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**Private Equity Investment Decisions in Family Firms: The Role of Human Resources and
Agency Costs**

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Introduction

Family firms play a significant role in the global economy (Anderson and Reeb, 2003; Chrisman et al., 2007) and have been recognized as “a major source of oxygen for the combustion of entrepreneurship” (Rogoff and Heck, 2003: 559). However, many of them are unable to access the resources and capabilities needed to sustain competitive advantage and to grow, while several others are undergoing succession without any, or any suitable or interested, family successors (Howorth et al., 2004; Shanker and Astrachan 1996; Sirmon and Hitt, 2003; Upton and Petty, 2000). Opening up the family firm’s capital to private equity (PE) investors, through management buyouts and buyins (investments made together with existing management or with a new management team, respectively), is a viable solution to both of these problems. It can actually be the preferred route for the family, because PE is an alternative to selling out to another company or to going public. This has two advantages: continuity of the firm and, in some cases, sustained family presence in the business (Dreux, 1992; Howorth et al., 2004).

From a PE firm’s perspective, family firms represent an important investment opportunity. First, family firms offer a vast potential deal pool, because they are the dominant form of economic enterprise throughout the world (Chrisman et al., 2003; La Porta et al., 1999) and often do not have the necessary resources to survive or grow. Second, family business owners are moved not only by economic but also by noneconomic objectives, such as creating jobs for family members (Chrisman et al., 2004; Corbetta and Salvato, 2004; Sharma et al., 1997). This gives PE investors an opportunity to increase the firm’s value by cutting agency costs through stricter governance systems (Jensen, 1993), and by promoting strategic managerial innovation through changes in organizational structure and managerial practices (Markides, 1998; Reid, 1996).

Given that PE firms seek to take an equity stake in potentially high growth unquoted companies and to obtain high returns through an IPO or a sale to other investors or industry players (Mason and Harrison, 1999), they need to select their investments carefully. This type of investor is considered to be successful at predicting performance potential (Zacharakis and Meyer, 2000) and

bases the investment assessment on criteria that, in the strategy literature, are associated with superior firm performance (Shepherd, 1999). The aim of this paper is to shift the research focus from startups to family firms as investment targets and to assess whether the decision making criteria that PE investors use in selecting the latter are consistent with antecedents of firm performance and the presence of agency costs, as identified by family business scholars.

Existing theory shows that performance outcomes in family firms result from the interaction of the business and the family (Habbershon et al., 2003). Traditionally, family firms have been represented through two (family and business) or three (family, ownership and managers) circle models (Gersick et al., 1997; Habbershon et al., 2003; Tagiuri and Davis, 1996). These overlapping subsystems have been helpful to describe individual and organizational behaviors, roles and perspectives and to explain how family relationships influence firm objectives and strategies (Sharma et al., 1997). Some more recent contributions to understanding family firm performance have come from mainstream theories. Applications of the resource based view (RBV) have identified sources of family firm capital leading to unique strategy making and competitive advantages over nonfamily firms (Habbershon et al., 2003; Sirmon and Hitt, 2003). Applications of agency theory have highlighted how asymmetric altruism can be associated with free riding and management entrenchment, leading to extraction of private benefits (Gomez-Mejia et al., 2001; Schulze et al., 2001, 2003). Thus, greater focus on economic objectives and better monitoring can lead to performance improvements.

This research is based on a conjoint experiment made up of 1312 assessments by 41 PE professionals working in 35 PE firms, who were asked to evaluate their likelihood of investment in family firms. Given that decisions are nested within individuals and that individuals are, in turn, nested in organizations, data were analyzed using hierarchical linear modeling (HLM), which accounts for possible autocorrelation among observations.

The paper makes three main contributions. First, this study contributes to the family business literature by addressing a gap in the literature regarding nonfamily succession routes, which have

not been fully investigated (Howorth et al., 2004). From a family firm's perspective, an outside investor can help solve succession problems when there are no (or no suitable and/or interested) family heirs or when some family members wish to sell their shares and exit the firm. At the same time, this route offers other advantages including access to funds for the firm's growth aspirations and acquisition plans (in addition to, or instead of, internally generated funds), preservation of independent ownership of the firm (as opposed to a sale to a competitor or another industry player), and a chance for family members to continue being involved in the firm (Corbetta, 1995; Wright and Coyne, 1985).

Second, there have been several calls for more rigorous methodological research in family firm studies, which still rely largely on survey methods and case studies (Chrisman et al., 2005, 2007; Chua et al., 2003). This paper uses a conjoint experiment, capturing real time decisions and avoiding the pitfalls of questionnaires, such as recall bias and *post hoc* rationalization (Sandberg et al., 1988; Shepherd and Zacharakis, 1999). Conjoint analysis has been used in numerous studies on decision making, including consumer purchase choices, managers' strategic decisions and venture capitalists' selection of startups (Muzyka et al., 1996; Riquelme and Rickards, 1992; Shepherd and Zacharakis, 1999; Shepherd et al., 2000). Furthermore, this is one of the first studies to apply a multilevel model to the family firm context, by analyzing data (decisions, nested within individuals, nested within firms) with HLM (Eddleston et al., 2008). This technique has previously been employed by scholars investigating investor decision making (Choi and Shepherd, 2004), group behavior (Barsade, 2002), individual performance over time (Deadrick et al., 1997), and organizational performance (Chaganti and Damanpour, 1991; Hofmann, et al., 2000).

Third, the paper contributes to investor decision making literature which, to date, has focused on startup selection (Franke et al., 2006; MacMillan et al., 1985; Meyer et al., 1993; Muzyka et al., 1996; Riquelme and Rickards, 1992; Shepherd, 1999; Shepherd et al., 2003; Tyebjee and Bruno, 1981, 1984; Zacharakis and Meyer, 2000; Zacharakis and Shepherd, 1999, 2001). Investment decisions in family firms have received little attention (Birley et al., 1999; Carter and Van Auken,

1994; Elango et al., 1995), despite the fact that family businesses account for a large proportion of investments, particularly in Europe, and are the single largest receiver of PE in some major European economies, including Italy, France, and the UK (CMBOR, 2005).

The paper proceeds as follows: first, relevant family firm literature is reviewed and hypotheses are generated. Second, the research design is explained, including method used, sample selection, and data collection. Third, empirical results are presented. Finally, there is a discussion of key findings, followed by limitations of the study and implications for further research.

