

The distinctiveness of family firm intangibles: A review and suggestions
for future research

Non Peer-reviewed author version

HUYBRECHTS, Jolien; VOORDECKERS, Wim; LYBAERT, Nadine &
VANDEMAELE, Sigrid (2011) The distinctiveness of family firm intangibles: A review
and suggestions for future research. In: JOURNAL OF MANAGEMENT &
ORGANIZATION, 17(2). p. 268-287.

Handle: <http://hdl.handle.net/1942/11767>

The distinctiveness of family firm intangibles: a review and suggestions for future research

JOLIEN HUYBRECHTS
WIM VOORDECKERS
NADINE LYBAERT
SIGRID VANDEMAELE

Hasselt University/ Kizok Research Centre
E-mail: jolien.huybrechts@uhasselt.be

ABSTRACT

We review the theoretical and empirical literature on the resource-based view in the context of family businesses using a framework of intangible resources. This approach allows us to structure the present research on value adding resources in family firms into four clearly distinct groups – organizational culture, reputation, human capital and networks – and provides us with the opportunity to examine the interactions of these intangible resources. We use these relationships to offer a future research agenda that is focused on the creation of competitive advantage through the combination and recombination of these resources.

Keywords: family business research, resource-based view, intangibles, organizational culture, reputation, human capital, networks

INTRODUCTION

Over the last decade, the question as to whether family firms outperform non-family firms and the reasons for this postulated outperformance have become one of the most intriguing topics on

the family-firm research agenda. Although most studies suggest that family firms perform better than non-family firms (e.g., Anderson and Reeb 2003; Lee 2006; McConaughy, Matthews and Fialko 2001; Miller and Le Breton-Miller 2006a; Villalonga and Amit 2006), more nuanced conclusions are also often drawn (e.g., Barontini and Caprio 2006; Lubatkin, Durand and Ling 2007; Miller, Le Breton-Miller, Lester and Cannella 2007; Steier 2001), and it is argued that several conditions need to be met for a family firm to have superior performance. Barontini and Caprio (2006), for example, find that only family firms where the company's founder is the CEO show superior performance, and Miller et al. (2007) even suggest that only public family firms where only the founder and no other family members are present perform better. Other proposed requirements are a high level of trust (Steier 2001) and a psychosocial form of parental altruism (Lubatkin et al. 2007).

In order to capture the uniqueness of family firms, family-business scholars using primarily a resource-based view have introduced concepts such as 'familiness' (Habbershon and Williams 1999), 'family capital' (Hoffman, Hoelscher and Sorenson 2006), the 'family effect' (Dyer 2006) and 'family social capital' (Arrègle, Hitt, Sirmon and Very 2007). The resource-based view focuses on the way in which competitive advantage is achieved and sustained over time (Penrose 1959; Prahalad and Hamel 1990; Wernerfeldt 1984) and examines idiosyncratic firm resources that contribute to sustaining the competitive advantage (Barney 1986, 1991). The unique resources of family firms originate in the interaction of the family and the business and are considered complex, dynamic and intangible (Habbershon and Williams 1999). Moreover, it is asserted that the unique bundle of family-firm resources can create both advantages and disadvantages for the family firm (Sirmon and Hitt 2003).

To date, research on family firms has developed considerably (Craig, Moores, Howorth and Poutziouris 2009) and is characterized by a broad diversity in approaches. Thus, a review of the literature can provide an integrative framework. The aims of this paper are to review the body of theoretical and empirical contributions in the field using an integrative framework and to propose new avenues for future research. Among the possible resources, intangible resources are considered the most likely to provide a competitive advantage (Barney 1991). While most authors acknowledge that the resources that make family firms unique are intangible (e.g., Habbershon and Williams 1999; Sirmon and Hitt 2003), they fail to use an intangibles framework to study them. We use the intangibles framework introduced by Hall (1992, 1993) as an integrative tool to take stock of the current literature. Building on Hall's (1992) framework, we discuss the literature on the basis of four groups of family firm intangibles: organizational culture, reputation, human capital and networks. This enables us to provide a new integrative way of looking at, and categorizing, intangible family resources thereby enlarging our understanding of the added value of these features for family firms. Furthermore, we use this framework to propose and discuss new directions for future research by exploring how family specific intangible resources and their *interactions* provide family firms with a sustained competitive advantage over non-family firms. In previous research, the resources of family firms have generally been discussed separately as sources of competitive advantage, but we build on the idea of Penrose (1959) that resources rarely create value in isolation and suggest that intangible resource recombinations may be a source of value (Lockett, Thompson and Morgenstern 2009). As such, we propose a dynamic framework to depict how these intangibles influence each other in their creation of competitive advantage and suggest new directions for

research based on recombinations of these resources to understand the ‘family effect’ on several performance variables.

First, we provide a general discussion of the theoretical perspectives used to study competitive advantage of intangible resources in the context of family firms. Second, we discuss the four overall groups of family-firm intangibles. Third, we present a dynamic model of interacting family firm intangibles. Finally, we offer some concluding remarks about how these ideas might be extended.

THEORETICAL PERSPECTIVES

Resource-based view

In the comparison of the performance of different types of firms, the resource-based view is an important perspective (Wernerfelt 1984). This theory suggests that the performance level of a firm is mainly attributable to its resources (Penrose 1959). It assumes that resources are asymmetrically distributed among competing firms and are not perfectly mobile (Barney 1991). To provide a sustained competitive advantage, a resource must be valuable, rare, and imperfectly imitable and must have no equivalent substitute (Barney 1991). Barney (1991) describes a resource as valuable when it can be used to enhance the firm’s effectiveness or efficiency and rare when it is not used by a large number of firms at the same time. These two characteristics enable a resource to be the basis of a competitive advantage. In order for the competitive advantage to be sustained, the resource should also be imperfectly imitable; that is, other firms should not be able to copy it. Lastly, there must be no equivalent substitute for the resource, i.e., there is no resource that allows another firm to pursue the same strategy. In addition, it is also important to ascertain how these resources are used by their owner. Specifically, resources need

to be converted into administrative or productive capabilities (Hahn and Doh 2006; Hansen, Perry and Reese 2004; Penrose 1959). Both types of capabilities refer to the ability of a firm to undertake a productive activity by deploying bundles of resources (Teece, Pisano and Shuen 1997), but administrative capabilities refer specifically to the role of the managers in deciding how resources should be used.

Barney (1991) points out that there are three types of resources: physical capital resources, human capital resources and organizational capital resources. The first category corresponds to the group of tangible resources while human and organizational capital resources are intangible by nature (Michalisin, Smith and Douglas 1997). Tangible resources are concrete and include resources such as materials and land (Haanes and Fjeldstad 2000). Intangible resources, however, are immaterial and mostly tacit (Carmelli 2004; Villalonga 2000). It is commonly asserted that intangible resources can provide firms with a competitive advantage (e.g., Barney 1991; Michalisin et al. 1997; Penrose 1959; Prahalad and Hamel 1990). While tangible resources are flexible and fairly easily imitated (Carmeli 2004), intangible resources are difficult to develop or replicate (Itami 1987).

We believe that looking at the resource-based view through an intangibles lens is especially useful for studying family firms. Family firms possess certain intangible resources resulting from the interaction between the business and the family that have the characteristics needed to provide a sustained competitive advantage over non-family firms. The next section describes and justifies the framework that we have chosen to discuss family firm intangibles.

The existing intangibles frameworks

Family firms are considered unique when compared to their non-family counterparts with regard to their resources and capabilities (Habbershon and Williams 1999). Their tangible resources may be comparable to those of non-family firms, but the characteristics of family-firm intangible resources appear to be quite distinctive. Some of these intangibles are brought together under the concept of ‘familiness’ (Cabrera-Suárez, Saá-Pérez and García-Almeida 2001; Chrisman, Chua and Steier 2005; Habbershon and Williams 1999; Sirmon and Hitt 2003). It is suggested that ‘familiness’ results from the interaction between the family and the business and refers to a number of unique resources (Habbershon and Williams 1999). Sirmon and Hitt (2003) identify five resources as components of ‘familiness’: human capital, social capital, survivability capital, patient capital and governance structure. Other family intangibles have been identified under the notion of ‘family capital’: information channels, obligations and expectations, reputation, identity and moral infrastructure (Hoffman et al. 2006). Focussing on the family relationships, the concept of ‘family social capital’ can be added to the list (Arrègle et al., 2007).

