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Corporate Governance in Family Firms

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The Norwegian Maritime Sector

Kristin Wallevik

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Kristin Wallevik
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Corporate Governance in Family Firms
The Norwegian Maritime Sector

Kristin Wallevik

A dissertation submitted to
Copenhagen Business School
2009

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Kristiansand, July 2009

Kristin Wallevik

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Introduction - Overview of the Four Papers

The four papers in this thesis investigate corporate governance in family firms from different angles, with emphasis on industry and industry networks. I divide the industry networks into social and commercial networks, where social networks are measured by interlocking boards and commercial networks by investments in other firms in the same industry. Focus is on the governance structures in family firms, how industry and networks may be determinants of family ownership, and the effect of family ownership and strong industry networks on financial performance in certain industries (such as the maritime industry). Two of the papers are theoretical papers and two are empirical papers. The empirical papers are based on the same hand-collected dataset comprising 167 Norwegian listed companies from 1996-2005.

The first paper - “Corporate Governance in Family firms” comprises a survey of the corporate governance literature on family firms, paying attention to the unique issues in the governance of these firms. I discuss different forms of ownership and how different agency contexts and business environments may suit family ownership better than other ownership structures. I also discuss how firms can reap the benefits of family ownership, by using a relational governance model, if there is an atmosphere of positive relationships, trust and shared visions. A relational governance model focuses on the social capital embedded in personal relations between owners, managers and board members. A contractual governance model, however, focuses on finding the optimal incentives in the relations between owners and managers, in addition to having greater focus on the monitoring role of the board. These two models may complement and supplement each other in a governance structure. The question is how these different governance models affect firms’ operations, decision-making, and competitiveness.

The second paper - “The Effect of Industry Networks on Family Ownership” deals with possible effects of industry networks on the prevalence of family firms in different industries. I discuss how various networks can be determinants of family ownership, in addition to elements like incentives, monitoring, and altruism, as well as firm, industry and nation specific factors. I also discuss whether family firms can gain more from these industry networks than other firms due to a higher degree of “thick trust”, strong owner-manager relations and the use of a relational governance structure. This paper proposes that strong social and commercial networks affect the number of family firms in an industry, as a result of the social capital embedded in these relations.

Paper three - “Social and Commercial Networks as Determinants of Family Ownership - The Norwegian Shipping Industry” is an empirical paper testing whether industry networks are among the determinants of family ownership in the Norwegian shipping industry. The overall question is why family ownership is more prevalent in some industries, and which elements that influence this ownership structure. I focus on industry effects such as the number of firms in an industry and the social and commercial industry networks between firms. These are potential determinants of family ownership. I find that both industry and various industry networks have a significant and positive effect on family ownership in the shipping industry.

The fourth paper - “Family Ownership, Networks and Financial Performance” takes up the question whether family ownership and various networks affect financial performance, measured by Tobin’s q and ROA lagged, or not. Earlier studies come to different conclusions regarding the relationship between family ownership and firm performance, which may be due to differences in the agency context of the studies. I add industry and industry networks as central variables to disentangle some of the contextual factors in this relationship. This paper argues that it is not necessarily the family ownership that affects performance, but how this ownership is used in a strategic manner. Establishing and using networks are seemingly a means of operation in some industries, sometimes with a positive effect on performance.

Overall, I find that industry and various forms of industry networks have a positive effect on family ownership in some industries. I also find that family ownership and industry networks have a positive effect on financial performance in some industries, but not in others. This indicates that the effects of family ownership on performance should be seen in the agency context in which firms operate, where industry networks can be regarded as a part of the business environment. A general issue is how to define the family firm, and earlier studies give only limited support for a general definition of family firms. My main definition is a minimum of 20% family ownership, or CEO/Chair, with variations in the level of family influence and generations. This is in line with the strongest definition by Amit and Villalonga (2006). One challenge throughout these papers is how to deal with endogeneity and reverse causality, where the main question is what the cause and effect of family ownership and networks are. If strong networks are one reason for family ownership, does this enhance networks or is it the other way around – that networks enhance family ownership? Also, do family firms remain family owned because they are successful or do they become successful because they are family owned? These issues are discussed in the various papers.

Motivation

Why is the ownership structure in the shipping industry an interesting object of study? During many years of work experience in the maritime industry I have followed this specific industry with great interest. I find it puzzling that so many of the shipping companies, both listed and non-listed, are family owned and have been so for several generations. This is the case in Norway, but also other countries with a large maritime industry have a considerable number of family firms in this specific industry. Many of the firms have been able to remain family owned for decades in spite of high risk, volatility and capital intensity. In addition, many family-owned shipping firms worldwide have diversified and expanded into new segments of the maritime industry. Several of this type of Norwegian shipping firms have entered into the offshore and oil service sector, and remained in the maritime industry, with great success. Has this been possible due to strong social and commercial networks? Within the framework of this thesis, I focus more on *why* family firms rather than *how* these family firms differ from non-family firms.

A Short Description of the Maritime Industry

Looking at some of the characteristics of the maritime industry, one may state that it is very much a cyclical and volatile industry with large price fluctuations both in freight rates, and in new and second-hand prices of rigs and tonnage. This implies that the margins in this specific industry vary considerably, depending on external factors like oil and commodity prices, interest rates, exchange rates, to mention only some factors. The industry operates in a highly competitive global product market requiring the right long-term strategies and decisions in order to remain competitive. The maritime industry is also very capital intensive, with high barriers of entry. In order to avoid having to sell tonnage at low prices, a long-term horizon on some of the investments is required. Consequently, the maritime industry is regarded a high risk business where financial strength is a prerequisite for remaining in the industry over time.

Another characteristic of the maritime industry is that many countries with a large maritime sector show a higher proportion of family firms in this specific industry, compared to other industries, as earlier mentioned. This seems to apply both for listed and non-listed maritime companies. There also seems to be a higher number of old family firms with the descendant family as controlling owners in this specific industry. In addition, the shipping industry, both in Norway and in other shipping nations, is characterized by being an old industry with long traditions where many of the firms have roots going decades back in history.

Finally, there seem to be stronger networks in the maritime industry compared to many other industries. As a result of a long history, many of the firms have been able to establish long-lasting social and commercial networks and relations through collaboration and partnerships, over years. In Norway, shipping firms seem to make larger investments within the same industry than firms in other industries. Either they invest in other firms in the same industry, or they establish partnerships, or they make co-investments. They also have a higher level of board interlocks between firms in the same industry. This should strengthen the ties between these firms, thereby reinforcing the strong collaboration, partnerships and co-investments. In addition, the Norwegian maritime industry is regarded as a very complete industrial cluster due to the collaborations and strong industry networks prevalent in this specific industry.

To sum up the characteristics of the maritime industry: 1) It is capital intensive, volatile and risky, 2) it has a high degree of family ownership and, 3) it has strong industry networks. Some of these industry specific elements are in favor of family ownership, whereas others point in the direction of dispersed ownership. I find this contradiction interesting and discuss whether social and commercial networks are additional explanations for this phenomenon. For this purpose, I find that the shipping industry is a relevant industry to study in order to understand some of the underlying mechanisms in family firms. The aim of this thesis is to disentangle the effect of the family ownership from the effect of the business environment, where industry and strong networks are important factors in the analysis of family firms.

Possible Reasons for Family Ownership in this Specific Industry

Generally, reasons for a high degree of family ownership in this sector could be long-term investments (suited to the horizon of family firms), high volatility (indicating larger gains from closer monitoring), and altruism. On the other hand, arguments against family ownership in this specific industry would normally be high capital intensity, high barriers of entry as well as high risk. Traditionally, ship owners are regarded as commercially oriented business people, and altruism has not been used as a common characteristic of these shipping firms. Nevertheless, old traditions, strong networks and history could be motives for remaining family owned, in addition to financial reasons. It may also be that family ownership is possible due to the social capital embedded in the industry networks, where the families can overcome resource restraints through such networks. This makes it possible for family firms to take part in capital intensive and high-risk projects without bearing all the risk, thus strengthening the industry networks as well as the chance of remaining family owned.

On the other hand, it may be that family ownership is a more viable ownership structure in this specific industry. It may be that family ownership is favorable in shipping, due to strong networks, melting of clusters through interlocking boards, knowledge transfer and social relations. Interlocks secure access to critical resources and competence through board members or managerial positions, but they may also give valuable insight into other parts of the industry. This insight, as well as the knowledge developed through interaction with knowledgeable others, may lead to “tacit knowledge”. Furthermore, this “tacit knowledge” may create a competitive advantage in some industries that is not easily traded or imitated. One can define this knowledge as social capital, and argue that the social capital embedded through these social and commercial networks, gives a competitive advantage.

In this thesis, the overall discussion is how to disentangle some of the contextual factors affecting both the family ownership and the relationship between family ownership and performance. In this context, I consider industry and various industry networks as important independent variables in the different analyses. Some of the questions are:

- 1) Why is family ownership so prevalent in the maritime industry worldwide, in spite of capital intensity and high risk, as well as differences in legal structures and accounting regimes across nations?
- 2) Are social and commercial networks among the determinants of family ownership in some industries, and how can they be measured?
- 3) Is family ownership a more viable ownership structure in some industries due to:
 - a. A more relational governance structure?
 - b. Firm, industry and nation specific factors?
 - c. Social capital embedded in strong industry networks?
- 4) What makes these firms able to remain family owned through generations?
 - a. Do they utilize industry networks to overcome resource constraints?
 - b. Do they acquire higher financial performance from the various forms of networks?

As mentioned, one important issue is the endogeneity problem, with one question being what is the cause and what is the effect of ownership. For future research it could be interesting to further disentangle various structural elements within an industry by defining new proxies for different industry variables, getting deeper into the real causes of the effect of family ownership in different agency context and maybe partly solve the endogeneity problem.

Paper One
CORPORATE GOVERNANCE IN FAMILY FIRMS

Kristin Wallevik
Copenhagen Business School
2009

Abstract

This paper surveys corporate governance research on family firms, paying special attention to the unique elements in the governance of family firms. The result is mainly a discussion of corporate governance in family firms, emphasizing how elements like trust, altruism, traditions, family ties, strong networks, and relations affect the governance structure in these firms.

I argue that family firms tend to use a more “relational governance model” compared to non-family firms. This implies different mechanisms for selecting managers and board members, which impacts the relationship between the owners, managers and board members. I propose that social capital embedded in networks and relations cannot easily be traded or imitated and that this makes a difference in the governance of family firms versus non-family firms. A relational governance model may solve some corporate governance issues in a more optimal manner in an environment characterized by trust and shared visions. Family firms may also gain from a relational governance model due to the special traits typical to these firms, like family ties, overlapping roles in the firm, strong personal and social networks, as well as long lasting commercial networks.

Keywords: Family firms, relational governance, family ties, personal networks

1.0 INTRODUCTION

Several studies show that the closely held or the family firm is the norm for smaller firms and, in most countries, even for larger companies (Shleifer and Vishny, 1997; La Porta et al., 1999; Eisenberg, 1976). La Porta et al. (1999), find that only one-third of large listed firms have dispersed ownership, suggesting that the image of the “Berle and Means” corporation as the dominant ownership structure in the world is misleading. There is a growing body of research investigating the characteristics of concentrated ownership because of the specific costs and benefits in closely held firms (Claessens et al., 2000; Faccio and Lang, 2002). Since family ownership is the most common ownership structure in many countries (Shleifer and Vishny, 1986), several studies have also investigated the characteristics of this case of the closely held firm (Amit and Villalonga, 2006; Anderson and Reeb, 2003). Family firms have the special circumstances of family ties between family members and across generations, the family members often have several roles in the firm, in addition to the family often being a controlling block holder.

Generally, large owners have stronger incentives to monitor managers as well as the power to enforce their own interests. This should in principle increase shareholders’ value and financial performance due to increased incentives to monitor managers and reduce managerial opportunism (Thomsen and Pedersen, 2000). Nevertheless, large shareholders may also have an incentive to extract private benefits triggering agency problems and enhancing agency costs (Schulze et al., 2001). Consequently, family ownership could have both a positive and a negative effect on firm value. Several studies have analyzed the relationship between family ownership and performance, measuring financial performance by the market-to-book ratio, Tobin’s q or return on assets (Amit and Villalonga, 2006; Cronquist and Nilsson 2003; Gomez-Mejia et al., 2001; Gedaljovic and Shapiro, 2002; Anderson and Reeb, 2003; Anderson, Mansi and Reeb, 2003; Gugler, 2003). These studies draw different conclusions about this relationship. However, the various studies are conducted in different agency contexts and with different definitions of the family firm, which may partly explain the diverging results. The variations in results may also be due to firm, industry or nation specific factors, or due to different means of operations, strategic decisions and governance structures, affecting both the costs and the benefits of high ownership concentration and family control. For this reason, it seems difficult to establish one common relationship between family ownership and performance. This indicates that the agency context of the studies needs to be taken into consideration in the interpretation of the results.

Due to the worldwide prevalence of family firms, there should be some advantages with this ownership structure that offsets the diversification disadvantages, and so the optimal ownership structure includes an analysis of the trade-offs between risk and incentive efficiency (Jensen and Meckling, 1976; Fama and Jensen, 1983; Demsetz, 1983; Shleifer and Vishny, 1997). An important issue in the discussion of family firms from a corporate governance perspective is the question of succession and how this should happen. Burkart et al. (2003) argue that there are three broad theories of the benefits to a family of preserving control. The first benefit is that there is a significant “amenity potential” of family control, referring to the non-pecuniary private benefits of control. This means utility to the founder that does not come at the expense of profits and in cases where the amenity potential is large one can expect families to remain in control as long as they can (Demsetz and Lehn, 1985). A second reason for preservation of family control is that the family name itself is a carrier of a reputation in economic and political markets, giving “reputational benefits”, where these benefits are diluted if control is surrendered to an outsider. A third theory is the possibility of expropriation of outside investors that comes with control (Burkart et al., 2003).

In the analyses of family firms many questions arise: What determines the differences in family control among countries? How should family firms be defined? What influences and drives family ownership? Do families use controlling devices to enhance control? How do families govern the firm? Several of these questions are outside the scope of this paper, which will mainly be a discussion of corporate governance in family firms, emphasizing how elements like altruism, traditions, family ties, strong networks and relations affect governance structures in these firms. One may argue that there are some governance efficiencies in family firms compared to other firms due to the social institution the family represents. However, these efficiencies may also be due to the governance models they choose, where a more relational governance model may represent a better solution to governance problems in some firms and agency contexts. In order to discuss corporate governance in family firms, I first introduce some characteristics of the family firm in addition to a general introduction to corporate governance and why ownership is perceived to be such an important element. Thereafter, I discuss several of the theories used in the corporate governance literature and in the analyses of family firms, with agency theory being the most central. My main interest in this paper is the special factors in the governance of family firms, where the governance mechanisms are affected by family ties, strong relations and networks. For this purpose, I introduce the network and social capital theory in order to capture these additional traits.

1.1 Some Characteristics of the Family Firm

There is no common agreement on how to define what the term “family business” actually means. The family firm constitutes a wide range of firms, from small owner-manager firms to large listed family-controlled corporations (Mustakallio, 2002). Neubauer and Lank (1998) state, that a firm can be regarded as a family firm if a given family holds the voting control of the firm. Amit and Villalonga (2006), state that in family firms the family is often in control, either through being a large block holder with cash flow rights, or they have other voting arrangements enabling them to remain in control. Randøy and Goel (2003) also focus on the degree of influence and control through management positions or strong representation on the board in defining the family firm.