1. Theory and hypotheses

1.1. Distinctive resources in family firms

In general, RBV scholars have highlighted the importance of resources and capabilities as key antecedents of a firm's strategy and profitability. Competitive advantage has been linked to certain resources i.e., those that are valuable, rare, difficult to imitate and non-substitutable (Barney, 1991). Scholars applying RBV to family firms have stressed the importance of human resources in creating competitive advantage. Habbershon and Williams (1999) found that family firms have a distinctive bundle of resources and capabilities, which they termed familiness, resulting from the interaction between business and family, and leading to competitive advantage over nonfamily firms. Sirmon and Hitt (2003) identified the sources of family firm capital as being human capital (knowledge, skills and capabilities of individuals), social capital (relationships between the family on the one hand and stakeholders, such as suppliers and customers, on the other), and governance structure and costs (involvement of family owners/managers in the firm). Family ties contribute to building a family's values and norms, and firm specific tacit knowledge (Lee et al., 2003; Sirmon and Hitt, 2003). Family members generally develop close relationships with the firm's employees (Horton, 1986) and are able to gain in-depth understanding of their local environment, allowing them to identify emerging entrepreneurial opportunities more easily (Randøy and Goel, 2003). Research has

also found that family members are more productive than nonfamily members (Kirchhoff and Kirchhoff, 1987).

However, not all family members working in a firm are valuable resources. Sometimes, they are chosen as a result of nepotism, birth order, or gender, rather than merit (Dyer, 1986; 2003). It is not easy for an outside investor to assess human capital in a target firm, since it is an intangible resource and there are no accepted models or methods for carrying out human capital evaluations in the context of PE investment (Smart, 1999). Therefore, one way of assessing family members' quality is to consider whether they have previously worked outside the family firm. Past experience allows individuals to develop their cognitive models and helps them make more successful decisions (Hambrick and Mason, 1984). Work experience acquired outside the family firm increases heterogeneity of perspectives and beliefs and improves strategic decisions (Sirmon and Hitt, 2003). Furthermore, it makes it easier for family members to meet the high expectations of professionalism they need in order to be recognized as able managers by nonfamily employees (Aronoff, 1998; Salvato, 2004). Thus,

H1. The likelihood of PE professionals investing in a family firm is higher if family members working in the firm have gained outside work experience.

Family firm owners have a tendency to rely exclusively on family members because they often find it difficult to delegate to outsiders, have insufficient knowledge of formal management techniques, fear losing control, or believe that professionalization is an unnecessary cost (Dyer, 1989; Sharma et al., 1997). In turn, nonfamily managers frequently decide to stay away from family firms because they are likely to offer outsiders limited potential for professional growth, restrict their role to that of tutor, counselor or confidant, and exclude them from succession (Chua et al., 2003; Covin, 1994; Gallo and Vilaseca, 1998; Klein, 2000).

However, nonfamily managers can play a critical role, as CEOs or executives, and have a positive impact on firm performance if they are included in strategic decision making (Chua et al.,

2003; Gallo and Vilaseca, 1998). Many of them have formal business training and experience (Dyer, 1989), and may possess cultural competence, which helps them understand and be receptive to the socio-cultural configuration deriving from the family/firm interaction (Hall and Nordqvist, 2008). Similarly to family members, nonfamily managers tend to have idiosyncratic knowledge of the firm (Lee et al., 2003). Additionally, they enhance heterogeneity and add new perspectives that are not based on the family's experiences. Another advantage over family members is that professional managers are generally less invested and not tied by emotional connections to the family and the firm, making certain sensitive decisions less difficult (Schein, 1995; Sirmon and Hitt, 2003). Thus,

H2. The likelihood of PE professionals investing in a family firm is higher if there are nonfamily managers.

1.2. Agency costs in family firms

According to traditional agency theory, agency costs in family firms are minimized or reduced to zero because principal (owner) and agent (manager) coincide (Jensen and Meckling, 1976). Familiarity between principal and agent, ease of communication, and cooperation among family members create a convergence of interests, thus avoiding the need for formal controls and incentive systems. This view is reinforced by the stewardship perspective, according to which there are altruistic behaviors among family members deriving from an alignment of objectives between family members and the organization (Davis et al., 1997). This type of altruism can be an important resource for establishing competitive advantage, if family members are highly dedicated to the success of the family firm and put its interests before their own (Corbetta and Salvato, 2004; Eddleston and Kellermans, 2007). Similar positive outcomes derive from psychosocial altruism, entailing the transfer of socially embedded values and norms from parents to offspring and leading to reciprocity, and simplified communication and decision making (Lubatkin et al., 2007).

Because family relationships are driven not only by economic but also by noneconomic objectives (Chrisman et al. 2004, Corbetta and Salvato 2004, Sharma et al. 1997), parents tend to be generous to their children, and family members help each other in times of need (Schulze et al., 2003). These behaviors, however, can also lead to negative consequences and to the emergence of agency costs (Burkart et al., 2003; Chrisman et al., 2004; Gomez-Mejia et al., 2001; Morck and Yeung, 2003; Schulze et al., 2001, 2003). First, they can be associated with unreciprocated generosity and manipulation on the part of some family members, leading to free riding and shirking. Second, if altruism is based on paternalism and if children perceive their parents as being coercive, offspring may rebel against their parents' wishes, wearing down family bonds (Lubatkin et al., 2007).

It is difficult to know whether stewardship or agency type relationships prevail in family firms (Chrisman et al., 2007). The incidence of agency costs varies from one family firm to another and may occur unevenly during the lifecycle of the same family firm (Sirmon and Hitt, 2003). However, we do know that PE investors face problems of asymmetric information when they are evaluating a potential target firm, because these are companies that are not quoted on the stock market and for which little information is available (Wright and Robbie, 1998). This issue is exacerbated when the target is a family firm, because these firms are characterized, more than others, by high levels of tacit knowledge possessed by family members (Howorth et al., 2004). Given that family firms generally pursue both economic and noneconomic goals and that family involvement can potentially lead to agency costs (Chrisman et al., 2004), in order to minimize their investment risk (Zutshi et al., 1999), PE professionals should assume that there are agency costs in the firm they are assessing. Furthermore, some actions are not considered to lead to agency costs in family firms (although they may reduce economic performance), such as an owner employing firm resources to pursue noneconomic goals by providing jobs for unqualified family members. However, these are considered to be agency problems in nonfamily firms (Chrisman et al., 2004) and are likely to be viewed as such by an outside PE investor.

Given that agency costs in family firms are associated with the family, a reduced family presence may therefore be an incentive to invest. First, if individuals who were previously receiving benefits, shirking or free riding exit the firm, the source of agency costs is removed. Second, if there are fewer (or no more) family members after the deal, it is easier for the PE firm to implement changes such as tighter monitoring, governance structures, and performance incentives (Robbie et al., 1999; Wright et al., 1994, 2001). Monitoring and incentive compensation have indeed been found to improve family firm performance (Chrisman et al., 2007). Thus,

H3. The likelihood of PE professionals investing in a family firm is higher if there are family members wishing to sell their shares and exit the firm.