However, there is no generally accepted definition for what intangibles denote. Furthermore, the concepts of intangibles and of intellectual capital show similarities and in practice are used interchangeably.¹ In order to study intangible resources, we need to be able to identify and classify them. Therefore, numerous classifications for intangible resources have been developed. None of these classifications, however, is widely accepted (Canibano, Covarsi and Sánchez 1999). Johanson, Mårtensson and Skoog (2001) constructed an overview of these classifications, identifying four types of classifications for intangible resources: (1) The most common, according to Johanson et al. (2001), have been the classifications based on two opposite groups

¹ *Although historically the distinction between intangible assets and intellectual capital has been vague, intangibles is a broader term than intellectual capital (Guthrie 2001). Therefore, we will use this term.*

such as the classification proposed by Hall (1992, 1993) who identifies two ways to distinguish between intangible resources. The first option classifies intangible resources into assets and skills with assets being taken as commercial brands, patents, contracts, reputation and networks and skills as human capital and culture. Hall's (1992, 1993) second proposal for classifying intangible resources is based on whether or not intangibles depend on persons. The other classification types identified by Johanson et al. (2001) include (2) a three way classification into human, market and structure capital (e.g., Petrash 1996), (3) a classification of investments in R&D, software, marketing and organization (e.g., OECD 1992) and (4) a classification that distinguishes competence resources from relational intangible resources (e.g., Haanes and Lowendahl 1997). Johanson et al. (2001) conclude that the choice for a classification of intangibles depends on the type of firm and should be made in function of how the performance drivers of the firm are identified.

In the light of this previous work, we examined these classification types to ascertain those most suited to analyse family businesses. We concluded that Classification Types 3 and 4 were inadequate for the purpose of this paper for the following reasons. Type 3 concerns investments in R&D, software, marketing and the organization. The intangible resources that we want to study in this paper need to explain the uniqueness of family firms. Several authors (Habbershon and Williams 1999; Sirmon and Hitt 2003) argue that the distinctive resources of family firms result from the interaction between the family, its individual members and the business. We doubt that the intangible resources resulting from this interaction are measurable by the amount of money invested in R&D, software, marketing or the organization. Therefore we did not select this classification of intangible resources. Type 4 concerns intangible resources based on relational resources as well as competences such as client-specific databases and technology.

Relational resources include, for example, reputation and client loyalty, which would be useful to categorize the intangible resources that are distinctive for family firms. However, the intangible resource ‘organizational culture’ is not included in the relational resource category, but, according to several authors (Denison, Lief and Ward 2004; Zahra Hayton and Salvato 2004), it is a distinctive intangible resource for family firms and therefore a resource that we want to consider. Moreover, Type 4 also includes competence resources such as databases and technology, which are not unique to family-owned businesses relative to non-family owned businesses. For these reasons we do not opt for a Type 4 classification.

After a review of theoretical and empirical articles in this area, the two remaining classification categories appear to be the most frequently applied. Both categories can be useful when studying family firms, but instead of grouping intangibles into human, structural and market capital (Type 2), we follow the framework of Hall (1992, 1993) (Type 1) for the following reasons. First, Hall’s (1992, 1993) framework is based on firm assets that result in sustained competitive advantage (Hall 1993), which supports our aim. Second, one of Hall’s (1992, 1993) classifications is based on whether or not the intangibles depend on persons. This classification seems particularly suitable for studying family firms since the uniqueness of family-firm resources is largely attributable to the personnel (Habbershon, Williams and MacMillan 2003) and the relationships among family members (Sharma, Chrisman and Chua 1997). We will, therefore, group the intangible resources of family firms into (1) organizational culture, (2) reputation, (3) human capital and (4) networks, as suggested by Hall (1992, 1993). Intangible resources that are independent of people, such as contracts, licenses and patents, are not significantly different in family firms as opposed to non-family firms. In the next section, we discuss the four people-dependent intangibles in a family business context.

FAMILY FIRM INTANGIBLE RESOURCES

Organizational culture

Hofstede (1980) and Peters and Waterman (1982) introduced the intangible resource *organizational culture* as a possible source of competitive advantage. According to Schein (1983: 14), ‘organizational culture is a pattern of basic assumptions that a given group has invented, discovered, or developed in learning to cope with its problems of external adaption and internal integration — a pattern of assumptions that has worked well enough to be considered as valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems’. This collection of values, beliefs, assumptions and symbols (Barney 1991) can influence employees in way that is beneficial to financial performance. When, for example, there is a culture of trust within the firm, employees might be strongly motivated to do a better job in order to maintain this trust (Davis, Schoorman and Donaldson 1997). According to several scholars (e.g., Denison et al. 2004; Zahra et al. 2004), the family business culture is distinct and difficult to imitate. The organizational culture of a family firm might, therefore, provide the firm with a competitive advantage.

Zahra et al. (2004) identify four cultural dimensions that can be associated with family firms. First, the family firm culture might be more group oriented, which means that employees in family firms may share knowledge and collaborate more readily as their relations are mostly based on kinship and trust (Zahra et al. 2004). Moreover, family employees are said to behave altruistically towards each other (Lubatkin, Schulze, Ling and Dino 2005; Schulze, Lubatkin and Dino 2003; Schulze, Lubatkin, Dino and Buchholtz 2001). According to Sirmon and Hitt (2003), these altruistic relations provide family firms with lower governance costs because of mutually

shared objectives. This group orientation can, therefore, provide family firms with a competitive advantage over non-family firms.

Second, the family-firm culture can be characterized by a stronger internal focus, that is to say, knowledge and expertise are usually developed within the boundaries of the firm (Miller and Le Breton-Miller 2006b; Zahra et al. 2004). In addition, family firms tend to appoint family members and friends as directors (Schulze et al. 2001, 2003) thereby reinforcing the family character of the firm. However, this may not always be beneficial as it can hold back new external ideas and consequently stifle entrepreneurial behaviour (Schulze, Lubatkin and Dino 2002). On the other hand, this inside orientation can have a positive effect on firm performance as family employees usually show high levels commitment and loyalty to the family firm (Ward 1987).

Another cultural aspect is the degree in which decisions are centralized. Although this varies among different types of family firms, the influence of the founder in family firms on strategic decisions is generally greater than in non-family firms (Denison et al. 2004). According to Schein (1983), the founder can even be seen as the embodiment of a family firm's culture. As such, his or her influence on the firm will continue even when he or she is no longer active in the family firm. Moreover, this centralization of decision-making power can facilitate the decision making process, thereby enhancing the competitive advantage of family firms (Gedajlovic, Lubatkin, Schulze 2004; Schulze et al. 2001). However, this centralization may also become a burden in later stages of the firm's life cycle, while an evolution to a more open culture may be beneficial for the entrepreneurial process of the family firm (Hall, Melin and Nordqvist 2001).

Lastly, it is the goal of the founders of most family firms to pass the firm on to later generations (Poza 2007), so many family firms are focused on the long-run (James 1999; Ward

and Aronoff 1991a). Having a long-term investment horizon decreases the chance of liquidation (Dobrzynski 1993) and makes it easier for family firms to pursue innovative strategies (Teece 1992). Sirmon and Hitt (2003) refer to these advantages as patient capital and argue that this focus on the long-run can be a valuable resource for family firms.

