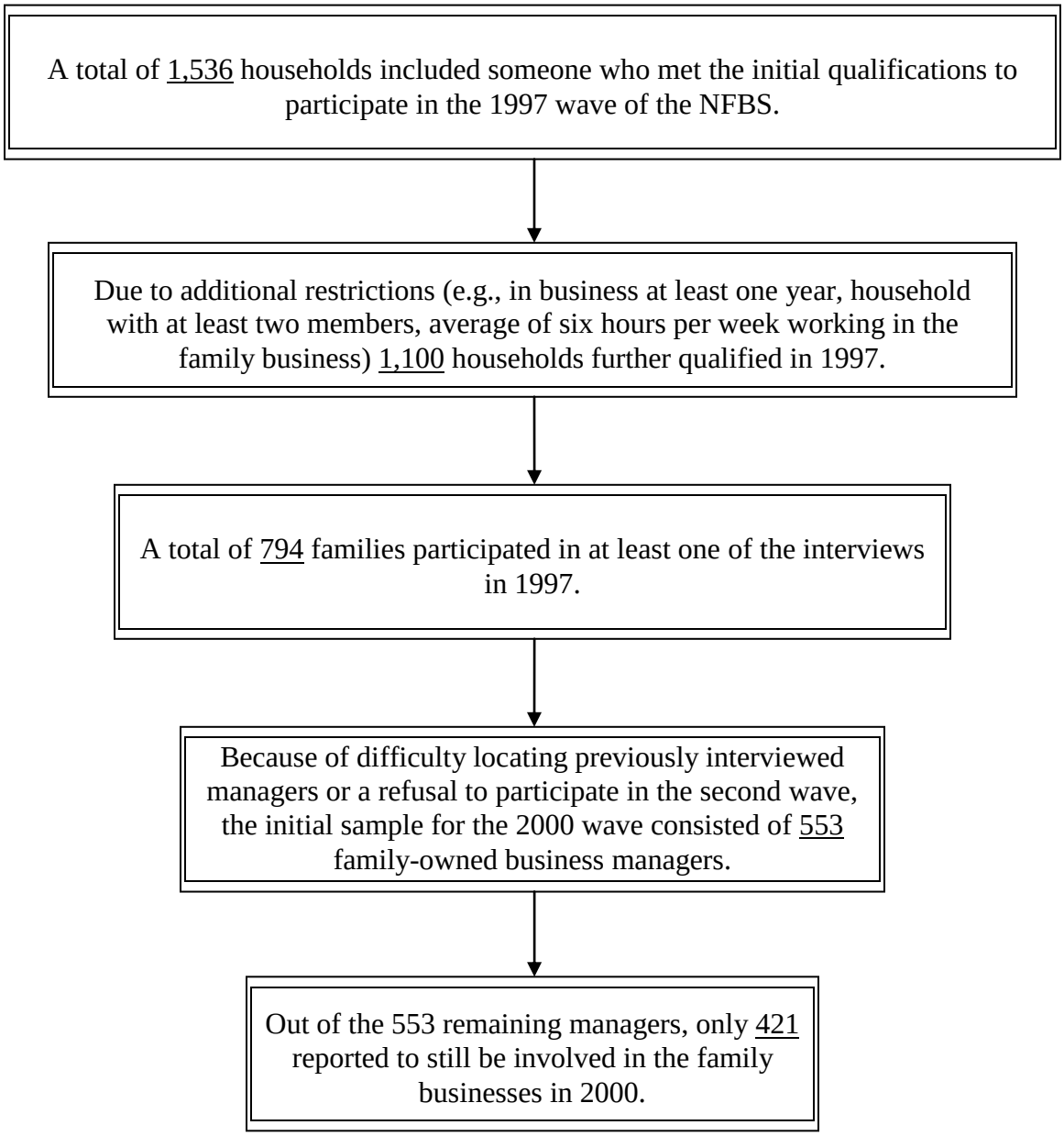

Figure 1. Diagram of participants.

person was re-interviewed in 2000. The final sample in 2000 consisted of 708 households instead of 794, considering there were 86 households excluded from the study because the business manager was not interviewed in 1997.

Bearing in mind the purpose of this research is to study family businesses over time, there was no value in including households in which the business manager was not previously interviewed. A mere 61 of the 708 qualifying households could not be located, while 93 households refused to be re-interviewed, and one participant died before the 2000 interview. Thus, the remaining sample for the 2000 wave of the NFBS consisted of 553 family-owned businesses. Among 553 family-owned businesses, 132 managers were not involved in their businesses and 421 business managers were still involved in their family businesses. Thus, the sample for this study utilized 421 business managers who participated in both 1997 and 2000 surveys. Among the 421 business managers, 324 were males, while 97 were females.

Variables

Dependent Variables

Table 1 shows each variable in this study, and how they were measured. To measure business success and profitability, this study utilized one subjective measure and one objective measure. The subjective measure was family business managers' perceived business success, a continuous variable. In the survey, business managers were asked "overall, how successful is your business to date?" Responses are 1 = very unsuccessful, 2 = unsuccessful, 3 = mixed, 4 = successful, or 5 = very successful.

Table 1

Variable Measurements (N = 421)

Variables	Measurement
Dependent variables:	
Perceived business success	Continuous, overall business success to date in 1999 (1 not at all, 5 very successful)
Business profitability	Continuous, business profit in 1999 ($)
Independent variables:	
Manager characteristics	
Age	Continuous, age of business manager
Gender:	
Female	1 if female manager, 0 otherwise
Male	1 if male manager, 0 otherwise
Education	Continuous, years of education
Race:	
Non-White	1 if Non-White, 0 otherwise
White	1 if White, 0 otherwise
Health status:	
Poor	1 if manager had poor health, 0 otherwise
Good	1 if manager had good health, 0 otherwise
Excellent	1 if manager had excellent health, 0 otherwise
Managerial activities	Continuous, Sum of 10 items (1 not done at all, 5 done to a very great extent)
Community support	Continuous, satisfaction with community support (1 very dissatisfied, 5 very satisfied)
Business characteristics	
Business size	Continuous, number of employees excluding manager
Home-based:	
Yes	1 if business was home-based, 0 otherwise
No	1 if business was not home based, 0 otherwise
Business age	Continuous, established year
Business problems	Continuous, Sum of 10 items, problems managers face (1 not a problem at all, 5 a major problem)
Business liabilities	Continuous, total liabilities ($)
Cash flow problems:	
Yes	1 if business had cash-flow problem, 0 otherwise
No	1 if no businesses cash-flow problems, 0 otherwise

The objective measure was family business profit in terms of dollars that the business experienced that previous year, as reported by the business manager. Business profitability, like perceived business success, was a continuous variable. In order to predict business success and profitability, both of the dependent variables were assessed using the 2000 wave of the NFBS, with the independent variables taken from data from the 1997 wave.

Independent Variables

There were two categories of independent variables in the analyses for this study, manager characteristics, and business characteristics. Based on the SFB Model as the guiding conceptual model, and the findings in previous research, thirteen independent variables were included in two multivariate (OLS) regression analyses. A correlation test was conducted for the independent variables, with results indicating no multicollinearity issues (see Appendix B). The first OLS model included perceived business success as the dependent variable, including all thirteen independent variables. The second OLS model included business profit as the dependent variable, also with all thirteen independent variables included. In both OLS models, all thirteen independent variables were taken from the 1997 wave of the NFBS, while each dependent variable was taken from the 2000 wave of the NFBS. Thus, the independent variables (1997 wave) can be used to predict future perceived business success and business profitability (2000 wave). The independent variables are listed as follows: (1) Age of business manager, (2) Gender of business manager, (3) Education of business manager, (4) Race of business manager, (5) Health of business manager, (6) Managerial activities, (7) Managers' satisfaction with

community support, (8) Number of total employees, (9) Home-based, (10) Age of family business, (11) Business problems, (12) Businesses liabilities, and (13) Businesses cash-flow problems.