Conflict can be another source of agency costs in family firms. Emotions are hard to avoid in family firms because family and business are so entangled (Boles, 1996; Harvey and Evans, 1994; Miller and Rice, 1998) and potential for conflict is greater than in nonfamily firms (Lee and Rogoff, 1996). Ownership fragmentation often enhances such tension, by causing sibling rivalry and disagreement between old and new generations. This leads to personal conflict, goal misalignment, diminished loyalty, and weaker commitment to the firm (Eddleston et al., 2008; Schulze et al., 2003). Some forms of conflict can be beneficial because they promote creativity and innovation and increase environment understanding and opportunity recognition. These include task conflict i.e., disagreement over what tasks should be pursued, and process conflict i.e., disagreement over how tasks should be carried out and how strategy should be implemented (Cosier and Harvey, 1998; Kellermans and Eddleston, 2004; 2007). However, other types of conflict, such as cognitive conflict concerning goals and strategies, are harmful for individual and group performance, reduce morale and productivity (Jehn, 1995), and are associated with declining performance in family firms or even family firm failure (Eddleston and Kellermans, 2007; Harvey and Evans, 1994; Olson et al., 2003).

A PE investor evaluating a family firm with fragmented ownership can face two types of dilemmas relating to conflict. First, there can be an immediate setback, if disagreement among a high number of family owners, and between PE firm and family members, leads to a breakdown in negotiations. Second, if the deal goes through and ownership fragmentation persists, there can be conflict between the PE firm and remaining family owners, as well as among remaining family owners. Ownership fragmentation can exacerbate the information asymmetry problem among vendors, purchasers, and financiers, which is typical of PE deals (Howorth et al., 2004). This can lead to agency costs deriving from differing interests, difficulty in observing behavior and asymmetric information between old/new and majority/minority owners (Chrisman et al., 2004; Jensen & Meckling, 1976). There can also be difficulties in implementing the PE firm's chosen strategy, mismanagement, leadership inability, and difficulties with exit (MacMillan et al., 1985). These problems are tricky to deal with, especially for an outsider, because sources of conflict in family firms are complex and rooted in history (Haynes and Usdin, 1997; Kaye, 1991). Thus,

H4. The likelihood of PE professionals investing in a family firm is higher if there is limited ownership dispersion.

2. Research design

2.1. Conjoint analysis

Social judgment literature has highlighted the difficulties in identifying individuals' decision making models. It is hard for decision makers to isolate the variables they use, identify the links between variables, and express the process by which they combine information into a decision heuristic. Furthermore, when they are asked how they have arrived at a decision, individuals are often inaccurate when they describe the heuristics they have used (Keats, 1991). Thus, in this study, it was decided to identify "theories in use" rather than to focus on "espoused theories". Espoused theories are based on asking individuals to recall criteria used in their decision making or to assign relative importance to a list of predefined criteria. This type of retrospective reporting often causes

biases and errors, such as recall bias and *post hoc* rationalization, since it relies on self-reporting and subjective assessment (Sandberg et al., 1988; Shepherd and Zacharakis, 1999).

Theories in use, instead, are those that actually govern behavior and can be inferred from how individuals behave. They can be investigated through real time methods, which have the advantage of studying decisions as they are being made, thereby reducing reliance on respondents' perceptual and cognitive skills (Shepherd and Zacharakis, 1999). The real time method used here was conjoint analysis, which requires participants to evaluate hypothetical profiles of potential target firms that are described through combinations of different levels of criteria or attributes. By making judgments about varying combinations of different levels of variables, conjoint analysis allows the researcher to identify the relative contribution of each attribute (Hair et al., 1998). This method has been used in several studies on venture capitalist decision making (e.g., Choi and Shepherd, 2004; Shepherd, 1999; Shepherd and Zacharakis, 2002; Shepherd et al., 2003).

Individuals, including experts, typically use three to seven criteria to make decisions (Miller, 1956; Zacharakis and Meyer, 1998). In this study, seven variables (four decision factors and three control variables) were chosen on the basis of an in-depth literature review and were pretested with a consultant working in the PE sector (Zacharakis and Shepherd, 2001). Although presenting variables that have already been selected and coded could remove some perceptual elements, this avoids time consuming activities involved in presenting extremely detailed information and letting respondents extract information (Shepherd and Zacharakis, 1999). This was an advantage in this study, since PE investors are often reluctant to provide information on their investment activities (Muzyka et al., 1996; Shepherd and Zacharakis, 1999) and are not willing to spend significant amounts of time with researchers.

Each attribute had two levels, high/low. While this may be considered an inaccurate specification, because there are differences in how respondents perceive "high" or "low", it represents a realistic variation and range, reflecting typical decision making situations for PE professionals (Riquelme and Rickards, 1992; Shepherd and Zacharakis, 2002). Furthermore, not

quantifying the factors avoids situations in which respondents might exclude certain investment prospects *a priori* (Shepherd, 1999): for example, a 5% annual industry growth can be considered high or low depending on the PE firm's investment criteria. Fig. 1 provides a profile example.

- - - Insert Fig. 1 about here - - -

Given that there were seven variables, the total number of possible profiles was $2^7=128$. This number was reduced to 16 (same number used by Brundin et al., 2008 and Shepherd, 1999), through fractional factorial design (Hahn and Shapiro, 1966), which gives an orthogonal design i.e., one in which levels of different attributes across profiles are not correlated. The 16 profiles were replicated in order to estimate individual subject error and assess external reliability through a test-retest measure (Shepherd, 1999; Shepherd et al., 2000). The order of the 32 profiles and of the factors in each profile was varied across respondents to avoid order effects (Orme et al., 1997). Respondents also received a practice profile (which was not included in the statistical analysis), explaining the simulation and allowing respondents to familiarize themselves with the task (Shepherd et al., 2000).

Participants were asked to fill in a post-survey questionnaire with personal details (education, previous work experience, etc.) and information on their PE firm (age, size, etc.).

2.2. Sample

The 2005 Italian PE Association's membership list was used to identify potential participants (AIFI, 2005). Out of the 83 members, 43 PE firms were identified as possible candidates to take part in the research (others were excluded for various reasons e.g., they were duplicated, only invested in early stage, had particular investment objectives such as promoting job creation in underdeveloped areas, were no longer in business, etc.). In total, 35 PE firms agreed to participate in the study, giving a response rate of 81.4%. In five of these firms the simulation was carried out by two individuals, raising the final number of responses to 41. Firms that took part in the study were mostly independent operators (80%) and were evenly divided between local (57%) and

international (43%) firms. A comparison with PE firms that did not participate indicates no significant differences in characteristics. The 41 respondents were mostly male (93%), had a university degree (51%) or Master's/MBA (49%), and typically were in senior positions such as President, Partner, CEO or Director (85%). On average, they were 39 years old (S.D. 7.66). Their PE and overall work experience was 9 years (S.D. 6.70) and 15 years (S.D. 7.80), respectively.