Reputation

The next intangible that we discuss as a possible antecedent of family firm performance is reputation. A firm's reputation can be defined as 'a perceptual representation of a company's past actions and future prospects that describes the firm's overall appeal to all of its key constituents when compared with other leading rivals' (Fombrun 1996:72). There is no doubt that a favourable reputation is beneficial to a firm and will provide a competitive advantage (Fombrun and Shanley 1990). Authors like Aronoff and Ward (1995), Craig, Dibrell and Davis (2008) and Hoffman et al. (2006) regard the family firm's reputation as a resource that can lead to a sustained competitive advantage. According to Aronoff and Ward (1995), the family firm's reputation is a basis for survival and prosperity. Recent research by Craig et al. (2008) also suggests that the promotion of a family-firm identity to customers has a positive influence on firm performance. Hoffman et al. (2006) discuss reputation as a dimension of 'family capital' since the strong ties in family firms can lead to an increased collective awareness among its employees. In turn, this creates obligations and expectations that enhance its reputation and thus create a potential sustained competitive advantage.

A number of authors describe the kind of reputation frequently associated with family firms (Ward and Aronoff 1991b; Short, Payne, Brigham, Lumpkin and Broberg 2009). According to Ward and Aronoff (1991b), family firms are perceived as more trustworthy than others because

customers often know the older as well as the current generation of family members active in the family firm. In this case, the family firm can enjoy the trust of customers based on a long-term relationship (Ward and Aronoff 1991b), so it is not surprising that many firms promote the family nature of their business. Johnson and Johnson, for example, a large multinational company that specializes in consumer health-care products and services, stresses in its advertising campaign they grew from a family company and that they are a family of companies that cares for all families.

Furthermore, family firms are sometimes said to have a reputation of being less risky to do business with (Short et al. 2009) because the family is usually the principal owner so failure would have a high personal cost (La Porta, Lopez-De-Silanes and Shleifer 1999). The usually high ownership stake combined with the management position that controlling owners might have can result in high personal risk in private family businesses, especially in first-generation firms (Gedajlovic et al. 2004; Schulze et al. 2003). Gómez-Mejía, Haynes, Núñez-Nickel, Jacobson and Moyano-Fuentes (2007) suggest that family firms will also accept a higher risk of lower financial performance (called performance hazard risk by the authors), in order to maintain family control. However, these authors also assert that family firms will take less risky strategic decisions, which they call venturing risk. Hence, family-firm owners do not want to take on projects with a high variance in possible outcomes because of the high personal loss in the event of failure. Since risk of failure is one of the most important concerns for customers, suppliers and banks, they may perceive family firms to be less risky.

Furthermore, the CEOs, owners and family-member employees of family firms might attach great importance to the family firm's reputation. It is commonly found that the average CEO tenure is longer in family firms than in non-family firms (e.g., Gómez-Mejía, Núñez -

Nickel and Gutierrez 2001; Ward 2004). Whereas CEOs of non-family firms might see their job as a short-run objective, CEOs of family firms are more likely to view their position as a long-term commitment so it would be more important for them to make sure that the family firm has a positive reputation. This long-term thinking also holds for the family firm as a whole (Ward and Aronoff 1991a) because owners of family firms generally want the business to endure several family generations and a good reputation is a good investment for the future (Ward and Aronoff 1991b).

Moreover, family businesses are likely to put more effort in establishing their reputation because of closer identification with the firm (Dyer and Whetten 2006). As a negative reputation would be detrimental for the family name (Post 1993) and family members working in the family firm are associated with this name, they might well make great efforts to uphold it (Dyer and Whetten 2006). Even family shareholders who are not closely involved with the firm can take great pride in being co-owner of the family firm (Thomas 2009). Moreover, the association of the family name with the product or service can provide motivation to maintain and improve its quality (Hoover and Hoover 1999 and Cooper, Upton and Seaman 2005), which will likely lead to a greater degree of trust and a better reputation.

Human capital

The next intangible resource that we explore is human capital, which represents ‘the acquired knowledge, skills, and capabilities that enable persons to act in new ways’ (Coleman 1988: 100). In family firms, human capital stands for the know-how and skills of both family and non-family employees.

It has been suggested that there are downsides to the human capital of family firms (e.g., Dunn 1995; Schulze et al. 2001). According to Dunn (1995), favouring family members over non-family candidates can lead to a less qualified workforce. Schulze et al. (2001) discuss this adverse selection in management positions, pointing out that family firms are more likely to hire managers from within the family instead of possibly more qualified non-family members. Also, it has been argued that it is more difficult for family firms to attract and retain qualified managers due to a lack of promotion possibilities or payment in the form of stock (e.g., Covin 1994a, 1994b; Schulze et al. 2003).

However, these drawbacks can possibly be outweighed by several positive attributes of family-firm human capital. First of all, the turnover rate in family firms has been found to be lower than that of non-family firms (Miller and Le Breton-Miller 2003), which means that knowledge and experience is preserved within the business for a longer period. Tagiuri and Davis (1996) argued that working in a family firm generates unusual motivation. This may be partly explained by the family owners' more personal relationship with employees and the more flexible work practices that prevail in family firms (Goffee and Scase 1985). Moreover, Voordeckers, Steijvers and Peeters (2010) assert that altruistic behaviour towards non-family members adds to the development of a quasi-family acting in the best interest of the firm.

When we specifically consider family members working in family businesses, the commitment to their job is said to be even greater than that of non-family employees (Donnelly 1964; Horton 1986). Also, descendants often get involved in the family business at a young age, which gives them an opportunity to develop deep, firm-specific knowledge (Dyer 2006; Sirmon and Hitt 2003). Moreover, family members have been found to be willing to sacrifice much in order for the firm to succeed (Dyer 2006).

Networks

The last intangible that we consider here concerns networks. Following the intangibles framework of Hall (1992:138), networks are ‘personal relationships which transcend the requirements of organizational structure’. The resources that can be provided by networks have been specified by Hitt, Ireland, Camp and Sexton (2001) as information, technologies, access to markets and complementary resources. The establishment of networks is increasingly being considered necessary to obtain maximum business performance (Hoffman et al. 2006).

Networks can be linked to the term social capital, which is the sum of actual and potential resources embedded in these personal relationships (Nahapiet and Ghoshal 1998). In family firms, there are two types of social capital: (1) family social capital, which results from the relationships amongst family members and (2) organizational social capital, which is created through the social relations within the firm (Arrègle et al. 2007). According to Arrègle et al. (2007) organizational social capital is largely dependent on family social capital through different mechanisms. Consequently, family firms have several distinctive characteristics that make their networks different from those of non-family firms. The long-term perspective of family firms gives them the opportunity to develop long-term relationships with banks, suppliers or important clients (Le Breton-Miller and Miller 2006). According to Ward (2004) business partners find it easier to rely on family firms because they usually have a stable management. Le Breton-Miller and Miller (2006) propose that these long-term relationships provide family firms with an increased amount of customer loyalty and quality input resources. In addition to the length of the relationship, it is more likely that network contacts will develop a personal attachment to a family that owns and manages a firm more so than they would to a non-family firm (Dyer 2006).

However, several authors cite possible drawbacks to family-firm networks. First of all, strong familial bonds might cause family firms to regard potential partners as untrustworthy or as competitors simply because they are from outside the family (Dyer 2006). When the network is focused only on kinship and friendship, it might be too homogeneous to provide a range of diverse resources (Anderson, Jack and Dodd 2005). Arrègle et al. (2007), however, suggest that more interactions become possible and more information exchanges can occur as a family evolves. It is also likely that, as a family grows, the group becomes more heterogeneous as regards its interests and ideas (Kellermanns and Eddleston 2007), which can resolve this problem. Furthermore, Arrègle et al. (2007) argue that the family social capital is the most powerful form of social capital.

WHAT DOES THE EMPIRICAL EVIDENCE SAY?

The empirical testing of the value of intangible resources using the resource-based view is a recent phenomenon, especially in the family business literature. A detailed overview of the empirical findings is given in Table 1.