The independent variables were measured as follows. Business manager's age was measured as a continuous variable. Business managers' gender was measured categorically, with males as the comparison group. Business managers' education was measured as a continuous variable, stated as the number of years of education received. Business managers' race is a categorical variable, with Whites being compared to Non-Whites. The health of business managers was measured categorically as "excellent," "good," and "poor," with "poor" being the comparison group. Managerial activities was measured as a continuous variable. This variable was a sum of ten items (e.g., preparing financial records, analyzing customer satisfaction), each rated on a 1 - 5 scale, 1 meaning "not done at all," and 5 meaning "done to a very great extent." Community support was measured as a continuous variable, rated on a 1 - 5 scale with 1 meaning very dissatisfied, and 5 meaning very satisfied. Business size is a continuous variable, being the total number of employees excluding the manager. The home-based variable was measured categorically with those that are home-based being compared to business that are not based from home. Business age was measured continuously, being the actual age of the business since it was established. Business problems was measured as a continuous variable, being the sum of 10 items (e.g., pricing products or services, obtaining financing). The items were each measured on a 1 - 5 scale, 1 meaning "not a problem at all," and 5 meaning "a major problem." Business liabilities were measured as a continuous variable, being the total dollar amount of business liabilities in 1996. The

final variable, business cash-flow problems, was measured as a categorical variable, with business that experienced any degree of cash-flow problems being compared to business that experienced no degree of cash-flow problems.

Data Analyses

Percentages, frequencies, means, medians, and standard deviations were calculated in the analyses to obtain the descriptive statistics of the study sample. To profile business manager characteristics, and business characteristics, this study utilized both bivariate and multivariate analyses. The bivariate analyses consisted of comparing three separate groups. The first bivariate analysis consisted of comparing businesses that had an increase in profits from 1996 to 1999 with businesses that experienced a decrease in profits from 1996 to 1999. The second bivariate analysis compared home-based businesses to businesses based outside the home. The final bivariate analysis compared the differences in male managers and female managers. For continuous variables, the bivariate analyses were accomplished using *t* tests. For categorical variables, chi-square tests were performed. In the multivariate analyses, this study employed ordinary least squares (OLS) regression analyses to determine the relationships between the independent and dependent variables. Two OLS models were tested, one for perceived business success, and the other for business profitability. All independent variables were taken from the 1997 wave of the NFBS, and both dependent variables were taken from the 2000 wave of the NFBS. Thus, the independent variables in 1997 could be used to predict perceived business success and business profitability three years later. The statistical software SAS, version 9.1, was used for all of the statistical analyses.

CHAPTER IV

RESULTS

The purpose of this study was to determine which characteristics of business managers (age, gender, education, race, health) and which characteristics of family businesses (managerial activities, community support, business size, home-based, business age, business problems, liabilities, cash-flow problems) lead to perceived business success and profitability. Business success was measured by asking each participant how they would rate their overall business success on a 1 - 5 scale with 1 meaning not at all successful and 5 meaning very successful. Business profitability was measured by the business manager stating the total profits the business earned in 1999. This chapter reports descriptive information regarding the sample of family businesses and also presents the results of *t* tests and chi-square tests, and the results of the OLS regression analyses.

Descriptive Statistics

Business Success and Profitability

Table 2 describes descriptive information on perceived business success and business and profitability while employing 1997-2007 NFBS data. The main dependent variables, perceived business success and business profitability, were measured from the information in the 2000 wave of the NFBS. When asked the question as to how successful the business manager feels the business has been to date on a scale of 1 - 5, the mean response was 3.97 with a standard deviation of .78. In the data collection

Table 2

Descriptive Statistics for Business Success and Profitability

Dependent variables	Mean	Median	Std dev
Business success	3.97	4.00	0.78
Business profit	$148,016	$24,000	$1,117,311

procedure, when asked what the total profit for the business was in 1999, the mean response from business managers was $148,016, a median profit of $24,000, and a standard deviation of $1,117,311. It is easy to see that perhaps the better indicator of central tendency is the median profit, when considering that half of the 421 business managers reported a business profit of $24,000 or less. There are clearly some outlier family businesses that made multimillion dollar profits in 1999 that increased the overall mean significantly.

Characteristics of Family Business Managers

Table 3 provides information regarding the characteristics of family business managers. The mean age of business managers in this study was 49.5 years, with a standard deviation of 10.4 years. The median age of business managers was 49 years old. There was a much higher percentage of male business managers (77%) than female business managers (23%). The mean number of years of education obtained by business managers was about 14.3 years, with a standard deviation of 2.4 years of education. In terms of race, the majority of business managers were White (96.4%), with only 3.6% being Non-White. Nearly half (48.5%) of the sample considered themselves to have

Table 3

Characteristics of Family Business Managers

Variables	Categorical		Continuous	
	Frequency	Percentage	Mean (median)	Std dev
Age of business manager			49.5 (49.0)	10.4
Gender				
(Male)	324	77.0%		
Female	97	23.0%		
Education			14.3 (14.0)	2.4
Race				
White	406	96.4%		
(Non-White)	15	3.6%		
Perceived health				
(Poor)	34	8.1%		
Good	204	48.5%		
Excellent	183	43.5%		
Managerial activities			31.3 (31.0)	8.9
Satisfaction with community support			3.7 (4.0)	1.0

good health, with 43.5% claiming to have excellent health, and only 8.1% perceived themselves to have poor health.

The sum of 10 items which made up the managerial activities variable (i.e., analyzing customer satisfaction, evaluating the quality of services or products, planning advertising and promotion budgets or strategies, estimating cost and expense figures, preparing financial records, estimating or setting personnel needs, evaluating employee performance, motivating workers, determining numerical objectives, developing or

updating a written strategic plan) had a possibility of a total of 50 points. The mean for managerial activities was 31.3 points (Std dev = 8.9). This indicates that family business managers reported to have participated in these managerial activities to a high degree.

Manager's satisfaction with community support was measured on a 1 - 5 scale with 1 meaning very dissatisfied and 5 meaning very satisfied. The mean score for this variable was 3.7, with a standard deviation of 1.0. This mean shows that the majority of managers perceived a fairly high degree of community support.

Overall, the average businesses manager in the sample was about 49 years old, male, and with approximately 14 years of education. The family business manager was also White, reported to be in good health, reported to have participated more in the said managerial activities than not, and reported a fairly high degree of community support.

Characteristics of Family Businesses

Table 4 provides descriptive information regarding characteristics of family businesses. Business size was measured as the number of employees less the business manager with a mean of 7 employees, with a standard deviation of 23 employees. However, the median business size was a mere 2 employees, which may be a better indicator of central tendency than the mean. There were four businesses with over 50 employees, with the greatest having 240 employees. The percentage of businesses that were home-based was 60.6%, compared to 39.4% that were not based from home.

The mean age of a business in this sample was 19 years, with a standard deviation of 22 years. The median business age was only 13 years, while 24.5% of the family business sample was established before the year 1970. In terms of some of the problems

Table 4

Characteristics of Family Businesses

	Categorical		Continuous	
Variables	Frequency	Percentage	Mean (median)	Std dev
Business size (# of employees)			7.1 (2.0)	23.0
Home-based business				
Yes	255	60.6%		
(No)	166	39.4%		
Business age			19.0 (13.0)	22.0
Business problems			14.1 (14.0)	5.3
Liabilities			$356,894 ($50,000)	$1,374,811
Cash-flow problems				
Yes	229	54.4%		
(No)	192	45.6%		

(the variable being a sum of 10 items rated on a 1 - 5 scale) that family-owned businesses face, the mean score was 14.1, with a standard deviation of 5.3 points. The mean amount of business liabilities was $356,894, with a standard deviation of $1,374,811. However, the median amount of business liabilities was $50,000, and is perhaps a better indicator of central tendency than the mean. When asked how often one's business experienced cash-flow problems, 54.4% of business managers claimed to have had some degree of cash-flow problems, with 45.6% reporting no cash-flow problems. All of the data used for the independent variables were taken from the 1997 wave of the NFBS.

Overall, a typical family-owned business in this study had about 2 employees (excluding the manager), and were based from home. The sample of family businesses were about 19 years old, had about $50,000 worth of liabilities, reported a fairly low degree of business problems, and experienced some degree of cash flow problems.

Industry Types of Family Business

Table 5 describes information regarding the industry types associated with the sample of family-owned businesses. It is interesting to note the variety of industries in which the family-owned businesses of this study were involved. Retail or trade businesses were most prevalent, making up 22.1% of all of the business. Businesses involved in the information market, (e.g., advertising) made up 21.1% of the businesses surveyed. The agricultural industry came next with 17.8%, followed by public administration at 12.6%, and the utility or construction industry being 10.2%. The final industry types with the least amount of representation were education at 5.9%, entertainment with 5.7%, and manufacturing making up 4.5%.