2.3. Data collection

Respondents were first contacted by letter and telephone and then received an instruction sheet, an explanation of variables and levels used, and the profiles to be evaluated. Respondents were asked to treat each profile as a separate situation and not to refer back to profiles they had already compiled. Profiles were administered mainly through face to face meetings. For practical reasons, for individuals who were travelling extensively, email was used with 12 respondents (29.3%). Previous research has found that different methods (telephone, post, email) produce relatively equal predictive accuracy (Shepherd et al., 2000; Shepherd and Zacharakis, 2002; Zacharakis and Meyer, 1998). Analysis of variance on the regression coefficients of responses collected through face to face meetings and email showed no significant differences due to form of survey administration ($p > .05$) and, consequently, data collected through both methods were aggregated for the analysis.

2.4. Measures

Respondents were asked to assess how likely they were to invest in family firms that were described through paper profiles ("On the basis of the following characteristics, how would you rate the likelihood of your investing in this investment proposal?").

2.4.1. Dependent variable

The dependent variable was the PE investors' assessment of how likely they were to invest in a family firm with certain characteristics. This was an ordinal variable, measured on a seven point Likert scale (Riquelme and Rickards, 1992), ranging from "I would definitely not invest in this firm" (corresponding to a value of 1) to "I would definitely invest in this firm" (value of 7).

2.4.2. Independent variables

Four decision cues were used, each with two possible levels, high or low: presence of family members with work experience outside the family firm, presence of nonfamily managers, presence of family owners who wish to exit the firm, and ownership dispersion.

2.4.3. Control variables

This study considers the family specific variables that affect whether family firms are selected for PE investment. In order to take into account the influence of variables that are not particular to this type of firm, three control variables were used. Prior research has indicated that industry growth and firm profitability are important factors in PE investment decisions (Elango et al., 1995; MacMillan et al., 1985; Riquelme and Rickards, 1992; Sandberg et al., 1988; Tyebjee and Bruno, 1984). Industry growth contributes to a target firm's upside revenue potential (Robbie et al., 1999; Wright et al., 2001). Attractive profit levels are another key investment criterion, since past earnings demonstrate the ability to achieve profits in the future (Dreux, 1992).

Because of information asymmetry problems between outside investors and firm under evaluation (Howorth et al., 2004; Wright and Robbie, 1998), formalization of systems and procedures was also used as a control variable. The presence of job descriptions, organizational charts, operational plans and so on allows an external investor to access information on the target firm more easily and limits the riskiness of the investment prospect (Baum and Wally, 2003; MacMillan et al., 1985).

3. Data analysis and results

The experiment generated 1312 observations i.e., 32 decisions for each of the 41 individuals. Because decisions are nested within individuals, who in turn are nested in organizations (35 PE firms), the data were analyzed using hierarchical linear modeling (HLM). HLM is one of the most widely used multilevel techniques (Raudenbusch and Bryk, 2002), which has been employed to investigate investor decision making (Choi and Shepherd, 2004) as well as other types of

entrepreneurial and strategic decisions (Barsade, 2002; Brundin et al., 2008; DeTienne et al., 2008; Eddleston et al., 2008). Multilevel models recognize that there may be autocorrelation in the decisions taken by each individual, as well as in the decisions taken by individuals belonging to the same organization. Also, because it does not simply aggregate individual level data to carry out analysis (as OLS approaches), HLM does not ignore potentially meaningful individual level variance in the outcome measure (Bryk and Raudenbush, 1992).

HLM allows the researcher to partition the variance at each level of analysis. In this study, out of the total variance in investment decisions, 95.4% occurs at the decision level (level 1 or within individuals), 4.4% occurs at the individual level (level 2 or between individuals) and 0.2% occurs at the organization level (level 3 or between organizations). Results are reported in Table 1, which includes decision factors, coefficients, corresponding standard errors and levels of significance.

- - - Insert Table 1 about here - - -

Results indicate that three out of the four family-specific factors were significant, specifically there was a positive association between likelihood of investment and presence of experienced family members (coefficient=.335, $p<.01$), presence of nonfamily management (coefficient=.857, $p<.01$), and presence of family members wishing to exit the firm (coefficient=.369, $p<.01$). These findings provide support for Hypotheses 1, 2 and 3, respectively. The decision factor “Ownership Dispersion” was not significant and, therefore, Hypothesis 4 is not supported.

Reliability was investigated through average test-retest correlation (Hardy and Bryman, 2004), which showed a high level of consistency in judgment, thereby addressing the potential concern of artificiality associated with an experimental design (Raser, 1969). Reliability was significant for 95.1% of respondents ($p<.01$). Average test-retest correlation was .81, higher than Shepherd’s (1999) value of .69 and close to Choi and Shepherd’s (2004) value of .82. This confirms that experienced decision makers typically have a high level of consistency in judgment (Shepherd et al., 2000).

4. Discussion and conclusions

4.1. Human resources and agency costs

This paper investigates the factors that affect PE professionals' investment decisions in family firms. Two key themes emerge from this study. First, PE professionals' decision making relies on the presence of intangible resources in the target firm. These include experienced family members, who offer human capital, tacit knowledge, and social capital as potential sources of competitive advantage for the firm (Horton, 1986; Sirmon and Hitt, 2003, Chrisman et al., 1998). PE investors also value nonfamily managers, who improve the perceived quality of the family firm's human capital, by being associated with a certain level of professionalization of family firms (Dyer, 1989). PE professionals may also be reassured by the presence of nonfamily managers, because they can relate more easily with an individual they perceive as being a professional like themselves (Byrne, 1971; Jackson et al., 1991; Turner, 1987).

Second, there is an information asymmetry problem, which manifests itself in two ways. Since it is hard for an outsider to judge whether stewardship or agency type relationships prevail, PE investors take a "worst case scenario" and assume there are agency costs in the target firm (Chrisman et al., 2004). This allows them to cut slack and improve economic efficiency through tighter monitoring and control systems (Jensen, 1993). Furthermore, given that little information is available on target firms, PE investors favor the presence of nonfamily managers because it signals that, by hiring a professional, the target firm has already demonstrated a willingness to delegate and to open up to outsiders.