[Insert Table 1 about here]

In the few empirical studies on intangible resources in family businesses using the resource-based view, the most commonly used methods have been qualitative approaches, regression analyses and structural equation modelling. We find that the most frequently studied resource is human capital. This might not be surprising since data on human capital may be easy

to obtain relative to data on more abstract resources such as reputation or organizational culture. In the studies that focus on human capital, there are two main issues: family and non-family management (DeNoble, Ehrlich and Singh 2007; Poza, Hanlon and Kishida 2004), and the unique characteristics of human capital in family businesses. In the latter category, reciprocal altruism (Eddleston, Kellermanns and Sarathy 2008), family cohesiveness (Salvato and Melin 2008) and family support (Chang, Memili, Chrisman, Kellermanns and Chua 2009) have been studied. Eddleston et al. (2008) suggest that reciprocal altruism can lead to a competitive advantage especially in the presence of technological opportunities. Salvato and Melin (2008) discuss how family cohesiveness and other determinants of family human capital can expand the firm's access to external resources. Chang et al. (2008) focus on the effect of human capital on the firm's readiness to launch ventures. There are also a few articles that report empirical results on organizational culture (i.e., Tokarczyk, Hansen, Green and Down 2007; Zahra et al. 2008) and some that focus on the uniqueness of family business networks (i.e. DeNoble et al. 2007). Whereas Zahra et al. (2008) highlight the competitive advantage of a family-orientated culture, Tokarczyk et al. (2007) discuss the positive effect of family influence on a market-orientated culture. DeNoble et al. (2007) stress the importance of network maintenance during succession processes. Almost absent in this list are empirical studies on the unique resource that the reputation of a family firm can be, a notable exception being the recent study by Craig et al. (2008) on the competitive advantage of family-based brand identity. The authors assert that a family-based brand identity contributes positively to a customer-centric orientation which results in a better firm performance.

DISCUSSION AND FUTURE CHALLENGES: RELATIONS BETWEEN FAMILY FIRM INTANGIBLE RESOURCES

We have discussed the research on intangible resources in family firms for each intangible separately. However, it is unlikely that one resource can provide a firm with a competitive advantage, so combinations of resources need to be pursued (Dyer and Singh 1998; Penrose 1959; Teece et al. 1997). By combining and recombining resources that are complementary, related or co-specialized, firms might be able to create a competitive advantage (Lockett et al. 2009). We argue in this section that the intangible resources of family firms discussed above are not only related to each other but also mutually reinforcing, which suggests that certain combinations can indeed create opportunities for family firms. Relating this to the literature on capabilities (e.g., Teece et al. 1997), we note that family firms might be proficient at creating capabilities since the investment in one of their intangible resources can enrich others and themselves. In what follows, we offer a research agenda by discussing how the intangible resources are related to each other and how they can reinforce each other. We propose different relationships that promise to be fruitful avenues for further development and testing in order to understand the potential of family firms to generate a sustained competitive advantage through their intangible resources. Our research agenda is summarized in Figure 1.

[Insert Figure 1 about here]

Several authors have already suggested some relationships between intangible resources in family firms. Arrègle et al. (2007), for example, describe how organizational social capital is

developed through family social capital. Salvato and Melin (2008) propose several relationships between intangible resources, such as the positive influence of norms, obligations and expectations on family cohesiveness. In the rest of this section, we present arguments for the following reciprocal relationships: (1) between organizational culture and human capital, (2) between organizational culture and networks, (3) between human capital and networks, (4) between human capital and reputation and (5) between reputation and networks. We do not propose to argue that there is a direct relationship between organizational culture and reputation since such influence must always be effected through people either by application of human capital or by networks.

Organizational culture and human capital

Two intangible family resources that can strengthen each other when combined are organizational culture and human capital. According to Schein (1985), organizational culture is developed or learned by a group and consequently is the property of a group of people. Since it is created through experience and knowledge, there is naturally an effect of human capital on the culture of an organization. This relationship can be especially strong in family-owned businesses, as the influence of the founder generally remains significant (Gedajlovic et al. 2004). This is an important characteristic since it is usually asserted that the founder of a firm plays a very important role in the creation of organization culture (Schein 1983). The founder usually has an idea or vision of how his or her employees should look at the world and address problems. If the proposed solutions to problems work, the group believes that this is the right way to handle these problems and continues to work in this manner without questioning it (Schein 1983).

However, as the vision of the founder often becomes common knowledge in a family firm, it also affects and develops the firm's human capital. Therefore, as is shown in Figure 1, there is also a backward influence of the organizational culture on the human capital. Organizational culture is taught to new members when they enter the firm (Schein 1985). Especially in family firms, where many family employees' children are introduced into the business, the influence of the organizational culture can be substantial due to the young age at which the children are introduced in the firm. Additionally, new employees are selected by people who act upon certain assumptions and will thus likely fit into the existing organizational culture of the family business. Furthermore Harel and Tzafrir (2004) suggest that organizational culture affects the cohesiveness of employees. Since the organizational culture in family firms is characterized by strong group orientation (Zahra et al. 2004), the influence of organizational culture on the employees' cohesiveness and hence on human capital may be even stronger than in non-family firms. Empirical research by Wang, Shieh and Wang (2008) confirms that the culture of an organization influences the way people act toward each other.

Organizational culture and networks

There may also be a reciprocal reinforcing relationship between organizational culture and networks. In general, it has been suggested that organizational culture is an important determinant of how people interact with each other (Schein 1985). Beugelsdijk, Noorderhaven and Koen (2006) suggest that interorganizational relations can be derived from the culture of organizations. Specifically, they find that an innovatively-oriented as well as a stability-oriented organizational culture has a positive influence on the creation and management of network ties. Empirical research on alliances also suggests that the organizational culture of a business is very

important when it comes to selecting a strategic partner (Dyer, Kale and Singh 2001). In the context of family firms, Arrègle et al. (2007) suggest that organizational identity and rationality, two concepts closely linked to organizational culture, influence the development of the social capital of the firm. The orientation of the culture of family firms towards the long-term facilitates the formation of trust-based and stable network ties (Beugelsdijk et al. 2006). Empirical research on this matter (e.g., Niemelä 2004) indicates that the organizational culture of family firms influences the development and quality of interfirm relations. Therefore, we content that there is likely to be a positive relationship between a family firm's organizational culture and the value of the firm's intangible resource networks.

Although organizational culture changes slowly, networks can also have an influence on this concept. First of all, in the description of Schein (1983), organizational culture is also based on assumptions about a business's environment and relationships. When, for example, the organizational culture is characterized by decision-centralization and autocracy, which might well be the case in family firms, positive external relations might lead to a more open culture (Schein 1985). Moreover, family firms' networks are usually long term. This may well make them more influential, since people who share a long history have a more powerful impact on beliefs and values (Schein 1985).

Human capital and networks

We suggest a mutual reinforcing relationship between human capital and networks is likely in family firms. Initially, network contacts are approached because they are known to the entrepreneur (Jack 2005), so in the start-up phase the human capital of the founder is very important for the development of the firm in general. In family firms this is expanded to all of

the personal networks of the family members (Anderson et al. 2005). Empirical results confirming this idea can be found in the case-study research by Niemelä (2004). Moreover, through the long-term orientation and stability in employment practices in family firms (Arrègle et al. 2007), networks built on personal contacts are more easily sustained than would otherwise be the case.

Consequently, the network relations will also influence the human capital of family firms. As employees interact with other organizations, they are likely to learn from them (Burt 1997; Dyer et al. 2001). Given that in family firms, network relations show a strong long-term orientation (Le Beton-Miller and Miller 2006), this knowledge transfer may be even more effective. Furthermore, when there is a climate of trust, which is more likely in family-firm networks (Ward 2004), unique learning can occur (Gulati 1995). This learning can imply, for example, the exchange of information about changes in the business environment or the suggestion of solutions to complex problems (Abrams, Cross, Lesser and Levin 2003). Case-study research by Salvato and Melin (2008) also suggests that better-quality personnel can be acquired through the networks of family firms.