Table 5

Types of Family Business Industries for Sample

Industry type	Percent	Frequency
Retail or trade	22.1	93
Information	21.1	89
Agriculture	17.8	75
Public administration	12.6	53
Utility and construction	10.2	43
Education	5.9	25
Entertainment	5.7	24
Manufacturing	4.5	19

Differences in Profit Gainers and Profit Losers among Family Businesses

Because the data being used in this study involved two waves of the NFBS, it can be appropriate to understand change in business profitability between 1996 and 1999. Table 6 breaks the sample population into two separate groups, family businesses that made less money in 1999 than in 1996 (profit losers), and family businesses that made more money in 1999 than in 1996 (profit gainers). The calculation was conducted by subtracting profits in 1999 from profits in 1996. The *t* tests were conducted for the continuous variables to determine the difference between the profit losers and the profit gainers. Chi-square tests were conducted for the categorical variables to also determine the difference between the profit gainers and the profit losers. The results of the *t* tests indicate that there are statistically significant differences between profit losers and profit gainers in terms of perceived business success and business profitability. The chi-square tests yielded no statistically significant results among those variables.

According to the results of the *t* tests shown in Table 6, family business managers who experienced an increase in profits from 1996 to 1999 rated their perceived business success at 4.1, whereas managers who experienced a decrease in the amount of profits from 1996 to 1999 rated their perceived business success at 3.9. The results regarding the difference in the perceived business success between the profit losers and profit gainers was statistically significant.

Table 6 also shows an obvious result that there was a statistically significant difference in the amount of total profit gained between the two groups. Family

Table 6

Differences in Family Business Profit Gainers and Profit Losers

Variables		Profit losers (N = 227)	Profit gainers (N = 194)	Test statistics
Perceived business success		3.9	4.1	t = -2.33**
Business profitability		$41,649	$227,518	t = -1.75
Age of business manager		49.0	49.9	t = -0.79
Education		14.3	14.3	t = -0.33
Managerial activities		31.5	31.0	t = 0.59
Community support		3.7	3.8	t = -1.23
Business size		6.6	7.6	t = -0.43
Business age		19.9	18.0	t = 0.93
Business problems		14.0	14.2	t = -0.36
Business liabilities		$421,542	$269,620	t = 0.93
Gender:	Male	79.7%	73.7%	χ^2 = 2.14
	Female	20.3%	26.3%	
Race:	Non-White	4.4%	2.6%	χ^2 = 1.02
	White	95.6%	97.4%	
Health:	Poor	8.8%	7.2%	χ^2 = 0.36
	Good	91.2%	92.8%	
Home Based:	No	40.1%	38.7%	χ^2 = 0.09
	Yes	59.9%	61.3%	
Cash-flow Problems:	No	48.5%	42.3%	χ^2 = 1.62
	Yes	51.5%	57.7%	

**p < .01

businesses that experienced a decrease in profits from 1996 to 1999 reported a mean profit of $41,649 in 1999, while businesses that reported an increase in profits from 1996 to 1999 reported a mean profit of $227,518 in 1999.

Differences in Home-Based and Non-Home-Based Family Businesses

Previous studies indicate that home-based businesses are smaller than business based from some other location (Soldressen et al., 1998). Also, it was reported that most home-based businesses are sole-proprietorships, which make less money than other forms of businesses (U.S. Small Business Administration, 2009). In order to understand some of the differences in characteristics between home-based family businesses and family businesses based somewhere else, *t* tests and chi-square tests were conducted. The results of the *t* tests and chi-square tests show that there were statistically significant differences between home-based and nonhome-based businesses in terms of perceived business success, business profitability, education of business manager, managerial activities, business size, business problems, business liabilities, and managers' health status.

According to Table 7, home-based family businesses reported a lower degree of perceived business success than family businesses based somewhere else. For example, those that were based from home rated their business success at a 3.8, whereas those that were based somewhere else rated their overall business success at a 4.2 ($t = 4.27$, $p < .01$). The results of the *t* test also indicate that businesses based from home reported a

Table 7

Differences in Home-Based and Non-Home-Based Family Businesses

Variables		Not home-based (N = 166)	Home-based (N = 255)	Test statistics
Perceived business success		4.2	3.8	t = 4.27***
Business profitability		$332,929	$32,999	t = 1.91*
Age of business manager		49.5	49.4	t = 0.08
Education		14.9	13.9	t = 4.01***
Managerial activities		33.4	29.9	t = 4.15***
Community support		3.8	3.7	t = 1.00
Business size		14.4	2.3	t = 4.44***
Business age		21.0	17.7	t = 1.48
Business problems		15.0	13.6	t = 2.71**
Business liabilities		$609,138	$134,920	t = 2.51**
Gender:	Male	78.3%	76.1%	χ^2 = 0.28
	Female	21.7%	23.9%	
Race:	Non-White	1.8%	4.7%	χ^2 = 2.46
	White	98.2%	95.3%	
Health:	Poor	4.8%	10.2%	χ^2 =3.91*
	Good	95.2%	89.8%	
Cash-flow Problems:	No	44.0%	46.7%	χ^2 = 0.29
	Yes	56.0%	53.3%	

*p < .05; **p < .01; ***p < .001

lower level of profit than businesses that were based from somewhere else; the result was statistically significant different (t = 1.91, p < .1).

Also shown in Table 7, the results of the *t* tests for education and managerial activities, show statistically significantly different results. Business managers with businesses based from home reported 13.9 years of education, while managers with businesses based from somewhere else reported 14.9 years of education. In terms of managerial activities, managers with businesses based from home reported a mean of 29.9 points, whereas managers with businesses based from somewhere else reported a mean score of 33.4 points.

Table 7 shows that business size and business problems were both reported to be significantly different between home-based and nonhome-based businesses. In terms of business size, businesses based from home reported 2.3 people excluding the manager, while businesses based from somewhere else reported a mean business size of 14.4, excluding the manager. Home-based businesses reported a mean score of 13.6 for business problems, whereas nonhome-based businesses reported a mean score of 15.0.

There were significantly different results in business liabilities and business managers' health between being home-based and nonhome-based. Businesses based from home reported $134,920 worth of business liabilities, compared to $609,138 worth of liabilities for nonhome-based businesses. In regards to the health of business managers, a relatively higher proportion of those with home-based businesses reported poorer health than managers with nonhome-based businesses.

Differences in Male and Female Family Business Managers

Table 8 shows *t* tests and chi-square tests that were conducted to explore some of the difference between family businesses with male managers and family businesses with

female managers. As show in Table 8, the results indicate that there were significant differences between male and female managers in terms of perceived business success, managerial activities, business age, business problems, and business cash-flow problems.

Also shown in Table 8, female business managers reported a statistically significant higher degree of perceived business success (4.1) than male business managers (3.9). However, in terms of managerial activities, male business managers reported a higher mean score than female business managers; and this result is statistically significant.

Business age, business problems, and cash-flow problems all were shown (Table 8) to be significantly different for male and female managers. Female business managers reported a mean businesses age of 13.1 years, whereas male business managers reported a mean business age of 20.8 years. Male business managers reported a higher degree of business problems (14.8) than female managers (11.9). However, more male managers reported to experience cash-flow problems (58.0%) than did female managers (42.3%).

OLS Regression Results

Perceived Business Success

This study attempted to understand how characteristics of family business managers, characteristics of family businesses, and family business finances predict business success and profitability. Table 9 reports the OLS regression results for business success, and the results show some statistically significant factors that lead to perceived family business success.

The dependent variable, perceived family business success, was rated on a 1 - 5

Table 8

Differences in Male and Female Family Business Managers

Variables		Male manager (N = 324)	Female manager (N = 97)	Test statistics
Perceived business success		3.9	4.1	t = -1.66
Business profitability		$177,714	$63,312	t = 1.37
Age of business manager		49.9	48.2	t = 1.35
Education		14.2	14.6	t = -1.41
Managerial activities		31.9	29.0	t = 2.85**
Community support		3.7	3.8	t = -0.51
Business size		7.6	5.2	t = 0.96
Business age		20.8	13.1	t = 3.65***
Business problems		14.8	11.9	t = 5.22***
Business liabilities		$376,653	$251,157	t = 0.85
Race:	Non-White	2.8%	6.2%	χ^2 = 2.52
	White	97.2%	93.8%	
Health:	Poor	8.0%	8.3%	χ^2 = 0.01
	Good	92.0%	97.7%	
Cash-flow problems:	No	42.0%	57.7%	χ^2 =7.47**
	Yes	58.0%	42.3%	

**p < .01; ***p < .001

scale, 1 meaning not at all successful, and 5 meaning very successful. The adjusted R squared is .17, indication that the independent variables in the model explained 17% of the variance in perceived family business success. The F statistic indicated that the model of independent variables is appropriate for understanding business success.