4.2. Family firms along the definitional continuum

Given that family firms are not a homogenous group of firms but form a definitional continuum ranging from consolidated family ownership on one side to more hands off involvement at board level on the other (Corbetta, 1995; Habbershon and Williams, 1999), this study suggests that PE professionals prefer to invest in family firms that have already started moving along such a

continuum. Their decision making favors firms which have already opened up to outside professionals and in which some family members want to exit. The involvement of a PE firm in the target firm's equity is likely to move the latter further along the definitional continuum, through changes in the resource pool and in the firm's culture, management style, control system, and so on (Habbershon and Williams, 1999), bringing the investee firm closer to being a nonfamily firm.

4.3. Implications for family firm literature

This study has further implications for family firm literature. First, it explores a nonfamily route to succession, which has not received much attention in the academic literature (Birley and Westhead, 1990; Howorth et al., 2004). Previous family firm research has focused almost exclusively on internal succession (Howorth et al., 2004) and has highlighted reasons why family firms may not want to open their capital to outside investors. These include fear of losing control of the firm, not wanting to share with others the results of one's entrepreneurial and managerial skills, wanting to maintain maximum freedom in negotiating the future of the firm, and fear that an outside investor will have a shorter time perspective than the family's (Dreux, 1992; Poutziouris, 2001; Sirmon and Hitt, 2003). However, PE deals offer advantages such as allowing current family members to remain as owners or employees/managers, keeping the management team together, allowing the family to cash its investment in the firm whilst maintaining independent ownership of the firm, and preserving the firm's identity and culture (Birley et al., 1999; Howorth et al., 2004; Wright and Coyne, 1985). In some cases, a nonfamily route may be the only one available, if there are no – or no suitable and/or interested – family heirs (Corbetta, 1995). In these situations, PE deals can offer advantages over other forms of nonfamily routes. A sale to a third party (a trade sale) would probably not preserve the firm's identity and employees' jobs, and initial public offerings are often out of the reach of many family firms (Howorth et al., 2004).

Second, scholars have emphasized the need for families to evaluate, shed, acquire, and leverage resources in order to maintain their firms' competitive advantage (Habbershon and Williams, 1999;

Sirmon and Hitt, 2003). However, this can be difficult because there are limits to human capital if family members are hired on the basis of nepotism, birth order, or gender (Dyer, 1986; 2003) rather than merit. Even when there is some form of selection, the resource pool is restricted if there is a policy to hire only from the family and, where such a policy does not exist, qualified professional managers may nevertheless stay away, because they are often excluded from succession or have limited potential for professional growth in the firm (Covin, 1994). Sirmon and Hitt (2003) identified strategic alliances as a possible solution for accessing required resources and capabilities. This form of collaboration among independent firms allows partners to access additional resources, share knowledge, and enhance technological capabilities (Lane and Lubatkin, 1998; Rothaermel, 2001). However, family firm owners may not feel comfortable with strategic alliances, which involve sharing knowledge (Grant and Baden-Fuller, 2004), whereas family firms are often reluctant to disclose information especially with another, often competing, firm (Dreux, 1992). Therefore, a PE deal may be an alternative solution. PE firms can improve a family firm's chances of gaining competitive advantage, by complementing the existing stock with new resources that were previously difficult to access. There can be a positive effect on strategic decision making by introducing greater heterogeneity through new human resources that are not dominated by family experiences and history (Finkelstein and Hambrick, 1990). Changes in the resource pool are easier to implement for nonfamily investors, because they do not have emotional ties to the family and are more objective in their decisions, without being driven by altruism or generosity (Lunati, 1997; Schulze et al., 2003), thereby reducing potential conflict that is typical of family relationships (Boles, 1996; Miller and Rice, 1998). PE firms can obtain the required resources from the market, thanks to their own social capital of networks and to ties with professional managers and external board members. Moreover, an external equity investor can manage the uncertainty that is associated with integrating new resources, which is a skill that family managers often lack (Sirmon and Hitt, 2003).

4.4. *Limitations and future research*

This study has two potential limitations relating to choice of criteria and sample size. Conjoint models require decision making criteria to be chosen *a priori*. Efforts were made to minimize this limitation by selecting criteria on the basis of a thorough review of family firm and startup selection literature. They were also pretested (Shepherd et al., 2000) with a consultant working in the PE sector. With regard to sample size, 41 respondents from 35 PE firms took part in the research. However, because a significant proportion of the PE firm population (81.4%) participated, the study adequately represents the population of Italian PE firms (Orme, 1998).

Future research should expand on nonfamily routes to succession, seeing that many family firms are facing this process around the world (Shanker and Astrachan, 1996; Upton and Petty, 2000) and may not be able or willing to choose a family successor. Given that an outside investor moves a family firm along the definitional continuum, making it less like a family firm, research should address the impact of these transactions both on the firms and on society. With regard to the former, it is generally recognized that PE transactions are associated with enhanced performance and productivity through changes in incentive and governance mechanisms (Cumming et al., 2007; Wright et al., 1992). However, a change in ownership could cause new agency issues, rather than solving them, if owners and managers no longer coincide or belong to the same family (Jensen and Meckling, 1976). Furthermore, a reduced presence of family firms can have effects on a societal level, given that family businesses play an important role in creating employment, generating innovations and improving quality of life (Astrachan, 2003; Zahra, 2005).

Further studies could also explore how investment criteria relate to actions pursued after the deal has taken place, given that PE investors introduce changes in strategy, organizational structure, and managerial practices (Markides, 1998; Reid, 1996). For example, the study has shown that PE investors value some continued family involvement. However, this might just be a temporary situation, with the family exiting the firm completely in the medium to long term. Another avenue is to investigate the investors' decision making process further, by addressing the role of intuition,

overconfidence and biases in PE decision making, as has been done with venture capitalists (Franke et al., 2006; Hisrich and Jankowicz, 1990; Zacharakis and Shepherd, 2001).