Even though family firms are different, they share some common characteristics. One central element in family firms is the overlapping roles of family, ownership and management. In firms with dominant family ownership, the family often has multiple roles in the firm through both management positions and board of directors (Tagiuri and Davis, 1982). Family involvement and the multiple roles they have may increase commitment to long-term value creation, but it may also represent a challenge in setting up optimal governance structures in these firms (Mustakallio, 2002). A second characteristic in family firms is the strong focus on owner identity, with shared identity and common language of families, a strong organizational culture, and family members’ business expertise gained during early childhood onwards (Kets de Vries, 1996; Neubauer and Lank, 1998; Mustakallio, 2002). Thirdly, altruism and stewardship are often used as characteristics of family firms compared to other ownership structures, where families are perceived to have focus on non-economic goals in addition to the economic goals (Donaldson and Davis, 1991; Lubatkin, Ling and Schulze, 2003; Kets de Vries, 1996). This mixture of business and non-business goals may lead to managerial entrenchment where owner-managers act opportunistically by satisfying their own needs at the expense of firm performance and long-term survival (Mustakallio, 2002). A fourth factor is the survival of the firm due to lack of management capabilities in family firms, especially regarding the descendants of founder (Gersick et al., 1997; Kets de Vries, 1996). Finally, shares in family firms are to a certain degree illiquid with the implication that selling out is not always an option for the owners of a family business (Mustakallio, 2002). The above mentioned elements are some of the characteristics often mentioned when discussing family ownership as opposed to other ownership structures. There are, however, additional issues related to family firms and to the governance of these firms that will be discussed later.

1.2 Ownership and Corporate Governance

Ownership has been one central element in the corporate governance research due to the effect it has on how firms operate and organize themselves (James, 1999), but also due to the question of who controls the firm (Bennedsen and Wolfenzon, 2000). Hansmann (1996) defines a firm's owners as persons having two formal rights: "the right to control the firm and the right to appropriate the firm's profits" (Hansmann, 1996, page 11). Fama and Jensen (1983a) focus on residual risk and residual claims as important in the study of ownership and different forms of economic organization, whereas Jensen and Meckling (1998) focus on the right to sell the ownership rights in their definition of ownership. Mustakallio (2002) summarizes the different definitions of ownership into three elements: 1) the right to control the firm, 2) the right to residual claims and 3) the right to sell ownership rights. In addition to the definition of ownership, an important question has been whether ownership should be treated as endogenous or exogenous. Various studies conclude differently on this point (Himmelberg et al., 1999; Gugler and Wiegand, 2003; Ekeland, 2002). In this paper I treat ownership as endogenous, where my main focus is on the governance of family firms more than the reasons for family ownership.

Earlier corporate governance literature tends to focus on the differences between dispersed and concentrated ownership in the analyses of corporate governance mechanisms. Dispersed ownership normally implies many small investors and separation between management and control (Berle and Means, 1932). One exception to this could be cases where there is a deviance between cash flow rights and controlling rights, either through multiple share classes or other controlling devices. Fama and Jensen (1983), state that this structure survives because of the benefits of specialization of management and risk bearing as well as control of agency problems. The definition of concentrated ownership may vary from country to country depending on the legal environment, the level of investor protection, as well as the size of firms. In the U.S, concentrated ownership in publicly listed firms is often defined as 5% or more of the voting rights (Amit and Villalonga, 2006). Due to the size of these firms, each share-holder only holds a small fraction of the equity, and 5% is regarded as a substantial share of the equity. In other countries where concentrated ownership is more common, the criterion is often 20% of the votes, assuming that 20% is enough to have effective control of a firm (La Porta et al., 1999). In defining a family firm, actual control and influence of the firm is often emphasized, compared with percentage ownership, focusing on means of maintaining control like multiple share classes or pyramids (Nenova, 2003; Burkart et al., 2003).

The finance literature focuses both on dispersed and concentrated ownership, but tends to have a strong shareholder perspective, especially regarding the possible exploitation of minority shareholders in publicly listed firms (La Porta et al., 1999). Family firm research, on the other hand, has often been found in the “management and entrepreneurial” literature, often focusing on non-listed family firms. However, in many countries there is also a large proportion of publicly listed family firms (Bertrand and Schoar, 2006), indicating that there is also a need to draw the attention to this type of family firm. In this paper I regard the family firm as a special case of the closely held firm, assuming that there are differences in the governance structure depending on whether the family is the block holder or not. I focus on the special issues in the governance of family firms, where the governance mechanisms should be set up to govern both the firm and the family.

There are different definitions of corporate governance. According to Shleifer and Vishny (1997, page 737), “corporate governance deals with the ways in which suppliers of finance to corporations assure themselves of getting a return on their investment”, with the corporate governance mechanisms supposedly providing this assurance. This perspective on corporate governance is often referred to as activities to reduce the problem of separation of ownership and control, often found in widely held firms (Shleifer and Vishny, 1997). Becht, Bolton and Roell (2002), define corporate governance issues as being concerned with the resolution of collective action problems among dispersed owners and the resolution of conflicts between various corporate claimholders. They mention that a fundamental dilemma of corporate governance is that regulating large shareholders is necessary, but limiting the power of large investors can also result in greater managerial discretion and scope for abuse. Both of these definitions stem from the agency theory perspective of the firm.

By adding the family dimension to these definitions, one may argue that the definition by Becht, Bolton and Roell (2002), focusing on regulating large shareholders applies. However, there are additional elements in the governance of family firms like altruism, family and personal ties, traditions, as well as strong networks (Lubatkin, Ling and Schulze, 2003; Kets de Vries, 1996), indicating that it may be relevant to add other theoretical perspectives into the discussion and definitions of corporate governance in family firms. The relational dimensions should be considered when setting up governance structures in these firms and for this purpose I add the network theory, including elements from the social capital theory, as additional theoretical frameworks in the discussion of family firm governance.

1.3 Different Governance Models

The corporate governance literature often defines corporate governance mechanisms as ownership structure, board structure and management incentives (Shleifer and Vishny, 1997). How these governance mechanisms are used, and the relationship between them, can be defined as the governance model or governance structure (Mustakallio, 2002). Different governance models may represent a behavioral distinction and apply in different ownership structures. Contractual and relational governance models represent two such models.

1) The contractual governance model

Agency theory views the firm as a nexus of contracts (Alchian and Demsetz, 1972; Jensen and Meckling, 1976), where these contracts specify the nature of residual claims as well as allocation of decision rights (Fama and Jensen, 1983). In this agency context, contractual governance addresses the aspects of the formal control exercised by the board of directors with the aim of improving strategic decision-making (Mustakallio, 2002). This model stresses the importance of ownership structure because of its influence on board composition and board roles (Zahra and Pearce, 1989). Both external and internal governance mechanisms are used to mitigate the agency problems by protecting shareholders against managerial opportunism (Jensen and Meckling, 1976). However, family firms often rely on internal governance mechanisms due to the fact that the market for corporate control is not as available to family firms and because of restrictions on trade of these shares (Bennedsen, 2002). Key words in the contractual governance model are ownership structure, board structure, board monitoring and board counsel, agency problems and control mechanisms.

2) The relational governance model

The relational governance model focuses on the optimal use of the social capital embedded in social relationships among the owner-family and the management (Mustakallio, 2002). Whether a family firm is successful depends on how it manages to reap the benefits of long lasting relationships, shared visions and trust among family members, and loyalty and long traditions (Harvey, 1999a; Ouchi, 1980). Differences in firm performance are a result of differences in the ability to create and use the social and human capital in the firm (Nahapiet and Ghoshal, 1998). Granovetter (1985) argues that the relational governance model can complement the contractual governance of family firms with the focus on trust, shared visions, family institutions and social interaction. Key words in this model are trust, altruism, relational contracting, and personal networks.

It is a general perception that the overall objective of corporate governance mechanisms is to reduce the agency problems through alignment of objectives between owners and managers, and thereby reduce agency costs. However, the optimal usage of the different corporate governance mechanisms depends on the agency context a firm operates within. For this reason, the corporate governance literature often divides the different governance mechanisms into internal and external instruments (Shleifer and Vishny, 1997). Internal corporate governance mechanisms often mentioned are board structure, management incentives, and ownership structure (Shleifer and Vishny, 1997), where the corporate governance research seems to regard ownership as a very important internal mechanism.

However, ownership in itself also involves governance costs such as costs of controlling managers, costs of collective decision-making and costs of risk bearing (Hansmann, 1996), and the relative costs vary with different forms of ownership. Different forms of ownership also have different characteristics regarding governance mechanisms. The external corporate governance mechanisms like product competition and the market for corporate control and takeovers are supposed to have a disciplining effect on managers, reducing the need for internal governance structures. Even though most researchers agree that product market competition is a powerful force toward economic efficiency, many are skeptical as to whether this alone can solve the problem of corporate governance (Shleifer and Vishny, 1997; Becht, Bolton and Roell, 2002). The use of internal or external governance mechanisms can change over time and within different business environments.

This paper focuses on how inter-relations between different internal governance mechanisms change with different ownership and the uniqueness in the governance of family firms. Family firms are of interest because they seem to have greater focus on owner identity and social aspects compared to non-family firms with large block holdings, and they may use other governance mechanisms in their governance structure in order to optimize the benefits of being a family firm. Family ownership per se is not necessarily a solution to governance problems, but in some contexts a relational governance model can reduce some of the governance problems in these firms. The structure of this paper is as follows: Section 2 presents different theoretical frameworks, and how these apply to the analysis of the governance of family firms. Section 3 discusses relational and contractual governance models. In section 4, I discuss the different relationships in family firms. Section 5 presents a relational governance model and section 6 has some concluding remarks.

2.0 THEORETICAL FRAMEWORKS

In this section, I first present some of the theories used in corporate governance research, their focus and their use in the governance of firms. Thereafter I discuss how the different theories are relevant in the governance of family firms and how they may solve some of the specific issues that apply in these firms, including a discussion of the selection of the theoretical frameworks for this paper.

2.1 Different Theories, their Focus and the Use in Governance

Agency theory is based on neoclassical economics, studying the relationship between managers and owners and assuming limited rationality and self-interested behavior of human beings (Milgrom and Roberts, 1992). It is considered the main theoretical framework for corporate governance research, due to the focus on separation of ownership and control (Eisenhardt, 1989; Zahra and Pearce, 1989). Nevertheless, separation of ownership and control is not always the main problem in the governance of firms. Sometimes the largest problems are expropriation of minority shareholders (La Porta et al., 1997), managerial entrenchment (Shleifer and Vishny, 1997), myopic altruism (Lubatkin, Ling and Schulze, 2003), or resource scarcity (Pfeffer, 1982). In order to capture the different governance issues, it may be valid to use other theories in addition to agency theory as theoretical frameworks for the analysis of corporate governance in firms (Eisenhardt, 1989). Table I gives an overview of some of the theories used in earlier corporate governance research.

Table I: Theoretical Frameworks in the Corporate Governance Literature

Theoretical framework:	Focus:	Use in governance:
Agency theory	Minimize problems of separation of ownership and control	Relationship between owners and managers, alignment, contractual governance
Transaction cost theory	Minimize transaction costs	Vertical integration, strategic alliances, markets, hierarchy
Institutional theory	Formal and informal structures, institutional aggregated preferences	Partnering, cooperation and interchange, networks, rules, norms, values and systems
Resource dependency theory	Manage dependency of critical resources	Networks, boards, intra-firm governance
Stewardship theory	Altruism, good steward, no alignment problem	Managers are trustworthy stewards, relational governance
Social capital theory	Resources created through relationships	Networks and inter-organizational relationships
Network theory	Ease transactions through networks	Vertical and horizontal relations in networks

(Source for parts of table I: Mustakallio, 2002)

Agency Theory

The aim of the agency theory is to explain why and how firms behave as they do (Jensen, 1983). Important factors are agency costs, allocation of property rights, decision-making and control (Fama and Jensen, 1983; Jensen and Meckling, 1976), and the assumption of limited rationality and self-interested behavior with the associated behavioral consequences in agency relationships (Milgrom and Roberts, 1992). In agency theory, corporate governance mechanisms are means of mitigating agency problems with a focus on relationships between principal and agent. Different governance systems are assumed to deal with these problems in different ways. Shleifer and Vishny (1997) focus on the problem of separation of ownership and control, often found in widely held firms, in their definition of corporate governance. Becht, Bolton and Roell (2002), however, focus on the resolution of conflicts between different corporate claimholders, either between dispersed owners or between large and small shareholders. These two different agency problems are discussed in the literature, where one problem is between shareholders and managers, and the other between majority and minority shareholders (Shleifer and Vishny, 1997; Amit and Villalonga, 2006).

The classic agency problem in firms with dispersed ownership is separation of ownership and control, where alignment of owners and managers is an important issue (Jensen and Meckling, 1976). In these firms, the main concern is expropriation of funds by the managers. This can be seen as the classic “Strong Managers, Weak Owners” problem (Roe, 1994), where there is a need for incentives in order to ensure that managers work in the interest of the shareholders. The worst agency problem in this respect is found in widely held firms with poor investment opportunities and free cash flow, where diversification and growth are among the most commonly cited managerial, as opposed to shareholder, objectives (Shleifer and Vishny, 1997; Jensen, 1986). In closely held and family firms, agency problems are not a result of separation of ownership and control, but of controlling shareholders not necessarily acting in the interest of non-controlling shareholders leading to a potential expropriation of minority shareholders (La Porta et al., 1997; Bennedsen and Wolfenzon, 2000). Expropriation of funds can be done by some shareholders taking cash out through transfer pricing, selling assets below the market price to other manager-owned businesses, managers using their control rights to pursue projects that benefit them rather than investors, or managers entrenching themselves and staying in the job too long (Shleifer and Vishny, 1997). La Porta et al. (1999), state that the expropriation of minority shareholders especially occurs in countries with weak legal protection and where concentrated ownership is more common.

Transaction Cost Theory

Transaction cost theory emphasizes the costs of writing good contracts, contractual incompleteness as well as the cost of renegotiating contracts (Coase 1937; Williamson, 1975, 1985; Hart 1995). It has been stated that firms have the ownership structure that minimizes these transaction costs (Williamson, 1979), and assumes informed and rational participants in these transactions. Williamson (1985) also regards transaction costs as a function of asset specificity, uncertainty and frequency, with asset specificity being the rationale for a firm to exist. Transactions that are supported by investments in durable, transaction specific assets may have some “lock in” effects, where investments cannot be redeployed to alternative uses without a loss of productive value. The transaction cost approach to corporate finance examines individual investment projects and distinguishes among them in terms of their asset-specificity characteristics. In transaction cost economics (Coase, 1937; Williamson, 1975, 1985), analyses focus on whether to source goods or services externally by an arm’s length market transaction or to produce them within the hierarchy of the firm (Mustakallio, 2002). Vertical integration and reduction of transaction costs are important elements of governance in this theory. Ouchi (1980), however, argues that transaction cost theory does not capture all forms of governance, and that there is a need to add the dimension of social mechanisms, like social networks and relationships.

Institutional Theory

Since most activities can be set within an institutional framework, institutional theory includes a wide variety of different views. Institutions can be seen as governance structures based on rules, norms, understandings and routines (March and Olsen, 1989), or as social patterns characterized by standard sequences of interaction (Jepperson, 1991). In economics, institutions serve to minimize market transaction costs and in sociology, institutions are social structures sanctioned by the norms and values of society (North, 1990). Hall and Taylor (1996) have defined three traditions within institutionalism: 1) Rational choice constructs are theories that assume decision makers are rational, self-interested optimizers, 2) historical institutionalism emphasizes the constraints institutional factors place on decision-making and individual discretion, and 3) sociological institutionalism places less emphasis on power and more emphasis on the socio-political-cultural embeddedness of institutional decisions. In institutional theory, preferences are not expressed by atomistic individuals but they are institutionally aggregated (Immergut, 1998). The use in governance is characterized by partnering, cooperation and interchange. Institutionalism is allied with network theory.