Human capital and reputation

We suggest that there may well be a reciprocal relationship may exist between the human capital of a family firm and the firm's reputation such they reinforce each other and create a potential competitive advantage. Potential customers of a family firm can observe the quality of the firm's employees and so predict the kind of service that they can expect (Hitt, Bierman, Shimizu and Kochhar 2001). Employees with good qualifications can, therefore, contribute to the positive reputation of the firm. However, family firms may not always be led by a highly qualified family

manager. First, it is argued that adverse selection that favours family members creates internal labour markets (Schulze et al. 2001). As a result, managers of family firms are often selected from a small labour pool, which is likely to reduce the quality of the manager chosen. Second, empirical results from Bennedsen et al. (2007) suggest that, on average, descendant CEOs are substantially less educated compared to non-family CEOs. That is, they less frequently attend college or a graduate program and stay for a shorter period of time at school. A connection can be made with the findings by Bloom and Van Reenen (2007), which suggest that succession by primogeniture (the eldest son becomes CEO) can lead to poor management as the CEO selection is not based on his managerial qualities. Nevertheless, family managers might still contribute to the reputation of the firm as they can build up a positive reputation over an extended period. As family CEOs typically have a longer tenure than non-family CEOs, they have the time and opportunity to prove themselves qualified for the job and hence enhance their reputation. Moreover, based on several case studies, Steier (2001) proposes that a great deal of a family manager's established reputation is passed on to the next generation in family firms. Customers retain a great amount of trust in the new CEO just because he or she carries the same family name (Steier 2001). Conducting business with family CEOs might also have the advantage of obtaining a short line of communication, as the family CEO can often make decisions without first having to consult other family owners (Gedajlovic et al. 2004).

The reputation of a company also has an effect on the value of its human capital. The primary reason for this is that people prefer to work for a firm with a good reputation. According to Fombrun (1996), a good reputation makes it easier for a firm to recruit good personnel. Turban and Cable's (2003) results support this proposition in that they find that firms with better reputations attract more applicants and also present evidence suggesting that the quality of the

applicants is higher. Fombrun (1996) contents that, for equal pay, people will choose a firm that treats its employees well and produces quality products. Not only in the recruiting phase but also afterwards, a good reputation has a positive effect on the employee (Fombrun 1996). However, research on family firms suggests that family firms have difficulties attracting high quality employees because family firms usually do not reward them with stock-options and favour family members when it comes to promotion (Schulze et al. 2003 and Lubatkin et al. 2005). Therefore, it is important to send positive signals to the labour market, for example, by installing reward and promotion systems that are based on objective performance measures. This would add to the family firms' reputation of having a more personal relationship with employees and more flexible work practices (Goffee and Scase 1985).

Networks and reputation

We suggest that the relation between networks and reputation, just as with the previous relationships, is likely to be one of mutual influence that can lead to a sustained competitive advantage. That is, conducting transactions with network actors affects the reputation of firms. The literature on network ties suggests that strong as well as weak ties enhance or to worsen the reputation of firms (e.g., Jack 2005). Empirical research by Glückler and Armbrüster (2003) suggests that transactions that have been positive in the past create personal trust and, since family firms' networks generally consist of long-term relations, the reputation of family firms can benefit from their networks. The authors also find that network actors are often consulted in order to obtain information about potential network actors. So, even if there has been no direct contact between the family firm and another firm, other network contacts can develop and extend

its reputation. This suggests that the reputation of family firms is positively affected by their networks.

Moreover, reputation will naturally influence the network capabilities of a firm. Glückler and Armbrüster (2003) explain that both a personal reputation based on previous personal experience with direct relations and a public reputation based on general perceptions and ideas that circulate in the network influence a firm's network. They suggest that a reputation — personal as well as public — of trustworthiness will lead to more collaboration. Thus, here again, the long-term orientation of family firms can enhance their networking capabilities. Especially, the continuity of management and ownership (provided by the long CEO tenure and family successions) may positively influence the personal reputation of family firms. Moreover, the public reputation of a firm, which is available through the market, may signal general areas of competence of a firm and may well lead to new transactions. There are numerous empirical studies that suggest a good reputation leads to an increased networking capability. Shane and Cable (2002), for example, find that investors are more likely to fund a project of a firm with a good reputation. Corporate reputation is also an important determinant of partnerships (Muller and Pénin 2006), alliances, joint ventures and other interorganizational relationships (Dollinger, Golden and Saxton 1997).

CONCLUSION

We have given an overview of the existing literature on the value-adding resources of family firms, using an intangibles framework. As proposed by Hall (1992, 1993), we review and categorize family intangible resources into organizational culture, reputation, human capital and

networks. We summarize the research in function of each of these categories and note the underlying relations between these intangibles for the family firm. We offer a research agenda by highlighting the importance of combining and recombining these resources instead of studying them separately. That is, we discuss how these intangible resources interact and enrich each other via reciprocal relationships. Future research could further develop the theory on, and empirically test, these relationships. Additional research could, for example, examine whether these intangible family resources and their interactions vary with the governance system, the management or the generational stage of a family firm.

However, the empirical testing of these relationships calls for vigilance because of the difficulties one can encounter when searching for empirical evidence based on the theoretical foundations of the resource-based view. For instance, testing hypotheses built on this perspective means looking for resources that are unique and non-substitutable (Barney 1991). These kinds of resources are unlikely to be easy to identify, let alone measure. Furthermore, empirical research on the advantage of a resource implies the creation of a sample of homogeneous firms that have this resource, which would violate the definition of the uniqueness of that resource. Several scholars such as Gibbert (2006), Newbert (2007), Armstrong and Shimizu (2007) and Hansen et al. (2004) point out these difficulties and make suggestions for overcoming them. The use of panel data sets is a common suggestion but techniques such as Bayesian analysis are also promising (e.g., Hansen et al. 2004). This Bayesian methodology does not violate the assumption of uniqueness since this technique does not rely on averages of a homogeneous sample to calculate the parameters of interest (Hansen et al. 2004 and Hahn and Doh 2006).

References

- Abrams LC, Cross R, Lesser E and Levin DZ (2003) Nurturing interpersonal trust in knowledge-sharing networks, *Academy of Management Executive*, 17(4): 64-77.
- Anderson R, Reeb D (2003) Founding-family ownership and firm performance: evidence from the S&P 500, *Journal of Finance*, 58 (3): 1301-1328.
- Anderson AR, Jack SL and Dodd SD (2005) The role of family members in entrepreneurial networks: beyond the boundaries of the family firm, *Family Business Review*, 18(2): 135-154.
- Armstrong GE and Shimizu K (2007) A review of approaches to empirical research on the resource-based view of the firm, *Journal of Management*, 33(6): 959-986.
- Aronoff CE and Ward JL (1995) Family-ownership business: a thing of the past or a model for the future, *Family Business Review*, 8(2): 121-130.
- Arrègle J, Hitt MA, Sirmon DG and Very P (2007) The development of organizational social capital: attributes of family firms, *Journal of Management Studies*, 44(1): 73-95.
- Barney J (1986) Organizational culture: can it be a source of sustained competitive advantage? *Academy of Management Review*, 11(3): 656-665.
- Barney J (1991) Firm resources and sustained competitive advantage, *Journal of Management*, 17(1): 99-120.
- Barontini, R and Caprio, L (2006) The effect of family control on firm value and performance: evidence from continental Europe, *European Financial Management*, 12(5): 689-723.
- Bennedsen M, Nielsen KM, Perez-Gonzalez F and Wolfenzon D (2007) Inside the family firm: the role of families in succession decisions and performance, *The Quarterly Journal of Economics*, 122(2): 647-691.