References

- AIFI. 2005. *Italian Private Equity and Venture Capital Association Yearbook*. Milan, Italy: AIFI.
- Anderson, R.C., Reeb, D.M. 2003. Founding-family ownership and firm performance: Evidence from the S&P 500. *The Journal of Finance* 58(3): 1301-1327.
- Aronoff, C.E. 1998. Megatrends in family business. *Family Business Review* 11(3): 181-186.
- Astrachan, J.H. 2003. Commentary on the special issue: The emergence of a field. *Journal of Business Venturing* 18(5): 567-573.
- Barney, J.B. 1991. Firm resources and sustained competitive advantage. *Journal of Management* 17(1): 199-120.
- Barsade, S.G. 2002. The ripple effect: Emotional contagion and its influence on group behavior. *Administrative Science Quarterly* 47(4): 644-675.
- Baum, J.R., Wally S. 2003. Strategic decision speed and firm performance. *Strategic Management Journal* 24(11): 1107-1129.
- Birley, S., Muzyka, D., Hay, M. 1999. Management buyout: Perception of opportunity. A research note. *Journal of Management Studies* 36(1): 109-122.
- Birley, S., Westhead, P. 1990. Private business sales environments in the United Kingdom. *Journal of Business Venturing* 5(2): 349-373.
- Boles, J.S. 1996. Influences of work-family conflict on job satisfaction, life satisfaction and quitting intentions among business owners: The case of family-operated businesses. *Family Business Review* 9(1): 61-74.
- Brundin, E., Patzelt, H., Shepherd, D.A. 2008. Managers' emotional displays and employees' willingness to act entrepreneurially. *Journal of Business Venturing* 23(2): 221-243.
- Bryk, A.S., Raudenbush, S.W. 1992. *Hierarchical linear models: Applications and data analysis methods*. Newbury Park, CA: Sage Publications.
- Burkart, M., Panunzi, F., Shleifer, A. 2003. Family firms. *The Journal of Finance* 58(5): 2167-2201.
- Byrne, D. 1971. *The Attraction Paradigm*. New York: Academic Press.
- Carter, R.B., Van Auken, H.E. 1994. Venture capital firms' preferences for projects in particular stages of development. *Journal of Small Business Management* 32(1): 60-73.
- Chaganti, R., Damanpour, F. 1991. Institutional ownership, capital structure, and firm performance. *Strategic Management Journal* 12(7): 479-491.
- Choi, Y.R., Shepherd, D.A. 2004. Entrepreneurs' decisions to exploit opportunities. *Journal of Management* 30(3): 377-395.
- Chrisman, J.J., Chua, J.H., Kellermanns, F.W., Chang, E.P.C. 2007. Are family managers agents or stewards? An exploratory study in privately held family firms. *Journal of Business Research* 60(10): 1030-1038.
- Chrisman, J.J., Chua, J.H., Litz, R.A. 2004. Comparing the agency costs of family and non-family firms: Conceptual issues and exploratory evidence. *Entrepreneurship Theory and Practice* 28(4): 335-354.
- Chrisman, J.J., Chua, J.H., Sharma, P. 1998. Important attributes of successors in family businesses: An exploratory study. *Family Business Review* 11(1): 19-34.
- Chrisman, J.J., Chua, J.H., Sharma, P. 2005. Trends and directions in the development of a strategic management theory of the family firm. *Entrepreneurship Theory and Practice* 29(5): 537-650.
- Chrisman, J.J., Chua, J.H., Steier, L.P. 2003. An introduction to theories of family business. *Journal of Business Venturing* 18(4): 441-448.
- Chua, J.H., Chrisman, J.J., Sharma, P. 2003. Succession and non-succession concerns of family firms and agency relationships with non-family managers. *Family Business Review* 16(2): 89-107.
- CMBOR. 2005. *European management buy-outs*. Nottingham, UK: Centre for Management Buy-Out Research, University of Nottingham.

- Corbetta, G. 1995. *Family firms. Original characteristics, diversity and conditions for development* (in Italian). Milan: Egea.
- Corbetta, G., Salvato, C. 2004. Self-serving of self-actualizing? Models of man and agency costs in different types of family firms: A commentary on “Comparing the agency costs of family and non-family firms: conceptual issues and exploratory evidence”. *Entrepreneurship Theory and Practice* 28(4): 355-362.
- Cosier, R.A., Harvey, M. 1998. The hidden strengths in family business: Functional conflict. *Family Business Review* 11(1): 75-79.
- Covin, T.J. 1994. Perceptions of family-owned firms: The impact of gender and educational level. *Journal of Small Business Management* 32(3): 29-39.
- Cumming, D., Siegel, D.S., Wright, M. 2007. Private equity, leveraged buyouts and governance. *Journal of Corporate Finance* 13: 439-460.
- Davis, J.H., Schoorman, F.D., Donaldson, L. 1997. Toward a stewardship theory of management. *Academy of Management Review* 22(1), 20-47.
- Deadrick, D.L., Bennett, N., Russell, C.J. 1997. Using hierarchical linear modeling to examine dynamic performance criteria over time. *Journal of Management* 23(6): 745-757.
- DeTienne, D. R., Shepherd, D. A., DeCastro, J. 2008. The fallacy of “only the strong survive”: The effects of extrinsic motivation on the persistence decisions for underperforming firms. *Journal of Business Venturing* 23(5): 528-546.
- Dreux, D.R. 1992. Financing family businesses: Alternatives to selling out or going public. *Family Business Review* 5(2): 233-237.
- Dyer, W.G. 1986. *Cultural change in family firms*. San Francisco: Jossey-Bass.
- Dyer, W.G. 1989. Integrating professional management into a family owned business. *Family Business Review* 2(3): 221-235.
- Dyer, W.G. 2003. The family: The missing variable in organizational research. *Entrepreneurship Theory and Practice* 27(4): 401-416.
- Eddleston, K.A., Kellermanns, F.W. 2007. Destructive and productive family relationships: A stewardship theory perspective. *Journal of Business Venturing* 22(4): 545-565.
- Eddleston, K.A., Otondo, R.F., Kellermanns, F.W. 2008. Conflict, participative decision-making, and generational ownership dispersion: A multilevel analysis. *Journal of Small Business Management* 46(3): 456-484.
- Elango, B., Fried, V.H., Hisrich, R.D., Polonchek, A. 1995. How venture capital firms differ. *Journal of Business Venturing* 10(2): 157-179.
- Finkelstein, S., Hambrick, D.C. 1990. Top-management tenure and organizational outcomes: The moderating role of managerial discretion. *Administrative Science Quarterly* 35(3): 484-503.
- Franke, N., Gruber, M., Harhoff, D., Henkel, J. 2006. What you are is what you like – similarity biases in venture capitalists’ evaluations of start-up teams. *Journal of Business Venturing* 21(6): 802-826.
- Gallo, M., Vilaseca, A. 1998. A financial perspective on structure, conduct, and performance in the family firms: An empirical study. *Family Business Review* 11(1): 35-47.
- Gersick, K.E., Davis, J.A., McCollom Hampton, M., Lansberg, I. 1997 *Generation to generation: Life cycles of the family business*. Boston: Harvard Business School Press.
- Gomez-Mejia, L.R., Nunez-Nickel, M., Gutierrez, I. 2001. The role of family ties in agency contracts. *Academy of Management Journal* 44(1): 81-95.
- Grant, R.M., Baden-Fuller, C. 2004. A knowledge accessing theory of strategic alliances. *Journal of Management Studies* 41(1): 61-84.
- Habbershon, T.G., Williams, M.L. 1999. A resource-based framework for assessing the strategic advantages of family firms. *Family Business Review* 12(1): 1-22.
- Habbershon, T. G., Williams, M., MacMillan, I. C. 2003 A unified systems perspective of family firm performance. *Journal of Business Venturing* 18(4): 451-465.