Resource Dependency Theory

Resource dependency theory focuses on strategic actions of organizations in order to manage and control resource-scarcity within organizations through interdependencies with other organizations in their environment (Mustakallio, 2002). Pfeffer (1982), states that organizations are not internally self-sufficient and that they are externally influenced because they become dependent on the environment that supplies different resources. The resource dependency theory focuses on two main elements: The first is the issue of external constraints, where the organization needs to respond to the demands of the organization that controls the critical resources. The other element argues that managers attempt to manage their external dependencies to ensure survival of the organization and also to acquire more autonomy and freedom from external constraints (Pfeffer, 1982). Pfeffer (1981) states that firms can increase their power by acquiring control over critical resources and, by having an active approach to managing their external dependencies, firms can reduce the effect of external threats (Pfeffer and Salancik, 1978; Pfeffer, 1982). In general, one can say that closely held firms internalize management and “buy” capital, whereas firms with dispersed ownership “buy” management and internalize capital. In these ownership structures, the main difference is how firms acquire resources, through financing or management capabilities (Thomsen and Pedersen, 2000). In order to manage the dependency of critical resources, firms can utilize various forms of governance structures like inter-firm or intra-firm networks.

Stewardship Theory

The assumed “in-built” conflict of interest between owners and managers may not always apply. Where agency theory focuses on the monitoring role of management, stewardship theory focuses on managerial motivation, which may apply in family firms (Donaldson and Davis, 1991). Donaldson and Davis (1991) argue that the steward is motivated by working toward organizational and collective goals, and hence the interests are aligned with that of the firm through these goals. In the stewardship theory, empowering governance structures and mechanisms are appropriate. In this theory, extended autonomy to maximize the benefits of a steward should be considered, whereas control can potentially be counterproductive (Sanchez, 2001). Donaldson and Davis (1991) argue that for CEOs who are stewards, their actions are best facilitated when the corporate governance structures give them a high level of authority and discretion, which can be obtained by letting the CEO also chair the board of directors (Sanchez, 2001). Stewardship theory stresses the benefits of duality between CEO and chair, a structure that would be viewed as dysfunctional in agency theory.

Social capital theory

Social capital can be defined as an asset embedded in social relations and networks (Leana and Van Buren, 1999). Putnam defines social capital as “features of social organization such as networks, norms, and social trust that facilitate coordination and cooperation for mutual benefit” (Putnam, 1995, page 67). Nahapiet and Ghoshal (1998) focus on the relational dimension as an asset, arguing that human beings do not always act in a purely self-interested manner and that social capital can be characterized by being jointly owned by members in a network, and therefore not easily traded. Social capital theory focuses on both the networks and the social capital obtained through these networks, and is perceived as increasing the efficiency of actions (Nahapiet and Ghoshal, 1998). The social capital theory has gained interest because it focuses on how the “social capital asset” can be used to generate other forms of capital, like financial, physical, human or intellectual capital (Bourdieu, 1986; Coleman, 1988; Adler and Kwon, 2002). Mustakallio (2002) states that corporate governance and inter-firm governance share similar inter-organizational challenges, both concerned with value creation and value appropriation among different organizational units. Social capital can also be seen as an underlying element and prerequisite in the discussions of the relational governance structure (Mesquita and Lazzarini, 2008; Macneil, 1980).

Network Theory

Social networks have been used to examine how organizations interact with each other, both through the many informal connections that link executives together, as well as associations and connections between individual employees at different organizations. Coleman (1988, 1990) emphasizes the importance of the strength of social ties between members in a social network, arguing that strong ties give a higher level of social capital within a group. Granovetter (1973), on the other hand, argues that weak ties increase information flows between otherwise disconnected social groups. Burt (1992) has extended this view by showing how “structural holes” can be used to create information and control benefits in competition. In economic terms the network theory focuses on repeated games, network externalities and agglomeration benefits (Doeringer and Terkla, 1995; Fudenberg, Kreps and Maskin, 1990). In a sociological approach, network theory focuses on social reputation, trust, knowledge and social relations (Granovetter, 1985; Burt 1992). The use of networks in the governance of firms emphasizes vertical and horizontal relationships, where decision makers can build cooperative governance structures and where the different types of ties matter in different business environments (Mesquita and Lazzarini, 2008).

2.2 Different Theories and their Relevance in the Governance of Family Firms

Several theoretical frameworks can be used in the analysis of corporate governance in family firms, where various theories focus differently on various elements. The choice of theoretical frameworks depends on the research problem and the contextual environment the analysis is conducted within. Some of these possible theoretical frameworks are shown in Table II.

Table II: Possible Theoretical Frameworks in Governance of Family Firms

Theoretical framework:	How it can be applied in family firm governance:
Agency theory	Effects of the separation of ownership and management
Transaction cost theory	Firm boundaries, ownership and financing structures
Institutional theory	Effects of regarding the family as an institution
Resource dependency theory	Power and resource aspect of relationships in family firms
Stewardship theory	Effects of no alignment problems between owners and managers
Social capital theory	Effects of resources embedded in relationships
Network theory	Effects of relationships in vertical and horizontal networks

(Source for parts of table II: Mustakallio, 2002)

In this paper, the agency theory and the network theory (including social capital theory) have been selected as the main theoretical frameworks. Due to the importance of the effects of separation of ownership and control also in family firms, I use the agency theory as the benchmark in the analysis of family firm governance. In family firms however, the social dimension of relations seems very strong and for this reason I also use the network theory, supported by the social capital theory. Even though the network theory will be the main additional theory, I treat the network and social capital theory as partly interchangeable. This is due to the importance of the social capital embedded within strong family networks, with the implication that the governance structure needs to govern both the firm and the family (Tagiuri and Davis, 1982). Hence, this paper focuses on governance structures in family firms, where the social relations created in strong networks are central elements. By using both the agency and the network and social capital theory we are able to include both the effects of family ownership, as well as the social dimension of this ownership in different governance models. I divide the governance models into the contractual and the relational governance model in line with Mustakallio (2002) and these two different governance models will be presented and discussed more in detail in section 3.2.

Other theoretical frameworks could have been used in the analysis, but would not cover the specific issue of the social dimension in the governance of family firms. The transaction cost theory mainly focuses on elements in the governance structure that will reduce transaction costs and enhance cost efficiency, more than focusing on the social and relational dimensions. Institutional theory is concerned both with the formal and the informal structures in institutions and could have been an alternative theoretical framework. However, this theory deals with several levels of analysis and the organizational field is, according to Scott (2001), the least familiar. Much of the work within institutionalism has been documenting the influence of social and symbolic forces on organizational structure and behavior and its effect on size, visibility, structural position and relational contracts (Scott, 2001; DiMaggio and Powell, 1983). The critique against institutional theory is that it tries to explain phenomena from too many perspectives (cultural technological, ideological), and becomes ambiguous and self-contradictory (Hira and Hira, 2000). The resource dependency theory focuses more on scarcity of resources and less on the dimension of the effects of strong social relationships. In the stewardship theory, the main focus is managerial motivation with focus on collectivistic versus individual elements in order to maximize performance, and thereby satisfy the shareholders. These other theoretical frameworks could have been used in addition to the agency and network theory, but I find that the agency and network theory complement each other in capturing both the contractual and relational dimensions in family firm governance.

2.3 Family Ownership in an Agency Theory Perspective

Family ownership is regarded as an important governance mechanism in agency theory. Its function is to reduce agency problems and sometimes these reduced agency costs are the reason for family ownership (James, 1999; Demsetz and Lehn, 1985). However, other elements also affect ownership structures in firms and several studies analyze the possible determinants of different ownership structures. These seem to agree that ownership is determined by a combination of firm, industry and nation specific elements (Gugler, 2001; Demsetz and Lehn, 1985; Zhou, 2001). Some factors include firm age and firm size (firm specific), asset specificity, capital intensity, competition and risk (industry specific) or legal environment and accounting rules (nation specific), where legal protection has been central in the corporate governance literature (La Porta et al., 1998, 1999). Family ownership does not solve governance problems per se, but there are a number of advantages and disadvantages with family ownership often mentioned in agency theory. I discuss some of these elements, and then argue how family firm governance can be supplemented by other perspectives.

Advantages with Family Ownership in an Agency Theory Perspective

A solution to incentive problems

Whereas the neoclassical theory of the firm ignores all incentive problems within firms, the principal-agent theory highlights these problems and leads to a richer and more realistic portrayal of the firm, but leaves unresolved the basic issue of determinants of firm boundaries (Hart, 1995). In the corporate governance literature, concentrated and family ownership are seen as a solution to incentive problems in firms (Jensen, 1983; Jensen and Meckling, 1976).

Shleifer and Vishny (1997), state that when contracts are incomplete and managers possess more expertise than the shareholders, managers typically end up with residual rights of control. This gives them enormous latitude for self-interested behavior and results in highly inefficient actions. In closely held and family firms, the majority owner (often the manager) frequently has more accurate information than the minority shareholders, creating asymmetric information among different groups of shareholders (Hart, 1988). Hart (1988) demonstrates that if a manager has better access to information than outside owners, it may be optimal to transfer control to the manager. This implies that the more important information asymmetries are the more common it is to find concentrated or family ownership because of the economic incentives of managerial ownership.

Agency theory argues that under conditions of incomplete information and uncertainty, which is the case in most business settings, two agency problems arise: the adverse selection and the moral hazard problem. Dealing with these two problems has been an important issue in the corporate governance literature for a number of years, and the literature suggests that ownership stakes seem to be the main solution to these problems (Jensen, 1983; Jensen and Meckling, 1976). Jensen and Meckling (1976) argue that one solution to the moral hazard problem is to grant a manager a long-term incentive contract to align his interests with the investors, based on some verifiable performance measures, like shared ownership, stock options or threat of dismissal. The optimal incentive contract is determined by the manager's risk aversion, the importance of his decisions and his ability to pay for the cash flow ownership up front. Since the specification of rights generally is affected through contracting, individual behavior in organizations, including the behavior of managers will depend on these contracts (Jensen and Meckling, 1976). It can be argued that the effect of allocating ownership rights apply for all forms of concentrated ownership, both family and non-family closely held firms, but different elements may be emphasized in these contracts.

In line with agency theory, as mentioned above, concentrated or family ownership can solve the moral hazard and adverse selection problem. This is because with personal ownership, the personal incentive to work hard solves the moral hazard problem, whereas the personal incentive to sell out solves the adverse selection problem (of choosing the right manager). In addition, personal ownership should send a credible signal to external investors, and thereby reduce the adverse selection problem of signaling quality to investors (Thomsen and Pedersen, 2000). These mitigating mechanisms however, are most efficient in founder firms where the founder is still active. In family firms with descendants of the founder, the moral hazard problem may be solved with concentrated ownership. The adverse selection problem may not be solved, due to the fact that the next generation is not self-selected as the ownership is inherited. They can decide if they want to sell out (Thomsen and Pedersen, 2000), however, selling out may sometimes create a problem in family firms with long traditions of family ownership and does not appear a plausible option.

Maintain control and independence

Control is regarded to be one of the main incentives of concentrated ownership. Berle and Means (1932, page 66) define control as follows: “Since direction over the activities of a corporation is exercised through the board of directors, we may say for practical purposes that control lies in the hands of the individual or group who has the actual power to select the board of directors (or its majority), either by mobilizing the legal right to choose them – controlling a majority of the votes directly or through some legal device – or by exerting pressure which influences their choice”.

Two main motivations for large-block ownership are shared and private benefits of control (Holderness, 2003). The shared benefits of control arise from higher monitoring and control by a large-block shareholder, giving a higher firm value due to incentives from this shareholder. If this increase in value is shared with the minority shareholders, it represents a shared benefit of control, where all shareholders benefit from the efforts of the controlling shareholders. The private benefits of control arise from block holders’ incentive to use their voting power to enjoy corporate benefits without sharing with minority shareholders (Holderness, 2003). Corporate governance implications of a dominant owner extracting “private benefits of control” at the expense of minority shareholders and firm performance are important (Filatotchev and Mickiewicz, 2001). Different mitigating mechanisms apply for solving the extraction of private benefits in closely held and family firms.

Bebchuk (1994, 1999) has developed a rent-protection theory, where it is suggested that concentrated ownership is the best arrangement when the private benefits of control are large. Controlling shareholders will tend to maintain a lock on control, due to the fact that rivals may be seeking to capture these private benefits. In spite of the agency costs with family and concentrated ownership, shareholders may resist a dilution of their equity stakes, because the value of control rights is greater than what the controlling shareholder could gain by selling the shares to equity investors (Filatotchev and Mickiewicz, 2001). Families may be aware that they could increase the price of their stocks by selling out, but are reluctant to do so (Thomsen and Pedersen, 2000). In family owned firms (both public and non-public), the family often also acts both as managers and owners, making large firm-specific investments in human capital. This may be another reason for being reluctant to give up control (Maug, 1996).

Closer monitoring

If owners fail to exercise effective control over their managers, the managers have an opportunity to engage in self-dealing transactions, often referred to as managerial opportunism. Problems with asymmetric information are magnified by lock-in, meaning that if investors could withdraw their investment at will this would provide them with protection from opportunism on the part of the firm's owners (Hansmann, 1996). Opportunism (and the need for monitoring) can be very costly for owners, and the reduction of monitoring costs is said to be one of the reasons for concentrated and family ownership, because ownership and control are more aligned and agency costs are reduced. From an economic standpoint, family ownership is regarded as an efficient institution and James (1999) states that family loyalty may overcome the incentive problems and increase the efficiency of firms. Nevertheless, there may also be opportunism in firms with combined ownership and control. Owner-managers may choose to exchange profits for other benefits, such as current over future consumption, or "on-the-job" non-pecuniary consumption (Fama and Jensen, 1985; Demsetz, 1983; James, 1999), indicating a need for mitigating governance mechanisms also in these firms.

In markets with high volatility and uncertainty, concentrated ownership can be a better way of reaching "hands-on" decisions. It may lead to more efficient and maybe even better decisions. This implies that the noisier the environment is, the greater the pay-off from close monitoring can be, giving an incentive for control. Hence, concentrated and family ownership can be viable governance mechanisms in volatile and noisy environments (Demsetz and Lehn, 1985).

Altruism and social reputation

Altruism and social reputation are often used as characteristics of family firms (Lubatkin, Ling and Schulze, 2003; Kets de Vries, 1996). Kets De Vries (1996) also argues that family firms have a strong sense of social responsibility towards society. Social control may in some cases act as a self-enforcing governance mechanism, where aspects like collective goals and values, trust, shared vision and social reputation are important elements (Ouchi, 1980; Jones et al., 1997). Members of family units are educated in the norms of society, like the economic, political and social world around them, as well as norms of equality and altruism (Stephens, 1963; James, 1999). In section 4, I discuss the possible governance effects of these factors.

One can argue that altruism is one of the reasons for maintaining family ownership, in addition to the advantages of the family governance system (James, 1999). The effectiveness of a family governance system, however, depends on the ability to align the interests of family managers across generations, so that they have the incentive to maximize firm value. Also, the success of family firm governance depends on the horizon the present family managers have on investment decisions. If decision makers have a horizon extending beyond their tenure, a firm should experience positive effects on their investment activities, because managers need to consider the long-term implications of their consumption and investment decisions. Linking actions of family managers to other family members' welfare is disciplining, as managers are less likely to pursue personal interest over family interest (James, 1999; Kepner, 1983). The key to success in family firms lies in the stability of the family system (James, 1999) where "the family's stability becomes a source of strength for the firm, but the family's instability becomes a source of weakness" (Pollak, 1985, page 587).