Table 9

OLS Results of Perceived Business Success (N = 421)

Variable	Parameter estimate	Standard error	p-value
Manager's age	-.01	.01	.235
Manager's gender: (Male)			
Female	.15	.13	.268
Manager's education	.02	.02	.475
Manager's race: (Nonwhite)			
White	.37	.41	.367
Manager's health: (Poor)			
Good	.09	.18	.605
Excellent	.24	.19	.200
Managerial activities	.02	.01	.018*
Community support	.07	.05	.130
Business size	-.001	.002	.789
Home-based: (not home-based)			
Based from home	-.26	.11	.018*
Business age	-.01	.00	.010**
Business problems	-.02	.01	.022*
Business liabilities	9.8E-8	9.4E-8	.297
Business cash-flow problems: (no cash-flow problems)			
Cash-flow problems	-.22	.11	.048*
Intercept	3.47	.62	.000***
F-Value	3.58***		
Adjusted R^2	0.17		

Note. Business success was rated on a 1-5 scale.
*p < .05; **p < .01; ***p < .001

Among the independent variables, managerial activities, whether or not the business is based from home, business age, business problems, and business cash-flow problems were the significant factors that affected perceived business success for managers of family-owned businesses.

This study hypothesized (Hypothesis 1) that family business managers' age would be positively associated with perceived family business success. That is, older business managers would have higher levels of perceived business success than younger managers. However, the coefficient associated with business managers' age was not statistically significant, indicating that family business managers' age was not a predictor of family business success. Therefore, Hypothesis 1, in terms of perceived business success, was not supported by the results.

The OLS results reported that the coefficient associated with business managers' gender was not statistically significant. This result indicates that there was no difference in perceived business success between male and female managers, and that business managers' gender was not a predictor of perceived business success. It was previously hypothesized (Hypothesis 2) that males would perceive more business success than females. According to the coefficient associated with business managers' gender, Hypothesis 2 was not supported in terms of perceived business success.

The OLS results indicate that the coefficient associated with business managers' years of education was not statistically significant. This study hypothesized (Hypothesis 3) that business managers' education would be positively associated with perceived business success. That is, more years of education a business manager received would

result in higher levels of perceived business success. Because the results were not statistically significant, Hypothesis 3 was not supported as it related to business success.

This study hypothesized (Hypothesis 4) that White business managers would report higher levels of perceived business success than Non-Whites. The OLS results show that race was not statistically significant in predicting perceived business success. Therefore, Hypothesis 4 was not supported in terms of perceived business success by the OLS results.

Business managers with better health were hypothesized (Hypothesis 5) to report higher levels of perceived business success than business managers with poor health. The OLS results show that business managers' health was not statistically significant in predicting perceived business success. Due to the coefficient associated with health, Hypothesis 5 was not supported as it relates to perceived business success.

The OLS results report that the coefficient associated with managerial activities was statistically significant and had a positive effect on perceived business success. The results indicate that business success increased, as managerial activities increased. For every one unit increase in managerial activities, the level of managers' perceived business success increased by .02. Therefore, it can be said that as the level of managerial activities increase, the degree to which business managers perceived their family business as successful also increased. Hypothesis 6, in terms of perceived business success, was therefore, supported by the OLS results.

Managers' satisfaction level with community support was hypothesized (Hypothesis 7) to be positively associated with perceived business success. That is, when managers had higher satisfaction levels with community support, they would have higher

levels of perceived family business success. However, the coefficient associated with community support was not statistically significant. Therefore, Hypothesis 7 was not supported in terms of perceived business success.

The OLS results show that the coefficient associated with business size was not statistically significant. It was hypothesized (Hypothesis 8) that business size would be positively associated with managers' perceived business success. Due to the OLS results for this variable, Hypothesis 8 was not supported in terms of perceived business success.

It was hypothesized (Hypothesis 9) that home-based businesses would perceive less business success than business not based from home. The OLS results show that the coefficient associated with home-based businesses was statistically significant in predicting perceived business success. The results indicate that home-based business managers perceived .26 points less business success than businesses that were based from somewhere other than home. Therefore, Hypothesis 9 was supported as it relates to perceived business success by the OLS results.

This study hypothesized (Hypothesis 10) that business age would be positively associated with perceived business success. However, the coefficient associated with business age was statistically significant, but the direction was negative, indicating that for every one year increase in business age, managers' level of perceived business success decreased by .01 points. Therefore, as it relates to perceived business success, Hypothesis 10 was supported in that it was statistically significantly related.

This study hypothesized (Hypothesis 11) that business problems would lead to less perceived business success. The OLS results show that the coefficient associated with business success was statistically significant. Based on the OLS results Hypothesis

11 was supported, in terms of perceived business success. The results indicate that for every one unit increase in business problems, perceived business success decreased by .02 units.

This study hypothesized (Hypothesis 12) that business liabilities would be negatively associated with the level of perceived business success. However, the coefficient associated with business problems was not statistically significant. Therefore, Hypothesis 12 was not supported as it relates to perceived business success by the OLS results.

The OLS results indicate that the coefficient associated with business cash-flow problems was statistically significant. It was hypothesized (Hypothesis 13) that those with business cash-flow problems would have lower levels of perceived business success than those without business cash-flow problems. According to the OLS results, managers running businesses that experienced cash flow problems in 1996 reported the level of 1999 perceived business success to be .22 points less than businesses with no cash-flow problems in 1996. Hypothesis 13 was, therefore, supported in terms of perceived business success by the OLS results.

Business Profitability

Table 10 reports the OLS results for business profitability. Profitability was measured by asking business managers what the total profit of the business was in 1999. The OLS results show significant 1996 factors associated with 1999 business profitability. The adjusted *R* squared for the profitability model is .25, showing that the independent variables in this model explained 25% of the variance in family business

Table 10

OLS Results of Business Profitability (N = 421)

Variable	Parameter estimate	Standard error	*p*-value
Manager's age	3,794	10,465	.717
Manager's gender: (Male)			
Female	227,948	264,200	.389
Manager's education	64,839	46,011	.161
Manager's race: (Nonwhite)			
White	294,990	815,051	.718
Manager's health: (Poor)			
Good	161,508	361,070	.655
Excellent	94,953	371,444	.799
Managerial activities	2,762	13,558	.840
Community support	100,636	97,721	.305
Business size	28,738	4,132	.000***
Home-based: (not home-based)	-83,023	218,481	.704
Business age	-124	4,036	.976
Business problems	-37,057	20,234	.069
Business liabilities	-0.125	.189	.509
Business cash-flow problems: (no cash-flow problems)			
Cash-flow problems	-288,041	220,952	.194
Intercept	761,054	1,237,771	.539
F-Value	5.29***		
Adjusted R^2	0.25		

Note. Reference categories are presented in parentheses.
***$p < .001$

profitability. The *F*-statistic (5.29) signifies that this model of independent variables is suitable for understanding family business profitability. However, out of the several independent variables included in this model, only business size was statistically significant in predicting family business profitability.

It was hypothesized (Hypothesis 1) that the age of business managers would be positively associated with family business profitability, meaning that the older a business manager was, the more profitable the business would be. According to the OLS result, managers' age was not statistically significantly related with family business profitability. Therefore, Hypothesis 1 is not supported in terms of profitability.

Business managers' gender was not statistically significant in predicting family business profitability. The hypothesis (Hypothesis 2) regarding gender and business profitability stated that male managers would experience more profitability than female managers, while holding other variables constant. According to the OLS results, Hypothesis 2 was not supported in terms of profitability.

Education was hypothesized (Hypothesis 3) to be positively correlated with business profitability. That is, the more years of education a business manager received, the more profitable the family business would be. However, the coefficient associated with managers' education level was not statistically significant. Therefore, Hypothesis 3 was not supported, in terms of profitability, by the OLS results.

The results of the OLS regression analysis indicate that business managers' race is not statistically significantly associated with business profitability. It was hypothesized (Hypothesis 4) that Whites would experience more business profitability than would

Non-Whites. However, according to the coefficient associated with this variable, Hypothesis 4 was not supported as it related to profitability.