- Hahn, G.J., Shapiro, S.S. 1966. *A catalog and computer program for the design and analysis of orthogonal symmetric and asymmetric fractional factorial experiments*. Schenectady, NY: General Electric Research and Development Center.
- Hair, J.F., Anderson, R.E., Tatham, R.L., Black, W.C. 1998. *Multivariate data analysis*. Upper Saddle River, NJ: Prentice Hall.
- Hall, A., Nordqvist, M. 2008. Professional management in family businesses: Toward an extended understanding. *Family Business Review* 21(1): 51-69.
- Hambrick, D.C., Mason, P.A. 1984. Upper echelons: The organization as a reflection of its top managers. *Academy of Management Review* 9(2): 193-206.
- Hardy, M., Bryman, A. (eds.) 2004. *Handbook of data analysis*. London, UK: Sage Publications.
- Harvey, M., Evans, R.E. 1994. Family business and multiple levels of conflict. *Family Business Review* 7(4): 331-348.
- Haynes, J., Usdin, T. 1997. Resolving family business disputes through mediation. *Family Business Review*, 10(2): 115-134.
- Hisrich, R.D., Jankowicz, A.D. 1990. Intuition in venture capital decisions: An exploratory study using a new technique. *Journal of Business Venturing* 5(1): 49-62.
- Hofmann, D.A., Griffin, M.A., Gavin, M.B. 2000. The application of hierarchical linear modeling to organizational research. In: Klein, K.J., Kozlowski, S.W.J. eds., *Multilevel theory, research and methods in organizations*. San Francisco: Jossey-Bass, pp. 467-511.
- Horton, T.P. 1986. Managing in a family way. *Management Review* 75(2): 3.
- Howorth, C., Westhead, P., Wright, M. 2004. Buyouts, information asymmetry and the family management dyad. *Journal of Business Venturing* 19(4): 509-534.
- Jackson, S.E., Brett, J.F., Sessa, V.E., Cooper, D.M., Julin, J.A., Peyronnin, K. 1991. Some differences make a difference: Individual dissimilarity and group heterogeneity as correlates of recruitment, promotions, and turnover. *Journal of Applied Psychology* 76(5): 675-689.
- Jehn, K.A. 1995. A multimethod examination of the benefits and detriments of intragroup conflict. *Administrative Science Quarterly* 40(2): 256-282.
- Jensen, M.C. 1993. The modern Industrial Revolution, exit, and the failure of internal control systems. *Journal of Finance* 48(3): 831-880.
- Jensen, M.C., Meckling, W.H. 1976. Theory of the firm: Managerial behavior, agency costs and capital structure. *Journal of Financial Economics* 3(4): 305-360.
- Kaye, K. 1991. Penetrating the cycle of sustained conflict. *Family Business Review* 4(1): 21-44.
- Keats, B.W. 1991. An empirical investigation of strategic investment decision models. *Strategic Management Journal* 12(3): 243-250.
- Kellermanns, F. W., Eddleston, K. A. 2004. Feuding families: When conflict does a family firm good. *Entrepreneurship Theory and Practice* 28(3): 209-228.
- Kellermanns, F.W., Eddleston, K.A. 2007. A family perspective on when conflict benefits family firm performance. *Journal of Business Venturing* 60(10): 1048-1057.
- Kirchhoff, B.A., Kirchhoff, J.J. 1987. Family contributions to productivity and profitability in small businesses. *Journal of Small Business Management*, 25(4): 237-256.
- Klein, S.B. 2000. Family businesses in Germany: significance and structure. *Family Business Review* 13(3): 157-81.
- Lane, P.J., Lubatkin, M. 1998. Relative absorptive capacity and interorganizational learning. *Strategic Management Journal* 19(5): 461-477.
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A. 1999. Corporate ownership around the world. *Journal of Finance* 54(2): 471-517.
- Lee, D.S., Lim, G.H., Lim, W.S. 2003. Family business succession: Appropriation risk and choice of successor. *Academy of Management Review* 28(4): 657-666.
- Lee, M.S., Rogoff, E.G. 1996. Research note: Comparison of small businesses with family participation versus small businesses without family participation: An investigation of differences in goals, attitudes, and family/business conflict. *Family Business Review* 9(4): 423-437.

- Lubatkin, M.H., Durand, R., Ling, Y. 2007. The missing lens in family firm governance theory: A self-other typology of parental altruism. *Journal of Business Research* 60(10): 1022-1029.
- Lunati, M.T. 1997. *Ethical issues in economics: From altruism to cooperation to equity*. London: Macmillan.
- MacMillan, I.C., Siegel, R., SubbaNarasimha, P.N. 1985. Criteria used by venture capitalists to evaluate new venture proposals. *Journal of Business Venturing* 1(1): 119-128.
- Markides, C. 1998. Strategic innovation in established companies. *Sloan Management Review* 39(3): 31-42.
- Mason, C., Harrison, R. 1999. Venture capital: Rationale, aims and scope. *Venture Capital* 1(1): 1-46.
- Meyer, G.D., Zacharakis, A.L., De Castro, J. 1993. A post-mortem of new venture failure: An attribution theory perspective. *Frontiers of Entrepreneurship Research*. Wellesley, MA: Babson College, pp. 256-269.
- Miller, G.A. 1956. The magical number seven, plus or minus two: Some limits on our capacity for processing information. *Psychological Review*, 62: 81-97.
- Miller, E., Rice, A. 1988. The family business in contemporary society. *Family Business Review* 1(2): 193-210.
- Morck, R., Yeung, B. 2003. Agency problems in large family groups. *Entrepreneurship Theory and Practice* 27(4): 367-382.
- Muzyka, D., Birley, S., Leleux, B. 1996. Trade-offs in the investment decisions of European venture capitalists. *Journal of Business Venturing* 11(4): 273-287.
- Olson, P.D., Zuiker, V.S., Danes, S.M., Stafford, K., Heck, R.K.Z., Duncan, K.A. 2003. The impact of the family and the business on family business sustainability. *Journal of Business Venturing* 18(5): 639-667.
- Orme, B.K. 1998. *Sample Size Issues for Conjoint Analysis Studies*. Sequim, WA: Sawtooth Software Research Paper Series.
- Orme, B.K., Alpert M.I., Christensen, E. 1997. *Assessing the validity of conjoint analysis – continued*. Sequim, WA: Sawtooth Software Research Paper Series.
- Poutziouris, P.Z. 2001. The views of family companies on venture capital: Empirical evidence from the UK small to medium-size enterprising economy. *Family Business Review* 14(3): 277-291.
- Randøy, T., Goel, S. 2003. Ownership structure, founder leadership, and performance in Norwegian SMEs: Implications for financing entrepreneurial opportunities. *Journal of Business Venturing* 18(5): 619-637.
- Raser, J.R. 1969. *Simulation and society: An exploration of scientific gaming*. Boston, MA: Allyn & Bacon.
- Raudenbusch, S.W., Bryk, A.S. 2002. *Hierarchical linear models: Applications and data analysis methods*. Newbury Park, CA: Sage.
- Reid, G.C. 1996. Fast growing small entrepreneurial firms and their venture capital backers: An applied principal-agent analysis. *Small Business Economics* 8(1): 1-14.
- Riquelme, H., Rickards, T. 1992. Hybrid conjoint analysis: An estimation probe in new venture decisions. *Journal of Business Venturing* 7(6): 505-518.
- Robbie, K., Wright, M., Albrighton, M. 1999. High-tech management buy-outs. *Venture Capital* 1(3): 219-239.
- Rogoff, E.G., Heck, R.K.Z. 2003. Evolving research in entrepreneurship and family business: Recognizing family as the oxygen that feeds the fire of entrepreneurship. *Journal of Business Venturing* 18(5): 559-566.
- Rothaermel, F.T. 2001. Incumbent's advantage through exploiting complementary assets via interfirm cooperation. *Strategic Management Journal* 22(6-7): 687-699.
- Salvato, C. 2004. Predictors of entrepreneurship in family firms. *The Journal of Private Equity* 7(3): 68-76.