- Beugelsdijk S, Noorderhaven NG and Koen CI (2006) Organizational culture and relationship skills, *Organization Studies*, 27(6): 833-854.
- Bloom, N and Van Reenen J (2007) Measuring and explaining management practices across firms and countries, *Quarterly Journal of Economics*, 122 (4): 1351-1408.
- Burt RS (1997) The contingent value of social capital, *Administrative Science Quarterly*, 42(2): 339-365.
- Cabrera-Suárez K, Saá-Pérez D and García-Almeida D (2001) The succession process from a resource- and knowledge-based view of the family firm, *Family Business Review*, 14(1): 37-47.
- Canibano L, Covarsi MG and Sánchez MP (1999) The value relevance and managerial implications of intangibles: a literature review, international symposium: measuring and reporting intellectual capital: experiences, issues, and prospects, OECD, 9-10 June, Amsterdam.
- Carmeli A (2004) Assessing core intangible resources, *European Management Journal*, 22(1): 110-122.
- Chang EPC, Memili E, Chrisman JJ, Kellermanns FW and Chua JH (2009) Family social capital, venture preparedness, and start-up decisions, *Family Business Review*, 22(3): 279-292.
- Chrisman JJ, Chua JH and Steier L (2005) Sources and consequences of distinctive familiness: an introduction, *Entrepreneurship: Theory and Practice*, 29(3): 237-247.
- Coleman JS (1988) Social capital in the creation of human capital, *American Journal of Sociology*, 94(1): 95-120.

- Cooper MJ, Upton N and Seaman S (2005) Customer relationship management: a competitive analysis of family and nonfamily business practices, *Journal of Small Business Management*, 43(3): 242-256.
- Covin TJ (1994a) Perceptions of family-owned firms: the impact of gender and educational level, *Journal of Small Business Management*, 32(3): 29-39.
- Covin TJ (1994b) Profiling preferences for employment in family-owned firms, *Family Business Review*, 7(3): 287-296.
- Craig JB, Dibrell C and Davis PS, (2008) Leveraging family-based brand identity to enhance firm competitiveness and performance in family businesses, *Journal of Small Business Management*, 46(3): 351-371.
- Craig JB, Moores K, Howorth C and Poutziouris P (2009) Family business research at a tipping point threshold, *Journal of Management and Organization*, 15(3): 282-293.
- Davis JH, Schoorman FD and Donaldson L (1997) Toward a stewardship theory of management, *Academy of Management Review*, 22(1): 20-47.
- Denison D, Lief C and Ward JL (2004) Culture in family-owned enterprises: recognizing and leveraging unique strengths, *Family Business Review*, 17(1): 61-70.
- Denoble A, Ehrlich S and Singh G (2007) Toward the development of a family business self-efficacy scale: a resource-based perspective, *Family Business Review*, 20(2): 127-140.
- Dobrzynski JH (1993) Relationship investing, *Business Week*, 42(2): 93-105.
- Dollinger MJ, Golden PA and Saxton T (1997) The effect of reputation on the decision to joint venture, *Strategic Management Journal*, 18(2): 127-140.
- Donnelly R (1964) The family business, *Harvard Business Review*, 42(2): 93-105.

- Dunn B (1995) Success themes in Scottish family enterprises: philosophies and practices through the generations, *Family Business Review*, 8(1): 17-28.
- Dyer JH and Singh (1998) The relational view: cooperative strategy and sources of interorganizational competitive advantage, *Academy of Management Review*, 23(4): 660-679.
- Dyer JH, Kale P and Singh H (2001) How to make strategic alliances work, *Sloan Management Review*, 42(4): 37-43.
- Dyer WG (2006) Examining the “family effect” on firm performance, *Family Business Review*, 19(4): 253-273.
- Dyer WG and Whetten DA (2006) Family firms and social responsibility: preliminary evidence from the S&P 500, *Entrepreneurship: Theory and Practice*, 30(6): 785-802.
- Eddleston AK, Kellermanns W and Sarathy R (2008) Resource configuration in family firms: linking resources, strategic planning and technological opportunities to performance, *Journal of Management Studies*, 45(1): 26-50.
- Fombrun CJ and Shanley M (1990) What’s a name? Reputation building and corporate strategy, *Academy of Management Journal*, 33(2): 233-258.
- Fombrun CJ (1996) *Reputation: realizing value from the corporate image*, Harvard Business School, Boston.
- Gedajlovic E, Lubatkin MH and Schulze WS (2004) Crossing the threshold from founder management to professional management: a governance perspective, *Journal of Management Studies*, 41(5): 899-912.
- Gibbert M (2006) Generalizing about uniqueness: an essay on an apparent paradox in the resource-based view, *Journal of Management Inquiry*, 15(2): 124-134.

- Glückler J and Armbrüster T (2003) Bridging uncertainty in management consulting: the mechanisms of trust and networked reputation, *Organization Studies*, 24 (2): 269-297.
- Goffee R and Scase R (1985) Proprietary control in family firms: some functions of 'quasi-organic' management systems, *Journal of Management Studies*, 22(1): 53-68.
- Gómez-Mejía LR, Núñez-Nickel M and Gutierrez I (2001) The role of family ties in agency contracts, *Academy of Management Journal*, 44(1): 81-95.
- Gómez-Mejía LR, Haynes KT, Núñez-Nickel M, Jacobson KJL and Moyano-Fuentes J (2007) Socioemotional wealth and business risks in family-controlled firms: evidence from Spanish olive oil mills, *Administrative Science Quarterly*, 52(1): 106-137.
- Gulati R (1995) Does familiarity breed trust? The implications of repeated ties for contractual choice in alliances, *Academy of Management Journal*, 38(1): 85-112.
- Guthrie J (2001) The management, measurement and the reporting of intellectual capital, *Journal of Intellectual Capital*, 2(1): 27-41.
- Haanes K and Lowendahl B (1997) The unit of activity: towards an alternative to the theories of the firm, in H. Thomas et al. (Eds.), *Strategy, Structure and Style*, pp. 201-18, John Wiley, Chichester.
- Haanes K and Fjeldstad Ø (2000) Linking intangible resources and competition, *European Management Journal*, 18(1): 52-62.
- Habbershon TG and Williams ML (1999) A resource-based framework for assessing strategic advantages of family firms, *Family Business Review*, 12(1): 1-22.
- Habbershon TG, Williams M and MacMillan (2003) A unified perspective of family firm performance, *Journal of Business Venturing*, 18(4): 451-465.

- Hahn ED and Doh JP (2006) Using Bayesian methods in strategy research: an extension of Hansen et al., *Strategic Management Journal*, 27(8): 783-798.
- Hall R (1992) The strategic analysis of intangible resources, *Strategic Management Journal*, 13(2): 135-144.
- Hall R (1993) A framework linking intangible resources and capabilities to sustainable competitive advantage, *Strategic Management Journal*, 14(8): 607-618.
- Hall A, Melin L and Nordqvist M (2001) Entrepreneurship as radical change in the family business: exploring the role of culture patterns, *Family Business Review*, 14(3): 193-208.
- Hansen MH, Perry LT and Reese CH (2004) A Bayesian operationalization of the resource-based view, *Strategic Management Journal*, 25(13): 1279-1295.
- Harel GH and Tzafrir SS (2004) The effect of human resource management practices on the perceptions of organizational and market performance of the firm, *Human Resource Management*, 38(3): 185-200.
- Hitt MA, Bierman L, Shimizu K and Kochhar R (2001) Direct and moderating effects of human capital on strategy and performance in professional service firms: a resource-based perspective, *Academy of Management*, 44(1): 13-28.
- Hitt MA, Ireland RD, Camp SM and Sexton DL (2001) Strategic entrepreneurship: entrepreneurial strategies for wealth creation, *Strategic Management Journal*, 22(6-7): 479-491.
- Hoffman J, Hoelscher M and Sorenson R (2006) Achieving sustained competitive advantage: a family capital theory, *Family Business Review*, 14(2): 135-145.
- Hofstede G (1980) *Cultures' consequences: international differences in work related values*. Beverly Hills: CA Sage.