It was hypothesized (Hypothesis 5) that business managers with poor health would experience less business profitability than business managers with good health. According to the coefficient associated with managers' health, health is not statistically significantly associated with business profitability. Thus, Hypothesis 5 was not supported, in terms of profitability, by the OLS results.

Business profitability was hypothesized (Hypothesis 6) to be positively associated with the level of managerial activities practiced. However, the coefficient for managerial activities indicates that there is no statistical significance in regards to this hypothesis. As a result, Hypothesis 6 was not supported as it related to profitability by the OLS regression output.

The coefficient associated with the level of perceived community support was not statistically significant. It was hypothesized (Hypothesis 7) that the degree of perceived community support would be positively associated with family business profitability. That is, if a manager reports higher levels of perceived community support, the more profitable the business would be. Due to the statistically insignificant results, Hypothesis 7 was not supported in terms of profitability.

Business size was statistically significant and positively associated with family business profitability. It was hypothesized (Hypothesis 8) that there would be a positive relationship between business size and business profitability. According to the coefficient associated with business size, for every one person increase in family

business, family business profitability increases by $28,738. Therefore, in terms of profitability, Hypothesis 8 was supported.

Family-owned businesses that were based from home were hypothesized (Hypothesis 9) to experience less business profitability than businesses based from somewhere else. The coefficient associated with this variable was not statistically significant. Therefore, Hypothesis 9 was not supported as it related to profitability.

The results of the OLS regression analysis show that the coefficient associated with business age was not statistically significant. It was hypothesized (Hypothesis 10) that business profitability would be positively associated with business size. That is, older family businesses would experience more business profitability than younger family-owned businesses. However, since the results yielded no statistically significant results for this variable, Hypothesis 10 was not supported in terms of profitability.

The variable "business problems" was measured by summing 10 items that were each rated on a 1 - 5 scale. It was hypothesized (Hypothesis 11) that business problems would be negatively associated with business profitability, meaning that a higher degree of business problems would lead to less family business profitability. The coefficient for this variable was not statistically significant at .05 level; however, it was significant at the .1 level. According to the OLS results, for every one point increase in business problems, business profitability decreased by $37,057. Therefore, Hypothesis 11 was not supported in terms of profitability.

Business liabilities was hypothesized (Hypothesis 12) to be negatively associated with business profitability. That is, the more liabilities a family business has, the less profitable the business would be. The coefficient associated with business liabilities

indicates that the amount of business liabilities was not statistically significantly associated with business profitability. Therefore, Hypothesis 12 was not supported in terms of profitability.

The final independent variable tested in the OLS regression analysis was cash-flow problems. It was hypothesized (Hypothesis 13) that businesses with cash-flow problems would be less profitable than family-owned businesses that experienced no cash-flow problems. The coefficient for this variable indicates that there was no significant relationship between the presence of cash-flow problems and business profitability. Therefore, in terms of profitability, Hypothesis 13 was not supported.

Chapter V

DISCUSSION

This study examined many characteristics of business managers and characteristics of family businesses, and compared the differences between businesses that experienced an increase in profits from 1996 to 1999 and businesses that experienced a decrease in profits during the same period. This study also examined the differences between home-based and nonhome-based businesses in addition to studying the differences between businesses lead by female managers compared to male managers. This study further investigated the characteristics that could predict perceived business success and business profitability. This chapter includes a summary of the results, along with possible implications associated with the findings from this study. Possible limitations of this study are then addressed, followed by several suggestions for future family-owned business research, and finishes with the conclusions of this research study.

Summary of Findings

The majority of business managers in the sample were White, in good health, reported a high level of managerial activities, and reported a high level of satisfaction with community support. The average size of business for the sample was 7 employees, with a median of 2 employees. The majority of family businesses were home-based, about 19 years old, did not report high levels of business problems, have about $50,000 in liabilities, and experienced some degree of cash-flow problems. The most prevalent types of industries in which the family businesses in the sample were involved included

retail or trade businesses, information businesses, and agricultural businesses. In terms of perceived business success, the descriptive information indicated that on average, business managers perceived a high degree of business success. The mean amount of business profitability was $148,016 with a median profit of $24,000. Business managers were, on average, 49 years old, mostly males, and had some college education.

Further descriptive information regarding the sample was organized and analyzed. The descriptive statistics indicated that family-owned businesses with decreased profits from 1996 to 1999 reported less perceived business success and less overall profits than businesses that increased in profits over the same period. Also, the descriptive statistics showed that home-based businesses reported less perceived business success and less profitability than nonhome-based businesses. Additionally, the descriptive statistics indicated that female managers reported a higher degree of perceived business success than male managers.

All of the independent variables for this study were taken from the 1997 wave of the NFBS, whereas the dependent variables were taken from the 2000 wave of the NFBS. The first OLS model was tested with perceived business success being the dependent variable within the model. Business success (data from the 2000 NFBS wave) was rated by each business manager on a 1 - 5 scale with 1 meaning not at all successful and 5 meaning very successful. Each independent variable in this model was taken from the 1997 wave of the NFBS to predict business success in 1999 (2000 NFBS data). The OLS results of this model indicated that a higher degree of managerial activities leads to greater perceived business success. The OLS results also showed that family-owned businesses that are home-based perceived less business success than family-owned

businesses based from somewhere else. In addition, the results indicated that business age was negatively associated with perceived business success. In other words, managers of older family-owned businesses perceived less business success than younger family businesses, contrary to expectations. The OLS results showed that managers of businesses experiencing higher degrees of business problems reported less business success. The final statistically significant result from this model indicated that managers of family-owned businesses who reported no business cash-flow problems reported higher levels of business success than managers who were experiencing cash-flow problems.

The other OLS model was also tested using business profitability as the dependent variable. Business profitability was measured by each business manager stating their overall business profit in 1999 (2000 NFBS data). Like the OLS success model, the OLS profitability model used data (13 independent variables) from the 1997 wave of the NFBS to predict business profitability in 1999 (2000 NFBS data). The OLS results for the profitability model indicated that the larger the family-owned business is in terms of size (number of employees except the manager) the more profitable the business is. The other significant predictor of family business profitability was business problems. Family-owned businesses with a higher degree of business problems experience less business profitability.

As shown in Table 11, the hypotheses regarding managerial activities (Hypothesis 7), whether or not family businesses are home-based (Hypothesis 10), business problems (Hypothesis 12), and business cash-flow problems (Hypothesis 13), as they relate to perceived business success, were all supported. However, the hypothesis regarding

Table 11

Summary of Results for Hypotheses

Variables	Hypotheses	Success	Profitability
Age	Positive relationship	NS[a]	NS
Gender	Males will have more S & P[b]	NS	NS
Education	Positive relationship	NS	NS
Race	Whites will have more S & P	NS	NS
Health	Good health will have more S & P	NS	NS
Managerial activities	Positive relationship	Positive**	NS
Community support	Positive relationship	NS	NS
Business size	Positive relationship	NS	Positive***
Home-based	Home-based with have less S & P	Negative*	NS
Business age	Positive relationship	Negative**	NS
Business problems	Negative relationship	Negative*	NS
Business liabilities	Negative relationship	NS	NS
Cash-flow problems	Negative relationship	Negative*	NS

[a]NS = Hypothesis not supported. [b]S & P = Business success and profitability.
*$p < .05$; **$p < .01$; ***$p < .001$

business age (Hypothesis 11) was only partially supported in that it was statistically significantly negatively associated with perceived business success, whereas the hypothesis stated a positive relationship. The hypotheses related to business size

(Hypothesis 9) and business problems (Hypothesis 12) were both statistically significantly supported in terms of business profitability.

Implications

The results of this study indicate that family businesses with managers who participate in managerial activities to a greater degree report more perceived business success than those who do not participate in these activities or who participate to a lesser degree. Managerial activities in this study were a sum of the 10 items rated on a 1 - 5 scale as follows: analyzing customer satisfaction, evaluating the quality of services or products, planning advertising and promotion budgets or strategies, estimating cost and expense figures, preparing financial records, estimating or setting personnel needs, evaluating employee performance, motivating workers, determining numerical objectives, and developing or updating a written strategic plan. An obvious implication regarding managerial activities would be directed toward business managers who perceive less business success. If they would participate in these activities to a greater extent, they might feel that their business is more successful. However, because this study did not look at these activities separately, specific managerial activities cannot be suggested. According to the results, the same implication may be true regarding businesses that are based from home. Based on this study and from previous literature, it may be concluded that if business managers would base their businesses away from home, they might perceive more business success than if they operated their businesses from home.