There are also agency problems in family firms, where controlling owners' perceptions and choices are biased by their altruism to family members, the higher the altruism, the more difficult it is to choose optimal actions for the firm. Not all controlling owners suffer from this myopic altruism, however, and those who do not can enjoy the governance efficiencies associated with Ouchi's (1980) concept of clan control. Myopic altruism can lead to employees' opportunistic behavior, with hold-up and moral hazard conducted by both family and non-family employees. Unlike moral hazard, hold-up is based on bargaining power rather than information asymmetries and family members possess bargaining power due to family ties (Lubatkin, Ling and Schulze, 2003). The prevalence of family firms should indicate larger governance advantages than disadvantages.

Potential Disadvantages with Family Ownership

Limited access to capital (external equity or debt)

“When organizations grow, the limited financial and managerial resources of a founding family impose constraints on development. Although family control may be a way to resolve agency problems, the lack of owner support for the new investment results in a need to access capital market funding” (Filatochev, Lien and Piesse, 2003, page 9). Berle and Means (1932) conclude that the larger the company is, the more dispersed the ownership is. They argue that this is due to the need for raising new capital in public markets because when companies grow and the need for investments in organization specific assets increases, the need for external capital increases (Berle and Means, 1932). This implies that family ownership has its limits in some industries, creating a need for other financial arrangements, either equity or debt financing (Shleifer and Vishny, 1997). Tight control by entrepreneurial families may also limit the ability to seek capital outside their personal network (Carney and Gedaljovic, 2002). Firms with coupled ownership and control may find it difficult to raise equity on favorable terms because the arm’s-length minority investors run the risk that the majority owners will use their control rights to extract private benefits at the minority investors’ expense (Carney and Gedaljovic, 2002; La Porta et al., 1999b).

Risk aversion and need for diversification

Risk and diversification are arguments for dispersed ownership. One reason is that an individual investor’s wealth is limited compared relatively to the size of some investments. Another reason may be that the investor wants to diversify the risk by investing in several firms with small stakes in each. A third reason may be concern for liquidity, where a large stake may be more difficult to sell in the secondary markets than smaller stakes (Becht, Bolton and Roell, 2002). Fama and Jensen (1983) discuss special features of residual claims in different organizational forms as efficient approaches to controlling special agency problems. Different organizational structures may work in different environments depending on the activity. Fama and Jensen (1983) define open corporations as more likely to survive when the activity has benefits of risk sharing, benefits of specialized management, a great number of organization-specific assets to be purchased, great wealth required to bond contractual payoff and low cost of separating decision management and decision control. These factors may favour the open corporate form when the technology in an activity implies economies of scale. Here, shareholders have less protection from expropriation than other stakeholders due to the fact that their investment is “locked” (Shleifer and Vishny, 1997).

Assets Specificity

Williamson (1985) regards transaction costs as a function of asset specificity, uncertainty and frequency, with asset specificity being the rationale for a firm to exist. Transactions that are supported by investments in durable transaction specific assets, these may have some “lock in” effects, where investments cannot be redeployed to alternative uses without a loss of productive value. This approach maintains that some projects are easy to debt finance and ought to be financed by debt, especially projects for which physical asset specificity is low to moderate. As asset specificity grows, however, the pre-emptive claims of the bondholders against the investment afford limited protection – because the assets in question have limited re-deployability. Not only does the cost of debt financing increase, but the benefits of closer supervision also grow. The upshot is that equity finance, which affords more intrusive oversight and involvement through the board of directors (or a large owner) is the preferred financial instrument for projects where asset specificity is great (Williamson, 1996). High asset specificity may create a hold-up problem where a few large owners have the possibility to expropriate or allocate these assets in a non-favorable way for the minority owners. This element can be relevant in conflicts between family members in family firms, especially in conflicts among founder family descendants. Dispersed ownership is one way of mitigating conflicts in firms with high asset specificity because no single big owner can re-allocate or sell the assets on behalf of the minority owners, reducing the risk for the individual owner.

Limited access to resources and competence

Pfeffer (1982), states that organizations are not internally self-sufficient, and that they are externally influenced because they become dependent on the environment that supplies the different resources. The resource dependency theory focuses on two main elements: The first is the issue of external constraints, where the organization needs to respond to the demands of the organization that controls the critical resources. The other element argues that managers attempt to manage their external dependencies, to ensure survival of the organization, and also to acquire more autonomy and freedom from external constraints (Pfeffer, 1982). Dispersed ownership may be one way of securing access to critical resources in industries with high barriers of entry, whether these are competence or capital. The access to competence from multiple owners either through the board (Goodstein et al., 1994) or through other channels, may then contribute positively to the firm.

Critique to the use of Agency Theory in Family Firm Research

Agency theory deals with potential problems of the agency relationship and how different ways of contracting and organizing affect outcomes of this relationship (Mustakallio, 2002). Eisenhardt (1989) states, that the agency theory addresses two problems. One problem is when the goals of the principal and the agent conflict and the other, is when the principal and agent have different attitudes towards risk, and thus prefer different actions. The agency theory is the most common theory in corporate governance research, also in the analyses of corporate governance in family firms. However, the fact that agency theory perceives human beings as opportunistic rational actors acting in a self-interested manner, has led several authors to argue against this view.

Perrow (1990) argues that human beings do not inherently behave in a self-interested manner and that the organizational settings have an effect on the human behavior. Others claim that the agency theory does not recognize that social structures affect organizational behavior, thereby bypassing central issues in organization theory (Uzzi, 1997; Granovetter, 1985). Granovetter (1985) also states that economic theories of organizations have an under-socialized conception of human action because these theories ignore the impact of social relations and social structures. Others focus on the evolution of network governance arguing that this cannot be explained by agency theory due to different principal-agent relationships, as well as due to the fact that the formal control mechanisms do not apply in the same manner (Larson, 1992; Uzzi, 1997; Jones et al., 1997). In spite of the critique, one can argue that the agency theory is a powerful theoretical framework in many research contexts. However, in order to analyse a broader range of governance problems in firms, it may be valid to supplement the agency theory with other theories.

2.4 Family Ownership in a Network and Social Capital Theory Perspective

The concept of social capital has become increasingly popular in a wide range of social sciences, including organization studies, because it can explain different actors' relative success in a number of arenas, both on macro and micro levels. For this reason, social capital theory has been used to study nations and communities (Fukuyama, 1995; Putnam, 1993), inter-firm networks (Baker, 1990; Uzzi, 1997), value creation, economic performance and entrepreneurship (Baker, 1990; Nahapiet and Ghoshal, 1998; Larson, 1992), intra-firm networks (Tsai and Ghoshal, 1998), as well as family relations (Coleman, 1988).

There are several definitions of social capital depending on whether the focus is on substance, sources or the effects of social capital. The definitions also vary depending on whether the focus is on relations between actors, the structure of these relations between actors, or both (Adler and Kwon, 2002). From this, one can argue that social capital can be seen as a resource that ties actors together through external linkages, where the actions of individuals or groups are facilitated by direct or indirect links to other actors in social networks (Burt, 1992). In this view, social capital is strongly influenced by network theory with an emphasis on social networks and can be relevant in the study of networks between firms (Uzzi, 1997). Another way to view the social capital is through the collective actors' internal characteristics with a focus on the linkages among individuals or groups within an organization, and specifically on those features that give cohesiveness and thereby facilitate the pursuit of collective goals (Adler and Kwon, 2002). This internal view of social capital may be relevant in the study of intra-firm networks (Tsai and Ghoshal, 1998), where the relationships between owners, managers and the board can be seen as some of these networks.

It can be difficult to distinguish between the network and the social capital theory due to the perception that social capital is embedded through internal or external networks. The central proposition of social capital theory is that networks of relationships constitute valuable resources for the conduct of social affairs, and that much of the social capital is embedded within networks of mutual acquaintance and recognition (Bourdieu, 1986). Also, in parts of network theory, the social dimension is central. Social capital constitutes some aspects of the social structure and facilitates the actions of individuals within the structure (Coleman, 1988). It has been argued that social capital increases the efficiency of actions due to networks of social relations, especially those characterized by weak ties or structural holes (Granovetter, 1973; Burt, 1992). Although the social capital takes many forms, it constitutes some aspects of the social structure and facilitates the actions of individuals within the structure (Coleman, 1990). Nahapiet and Ghoshal (1998) divide social capital into three dimensions in their analysis of social capital: 1) the *structural dimension* describing the impersonal connection between different actors in a social network, including network ties, network configuration and appropriable organization, 2) the *cognitive dimension* referring to resources providing shared codes, language and narratives, and 3) the *relational dimension* addressing the quality of personal relationships through trust, norms, obligation and identification. Both network and social capital elements are closely tied together, and in this paper I focus on how these various elements affect governance structures in family firms.

Even though the network and social capital theory have been used as frameworks in research on inter-firm governance, the use in corporate governance research is limited. However, there is one study that finds that social ties between board and CEO could contribute to board effectiveness without reducing control over management (Westphal, 1999). Another study shows that social networks based on board interlocks affect strategic alliance formation, thereby enhancing trust (Gulati and Westphal, 1999). Huse (1993) combines economic and social approaches in a study of the relationship between board of directors and management by combining agency theory with relational norms (Macneil, 1980).

One challenge with using the social capital and network theory as theoretical frameworks is that the definitions of social capital are vague and try to capture too many elements in the same framework. In addition, the social capital theory tends to focus on the positive effects and partly ignoring the negative effects of sociability to individuals and groups. Portes (1998) has identified four negative effects of social capital. Firstly, the access to social networks becomes difficult to outsiders due to tight control from the insiders. Secondly, there may be a free-riding problem if less diligent group members enforce demands backed by shared norms. Thirdly, the social control in a group may reduce individual autonomy and a fourth consequence may be that the downward leveling of norms leads these groups in opposition to the mainstream society. Granovetter (1985) argues that the trust following personal relationships can create the possibility for malfeasance and that the higher the trust, the greater the benefit from malfeasance. Leana and Van Buren (1999) state that the strong convergent groups may lead to poor decisions and that it may hamper innovations. In general, one may argue that the social capital and network literature focus more on the benefits of social capital than the disadvantages, with the costs of achieving these benefits being less emphasized. However, in order to obtain the benefits of social capital and networks, a substantial amount of resources, both managerial and individual initiatives, are needed (Mustakallio, 2002). Consequently, the cost side of establishing and maintaining networks providing social capital should be considered.

In general one can argue that agency theory stems from finance literature, with a contractual perspective on the different governance mechanisms, whereas the network and social capital theory stem from management and social network literature, with greater emphasis on the relational issues in the governance of family firms. It can also be argued that these theories represent two different approaches to the governance mechanisms in family firms.

3.0 FAMILY FIRM GOVERNANCE – VARIOUS GOVERNANCE MODELS

In the previous sections, I have discussed possible theoretical frameworks for analyzing corporate governance in family firms. In the agency theory framework, family ownership is often seen as a governance mechanism that aims at reducing agency costs and where this is considered one of the reasons for being family owned. In this section I take family ownership as given and discuss governance models, within the theoretical framework of agency, network and social capital theory. I focus on how family firms operate in different models, and which governance problems the various models may be able to solve in a given environment.

3.1 The Family Firm

In corporate governance research, concentrated ownership and block holdings have been central issues due to the possibility of the majority shareholders exploiting the minority shareholders in these firms. In family firms, the family tends to have a high degree of control, either through large ownership stakes or through strong influence on decisions. This implies that family firms often have the same challenges regarding the possibility of exploiting minority shareholders as non-family firms. In addition, they have the effects of all the other unique characteristics of the family firm. The family firm is of interest due to the prevalence of these firms, but even more so due to the importance of family firms in value creation in most economies. One may regard the family firm as an institution, where behavior becomes institutionalized by the organizational culture and where this culture is an important factor determining the success of the family business (Harvey, 1999a).

Although there seems to be no common description of what constitutes a family firm, there are several elements that are unique to these firms compared to other firms, with the bonding by family ties as possibly being the most characteristic (Gersick et al., 1997). Taguiri and Davis (1982) have established a “three-circle” model focusing on the overlaps between owners, managers and family members, where each individual seems to have one or more different roles in the business. In this model, they regard the family firm as a family business system, and from this perspective one can argue that the governance system needs to govern both the firm and the family. Mustakallio (2002) has divided the characteristics of family firms into five main categories. These are: 1) enduring exchanges, 2) emotional dimension of the family firm, 3) high amount of conflict, 4) low mobility of shares and 5) mixed self-interested and altruistic behavior. In addition, there is often a stronger focus on owner identity in family firms compared to non-family firms.

Enduring exchanges and owner identity

In family firms the patterns of ownership and family ties tend to change slowly leading to enduring exchanges. Relationships in family firms also tend to extend through multiple generations in addition to family members being tied both horizontally across the family and vertically across generations (Harvey, 1999a; Mustakallio, 2002). This implies that the owner identity should be stronger in family firms compared to other firms, with focus on the shared identity and common language of families (Kets de Vries, 1996; Neubauer and Lank, 1998).

Emotional dimension and level of conflicts in family firms

Kets de Vries (1996) argues that emotion-based family dynamics can be a strong force in family firms, including both positive and negative effects of these dynamics. These strong emotions may represent fertile ground for conflicts in family firms, together with the fact that family members often have several roles within the firm. Similarly the interaction of the family and the firm can create various types of conflicts among family members. This can manifest itself as sibling rivalry, work-family conflicts, role conflicts and ambiguity, or struggles regarding power and control (Mustakallio, 2002; Kepner, 1983; Kets De Vries, 1996). Family firms with high conflict levels may not be able to reap the benefits from being a family firm and they may not be able to optimize the possible advantages of a relational governance model.

Low mobility of shares

Shares in family firms tend to be illiquid because of the general characteristics of the family firm and that shares are transferred through inheritance within the family. This may also account for some public family firms. In order to improve liquidity, some firms go public resulting in more formal governance structures, reduced company privacy and additional administrative costs (Neubauer and Lank, 1998).

Mixed self-interested and altruistic behavior

The interaction between the two institutions, the firm and the family, can lead to conflicts of interest in some cases. Self-interested and altruistic behavior are considered rational (Jensen, 1994), but family firms also experience non-rational behavior (Kets De Vries, 1996). Schulze et al. (2001) argue that family firms experience “owner opportunism” caused by a lack of market for corporate control, self-control problems, adverse selection and biased incentive structures due to altruism.

The governance model in family firms needs to include both the family and the firm, with different emphasis on the two depending on the agency context. Mustakallio (2002) argues that effective family firm governance can be achieved by understanding the uniqueness of family firms, strengthening governance decisions and actions that contribute to success and defining performance criteria. It is important to increase the understanding of how formal and informal governance mechanisms can increase family firms' success and survival.

How does agency theory apply in the study of family firms?

In an agency theory perspective, focus is on the effects of separation of ownership and control, given asymmetric principal-agent relationships, self-interested behavior and hence, emphasis on formal control in the governance mechanism. Even though there is an assumption that there is no separation of ownership and control in family firms, often it does occur both in large family firms and in public family firms. As family firms become older and larger, the number of principal-agent relations tends to grow either by a growth in the family ownership base or by family owner's decreasing participation in management, with the risk of increased agency problems (Mustakallio, 2002). Family firms experiencing conflicts between various family owners or between family owners and managers can gain from a more formal control in their governance. Sometimes family firms may gain from the same governance mechanisms as non-family firms do.

How does network and social capital theory apply in the study of family firms?