- Hoover EA and Hoover CL (1999) What you see ahead, *Family Business Magazine*, 11(4): 31-34.
- Horton TP (1986) Managing in a family way, *Management Review*, 75 (2): 3.
- Itami H (1987) *Mobilizing invisible assets*. Harvard University Press, Cambridge.
- Jack SL (2005) The role, use and activation of strong and weak network ties: a qualitative analysis, *Journal of Management Studies*, 42(6): 1233-1259.
- James HS Jr (1999) Owner as manager, extended horizons and the family firm, *International Journal of Economics and Business*, 6(1): 41-55.
- Johanson U, Mårtensson M and Skoog M, (2001) Mobilizing change through the management control of intangibles, *Accounting, Organizations and Society*, 26(7-8): 715-733.
- Kellermanns FW and Eddleston KA (2007) A family perspective on when conflict benefits family firm, *Journal of Business Research*, 60(10): 1048-1057.
- La Porta R, Lopez-De-Silanes F and Shleifer A (1999) Corporate ownership around the world, *The Journal of Finance*, 54(2): 471-517.
- Le Breton-Miller I and Miller D (2006) Why do some family businesses out-compete? governance, long-term orientations, and sustainable capability, *Entrepreneurship: Theory and Practice*, 30(6): 731-746.
- Lee, J (2006) Family firm performance: further evidence, *Family Business Review*, 19(2): 103-114.
- Levie J and Lerner M (2009) resource mobilization and performance in family and nonfamily businesses in the united kingdom, *Family Business Review*, 22(1): 25-38.

- Lockett A, Thompson S and Morgenstern U (2009) The development of the resource-based view of the firm: a critical appraisal, *International Journal of Management Reviews*, 11(1): 9-28.
- Lubatkin M, Schulze W, Ling Y and Dino R (2005) The effects of parental altruism on the governance of family-managed firms, *Journal of Organizational Behaviour*, 26(3): 313-330.
- Lubatkin, MH, Durand, R and 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.
- McConaughy DL, Matthews CH, Fialko AS (2001) Founding family controlled firms: performance, risk, and value, *Journal of Small Business Management*, 39(1), 31-49.
- Michalisin MD, Smith RD and Douglas MK (1997) In search of strategic assets, *The International Journal of Organizational Analysis*, 5(4): 360-387.
- Miller D and Le Breton-Miller I (2003) The challenges and advantages of family business, *Strategic Organization*, 1(1): 127-134.
- Miller D and Le Breton-Miller I (2006a) Family governance and firm performance: agency, stewardship, and capabilities, *Family Business Review*, 14(1): 73-87.
- Miller D and Le Breton-Miller I (2006b) Priorities, practices and strategies in successful and failing family businesses: an elaboration and test of the configuration perspective, *Strategic Organization*, 4(4): 379-407.
- Miller D, Le Breton-Miller I, Lester RH and Cannella AA (2007) Are family firms really superior performers? *Journal of Corporate Finance*, 13(5): 829-858.

- Morck R, Stangeland D and Yeung B (2000) Inherited wealth, corporate control, and economic growth? in Morck Randall, (Eds) *Concentrated Corporate Ownership NBER Conference Volume*, pp. 319–69, University of Chicago Press, Chicago.
- Muller P and Pénin J (2006) Why do firms disclose knowledge and how does it matter? *Journal of Evolutionary Economics*, 16(1-2): 85-108.
- Nahapiet J and Ghoshal S (1998) Social capital, intellectual capital, and the organizational advantage, *Academy of Management Review*, 23(2): 242-266.
- Newbert SL (2007) Empirical research on the resource-based view of the firm: an assessment and suggestions for future research, *Strategic Management Journal*, 28: 121-146.
- Niemelä T (2004) Interfirm cooperation capability in the context of networking family firms: the role of power, *Family Business Review*, 17(4): 319-330.
- OECD (1992) *Technology and the economy. The key relationships*, Paris: The Technology/Economy Program.
- Penrose ET (1959) *The theory of the growth of the firm*. John Wiley & Sons, New York.
- Peters TJ and Waterman RH (1982) *In search of excellence*. Harper and Row, New York.
- Petrash G (1996) Dow's journey to a knowledge value management culture, *European Management Journal*, 14(4): 365-373.
- Post JE (1993) The greening of the park plaza hotel, *Family Business Review*, 6(2): 131-148.
- Poza EJ, Hanlon S and Kishida R (2004) Does the family business interaction factor represent a resource or a cost? *Family Business Review*, 17(2): 99-118.
- Poza EJ (2007) *Family Business* 2nd edn, Thompson South Western, Mason, Ohio.
- Prahalad CK and Hamel G (1990) The core competence of the corporation, *Harvard Business Review*, 68(3): 79-91.

- Salvato C and Melin L (2008) Creating value across generations in family-controlled businesses: the role of family social capital, *Family Business Review*, 21(3): 259-276.
- Schein EH (1983) The role of the founder in creating organizational culture, *Organizational Dynamics*, 12(1): 13-28.
- Schein EH (1985) *Organizational culture and leadership*. Jossey-Bass Inc. Publishers, San Francisco.
- Schulze WS, Lubatkin MH, Dino RN and Buchholtz AK (2001) Agency relationships in family firms: theory and evidence, *Organization Science*, 12(2): 99-116.
- Schulze WS, Lubatkin MH and Dino RN (2002) Altruism, agency, and the competitiveness of family firms, *Managerial and Decision Economics*, 23(4-5): 247-259.
- Schulze WS, Lubatkin MH and Dino RN (2003) Exploring the agency consequences of ownership dispersion among the directors of private family firms, *Academy of Management Journal*, 46 (2): 179-194.
- Shane S and Cable D (2002) Network ties, reputation, and the financing of new ventures, *Management Science*, 48(3): 364-381.
- Sharma P, Chrisman JJ and Chua JH (1997) Strategic management of the family business: past research and future challenges, *Family Business Review*, 10(1): 1-34.
- Short JC, Payne GT, Brigham KH, Lumpkin GT and Broberg JC (2009) Family firms and entrepreneurial orientation in publicly traded firms: a comparative analysis of the S&P 500, *Family Business Review*, 22(1), 9-24.
- Sirmon DG and Hitt MA (2003) Managing resources: linking unique resources, management, and wealth creation in family firms, *Entrepreneurship: Theory and Practice*, 27(4): 339-358.

- Sirmon DG, Arrègle J, Hitt MA and Webb WJ (2008) The role of family influence in firms' strategic responses to threat of imitation, *Entrepreneurship: Theory and Practice*, 32(9): 979-998.
- Sorenson RL, Goodpaster KE, Hedberg PR and Yu A (2009) The family point of view, family social capital, and firm performance, *Family Business Review*, 22(3): 239-253.
- Steier L (2001) Next-generation entrepreneurs and succession: an exploratory study of modes and means of managing social capital, *Family Business Review*, 14(3): 259-276.
- Tagiuri R and Davis JA (1996) Bivalent attributes of the family firm, *Family Business Review*, 9(2): 199-208.
- Teece DJ (1992) Foreign investment and technological development in Silicon Valley, *California Management Review*, 34(2): 88-106.
- Teece DJ, Pisano G and Shuen A (1997) Dynamic capabilities and strategic management, *Strategic Management Journal*, 18(7): 509-533.
- Thomas J (2009) Attitudes and expectations of shareholders: The case of the multi-generation family business, *Journal of Management & Organization*, 15(3): 346-362.
- Tokarczyk J, Hansen E, Green M and Down J (2007) A resource-based view and market orientation theory examination of the role of "familiness" in family business success, *Family Business Review*, 20(1): 17-31.
- Turban DB and Cable DM (2003) Firm reputation and applicant pool characteristics, *Journal of Organizational Behavior*, 24(6): 733-751.
- Villalonga B (2000) Intangible resources, Tobin's Q, and sustainability of performance differences, *Journal of Economic Behavior & Organization*, 54(2): 205-230.