According to the OLS results of profitability, only one variable was statistically significant in the model, which was business size. It cannot be concluded that more employees make family businesses more profitable, or that more profitable businesses simply require more employees. However, the implication of this result is that determining the size of a business should be a major consideration for business owners and managers because business size is associated with business profitability.

Although it is clear that the findings of this study may benefit family business owners and managers, it should be noted that family businesses consultants, and family business educators and scholars could also benefit from this study. Family business consultants might see more value in speaking with business owners and managers about possible improvement with practicing worthwhile managerial activities, possible ways to reduce certain business problems, or ways in which the consultant can help lead managers to a greater degree of perceived business success. Educators could present this information to potential business owners and managers to help them become aware of significant factors associated with business success and profitability. Scholars can use this information to create future studies that may lead to further valuable and helpful information.

Additionally, the findings of this study may assist policy makers in making important policy decisions regarding family businesses. Some of these policy decisions relating to family businesses or small businesses may include tax strategies, licensing, and business regulations. For example, information regarding family business profitability and business size may be useful to policy makers when making decisions

regarding how to tax family businesses, and if there should be a formal distinction between family businesses and other businesses in terms of these policy decisions.

Limitations

One limitation of this study could be attributed to using extant data from the NFBS 1997 and 2000 data sets. The economy has changed significantly since the data for this study was collected. The results should be seen in the context of the economic and world conditions that existed toward the end of the 1990's. Because the economic circumstances of the United States have changed significantly over the past decade, it should be understood that the results of this study may not be applicable to the current economic conditions that exist presently. In addition to this limitation, the information provided in the NFBS is deemed reliable only to the point that business managers reported accurate information.

Another limitation could be ascribed to the large degree of diversity found within the sample. For example, total number of employees (excluding the manager) ranged from 0 to 250, and business profit ranged from $0 to $18,857,143. Because of the great diversity found within the sample, there were several outlier family businesses that skewed some of the data significantly.

Recommendations for Future Research

The first suggestion for future research would be to use more current data that would explain family-owned businesses in the current economy. Though it is recognized that the economy is fairly unpredictable, it is fair to assume that the economy will

experience future up and down cycles. The data for this study was collected during an up cycle, and the results should be reviewed in this context, but may still be useful in any economic cycle. Future research on family-owned businesses should attempt to use data from the current cycle and during points in other future economic cycles. Having information from many studies of family-owned businesses during a variety of economic climates would help bring a greater understanding of family businesses, and could be useful to business owners and managers, investors, and family business consultants.

The data from the NFBS was collected by conducting interviews of family business managers. If possible, for further research, it may be beneficial to use data that is not entirely self-reported measures. Though it is assumed that the family business managers who participated in the NFBS interviews provided accurate and truthful information, one cannot be certain. It could be useful to collect data directly from family business records including tax documents and official business finance and performance spread sheets. It may also be beneficial to interview someone else within the family business, in addition to business managers, who may be able to provide second opinions regarding subjective measures as it relates to the performance of the businesses.

The OLS results of this study indicate that managerial activities (sum of 10 items) is positively associated with perceived business success, and business problems (sum of 10 items) is negatively associated with business profitability. For future research, it would be helpful to study each item within these categories in further detail as they each relate to business success and profitability. Studying each item separately could help business managers identify specific managerial activities and specific business problems that are more associated with business success and profitability than others.

The final recommendation offered for future research on family businesses would be to focus a study on a sample that is less diversified. For example, if this data is used in future research, it may be beneficial to focus the sample on family businesses with profits fairly close to the mean and median (e.g., between $5,000 and $100,000), and businesses with the number of employees being fairly close the mean and median (e.g., less than 10 employees), thus removing the handful of outliers that skew the data. With a more focused sample, the results may be more specific and useful, and could still be generalized to the majority of family-owned businesses.

Conclusions

Family-owned businesses are a unique and dynamic field of study. Though understudied (Winter et al., 1998), family-owned businesses are not in hiding, and can be seen all around us throughout the world (Heck & Trent, 1999). Many family-owned businesses may be struggling during the present down economy. However, it is obvious that there are also many family-owned businesses that flourish during both high and low economic conditions. This study measured business success as a subjective measure, and business profitability as an objective measure. The findings of this study may help to educate family business managers on some of the factors that are associated with not only perceiving business success, but also experiencing family business profitability.

According to previous research (Bird et al., 2001), business owner's gender has both direct and indirect effects on business success (profitability). Male business owners spent more hours at their business than did female owners, and hours spent at the business, in turn, improved small business success (profitability). The results of the

present study contribute to the existing literature in terms of business managers' gender as it relates to perceived business success and business profitability. Female mangers perceived their businesses to be more successful, yet male managers experienced more business profitability and reported more business problems.

According to the findings of this study, the following are a few suggestions, or items that family business managers and consultants could take into consideration when discussing issues related to perceiving family business success and/or experiencing family business profitability. Previous research indicated that managerial activities are related to business performance (Adams et al., 2004; Kellermanns et al., 2008; Westhead & Howorth, 2006). The results of this study indicate that managers who participate in managerial activities to a greater extent perceive a higher degree of business success. Overall, managers with a higher managerial activities score perceived more business success than business managers who reported a lower score. Therefore, in terms of perceived business success, business managers might benefit from reviewing the 10 managerial activities in this study, and carefully contemplating how they can improve their overall score.

In addition to bearing in mind how these managerial activities are associated with perceiving business success, family business managers and consultants should also carefully consider whether or not to base a family business out of the home. Previous research indicated that a majority of home-based family-owned business owners consider their business to be successful, based exclusively on the fact that they were working at something that they enjoyed, not based upon business profitability (Soldressen et al., 1998). Though many managers with family businesses based from home perceive high

levels of business success, the results of this study show that, generally, managers of home-based family businesses perceived less business success than managers with businesses based from somewhere else. Because the results of this study do not coincide with the results from previous study, further research should be conducted for additional clarification. According to this study, business mangers should diligently contemplate whether or not to base their business from their home as it is associated with perceived business success.

Family business managers and consultants could also consider the result of this study that business problems are not only associated with less perceived business success, but also less business profitability. Like managerial activities, business problems in this study was a score achieved by summing 10 items that were previously listed. The results of this study show that managers with a higher business problem score also perceived less business success and experienced less business profitability. The results of this study support previous research on business problems (Ward, 1997). Business managers and consultants might benefit from developing goals and plans to reduce or eliminate these and other business problems (such as cash-flow problems) that are associated with perceiving less business success and experiencing less business profitability.

The next conclusion of this study, and an item that family business managers and consultants should carefully consider is business size. Previous research suggests that business size is an important factor for business managers to consider (Walch & Merante, 2007). The results of this study show that business size is highly associated with business profitability. The results indicate that the larger a family business is, the more profitable it is also. Business size, or the number of employees within a family business, should be

carefully considered as it is highly associated with business profitability, according to the results of this study.

The final conclusion and suggestion relates to the age of family businesses. The results of this study show that managers of older family-owned businesses reported less perceived business success than managers of younger family businesses. Though it is unclear why this would be the case, burnout and higher levels of expectations may be possible explanations. Based on the results of this study, managers of older businesses who are experiencing lower levels of perceived business success may benefit from looking for opportunities to increase their managerial activities score, or finding ways to decrease their business problems score.

In the United States of America, family business owners and managers are positioned in an environment in which prosperity and success are achievable. Even though we experience many fluctuations in the economy, we live in a beautiful age in which many family businesses are thriving both in terms of perceived business success and business profitability. Several suggestions have been presented based on the results of this research study that could give insight and direction to family business owners and consultants. Though these suggestions could be helpful to managers in achieving greater business success and profitability, they cannot nor should not replace principles of faith, integrity, discipline, ingenuity, and hard work.

REFERENCES

Adams, A. F., Manners, G. E., Astrachan, J. H., & Mazzola, P. (2004). The importance of integrated goal setting: The application of cost-of-capital concepts to private firms. *Family Business Review17*(4), 287-302.

Aronoff, C. E. (1998). Megatrends in family business. *Family Business Review, XI(3),* 181-186.