In a network and social capital perspective, focus is on the effects of resources embedded in relationships and the effects of relationships in vertical and horizontal networks, with emphasis on informal control in the governance mechanism. In owner-manager family firms, with no separation of ownership and control, this perspective may be added as a part of the theoretical framework. Due to the strong social component in family firms, a relational perspective can be considered relevant in the study of family firms, especially due to the emphasis on trust between family members and management, and the effect of trust on success and survival of the family firm (Walsh, 1994). In order for this trust to have positive effects, there ought to be a degree of harmony in the relations between different family members as well as between family owners and management. Harvey (1999a) argues that traditions, bonding relationships, loyalty, and norms of equality and altruism will lengthen the perspective and affect the resource allocation and utilization in family firms. Family firms with positive relationships may gain from informal control in their governance.

3.2 The Relational versus the Contractual Governance Model

In this section I discuss two governance models, the relational and the contractual model, with a basis in the agency and network theory. Both of these models may apply to the governance of family firms, with varying degrees of formal and informal control. In family firms there is often a close social interaction between the family members in the firm. This means that informal governance mechanisms may complement the formal systems emphasized in agency theory (Mustakallio, 2002). These analyses depend upon how one defines the firm. Agency theory views the firm as a nexus of contracts with a set of written and unwritten contracts coordinated by the exchange partners (Jensen and Meckling, 1976). Rajan and Zingales (1997, 1998), however, define firms as “a nexus of specific investments: a combination of mutually specialized assets and people”, including the relational elements in firms.

Relational versus non-relational contracting

Macneil (1980) defines a contract as relations among parties to the process of projecting exchange into the future, where people specialize and exchange, exercise choice, plan and power, fitting these activities together into a norm that fits the society of which they are members. A discrete non-relational contract is one in which no relation exists between the parties apart from the exchange of goods. Its paradigm is the transaction of neoclassical microeconomics. The opposite is a relational contract, with a relation between the parties engaging in the transaction (Macneil, 1980). Discrete non-relational contracting takes place between anonymous actors and is based on neo-classical contract law which is rooted in theory and the organization of the discrete transaction. Relational contracting, on the other hand, is characterized by repeated exchanges by non-anonymous actors, with basis in relational contract law which is founded on relational transactions (Macneil, 1980).

Mesquita and Lazzarini (2008) analyze how relational governance can be used as a mechanism of inter-firm coordination, and argue that firms can avoid contractual hazards by forging relational governance mechanisms, defined as sets of commitments, informal rules, and unwritten codes of conduct that affect the behavior of partners. They state that relational governance mechanisms are cooperative arrangements based on informal rules and unwritten codes of conduct that affect the behavior of firms in their dealings with others, as opposed to the contractual view of transactions. Due to the focus on social norms and trust in relational governance, one could argue that this relational view is relevant to the analyses of governance structures in family firms.

The contractual governance model

In a contractual governance model, the firm can be regarded as a nexus of contracts where these contracts specify the rights of each agent, for example the nature of the residual claims and the allocation of decisions rights (Fama and Jensen, 1983). Fama and Jensen (1983) define two types of corporations with different contractual characteristics, the open and the closed corporation. They argue that family firms can be defined in between these two forms but that most family firms are closer to the closed corporation. Mustakallio (2002) has structured the contractual nature of family firms into four main elements: 1) varying degree of separation of ownership and control, 2) agency problems due to separation of ownership and control or self-control problems, 3) internal control mechanisms vary from active to passive role of the board and potentially strong owner control, and 4) external control mechanisms are not effective. From an agency theory perspective, the “typical” family firm has concentrated ownership, considerable overlap between ownership and managerial control, and a lack of external control mechanisms such as a market for corporate control. For this reason, family firms rely more on internal governance mechanisms like inside ownership, board composition and board structure. Some studies have explored the agency relationships in family firms and argue that family firms do not fit well into the standard agency theory due to the “non-rational” characteristics of these firms (Gomez-Mejia, 2001; Schulze et al., 2001).

The relational governance model

The relational governance model has mainly been introduced in the study of inter-organizational relationships (Larson, 1992; Nahapiet and Ghoshal, 1998). Relational governance focuses on informal, social control that regulates the relationship between different stakeholders, focusing on the resources embedded through social relationships. Due to similar characteristics of the relations between family members in family firms, including norms, trust and social relations, one can argue that this model can be useful in the study of governance of family firms. A relational governance model in family firms would include elements like family size, family institutions, social interaction, shared vision and trust (Mustakallio, 2002). Earlier studies suggest that social controls may act as self-enforcing governance mechanisms in exchange relationships, where elements like trust (Ring and Van De Ven, 1992), organizational reputation (Jones et al., 1997; Larson, 1992), collective goals and values, as well as shared vision (Ouchi, 1980; Leana and Van Buren, 1999; Tsai and Ghoshal, 1998) can serve as governance mechanisms. In section 4, I discuss some of the governance mechanisms and implications of a relational governance model in family firms.

Table III: A Summary of the Two Different Governance Models

Governance Models:	The Relational Model	The Contractual Model
Theoretical frameworks:	Network theory Resource dependency theory Institutional theory Social capital theory Stewardship theory	Transaction cost theory Agency theory Institutional theory (Corporate law)
Overall approach to governance:	Sociological/Psychological	Economic/Legal/Contractual
Overall objective:	Performance enhancement	Cost reduction and control
Objective of governance structure:	Facilitate and mediate	Monitor and control
Definition of the firm:	Nexus of investments (assets /people)	Nexus of contracts
Characteristics of contracting:	Horizontal or vertical relational contracting, repeated exchanges between non-anonymous actors	Arms-length bargain between anonymous actors, often non-relational contracting
Governance approach regarding:		
Managerial behavior	Collectivistic and trustworthy	Opportunistic and self-serving
Managers' motivation	Common goals and objectives	Own goals and objectives
Owner-manager interests	Convergence	Divergence
Owner-manager relations	Trust, networks, informal control	More formal control
Board composition	More insider board members	More external board members
Board-manager relations	Mentoring and strategic group	Monitoring and control
How the models solve :		
Incentive problems	Coupling of roles, mentoring, trust	CEO incentives, monitoring,
Private benefits of control	Trust, shared vision,	Monitoring, ownership stakes
Myopic altruism	Shared vision across generations	External board members
Information asymmetry	Coupling of roles, shared vision	Formal control, monitoring
Management capabilities	Network outside family, family CEO	External managers

As family firms often are defined as lying between the open and the closed corporation, they possess some elements from both of these forms (Fama and Jensen, 1983). These firms may also differ in their contractual nature, which in turn affects the use of the governance model. One may argue that family firms can either use one or both of the relational and the contractual governance models, but that the usage of the various models changes over time depending on factors like firm age, size and the number of family owners. In the next section, I discuss the relationships between the internal mechanisms of ownership, boards and managers in family firms. These relationships in family firms, often owner-manager firms, may be different from those in firms with a professionalized management and board, especially with regard to the different roles and selection processes in their governance. After that, I discuss which family firm governance problems, a relational governance model may solve in a more optimal manner than a contractual governance model would.

4.0 FAMILY FIRM GOVERNANCE – VARIOUS RELATIONSHIPS

Governance of family firms is different from non-family firms, basically due to “the institution” the family represents. Mustakallio (2002) summarizes some of the key elements of family business governance from Neubauer and Lank’s (1998) book. These elements are: 1) tasks (directing, controlling and reporting) and 2) structures (the family and its institutions, the board of directors and top management), where the main challenges are management succession, securing of financial resources and the family’s internal structures and processes (Mustakallio, 2002). Family firm governance may also change over time according to the life-cycle patterns of the firm, the family and the ownership, all of which are linked in some ways.

The Relationship between Owners and the Board in Family Firms

Usually, the existence and basic roles of boards are taken as given, assuming governance and monitoring to be their main functions. However, in family firms the board might have an additional role of linking family and firm together (Corbetta and Tomaselli, 1996), or the board may need to act as a mediator in solving family conflicts (Mueller, 1998).

Selection of board members in family firms

Owners select board members to increase the value of the firm, but they may also want to have their own agents present in the board room to ensure that they receive their promised share of the firm’s return. This may be why family firms tend to select family members for their boards. Family firms also seem to select board members they know or choose the same person as another firm as a “safe solution” (Løining, 2001). This may be a strategic choice based on considerations about which environments one needs competence in and contacts from (Løining, 2001), indicating that social ties and networks affect family governance. Cowling and Westhead (1996) find, that a large number of directors in family firms also hold directorships in other firms, strengthening these networks of directors. This indicates that this may be a strategy to deal with environmental uncertainty. The network gives access to information, which improves communication and coordination among firms (Pfeffer, 1987), providing a basis and infra-structure for influence and power (Grønmo, 1995a). Networks can also be an infra-structure for distribution of innovations, where contacts and networks are a part of a person’s competence and social capital. The higher the competence, the easier it is to establish networks because the person is considered attractive, facilitating use of their social capital. In this context trust is an important part of overlapping directorships (Burt, 1992; Løining, 2001).

Board structure and board composition in family firms

Board size varies, depending on the objectives of the board. Big boards represent a larger resource base than small boards, but the family holds less power (Westhead and Cowling, 1996). In family firms, the family's interests may dominate over other owners' interests. Wealth preservation becomes important due to the concentration of personal and family wealth in owner-managed firms (Carney and Gedaljovic, 2003). The controlling family may want to maintain independence and control, and small internal boards ensure that the family's interests are taken care of (Westhead and Cowling, 1996; Randøy and Down, 2002). Board composition is often homogenous in family firms, with some evidence that family firms have more inside directors than other firms and that the number of outside directors tends to increase in second and third generation firms (Cowling and Westhead, 1996). In family firms, there is often an owner-manager holding the CEO position, preserving control of the firm and its decisions (Carney and Gedaljovic, 2003; Daily and Dalton, 1992). Board composition can be the outcome of bargaining between the CEO and the rest of the board, where the power of the CEO is crucial to the structure and independence of the board (Mace, 1971; Lorsch and MacIver, 1989; Filatochev, Lien and Piesse, 2003).

Board practices and processes in family firms

Board practices in family firms seem to be quite similar among firms of comparable structure and size. There seems to be a "copy" effect among family firms where the line of thought might be that "what works for them should work for us" (Løining, 2001). Board structure affects board processes and board practices. One relevant question is how these processes work in family firms with a high degree of inside board members versus a high degree of outside members. Some family firms do not have a board, some have a small formal board consisting of family members, whereas some firms use the board as a resource base and have larger boards (Westhead and Cowling, 1996). The interesting question is how boards work in family firms with additional elements such as family ties, emotional issues, family conflicts and sibling rivalry. In cases where a firm needs access to critical resources, the choice of board size and board composition can be one way to overcome resource constraints. This can be done by increasing the number of directors, sometimes stressing an increase in the number of outside directors; thereby affecting the way the board works together (Zahra and Pearce, 1989; Randøy and Down, 2002). An increase in external board members may weaken the family's influence, which is in some cases an advantage and in others a disadvantage.

The Relationship between Board and Managers in Family Firms

In family firms owners are often managers and board members, which creates different governance issues and challenges compared with investor owned firms. One problem is how to use accurate information, free of bias. Another is how to use the information consistently considering the effects of family ties and altruism (Lubatkin, Ling and Schulze, 2003). Boards are in some cases weak monitors, maybe even more so in family firms where it is difficult to maintain objectivity. Both objectivity and proximity have their costs and benefits. Objectivity may give less information and fewer corrective actions, while proximity gives more information and can facilitate timely correction. Conversely, it may be difficult to make tough decisions due to close relational ties (Boot and Macey, 1999). In addition there may be some special features in family firms, which give management more control over the board than in non-family firms. Pettigrew (1992) points out four factors that are important in the relationship between the management and the board in family firms: 1) The top management's power in the selection of board members, 2) the limited time outside directors have available, 3) the management's more accurate information about the business, and 4) the limited independence of outside directors. These factors give the CEO even more power over family boards than non-family boards, making the objective monitoring role more difficult to conduct. Family firm boards are sometimes viewed less as a governance mechanism and more as a top-level strategic group. Family members also serve as active monitors of their managers and the information flow between managers and family members serves as a control mechanism (Mishra et al., 2001).

The Relationship between Owners and Managers in Family Firms

Family firms may provide a unique governance context, due to the family's desire for ownership, control and involvement in the business (Randøy and Goel, 2003). They can utilize strategic benefits of higher inside ownership and achieve superior performance. One argument for family leadership is that family traits like trust, altruism, and paternalism encourage an atmosphere of love and commitment towards the business and reduces agency costs (James, 1999). In family firms, owners and managers often have great influence on firm value through the position and power they wield within the firm. Good corporate governance should enable owners to exercise control over management (Eisenhardt, 1989). In this respect, founder family ownership may be a substitute corporate governance mechanism that can replace other monitoring mechanisms, such as direct monitoring by owners or a competitive market for corporate control (Randøy and Goel, 2003).

Fama and Jensen (1983) suggest that the long-term nature of family relationships is advantageous in monitoring and disciplining managers, and that family traits are important. On the other hand, the drawback of family firms might be that they have difficulties in accepting professional managers capable of responding to new technology and increased competition. The implication is that the selection and dismissal of the CEO becomes a significant challenge (Gomez-Mejia et al., 2001).

Chandler (1990) argues that the personalized character of a family business is manifested in top management, where selection is on the basis of family ties instead of professional expertise. Lack of managerial capacity may limit the ability to compete internationally due to a lack of monitoring and coordination capabilities needed to manage geographically distant and dispersed activities. Mishra et al., (2001) ask whether family ownership makes financial sense and whether these firms have a governance advantage over widely held firms. They find a positive relationship between founding family control and firm value due to a long-term horizon and the potential to reduce the moral hazards due to the combination of ownership and control. They also find that outside directors do not improve corporate governance in founding family controlled firms, where family values, like trust and altruism, can create a commitment to long-term value creation. Trust among family members and management is considered important to the family business' success, whereas lack of trust may be a threat to the viability of a family firm (Kets deVries, 1993, 1996; Walsh 1994). One question worth pursuing is whether trust is exogenous to success or not. It may be difficult to find variables for measuring trust, consequently making it hard to determine the effect of trust in firms.

Gomez-Mejia et al. (2001), state that family bonds between principal and agent impact behavior different from economic rationality. In a family-contracting situation, a relational contract between the firm and the agent (a family member) involves a common bond and a set of mutual expectations that are more likely to be based on emotions than a non-family relational contract. This may include parent-child dynamics, generational envy and sibling rivalry. Managerial entrenchment may also be a problem in family firms, where executives hold on to their jobs past the point where their stewardship is beneficial to the firm. In these cases, executives will try to neutralize internal control mechanisms to ensure self-preservation and family status leads to biased judgment about the appropriateness of executive decisions. CEO termination is difficult in family firms and organizational consequences of CEO dismissal are greater when the replaced CEO is a family member (Gomez-Mejia et al., 2001).

5.0 FAMILY FIRM GOVERNANCE – A RELATIONAL GOVERNANCE MODEL

Family ownership per se is not a solution to governance problems, but in some contexts a relational governance model with emphasis on informal, social control that regulates the relationship between different stakeholders, can be a solution to some of the governance problems in these firms. This model focuses on the optimal use of social capital embedded in social relationships among the owner-family members and the management (Mustakallio, 2002). The potential exists for enhancing some of the advantages of being a family firm and mitigating some of the disadvantages. If family firms are able to reap the benefits of long lasting relationships, shared vision and trust among family members, as well as loyalty and long traditions, they may experience advantages with this ownership structure (Harvey, 1999a; Ouchi, 1980). But, ownership in itself also involves governance costs such as costs of controlling managers, costs of collective decision-making and costs of risk bearing (Hansmann, 1996). The relative costs vary with different forms of ownership. In addition, there is a cost of maintaining networks that needs to be taken into consideration (Granovetter, 1985). One can expect that most family firms employ both contractual and relational modes of governance, and that these models can both complement and supplement each other. Table IV illustrates how a relational governance model may resolve some governance problems in family firms within a context characterized by trust and shared visions.