- Villalonga B and Amit R (2006) How do family ownership, control and management affect firm value, *Journal of Financial Economics*, 80: 385-417.
- Voordeckers W, Steijvers T and Peeters L (2010) 'The ownership-performance relationship: agency issues in private family firms', Paper presented at the Annual European Academy of Management (EURAM) Conference, 19-22 May, Rome Italy.
- Wang IM, Shieh CJ and Wang FJ (2008) Effect of human capital investment on organizational performance, *Social Behavior and Personality*, 36(8): 1011-1022.
- Ward JL (1987) *Keeping the family business healthy: how to plan for continuous growth, profitability, and family leadership*. Jossey-Bass, San Francisco.
- Ward JL and Aronoff CE (1991a) The power of patient capital, *Nation's Business*, 79(9): 48-49.
- Ward JL and Aronoff CE (1991b) Trust gives you the advantage, *Nation's Business*, 79(8): 42-45.
- Ward JL (2004) *Perpetuating the family business: 50 lessons learned from long-lasting, successful families in business*, Macmillan, Houndmills.
- Wernerfelt B (1984) A resource-based view of the firm, *Strategic Management Journal*, 5(2): 171-180.
- Zahra SA, Hayton JC and Salvato C (2004) Entrepreneurship in family vs. non-family firms: a resource-based analysis of the effect of organizational culture, *Entrepreneurship: Theory & Practice*, 28(4): 363-381.
- Zahra SA, Hayton JC, Neubaum DO, Dibrell C and Craig J (2008) Culture of family commitment and strategic flexibility: the moderating effect of stewardship, *Entrepreneurship: Theory and Practice*, 32(9): 1035-1054.

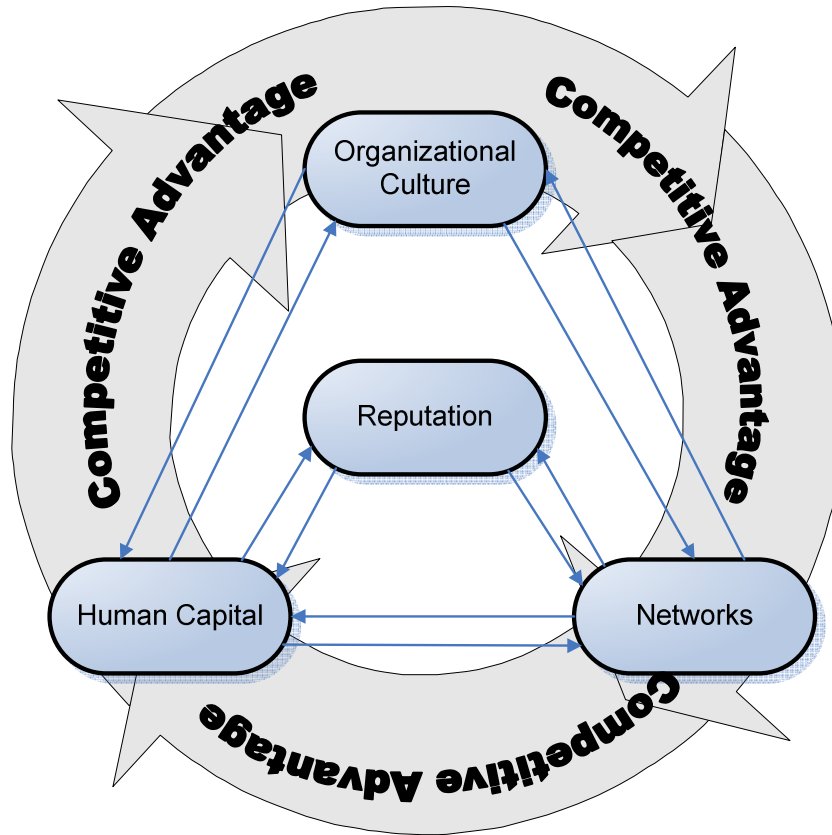


Figure 1: Reciprocal Relationships between Organizational Culture, Human Capital, Networks, Reputation and Competitive Advantage: Future Challenges

Table 1: Overview of Empirical Findings on Family Firm Intangible Resources

Author(s) (year)	Analytical approach	Intangible resources investigated	Findings (only sign. results)
Poza et al. (2004)	Factor analysis, multivariate analysis of variance and univariate test of variance	- Human capital	<ul style="list-style-type: none"> • CEOs differ from the rest of the family and from nonfamily managers in perceptions of management practices, perceptions of succession processes, assessment of family participation, harmony, and tolerance of differences in the family. • The perception of business opportunity and the interaction between the firm and the family influences managerial practices.
DeNoble et al. (2007)	Qualitative study	- Human capital - Networks	<ul style="list-style-type: none"> • In order for a succession to be successful, the heir should possess a high degree of self-efficiency. • The successor must build carefully on his relations with managers, employees, customers, suppliers and other key stakeholders, and he must have certain general business skills.
Tokarczyk et al. (2007)	Qualitative study	- Organizational culture - Human capital	<ul style="list-style-type: none"> • Familiness has a positive influence on the long-term success of the family business. • Familiness has a positive influence on the creation of a market-orientated culture.
Sirmon, Arrègle, Hitt and Webb (2008)	Regression analysis	- Organizational culture - Human capital	<ul style="list-style-type: none"> • Imitability negatively affects firm performance. • The strategic actions of R&D investments and internationalization fully mediate the relationship between imitability and performance. • Family influence positively moderates both the imitability/R&D investment relationship and the imitability/internationalization relationship.
Craig et al. (2008)	Structural Equation Modeling	- Reputation	<ul style="list-style-type: none"> • The positive relationship between family-based brand identity and firm performance is fully mediated by the level of customer-centric orientation.
Eddleston et al. (2008)	Regression analysis	- Organizational culture - Human capital	<ul style="list-style-type: none"> • Innovative capacity and reciprocal altruism are both positively related to family-firm performance. • Strategic planning negatively moderates the relationship between innovative capacity and family firm performance. • Technological opportunities positively moderate the relationship between reciprocal altruism and family-firm performance.

Zahra et al. (2008)	Hierarchical regression analysis	<ul style="list-style-type: none"> - Organizational culture - Human capital 	<ul style="list-style-type: none"> • A strong family-oriented culture and a stewardship-oriented organizational culture both have a positive influence on the strategic flexibility of a family firm. • Stewardship positively moderates the relation between a strong family-orientated culture and a firm's strategic flexibility.
Salvato and Melin (2008)	Qualitative study	<ul style="list-style-type: none"> - Organizational culture - Human capital - Networks 	<ul style="list-style-type: none"> • Family members' network centrality positively influences the controlling family's appropriability (i.e., ability to leverage the family's bridging social capital to access external resources). • Family business complexity positively moderates the relationship between the network centrality and the family's appropriability. • Closure of ties within the controlling family and trustworthiness among family members positively influences family generated human capital. • The family business life cycle moderates the relationship between internal family ties and family generated human capital. • Closure and trustworthiness among family members positively influences norms, obligations, and expectations generating family cohesiveness. • Family cohesiveness positively influences access to external resources and the creation of family human capital.
Sorenson et al. (2009)	Structural equation modelling	<ul style="list-style-type: none"> - Organizational culture - Human capital 	<ul style="list-style-type: none"> • The level of collaborative dialogue is positively related to the development of ethical norms in a family firm. • The level of ethical norms has a positive influence on the formation of family social capital. • The level of social capital has a positive effect on the level of firm performance.
Chang et al. (2009)	Structural equation modeling	<ul style="list-style-type: none"> - Human capital - Networks 	<ul style="list-style-type: none"> • An entrepreneur's knowledge base, family support and external support have a positive influence on venture preparedness of the entrepreneurs. • Family support and venture preparedness have a positive influence on start-up decisions.
Levie and Lerner (2009)	Regression analysis	<ul style="list-style-type: none"> - Human capital 	<ul style="list-style-type: none"> • Family businesses (as compared to non-family businesses) have lower levels of human capital, are more likely to show opportunism, are more likely to operate relatively unattractive niches and are less likely to take in external equity than external debt.