- Sandberg, W.R., Schweiger, D.M., Hofer, C.W. 1988. The use of verbal protocols in determining venture capitalists' decision process. *Entrepreneurship Theory and Practice* 13(2): 8-20.
- Schein, E.H. 1995. The role of the founder in creating organizational culture. *Family Business Review* 8(3): 221-238.
- Schulze, W.S., Lubatkin, M.H., Dino, R.N. 2003. Exploring the agency consequences of ownership dispersion among the directors of private family firms. *Academy of Management Journal* 46(2): 179-194.
- Schulze, W.S., Lubatkin, M.H., Dino, R.N., Buchholtz, A.K. 2001. Agency relationships in family firms: Theory and evidence. *Organization Science* 12(2): 99-116.
- Shanker, M.C., Astrachan, J.H. 1996. Myths and realities: Family businesses' contributions to the US economy. *Family Business Review* 9(2): 107-123.
- Sharma, P., Chrisman, J.J., Chua, J.H. 1997. Strategic management of family business: Past research and future challenges. *Family Business Review* 10(1): 1-35.
- Shepherd, D.A. 1999. Venture capitalists' assessment of new venture survival. *Management Science* 45(5): 621-632.
- Shepherd, D.A., Ettenson, R., Crouch, A. 2000. New venture strategy and profitability: A venture capitalist's assessment. *Journal of Business Venturing* 15(5/6): 449-467.
- Shepherd, D.A., Zacharakis, A. 1999. Conjoint analysis: A new methodological approach for researching the decision policies of venture capitalists. *Venture Capital* 1(3): 197-217.
- Shepherd, D.A., Zacharakis, A. 2002. Venture capitalists' expertise: A call for research into decision aids and cognitive feedback. *Journal of Business Venturing* 17(1): 1-20.
- Shepherd, D.A., Zacharakis, A., Baron, R.A. 2003. VCs' decision processes: Evidence suggesting more experience may not always be better. *Journal of Business Venturing* 18(3): 381-401.
- Sirmon, D.G., Hitt, M.A. 2003. Managing resources: Linking unique resources, management, and wealth creation in family firms. *Entrepreneurship Theory and Practice* 27(4): 339-358.
- Smart, G.H. 1999. Management assessment methods in venture capital: An empirical analysis of human capital valuation. *Venture Capital* 1(1): 59-82.
- Tagiuri, R., Davis, J.A. 1996. Bivalent attributes of the family firm. *Family Business Review* 9(2): 199-208.
- Turner, J. 1987. *Rediscovering the social group: A social categorization theory*. Oxford, UK: Blackwell Publishing.
- Tyebjee, T.T., Bruno, A.V. 1981. Venture capital decision making: Preliminary results from three empirical studies. *Frontiers of Entrepreneurship Research*. Wellesley, MA: Babson College, pp. 316-334.
- Tyebjee, T.T., Bruno, A.V. 1984. A model of venture capitalist investment activity. *Management Science* 30(9): 1051-1066.
- Upton, N., Petty, W. 2000. Venture capital investment and US family business. *Venture Capital*, 2(1): 27-39.
- Wright, M., Coyne, J. 1985. *Management buy-outs*. Beckenham: Croom Helm.
- Wright, M., Hoskisson, R., Busenitz, L., Dial, J. 2001. Finance and management buy-outs: Agency versus entrepreneurship perspectives. *Venture Capital* 3(3): 239-262.
- Wright, M., Robbie, K. 1998. Venture capital and private equity: A review and synthesis. *Journal of Business Finance and Accounting* 25(5): 521-570.
- Wright, M., Robbie, K., Thompson, S., Starkey, K. 1994. Longevity and the life-cycle of management buy-outs. *Strategic Management Journal* 15(3): 215-227.
- Wright, M., Thompson, S., Robbie, K. 1992. Venture capital and management-led leveraged buy-outs: European evidence. *Journal of Business Venturing* 7(1), 47-71.
- Zacharakis, A.L., Meyer, G.D. 1998. A lack of insight: Do venture capitalists really understand their own decision process? *Journal of Business Venturing* 13(1): 57-76.
- Zacharakis, A.L., Meyer, D.G. 2000. The potential of actuarial decision models: Can they improve the venture capital investment decision? *Journal of Business Venturing* 15(4): 323-346.

- Zacharakis, A.L., Shepherd, D. 1999. Entrepreneurs' experience and likely venture success: An investigation of VCs' contingent decision policies. *Frontiers of Entrepreneurship Research*. Wellesley, MA: Babson College.
- Zacharakis, A.L., Shepherd, D. 2001. The nature of information and overconfidence on venture capitalists' decision making. *Journal of Business Venturing* 16(4): 311-332.
- Zahra, S.A. 2005. Entrepreneurial risk taking in family firms. *Family Business Review* 18(1): 23-40.
- Zutshi, R.K., Tan, W.L., Allampalli, D.G., Gibbons, P.G. 1999. Singapore venture capitalists (VCs) investment evaluation criteria: A re-examination. *Small Business Economics* 13(1): 9-26.