Incentive problems are often explained by the separation of ownership and control, with the challenge being to find incentives to make the managers act in the interest of the shareholders (Jensen, 1983; Jensen and Meckling, 1976). In family firms, one of the main characteristics is the coupling between different roles, where family members tend to hold one or more positions in the firm, creating a higher degree of interaction between the various functions. These strong networks and relations have the potential of solving some of the incentive problems (alignment), managerial opportunism and information asymmetry (including moral hazard and adverse selection) through more involvement and a higher degree of information sharing. However, for this to happen there should be a degree of trust, shared visions and positive relations among the family and managers, as well as between the various family members. One may experience incentive problems in family firms when there is conflict and lack of trust and shared visions, especially in larger firms with many owners. This situation gives managers more power over the firm. Family ownership alone does not solve incentive problems; it is how the family manages to operate and govern the firm that can make a difference. The possibility then arises of enhancing the advantages of family ownership.

In family firms, agency problems are not only a result of separation of ownership and control, but also of controlling shareholders who in some cases expropriate non-controlling shareholders (La Porta et al., 1997; Bennedsen and Wolfenzon, 2000). This can be done by family shareholders taking cash out through transfer pricing or selling assets below the market price to other manager-owned businesses (Shleifer and Vishny, 1997). In countries with good legal protection, the expropriation of minority shareholders is less likely. However, in countries with weak legal protection, this expropriation may take place (La Porta et al., 1999). In family firms there is also the risk of large family owners extracting private benefits, either by using their controlling rights to pursue projects that benefit themselves rather than other investors, or family managers entrenching themselves and staying in the job too long (Shleifer and Vishny, 1997). Some of these agency problems can be solved if the family firm is characterized by trust, harmony and shared visions, creating the possibility of establishing common priorities and goals for the firm and lowering the risk of some family members wanting to extract benefits. In addition, family firms may choose non-family members from a close network for different roles in the firm, which can be a rectifying and adjusting factor in some relationships, and reduce the possibility of expropriation.

Normally altruism is regarded as one of the positive effects of family ownership, where the mixture of business and non-business goals are perceived to act as self-enforcing governance mechanisms (Ouchi, 1980; Jones et al., 1997). However, in some family firms the controlling owners' choices and perceptions are biased by their altruism towards other family members, making it difficult to take optimal actions for the firm. This myopic altruism can also lead to hold-up problems, where family members possess bargaining power due to family ties (Lubatkin, Ling and Schulze, 2003). In family firms there is also the risk of family managers staying in the job too long, or that they reduce firm value due to lack of management capabilities, especially in firms run by descendants of the founder (Gersick et al., 1997). One way of mitigating the negative effects of altruism is to use non-family resources from close networks in some of the roles in the family firm, where the external resources can act as an adjusting factor in contentious issues. Trust, shared visions and harmony in family relations can also mitigate the negative effects of myopic altruism by accentuating a common desire to increase welfare for all family members (James, 1999; Kepner, 1983). In family firms with a large number of owners, the possibility of finding a capable CEO within the family increases. With many smaller family owners, the bargaining power of each family owner may be reduced, reducing the hold-up problem in these firms (Lubatkin, Ling and Schulze, 2003).

Table IV: Governance problems potentially solved in a context characterized by trust and shared visions

Potential governance problems in family firms:	Incentive Problems	Private Benefits	Myopic Altruism	Managerial Opportunism	Management Capabilities	Information Asymmetry
Possible relational governance mechanisms in family firms:						
<i>Family couplings and roles:</i>						
Family owner and CEO	+			+		+
Family CEO and board members	+			+		+
Family owner and on the board	+					+
Several firm roles held by family	+			+		+
Others from network (non-family)	+	+	+		+	+
<i>Prevalence of trust</i>						
High level of trust within family	+	+	+	+		+
Low level of trust within family	-	-	-	-		-
<i>Shared visions</i>						
Shared visions in place	+	+	+	+	+	+
Shared visions not in place	-	-	-	-	-	-
<i>Social interaction</i>						
Harmony in family relations	+	+	+	+		+
High levels of conflict	-	-	-	-		-
<i>Family institutions</i>						
Informal structures / processes		+	+	+		
Formal structures / processes						
<i>Family size</i>						
Large amount of family owners		+			+	
Small amount of family owners	+					+
<i>Firm age</i>						
Younger firm run by founder	+				+	+
Older firm run by descendants		+				

Positive signs (+) indicate a positive effect on governance problems
 Negative signs (-) indicate a negative effect on governance problems
 No signs indicate that there is no effect on governance problems

There seems to be no consensus on what "the best" ownership structure is, or what constitutes good or bad corporate governance mechanisms. However, there are reasons to believe that the optimal governance mechanisms depend on culture and industry structure within a country, the level of legal protection, as well as several firm-specific factors. For this reason, the relational governance mechanisms may enhance the advantages of being a family firm in some environments, whereas in other environments this may not be the case. Some of the key elements that should be in place in order to make the optimal usage of a relational model are trust, shared visions and harmony in the various family relations (not always the case). Various family institutions, like family meetings or councils, may improve some of the interactions, but the main issue in optimal family firm governance is whether there are positive relationships and atmosphere between the family members.

6.0 CONCLUDING REMARKS

In some cases the family firm can be regarded a “social institution” in addition to a governance mechanism. I have focused on how inter-relations between different internal corporate governance mechanisms change with different ownership structures and the uniqueness in the governance of family firms. Family firms are of interest because they represent a special case of closely held firms with greater focus on social aspects compared to non-family firms with large block holdings.

The usage of governance model, either a contractual or a relational model, affects the way a firm operates, its strategic choices, its decision processes and the balance of power, and ultimately its financial performance. In family firms, the use of a more relational governance model implies a set of different mechanisms for selecting managers and board members. This affects the relationship between the owners, managers and board members. As discussed in section four, the additional factors of family ties, social relations and networks often prevalent in family firms can be regarded as social capital. I argue that the social capital embedded in these relations cannot easily be traded and that it makes a difference in the governance of family firms versus non-family firms. Firms do not necessarily exclusively choose either a contractual or a relational governance model but may emphasize some elements more than others within the different models. As a result, the contractual and relational governance models may complement and supplement each other in the governance of firms with an increased focus on the social capital embedded in the relationships in family firms.

Previous research has to a large extent been focused on the relationship between ownership structure and financial performance. There is a demonstrable need for more research on how governance models affect the way family firms operate and make decisions. I have discussed advantages and disadvantages of family ownership and how family firms deal with various elements in their choice of governance models and mechanisms. I argue that the governance model is a result of the agency context the firm operates within as well as the relationship between its governance mechanisms specifically the ownership structure, the board, and management incentives. I argue that relational governance mechanisms may enhance the advantages of being a family firm in some environments if trust, shared visions and harmony in the various family relationships are prevalent. In order to get a better picture of corporate governance in family firms, it may be valuable to draw from other theoretical frameworks, in addition to agency theory, to analyse effects of social relations and networks in these firms.

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Paper Two
THE EFFECT OF INDUSTRY NETWORKS
ON FAMILY OWNERSHIP

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Abstract

Corporate ownership structures are concentrated in most parts of the world. Often these firms are controlled by family, either the founder or the descendants of founder. Economic theories attribute concentrated ownership to incentive efficiency, small-scale production and poor investor protection (e.g. Demsetz, 1983; La Porta et al., 1998). In this paper I focus on an alternative explanation: ownership structures come in clusters with strong positive feedback effects. In particular, I propose that closely held and family firms tend to cluster in industries, regions and nations. In a cluster, the family firm combines the flexibility and incentives of personal ownership with economies of scale and scope. Strong personal networks, trust and reputation help overcome capital rationing and hold-up problems, which otherwise give widely held firms a competitive advantage. In strong networks, interlocking directorates, family ties, friendships and trade associations reinforce the synergies between firms. The governance mode comes to be more relational rather than market based. At the same time, the clustered firms maintain sufficient autonomy and distance to be able to compete and adjust quickly to changes in the economic environment. Thus clustering complements some of the characteristics of family firm governance emphasized in the family business literature. This paper also deals with how “within-firm” relations and governance modes may have an effect on “between-firm” relations and modes of governance.

Keywords: Industry networks, relational governance, family ownership, social capital

1.0 INTRODUCTION

Family ownership is a very common ownership structure in most countries (Shleifer and Vishny, 1986) and several studies have investigated the characteristics of this special case of the closely held firm (Amit and Villalonga, 2006; Anderson and Reeb, 2003; Kets de Vries, 1993, 1996; James, 1999; Lubatkin, Ling and Schulze, 2003; Mishra et al., 2001; Mustakallio, 2002; Kepner, 1983). Family firm research, however, has to a large extent been conducted on *how* family firms differ from other firms, with less focus on *why* family businesses differ, and what the consequences of these differences might be in a corporate governance perspective. In the corporate governance literature, some studies focus on reasons for dispersed ownership (Berle and Means, 1932; Jensen and Meckling, 1976) and other studies focus on reasons for concentrated or family ownership (La Porta et al., 1999; Zhou, 2001), mainly using agency theory as the theoretical framework. Here, family ownership is seen as the solution to alignment and incentive problems in firms. Family ownership is explained by and regarded as a means of mitigating agency problems and reducing agency costs.

It has also been stated that some nations and industries have a higher frequency of family firms than others (Thomsen and Pedersen, 2000; La Porta et al., 1999). One possible explanation may be that the ownership structure is also a response to the environment in which firms operate, and that family ownership is a more viable solution in some contexts. These contextual factors can be firm specific (size, age, capital structure, asset specificity), industry specific (capital intensity, competition), or nation specific elements (public policy, taxes, legal and financial markets). La Porta et al. (1999) conclude that the ownership structure is a response to the domestic legal environments, and that concentrated ownership is a response to poor investor protection and law enforcement in these countries (La Porta et al., 1998, 1999). However, in countries with good investor protection and law enforcement, concentrated and family ownership is also the most prevalent ownership structure (Bøhren and Ødegård, 2001), supporting the idea that there are other determinants of family ownership in addition to it being a response to the business environment. I argue that firms are embedded in a wider social and industry context where strong social and industry networks can enhance family ownership in some environments. Additional elements like incentives, monitoring, and altruism, as well as firm, industry and nation specific factors must be taken into account. I use network theory as an additional framework in order to capture other dimensions missed by the agency theoretic view. The idea is that there are other mechanisms affecting family ownership that oppose to concentrated ownership in general (e.g owner identity, traditions and relations).

In this paper, I want to extend the traditional views of determinants of family ownership, and investigate whether the level of family ownership within certain industries can be explained by a phenomenon in between the firm level (micro) and the industry/nation level (macro). Could there be a “cluster level” in between, where strong industry networks are regarded as determinants of family ownership, in addition to it being a solution to incentive problems? I combine a set of theories to broaden the view on “why family firms” and the possible consequences of this ownership structure with regard to modes of operation. I discuss a possible relationship between family firms (Amit and Villalonga, 2006; Anderson and Reeb, 2003) and social and commercial industry networks (Rosenfeld, 1996, 1997; Granovetter, 1985). For this purpose, I define family firms as firms with “family ownership stakes” in the range of 20% or more, or that the family has influence through CEO or Chair, which is in line with the strongest definition in Amit and Villalonga (2006).

Some industries are characterized by having a large portion of family firms. In some cases this has been the true for generations. I argue that for industries to remain characterized by family firms over time there should be a growth of new emerging founder family firms in these industries. This implies that some of the firms will be in the founder phase where founder is the entrepreneur, whereas other firms are in the second or third generation, more in line with the traditional definition of family firms. I argue that strong networks enhance establishment of new family firms indicating that it may be relevant to include these firms into the definition of family firms.

It is difficult to distinguish the cause and effect of strong networks and family ownership. One question is whether family firm governance creates networks or if it is the other way around. Another question is whether family firms remain in industrial networks because they are successful, or whether they are successful due to these strong networks and therefore can remain family owned. One can argue that firms need to be established in order to enter into strong inter-firm networks, but from a network perspective it can be argued that strong networks only foster the establishment of family firms if the network is characterized by family firms. I treat family ownership as endogenous, focusing on how strong social and commercial networks can enhance family ownership in some environments. I argue that strong networks and relations help family firms overcome some resource constraints making it possible to remain and develop as family firms in a long term perspective. I also argue that the effects of networks are stronger in family owned firms when compared to non-family

closely held firms. This is due to the special elements like owner identity, trust, family ties (both social and genetic), traditions and long term relationships, in addition to the relational governance structure in these firms.

Even though the agency theory is the most prevalent theoretical framework for describing ownership structure and corporate governance (Jensen, 1983), other theories have been used. In this section I discuss the elements in Table I as a framework for the paper. My main focus however, will be on network effects on family ownership in some industries (last column in Table I). Several of the arguments in favour of family ownership also apply for concentrated ownership in general but I argue that some of the elements in Table I are even more relevant in family owned firms. In this paper, I mainly focus on the positive elements in family firms, although family firm conflicts may be even deeper and stronger than in non-family firms.

Table I: Determinants of Family Ownership in Different Theoretical Frameworks

Possible Determinants of Family Ownership:	Reduce Agency Problems	Response to Environment	Strong Social Networks
Key words:	<i>Reduction of agency costs and improved financial performance by:</i> *Aligning interests between owners and managers *Solving incentive problems *Reducing monitoring costs *Reducing opportunism *Shared benefits of control *Altruism *Social reputation and control *Governance efficiencies *Long-term horizon *Better investments *Stewardship	<i>Firm specific factors:</i> *Firm age *Firm size *Capital structure *Asset specificity <i>Industry specific factors:</i> *Capital intensity *Competition *Volatility *Barriers of entry <i>Nation specific factors:</i> *Legal structure *Accounting rules *Capital markets *Regulations	<i>Social capital embedded in strong networks in clusters facilitate:</i> *"Thick trust" *Complex transactions *Access to resources *Establishment new firms *Agglomeration benefits *Network externalities *Interlocking boards *Co-operation *Focus on human capital *Relational governance *Transfer of information *Shared visions
Possible theoretical frameworks:	Agency theory Stewardship theory	Resource dependency Agency theory Transaction cost theory	Network/social capital Institutional theory Cluster theory
Some references:	Berle & Means (1932); Fama & Jensen (1983); Jensen & Meckling (1976); Shleifer & Vishny (1997); James (1999); La Porta et al. (1997, 1998); Amit & Villalonga (2006); Anderson & Reeb (2003); Donaldson & Davis (1991)	Pfeffer (1982); Filatochev, Lien and Piesse (2003); Carney & Gedaljovic (2002); Shleifer & Vishny (1997); La Porta et al., (1999); Demsetz & Lehn (1985); Williamson (1975, 1979); Thomsen & Pedersen (2000)	Granovetter (1985); Porter (1990), Mustakallio (2002); Scott (2001); Burt (1992); Rosenfeld (1996, 1997); Doeringer & Terkla (1995); Coleman (1988); Putnam (1995); Bordieu (1986); Aguilera & Jackson (2003)

1.1 Family Ownership as Mechanism to Reduce Agency Problems

Agency theory focuses on economic rationality and reduction of agency costs with an assumed “in-built” conflict between managers and owners, leading to incentive problems and exploitation of minority shareholders (Jensen and Meckling 1976; Shleifer and Vishny, 1997). Agency theory deals with problems of agency relationships and how different ways of contracting and organizing affect the outcomes of that relationship (Mustakallio, 2002). Eisenhardt (1989), states that agency theory addresses two problems that may occur in agency relationships: 1) The problem of conflicting goals between the principal and the agent and 2) the different attitudes towards risk between principal and agent that makes them prefer different actions. In agency theory, family ownership is perceived as a solution to these agency problems due to alignment between owners and managers. In general, agency problems can be divided into two categories (Amit and Villalonga, 2006; La Porta et al., 1997), where agency problem II seems to be the most prevalent in family firms.