Astrachan, J. H. (2003). Commentary on the special issue: The emergence of a field. *Journal of Business Venturing, 18,* 567-572.

Astrachan, J. H., & Kolenko, T. A. (1994). A neglected factor explaining family business success: Human resource practices. *Family Business Review, 7*(3), 251-262.

Astrachan, J. H., & Shanker, M. C. (2003). Family businesses' contribution to the U.S. economy: A closer look. *Family Business Review, 16*(3), 211–219.

Barnes, L. B., & Hershon, S. A. (1976). Transferring power in the family business. *Harvard Business Review, 54*(4), 105-116.

Beckhard, R., & Dyer, W. G. (1983, Summer). Managing continuity in the family-owned business. *Organizational Dynamics*, 5-12.

Beehr, T. A., Drexler, J. A., & Faulkner, S. (1997). Working in small family businesses: Empirical comparisons to non-family businesses. *Journal of Organizational Behavior, 18,* 297-312.

Bird, S. R., & Sapp, S. G. (2004). Understanding the gender gap in small business success: Urban and rural comparisons. *Gender and Society, 18*(1), 5-28.

Bird, S. R., Sapp, S. G., & Lee, M. Y. (2001). Small business success in rural communities: Explaining the sex gap. *Rural Sociological Society, 66*(4), 507-531.

Chibucos, T. R., & Leite, R. W. (2005). *Readings in family theory*. Thousand Oaks, CA: Sage.

Chrisman, J. J., Chua, J. H., & Litz, R. A. (2003). Commentary: A unified perspective of family firm performance: An extension and integration. *Journal of Business Venturing, 18*(4), 467-472.

Chua, J. H., Chrisman, J.J., & Chang, E. P. C. (2004). Are family firms born or made? An exploratory investigation. *Family Business Review, 17*(1), 37-54.

Chua, J. H., Chrisman, J. J., & Sharma, P. (2003). Succession and nonsuccession concerns of family firms and agency relationship with nonfamily managers. *Family Business Review, 16*(2), 89-108.

Chua, J. H., Chrisman, J. J., & Sharma, P. (1999). Defining the family business by behavior. *Entrepreneurship Theory and Practice*, *23*(4), 19-39.

Coleman, S., & Carsky, M. (1999). Sources of capital for small family-owned businesses: Evidence from the national survey of small business finance. *Family Business Review, 12*(1), 73-86.

Cox, E. S. (1998). The family as a foundation of our free society: Strengths and opportunities. In R. K. Z. Heck (Ed.), *The entrepreneurial family* (pp. 8-15). Needham, MA: Family Business Resources.

Covin, T. J. (1994). Perceptions of family-owned firms: The impact of gender and educational level. *Journal of Small Business Management, 33*(3), 29-39.

Danes, S. M. (1998). Multiple roles, balance between work and leisure, and satisfaction with level of living. *Family and Consumer Sciences Research Journal, 26*(4), 282-291.

Danes, S. M., & Lee, Y. G. (2004). Tensions generated by business issues in farm business-owning couples. *Family Relations, 53,* 357-366.

Davidson, W. N., & Dutia, D. (1991). Debt, liquidity and profitability problems in small firms. *Entrepreneurship: Theory & Practice, 16*(1), 53-64.

Davis, P., & Stern, D. (1980). Adaptation, survival, and growth of the family business: An integrated systems perspective. *Human Relations, 34*, 207-224.

Drozdow, N. (1998). What is continuity? *Family Business Review, 11*(4), 337-347.

Dyer, W. G., Jr. (1986). *Cultural change in family firms*. San Francisco, CA: Jossey-Bass.

Elsbach, K. D., Sutton, R. I., & Whetten, D. A. (1999). Perspectives on developing management theory, circa 1999: Moving from shrill monologues to (relatively) tame dialogues. *Academy of Management Review*, *24*, 627–633.

Filbeck, G., & Lee, S. (2000). Financial management techniques in family businesses. *Family Business Review, 13*(3), 201-216.

Getz, D., & Petersen, T. (2004). Identifying industry-specific barriers to inheritance in small family businesses. *Family Business Review, 17*(3), 259-276.

Glueck, W. F., & Meson, R. S. (1980, August). *A literature analysis of concepts*. Paper presented at the Academy of Management Annual Meeting, Detroit, MI.

Gomez-Mejia, L. R., Larraza-Kintana, M., & Makri, M. (2003). The determinants of executive compensation in family-controlled publicly traded corporations. *Academy of Management Journal, 44*(2), 226-237.

Gundry, L. K., & Welsch, H. P. (1994). Differences in familial influence among women-owned businesses. *Family Business Review, 7*(3), 273-286.

Habbershon, T. G.,Williams, M. L., & MacMillan, I. (2003). A unified systems perspective of family firm performance. *Journal of Business Venturing, 18*(4), 451-465.

Hall, A., & Nordqvist, M., (2008). Professional management in family businesses: Toward an extended understanding. *Family Business Review, 21*(1), 51-69.

Handler, W. C. (1989). Methodological issues and considerations in studying family businesses. *Family Business Review, 2*(3), 257-276.

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.

Heck, R. K. Z., & Trent, E. S. (1999). The prevalence of family business from a household sample. *Family Business Review, 12*(3), 209-224.

Hienerth, C., & Kessler, A. (2006). Measuring success in family businesses: The concept of configurational fit. *Family Business Review, 19*(2), 115-134.

Holland, P. J. (1981). *Strategic management in family business: An exploratory study of the development and strategic effects of the family-business relationship*. (Unpublished doctoral dissertation). University of Georgia, Athens.

Ibrahim, A. B., & Ellis, W. H. (1994). *Family business management: Concepts and practice*. Dubuque, IA: Kendall/Hunt.

Igbaria, M., & Wormley, W. M. (1992). Organizational experiences and career success of MIS professionals and Managers: An examination of race differences. *MIS Quarterly, 16*(4), 507-529.

Jones, C. T. (2003). Predicting the financial success and occupational wellbeing of micro-business owners*:* An integrated model of personality and the work-family interface. *Australian Journal of Psychology, Supplement,* 131.

Kanter, R. M. (1989). Work and family in the United States: A critical review and agenda for research and policy. *Family Business Review, 2*, 77-114.

Kale, S., & Arditi, D. (1998). Business failures: Liabilities of newness, adolescence and smallness. *Journal of Construction Engineering and Management, 124*(6), 458-464.

Kellermanns, F. W., Eddleston, K. A., Barnett, T., & Pearson, A. (2008). An exploratory study of family member characteristics and involvement: Effects on entrepreneurial behavior in the family firm. *Family Business Review, 21*(1), 1-14.

Larsen, E. A. (2006). The impact of occupational sex segregation on family businesses: The case of American harness racing. *Gender, Work and Organization, 13*(4), 359-382.

Lee, Y. G., Danes, S. M., & Shelley, M. C. (2006). Work roles, management and perceived well-being for married women within family businesses. *Journal of Family and Economic Issues, 27*(3), 523-541.

Lepoutre, J., & Heene, A. (2006). Investigating the impact of firm size on small business social responsibility: A critical review. *Journal of Business Ethics, 67*(3), 257-273.

Lindblom, C. E., & Cohen, D. K. (1979). *Usable knowledge: Social science and social problem solving*. New Haven/London: Yale University Press.

Litz, R. A. (1995). The family business: Toward definitional clarity. In *Proceedings of the Academy of Management* (pp. 100–104). Briarcliff Manor, NY: Academy of Management.

Loscocco, K. A., & Leicht, K. T. (1993). Gender, work-family linkages, and economic success among small business owners. *Journal of Marriage and the Family, 55*(4), 875-887.

Mazzola, P., Marchisio, G., & Astrachan, J. (2008). Strategic planning in family business: A powerful development tool for the next generation. *Family Business Review, 21*(3), 239-258.

McConaughy, D. L. (2000). Family CEOs vs. nonfamily CEOs in the family-controlled firm: An examination of the level and sensitivity of pay to performance. *Family Business Review, 13*(2), 121-132.

McKinley, W., Mone, M. A., & Moon, G. (1999). Determinants and development of schools in organizational theory. *Academy of Management Review, 24*, 634-648.

Murphy, D. L. (2005). Understanding the complexities of private family firms: An empirical investigation. *Family Business Review, 18*(2), 123-133.