Agency Problem I: Conflict of interest between owners and managers

The classic agency problem in firms with dispersed ownership is separation of ownership and control, where alignment of owners and managers is an important issue (Jensen and Meckling, 1976). In these firms, the main concern is expropriation of funds by the managers, which can be seen as the classic “Strong Managers, Weak Owners” (Roe, 1994) case, where there is a need for incentives to ensure that managers work in the interest of shareholders (Shleifer and Vishny, 1997).

Agency Problem II: Conflict of interest between large and minority shareholders

In closely held and family firms, agency problems are not necessarily a result of separation of ownership and control, but of controlling shareholders not always acting in the interest of non-controlling shareholders with a potential expropriation of minority shareholders (La Porta et al., 1997, Shleifer and Vishny, 1997; Bennedsen and Wolfenzon, 2000). Expropriation of funds can be accomplished by shareholders taking cash out through transfer pricing, selling assets below market price to other manager-owned businesses, managers using their control rights to pursue projects that benefit them rather than investors, or managers entrenching themselves and staying in the job too long (Shleifer and Vishny, 1997). Family control may be carried out through deviance between cash flow rights and voting rights, by multiple share classes, or by other voting agreements (Amit and Villalonga, 2006). In addition, family influence implies influence on management decisions, either by being the manager or through

other means (Amit and Villalonga, 2006). In some family firms, there is also the risk of conflicts between family members, where minority shareholders suffer because of sub-optimal investments and a lower value of assets (James, 1999).

The benefits of control over corporate resources play a central role in modern thinking about finance and corporate governance. The amount of private benefits of control, that controlling shareholders can extract from companies they run, is central in the literature on investor protection (Dyck and Zingales, 2004). Various countries have different legal rules and levels of investor protection, where common law countries are judged to have the best legal system in this respect (La Porta et al., 1998, 1999). La Porta et al. (1999), state that the expropriation of minority shareholders applies especially in countries with weak legal protection, where concentrated ownership is more common.

In most countries expropriation of minority shareholders cannot be done without legal consequences. Some of the institutions that can help curb private benefits are high accounting standards, legal protection of minority shareholders, law enforcement, product market competition, a high level of diffusion of the press and a high rate of tax compliance (Dyck and Zingales, 2004). Strict investor protection and law enforcement, with the likelihood of a monetary or reputation loss to a controlling party who is in a position to extract private benefits, is disciplining (Nenova, 2003). Also corporate charter provisions, takeover laws and regulations are important to ensure that the control premium is shared with minorities in the event of control transfer (Nenova, 2003). Consequently, the value of control-block votes is expected to decrease relative to the strictness of the legal environment.

Nenova (2003) has made a cross-country comparison of dual-class firms in 18 countries focusing on the vote-value to private benefits and finds that the value of control-block votes is an important part of firm value and that this varies across countries. This study finds that the value of the control-block votes in Scandinavian and Anglo-Saxon countries is close to zero, that control-block votes are valued at more than a quarter of market capitalization in Brazil, Chile, France, Italy, Mexico and South Korea, and that Germanic countries have values that fall in between these levels (Nenova, 2003). Dyck and Zingales (2004) have made an international comparison of private benefits of control among 39 countries and 393 controlling block sales, finding that private benefits are hard to observe and quantify, but that there are two possible methods in measuring private benefits of control:

1) Use privately negotiated transfers of controlling blocks in public firms (Barkley and Holderness, 1989), or 2) use the existence of multiple share classes with different voting rights. Dyck and Zingales (2004) find that Norway, United Kingdom, United States and Finland are among the low private benefit countries, with a block premium as percent of firm equity of 3% or less. Other countries have a control premium of 25% of equity value, and the sample in the study shows an average of 14% control premium. Cross country differences also arise because of other industry differences and some industries having larger private benefits than others (Demsetz and Lehn, 1985). Levels of private benefits extracted might be endogenous to the size of the controlling block, where large shareholders have less of an incentive to dilute minority shareholders because they internalize to a greater degree the inefficiency they generate. Dyck and Zingales (2004) argue that if the acquirers of the controlling block already owned a large stake in the firm beforehand, they might be willing to pay a premium only because they internalize a fraction of the increase in the security via their toeholds (Grossman and Hart, 1980), which may be the case for family firms.

Nenova (2003) states, that the low value of control-block votes in Scandinavian countries seems surprising considering the civil origin of law. One explanation for this phenomenon could be that controlling parties are law-abiding because reputation and social status have a disciplining effect on their behavior, discouraging minority abuse (Agnblad et al., 2001). Scandinavian countries seem to have stronger employees and social democratic pressure compared to many other countries. Roe (2003) states that, this pressure may explain why ownership has not separated from control. He argues that social democracy affects ownership in two ways: 1) The concentrated owners have stronger incentives than “Berle-Means managers” to avoid giving up too much in shareholder value to social pressures, and 2) if the concentrated owner is progressive with a social conscience, the political authorities and voters may prefer the incumbent over someone else who might grab control. In Norway, the basic regulatory tool for minority protection is the principle of equal proportional rights for every stockholder, and no corporate charter can overrule this right (Bøhren and Ødegård, 2001). There is a wide set of regulations to prevent the unfair transfer of wealth from small to large shareholders. A flagging system informs small investors when ownership rights are transferred to the firm’s large investors, where thresholds of 5%, 10%, 20%, 33%, 50%, 67% and 90% of outstanding cash flow or voting rights are to be notified to the firm and to Oslo Stock Exchange. Bøhren and Ødegård (2001) conclude that the Norwegian regulatory framework protects stockholders as a group, and small stockholders as a subgroup.

Several studies argue that concentrated ownership is an important mechanism for reducing agency problems in firms with separation between ownership and control (Jensen and Meckling, 1976; Shleifer and Vishny, 1997; Jensen 1983; Fama and Jensen, 1985; Demsetz, 1983; James, 1999). The various studies focus on different factors, but one main argument is that ownership concentration solves opportunism and incentive problems due to the alignment of interests between owners and managers. In owner-manager firms James (1999) argues that if the family loyalty overcomes the incentive problems, family ownership may also solve the agency problems that are a result of conflicts of interest between large and small shareholders.

Summarizing why family ownership can reduce agency problems:

1) It solves incentive problems

Dealing with the two problems of moral hazard and adverse selection has been an important issue in the corporate governance literature for a number of years, and ownership stakes have been perceived to be the main solution (Jensen, 1983; Jensen and Meckling, 1976). Family ownership is seen as solving incentive problems, personal incentives to work hard are assumed to solve moral hazard problem, and personal incentives to sell shares should solve the adverse selection problem.

2) It reduces monitoring costs

Opportunism is costly for minority owners (Hansmann, 1996). Reduction of monitoring costs is one reason for concentrated ownership because with aligned ownership and control agency costs are reduced. Family ownership is regarded as an efficient institution, where family loyalty may overcome incentive problems and increase efficiency of the firm (James, 1999). However, there may also be opportunism in owner-manager firms and managers can choose to exchange profits for other benefits, like current over future consumption (Fama & Jensen, 1985; Demsetz, 1983; James, 1999).

3) The benefits of control

Control is another important incentive for concentrated ownership. Two main motivations for large-block ownership: shared benefits of control and private benefits of control (Holderness, 2003). Bebchuk (1994, 1999) suggests that concentrated ownership is good when private benefits of control are large. In spite of agency costs with family ownership, shareholders may resist dilution of their equity stakes. Families may be aware that they could increase the price of their stocks by selling out but are reluctant to do so (Filatotchev and Mickiewicz, 2001).

4) Families make better investments due to long-term horizon

Social reputation and altruism are characteristic of family firms and reasons for, in addition to advantages of family governance systems, maintaining family ownership. The effectiveness of family governance, however, depends on the ability to align interests of family managers across generations. If the decision makers have a horizon extending beyond their tenure, they have the incentive to maximize firm value through investment activities (James, 1999). Linking the action of family managers to other family members' welfare is disciplining and managers are less likely to pursue personal interest over family interest (James, 1999; Kepner, 1983). It has been argued that social control and social responsibility act as self-enforcing governance mechanisms with trust, shared vision and social reputation as supporting factors (Kets de Vries, 1996; Ouchi, 1980).

1.2 Family Ownership as Response to the Business Environment

Agency theory mainly focuses on incentive and alignment problems in the analyses of ownership. Other theories, like transaction cost or resource dependency theory, they focus on asset specificity, transaction costs, as well as access to human, managerial, and capital resources. From these other perspectives one can regard firm-, industry-, and nation-specific factors as the main reasons for different ownership structures in various industries (Thomsen and Pedersen, 2000). Many of these reasons for family ownership also apply for other closely held firms and in the following sections I discuss how networks and owner identity may differentiate family firms from other firms.

Firm specific factors:

Transaction costs affect profitability, ownership and governance structure in firms. Williamson (1979) states, that one may expect the ownership structure that minimizes these transaction costs. In this approach, investment projects are examined in terms of their asset specificity characteristics, where different owners have different values and the pressure on profit maximization can be larger in firms with dispersed ownership than in family firms (Williamson, 1979, 1985). Separation and specialization of risk bearing and management together with allocation of risk (Fama and Jensen, 1983) can then allow firms to fund large firm-specific assets. One would expect firms with large investments in these assets to have dispersed ownership structure (Thomsen and Pedersen, 2000).

Pfeffer (1982), states that organizations are not internally self-sufficient and that they are externally influenced because they become dependent on the environment that supplies the different resources. Firm size relates to possible scale-economy effects, and firm age may relate to life cycle changes (Smith, Mitchell and Summer, 1985). When firms grow, they may need financial and managerial resources and the founding family imposes constraints on this development (Filatochev, Lien and Piesse, 2003). Furthermore, family firms may find it difficult to raise capital on favorable terms due to the fact that the arm's-length minority investors run the risk that majority owners will use their control rights to extract private benefits at their expense (Carney and Gedajlovic, 2002; La Porta et al., 1999b). Hence, dispersed ownership may be a result of the need for large amounts of long-term capital, with large firms finding themselves in a better position to obtain this capital due to larger balance sheets. The capital structure of firms depends to a large degree on asset specificity and access to collateral, implying that young knowledge-based companies are often equity financed due to lack of collateral, whereas old firms with a high degree of fixed assets are debt financed (Randøy and Down, 2002; Shleifer and Vishny, 1997). In addition, the degree of equity financing varies with the re-deployability of assets, affecting ownership and governance structures (Williamson, 1985).

Industry specific factors:

Different industry factors have been mentioned in the corporate governance literature. Jensen (1993) argues that takeovers appear in different degrees in different industries and that they may impose strong financial discipline on management, resulting in efficiency gains in some industries. Product competition has also been mentioned as a disciplining factor, forcing managers to act in the shareholders' interest (Shleifer and Vishny, 1997; Pedersen and Thomsen, 1998), thereby enhancing innovations, competitiveness and performance. Jensen (1993) states that product/factor markets act too slowly as control forces, but that their discipline is inevitable, implying that non-competitive firms will not survive, whereas Williamson (1975) states that one explanation for differences in how firms operate and organize themselves in various industries is the difference in margins. He argues that firms in low margin industries operate in hierarchies in order to obtain economies of scale, and that firms operating in high margin industries are more knowledge intensive and organized into markets with several suppliers of similar products or services (Williamson, 1975).

It has also been argued that volatile industries have a higher degree of ownership concentration, due to larger economic gains from control, and closer monitoring (Demsetz and Lehn, 1985; Pedersen and Thomsen, 1998, 1999). Family firms are perceived to contribute better to this close monitoring through their governance structures and may therefore be a more viable ownership structure in some industries. In addition, family firms often have a long-term horizon for their investments (James, 1999) and, in some cases; there may be a gain from family ownership in volatile industries because of traditions and this long-term perspective. Financially sound family firms can cope with short-term fluctuations in the marketplace differently than non-family firms due to the long-term horizon they have on their investments. This represents a competitive advantage in some markets.

Other industry specific factors are capital intensity, high risk and high barriers of entry, to mention only a few. In industries with high capital intensity and high firm specific risk, some findings indicate that firms tend to have dispersed ownership (Thomsen and Pedersen, 2000). Demsetz and Lehn (1985) argue that risk aversion often reinforces risk neutral effects where the cost of capital discourages large owners in large firms from maintaining concentrated ownership. In industries with a high barrier of entry, dispersed ownership may also be one way of securing access to critical resources, either competence or capital. This implies that access to competence or capital from multiple owners, either through boards (Goodstein et al. 1994) or through other channels, may contribute positively to firms in some industries. However, strong industry and social networks may help family firms overcome resource constraints and thereby enable them to remain family owned.

Nation specific factors:

Countries compete in providing attractive business environments where high accounting standards, large capital markets, strong legal protection of investors and a strong rule of law are predictors of growth for firms in need of external financing (Emmons and Aschmid, 2000). This is in line with La Porta et al. (1999) who state that efficient capital markets require a high level of legal protection to protect financiers against expropriation by entrepreneurs in order to increase their willingness to surrender funds in exchange for securities. This implies that in countries with poor legal protection, closely held and family firms are a response to poor legal protection (La Porta et al., 1998, 1999).

Capital markets have also enhanced their role because these markets' comparative advantages have been favored by deregulation, globalization and information technology, and not necessarily because managers misbehave. Furthermore, improved information technology has made access to financial markets easier (Rajan and Zingales, 2000). Well-functioning capital markets are important to most firms in order to secure access to external capital at competitive prices, but this access may be even more important to some firms, such as spin-off firms. These entrepreneurs depend on venture capital in order to expand their business, requiring well-regulated capital markets.

One may argue that regulation of financial or labor markets affect the competitiveness of firms, giving rise to different patterns of clustering in different countries. Regulations restrict options available to owners by reducing the control potential, thereby providing a degree of subsidized monitoring and disciplining of management. The effect of regulation can reduce ownership concentration more than profit instability alone would, indicating greater diffuseness in regulated industries (Demsetz and Lehn, 1985). Active investors are vital in well-functioning governance systems and regulatory frameworks enhance the competitiveness of environments (Jensen, 1993). Pedersen and Thomsen (1998, 1999, 2003), find that economic and institutional variables influence ownership structures, and that these structures differ according to differences in financial systems, regulations, geography, resources and the role of government. They also argue that firms cluster in nations with stronger industry effects for some ownership categories than others. Other potentially relevant nation specific factors include regulation of labor markets, tax systems and incentives, as well as access to raw materials.

Firm, industry and nation specific elements may explain different ownership structures in different environments, but they may not be able to capture the special trait of family firms compared to "closely held non-family firms". For this reason, I introduce social and commercial networks as an additional explanation for family ownership in some contexts, with a stronger focus on social capital embedded in networks based on trust, shared visions, traditions and long term relations.

1.3 Family Ownership due to Industry Networks

Based on the previous review, I will discuss whether social and commercial networks can be determinants of family ownership and can more fully explain why there is a higher degree of family firms in some industries than others. For this purpose, I will add the network theory and the social capital theory. I argue that these theories can be regarded as a supplement to other theories (e.g. institutional theory, resource dependency theory, agency theory, stewardship theory, cluster theory or transaction cost theory) for explaining family ownership. In section two, I also include a discussion on the use of network theory as an alternative to the use of institutional theory put forward by Aguilera and Jackson (2003) and others.