Olson, P. D., Zuiker,V. S., Danes, S. M., Stafford, K.,Heck, R. K. Z., & Duncan, K. A. (2003). Impact of family and business on family business sustainability. *Journal of Business Venturing, 18*(5), 639-666.

Peterson, D., Rhoads, A., & Vaught, B. C. (2001). Ethical beliefs of business professionals: A study of gender, age and external factors. *Journal of Business Ethics, 31,* 225-232.

Schulze, W. S., Lubatkin, M. H., Dino, R. N., & Buchholtz, A. K. (2001). Agency relationships in family firms: Theory and evidence. *Organizational Science, 12*(2), 99-116.

Shanker, M. C., & Astrachan, J. H. (1996). Myths and realities: Family businesses' contribution to the U.S. economy—a framework for assessing family business statistics. *Family Business Review, 9*(2), 107-122.

Sharma, P. (2004). An overview of the field of family business studies: Current status and directions for the future. *Family Business Review, 17*(1), 1-36.

Soldressen, L. S., Fiorito, S. S., & He, Y. (1998). An exploration into home-based businesses: Data from textile artists. *Journal of Small Business Management, 36,* 33-44.

Stafford, K., Duncan, K. A., Danes, S. M., & Winter, M. (1999). A research model of sustainable family businesses. *Family Business Review, 12*(3), 197-208.

Tsang, E.W. K. (2002). Learning from overseas venturing experience: The case of Chinese family businesses. *Journal of Business Venturing, 17,* 21-40.

U.S. Small Business Administration. (1997). *The state of small business: A report to the president.* Washington, DC: U.S. Government Printing Office.

U.S. Small Business Administration. (2009). *Effective federal income tax rate faced by small businesses varies by legal form of organization*. Retrieved from http://www.sba.gov/advo/press/09-08.html

Walch, D., & Merante, J. (2007). What is the appropriate business continuity management staff size? *Journal of Business Continuity and Emergency Planning, 2*(3), 240-250.

Walker, E., & Brown, A. (2004). What success factors are important to small business owners? *International Small Business Journal, 22*(6), 577-594.

Ward, J. L. (1987). *Keeping the family business healthy*. San Francisco, CA: Jossey-Bass.

Ward, J. L. (1997). Growing the family business: Special challenges and best practices. *Family Business Review, 10*(4), 323-337.

Ward, J. L., & Sorenson, L. S. (1987, October). The family business. *Nation's Business*, 45-47.

Westhead, P., & Cowling, M. (1998). Family firm research: The need for a methodological rethink. *Entrepreneurship Theory and Practice, 23*(1), 31-56.

Westhead, P., & Howorth, C. (2006). Ownership and management issues associated with family firm performance and company objectives. *Family Business Review, 19*(4), 301-316.

Winter, M., Danes, S. M., Koh, S., Fredericks, 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.M. (1998). Revisiting the study of family businesses: Methodological challenges, dilemmas, and alternative approaches. *Family Business Review, 11*(3), 239-252.

Zuiker, V. S., Lee, Y. G., Olson, P. D., Danes, S. M., Dik, A. N., & Katras, M. J. (2002). Business, family, and resource intermingling characteristics as predictors of cashflow problems in family-owned businesses. *Financial Counseling and Planning, 13*(2), 65-81.

APPENDICES

Appendix A.

Sustainable Family Business Model.

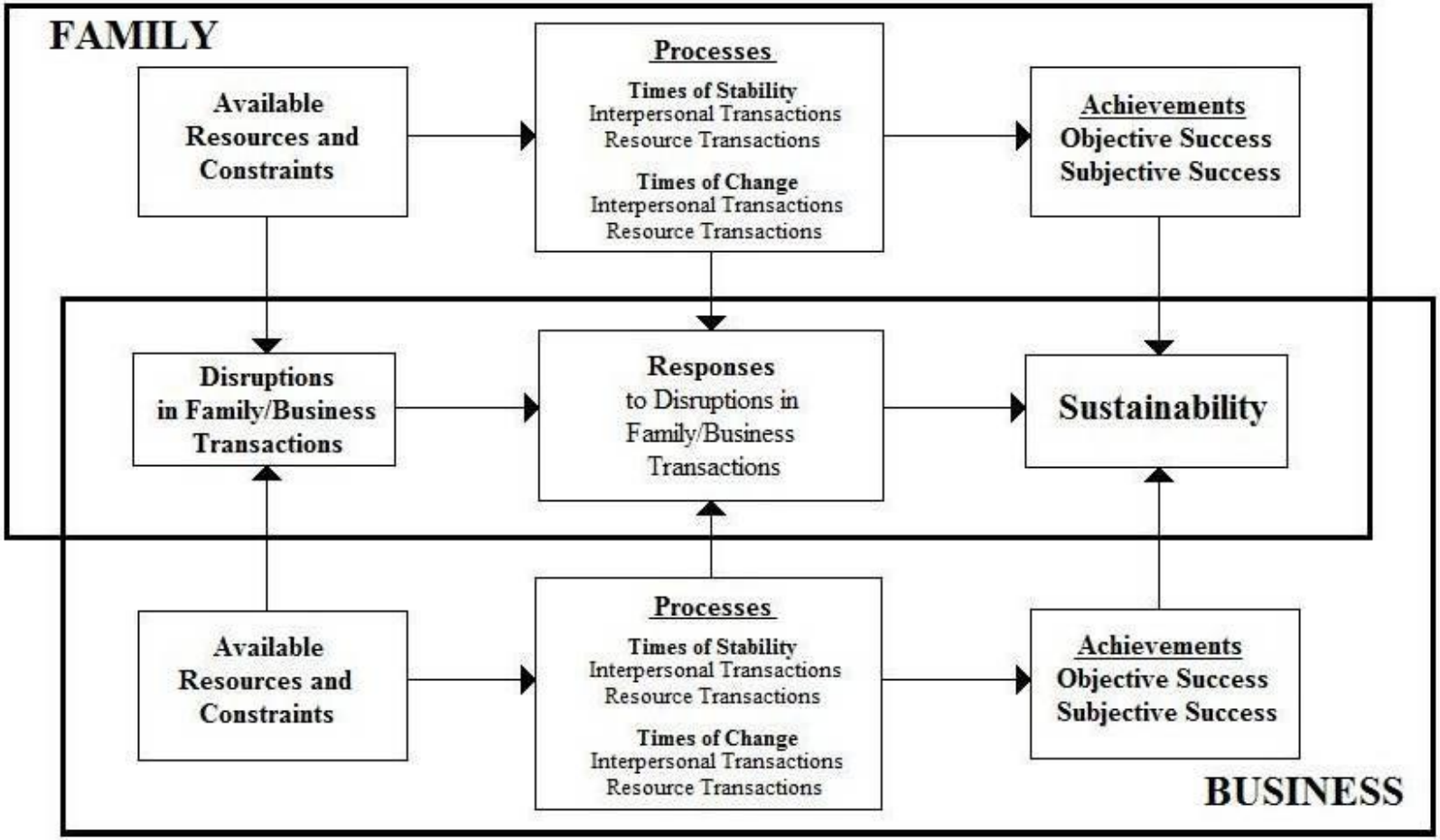

Figure 2. Sustainable family business model.

Appendix B.

Correlation Matrix.

Table 12

Correlation Matrix

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
M. age	1.00													
M. gender	-.07	1.00												
M. education	.09	.07	1.00											
M. race	.10	-.08	-.08	1.00										
Good health	.10	-.07	-.07	.03	1.00									
Excel. health	-.07	.07	.13	.04	-.85	1.00								
M. activities	-.01	-.14	-.07	.00	-.07	.06	1.00							
Com. Supp.	.02	.02	.01	-.03	-.01	.01	-.02	1.00						
B. size	-.05	-.05	.11	.04	-.05	.08	.22	-.05	1.00					
Home-based	.00	.03	-.19	-.08	-.04	-.02	-.20	-.05	-.26	1.00				
B. age	.14	-.15	-.04	.04	.05	.00	.07	.10	.06	-.07	1.00			
B. prob.	.05	-.23	.08	.01	.02	.03	.37	-.13	.19	-.13	.18	1.00		
B. liab.	-.10	-.03	.04	.04	.03	.05	.08	.00	.50	-.17	.00	.13	1.00	
B. c – f prob.	-.06	-.13	-.03	.06	.01	-.07	.14	-.04	-.02	-.03	.01	.15	.02	1.00