Intangible resources are important for producing a competitive advantage due to their uniqueness, which is hard to imitate because it is a result of a social network among firms in an industry (Barney, 1991; Black and Boal, 1994). Tangible and intangible assets are both strategic assets but intangible assets are believed to drive firm value more than tangible assets, implying that ownership structures and corporate governance systems should enhance competitiveness (Sussland, 2001). Both intangible resources and “tacit knowledge” can be regarded as a firm’s social capital, and it can be argued that strong relations and family ties are a means of developing and maintaining social capital. However, the term “social capital” has different definitions and needs to be discussed carefully in the right context. I focus on the social capital embedded in social and industry networks, including trust and norms within a family firm, as well as between family firms. An important issue is whether or not one should regard social capital as exogenous. With this in mind, I discuss whether the social capital found in industry networks affects family ownership and why it varies among industries.

My main questions in this paper are:

- 1) How can networks affect the level of family ownership in an industry?
- 2) Do networks affect the survival rate and solidness of family firms?
- 3) Do networks change the mode of operations in family firms based on:
 - a) The owner-manager relations in these firms
 - b) The relational governance structure in these firms

The paper is structured as follows: Section 2 discusses social capital found in industry networks and in section 3, I discuss whether strong networks change the fraction of ownership in an industry. Section 4 is a discussion of some of the network effects on how family firms operate compared with non-family firms, and section 5 offers some concluding remarks.

2.0 SOCIAL CAPITAL, RELATIONAL GOVERNANCE AND NETWORKS

Table I shows some of the theories used in explaining ownership structures, where different theories apply in different contexts. Agency theory has been the most prevalent theory for explaining corporate governance mechanism in firms (within-firm relations), especially focusing on family ownership as a mechanism to reduce agency costs (Fama and Jensen, 1983). Transaction cost theory has been one of the most used theories for explaining relations between firms, focusing on cost efficiency and arguing that firms have the ownership structure that reduces these transactions costs (Williamson, 1985). I discuss whether strong relations and networks can enhance family ownership in some industries, adding network theory supported by social capital theory. In these theories, network externalities, social capital and social structures are essential elements that may influence firms' organization and ownership structure. When discussing networks in economic terms, one tends to focus on repeated games (Fudenberg, Kreps and Maskin, 1990), agglomeration benefits and network externalities (Doeringer and Terkla, 1995; Rosenfeld, 1997; LeVeen, 1998). By using a sociological approach, focus is put on social reputation and responsibility, trust, social relations, shared visions and knowledge (Granovetter, 1985; Burt, 1992).

2.1 Social Capital and Relational Governance between Firms

The concept of social capital initially appeared in community studies, with a focus on the networks of strong personal relationships developed over time as the basis for trust, cooperation and collective actions in such communities (Nahapiet and Ghoshal, 1998). Later on, analysts of social capital have been concerned with the significance of relationships as a resource for social action (Baker, 1990; Bordieu, 1986; Burt, 1992; Coleman, 1998, 1990). One central element in the social capital theory is that networks of relationships are a valuable resource for the conduct of social affairs, and that much of this capital is embedded within networks of mutual acquaintance and recognition (Nahapiet and Ghoshal, 1998). Social capital can also be in the form of social status or reputation derived from memberships in specific networks (Burt, 1992) or within family relationships (Coleman, 1988).

Nahapiet and Ghoshal (1998) argue that even though social capital takes many forms these forms share some characteristics: 1) They constitute aspects of the social structure where social capital inheres to the relations between and among persons, and 2) they facilitate the actions of individuals within the structure, where the social capital makes it possible to achieve ends that would not have been possible without it. Burt (1992) argues that strong

networks of social relations increase the diffusion of information by minimizing redundancy, and that this social capital increases the efficiency of action. Putnam (1993) suggests that social capital through high levels of trust reduces opportunism and the need for costly monitoring processes, hence reduces the costs of transactions.

Although many authors agree on the significance of relationships as a resource for social action, they lack consensus on a precise definition of social capital (Nahapiet and Ghoshal, 1998). Nevertheless, there seems to be a general agreement that social capital comprises both the network and the assets that may be mobilized through that network (Burt, 1992; Bordieu, 1986). For this reason, I use network theory in the discussion of possible effects of strong “between-firm networks” on family ownership. I assume relational contracting between non-anonymous parties and that these relations and networks contain some forms of social capital as a basis for the various inter-firm transactions.

Macneil (1980) argues that a discrete non-relational contract is one in which no relation exists between the parties apart from the exchange of goods, whereas relational contracting is characterized by repeated exchanges by non-anonymous actors, with a basis in relational contract law founded on relational transactions. Mesquita and Lazzarini (2008) analyze relational governance as a mechanism of inter-firm coordination. They define relational governance mechanisms as inter-firm cooperative arrangements based on informal rules and unwritten codes of conduct affecting the behavior of firms in their dealing with others (Baker, 1990). Macneil (1980) argues that partners engaged in relational governance rely on generic processes for periodic ex post negotiations and thus overcome difficulties involved in formally spelling out actions and responsibilities ex ante (Mesquita and Lazzarini, 2008).

Relational governance involves a complex multidimensional set of norms. As parties continue transactions over time, trust and those social norms may enhance the collaboration between parties. Mesquita and Lazzarini (2008) argue that parties engaged in relational governance should share information, maintain a high level of mutual assistance, share the costs and benefits of their joint effort, and support a mutual orientation toward promoting fair returns for all parties. The effects of relational governance among firms distinguishes between horizontal ties (firms in same industry or producing complementary products) and vertical ties (firms specialized in parts of supply chain), and has variable effects on collective efficiencies (Mesquita and Lazzarini, 2008).

Mesquita and Lazzarini (2008) argue that relational governance of horizontal ties makes it easier to establish a common agenda when firms are in the same industry or market segment. They find support for the hypotheses that horizontal relational governance has a positive effect on sourcing of collective resources and product innovations. They also argue that relational governance in vertical ties can attenuate contractual hazards occurring in complex buyer-supplier arrangements and affect the efficiency of coordinating interdependent assembly systems among parties, supporting the hypothesis that vertical relational governance has a positive effect on manufacturing productivity. They find that both vertical and horizontal relationships can enhance collective efficiency.

2.2 Institutional Theory – “Isomorphism”

Institutional theory is concerned both with formal and informal structures in institutions and could help explain why some environments have more family firms than others. Jepperson (1991) defines institutions as any social pattern characterized by a standard sequence of interactions. Family firms meet this definition. Institutions can also be seen as governance structures based on rules, norms, understandings and routines (March and Olsen, 1989). In addition, institutionalism defines governance by partnering, cooperation and interchange, and can be regarded as closely allied with network theory (O’Toole, 1997). I find that the network theory is more applicable because it also includes social and relational dimensions in family firms, like owner identity and family ties. Scott (2001) states that much of the work by institutional theorists has been spent on documenting the influence of social and symbolic forces on organizational structure and behavior and that sociological institutionalism emphasizes individual behavior within institutions. He also argues that behavior must be explained on a situational basis with each context being different (Scott, 2001).

DiMaggio and Powell (1983, 1991), on the other hand, ask why organizations are so similar. They argue that once a set of organizations emerges as a field, rational actors make their own organizations increasingly similar as they try to adapt; they call this tendency toward homogeneity “isomorphism”. They argue that isomorphism can be divided into: 1) Competitive isomorphism arising from market forces and 2) institutional isomorphism arising from competition for political and organizational legitimacy (DiMaggio and Powell, 1983, 1991).

According to DiMaggio and Powell (1983, 1991), institutional isomorphism has three different mechanisms: 1) Pressures to conform to best practice (*coercive*), 2) reduced uncertainty by imitating successful peers (*mimetic*) and 3) socialization of personnel to view certain types of structures as legitimate (*normative*). In this perspective, various forms of pressure increase the homogeneity of organizational structures.

Aguilera and Jackson (2003) use actor-centered institutionalism to explain cross-national diversity of corporate governance. They focus on the interplay of institutions and firm-level actors and how different configurations of institutions support different sorts of interactions among stake-holders in corporate governance. This study argues that inter-firm networks are a part of firms' capital and that the structure of inter-firm networks influences firms' behavior through access to critical resources and information. Aguilera and Jackson (2003) propose that in countries with a high degree of overlapping networks, capital tends to pursue strategic interests towards the firm and exercise control via commitment. This study regards inter-firm networks more a reason for different corporate governance systems than as a possible determinant of various ownership structures.

The following two sections briefly present characteristics of industry networks and clusters as the basis for discussing how networks may affect family ownership in some industries. This does not include a complete analysis of the development of clusters, but more a review of how firms inside clusters can gain from network externalities and agglomeration benefits resulting from strong social and industrial relations in these networks, with the potential for enhancing family ownership.

2.3 Industry Networks and Clusters

There has been a debate on how to define an industry cluster, how to identify a cluster, and what actually drives the development of clusters (LeVeen, 1998). Doeringer and Terkla (1995) define an industry cluster as "geographical concentrations of industries that gain performance advantages through co-location (Doeringer and Terkla, 1995, page 225). This definition is in line with agglomeration economics (LeVeen, 1998). Porter (1990) focuses on the competitive advantage a firm can gain by being part of an industry cluster where related and supporting industries have been of great interest. According to Porter (1990), the incentive for clustering is a competitive advantage, with the main types of clusters being vertical and horizontal clusters. Vertical clusters are linked through buyer-seller relationships

whereas horizontal clusters share a common market for skilled labor, products, technology or natural resources (Porter, 1990; LeVeen, 1998). This definition focuses both on resources and relations between different participants in the marketplace.

Jacobs and De Man (1996) on the other hand, focus on quality of firm networks and cooperation in addition to geographical and vertical/horizontal relationships between sectors. They bring network externalities and social relations in as elements in their definition of clusters. Rosenfeld (1997) also includes the social and interaction aspect by focusing on communication and dialogue in his definition of clusters. This definition is “a geographically bounded concentration of similar, related or complementary businesses, with active channels for business transactions, communications and dialogue, that share specialized infrastructure, labor markets and services, and that are faced with common opportunities and threats” (Rosenfeld, 1997, page 10). Rosenfeld (1996) argues that an efficient social infrastructure is required in order to facilitate exchange of information and that this information flow is important for the development of an effective cluster. In addition to information, he states that there should be trust and shared visions in order to create dynamic and effective clusters (Rosenfeld, 1996). Given this context, I focus on the networks prevalent in industrial clusters and how these networks may affect the proportion of family ownership in some industries. Prior to discussing these issues, I present some views on the driving forces within networks and industrial clusters.

Most researchers agree that firms will cluster because they receive some benefits but the factors creating these benefits have been debated (LeVeen, 1998). Doeringer and Terkla (1995) claim that, the driving forces underpinning clusters are positive externalities. According to this view, location sites are a result of coincidences or may result from cost advantages from immobile factors. Porter (1990) focuses on competition as the driving force behind the development of different clusters where competition between rival firms forces them to remain innovative and competitive. This generates related “spin-off” firms and stimulates increased R&D, with the result that clusters become mutually reinforcing systems. Vertical integration generates new firms to fill a gap in the market, whereas horizontal clustering generates a demand for products and services in related industries. This creates room for development in a cluster. Transfer of labor within a cluster contributes to increased competition and stimulates innovation through exchange of knowledge (Porter, 1990).

In contrast, Doeringer and Terkla (1995) focus on agglomeration benefits (the benefits firms can obtain when located near each other due to economies of scale and network effects) as a key driving force in the cluster. They state that firms in a cluster have lower transportation and transaction costs, as well as better access to skilled labor. In addition, exchange of information, knowledge and technology among related firms can create a social interaction and infrastructure that enhances clustering processes (Rosenfeld, 1996, 1997). A social infrastructure facilitating technology and knowledge transfer is beneficial to all firms but may be even more so for smaller specialized firms filling emerging niches in the market. On this basis, one may argue that the social infrastructure strengthens and enhances the growth of clusters (Doeringer and Terkla, 1995; Rosenfeld, 1996, 1997; LeVeen, 1998) and that these network and knowledge externalities are crucial to the development of clusters. The social infrastructure may influence ownership and governance structures, giving positive or negative effects on the further development of a cluster. To sum up, one can divide cluster effects into: 1) Competition effects within which clusters develop (Porter, 1990) and 2) network effects with a social approach (Rosenfeld, 1996, 1997).

The literature seems to agree that: 1) Clusters are dynamic (Doeringer and Terkla, 1995), that 2) even though the geographical and spatial proximity is important, there is no clear definition of the appropriate geographical scope of a cluster (LeVeen, 1998; Rosenfeld, 1996; Jacobs and DeMan, 1996), that 3) the interdependent and dynamic relationships create clusters, not only industry concentration (Doeringer and Terkla, 1995; Rosenfeld, 1997) and, last but not least, that 4) the role of the social infra-structure is important in defining industry clusters (Rosenfeld, 1996).

3.0 HOW CAN NETWORKS AFFECT FAMILY OWNERSHIP IN AN INDUSTRY?

Transaction cost theory has been dominant in the field of inter-firm governance research, with emphasis on economies of scale and transaction costs (Williamson, 1975). Ouchi (1980) argues that transaction cost theory does not capture all governance forms because it does not address the social control aspect in long-term cooperative arrangements and the need to add the dimension of social mechanisms. As discussed, networks are an important part of the development and sustainability of clusters and can be defined as the social part of clusters. This raises some pertinent questions. Can these relations and networks also explain family ownership and the sustainability of family firms? Is it a coincidence that some of the industries operating in strong clusters have a high degree of family ownership? Can we assume those family firms are “trusting organizations” that reinforce this effect?

3.1 Networks and Family Ownership

Granovetter (1985) argues that social relations between firms are very important when assessing “markets” versus “hierarchy”, where power in “market” relations and social connection in firms are important elements. He states that a stable network of relations mediates complex transactions and generates standards of behavior between firms, reflecting “markets” instead of “hierarchy”. From a transaction cost perspective, Williamson (1975) argues for “market” or “hierarchy” structures as alternatives for mediating transactions, where “markets” are characterized by competition and repeated games, and “hierarchies” focus on transaction costs and economies of scale. Ouchi (1980), however, argues for a third form of governance he calls the “clan” form. This form is based on goal congruence by means of different social mechanisms, and is perceived to reduce opportunistic behavior and lower transaction costs between parties (Ouchi, 1980).

Strong clusters are characterized by inter-organizational governance, falling somewhere between market and hierarchy control, and may fit into Ouchi’s (1980) “clan” concept. Ring and Van de Ven (1992) have argued that a transaction cost perspective on inter-firm governance does not address the effects of social relations in repeated transactions between firms, due to its focus on cost reduction. Nahapiet and Ghoshal (1998) analyse how resource creation within networks can help firms gain advantages, concentrating on the interrelated development of social and intellectual capital as key resources. They find that the creation and sharing of tacit knowledge represents such an advantage. By extending these views to include family firms as a fertile ground for developing tacit knowledge, one may argue that some of

the advantages with family firm governance (within firm relations) ease transactions between firms and enable them to remain family owned. I argue that the prevalence of family ownership in industry clusters depends both on social and commercial networks.

One example of an industry characterized by strong industrial clusters and high fraction of family firms is the worldwide shipping industry. Norwegian shipping has a high degree of family firms, it has strong commercial and social networks, and it is regarded to be a very complete cluster (Benito et al., 2003; Jenssen, 2003). In addition to the traditional shipping related activities, including more than four thousand internationally competitive firms, there is also a strong oil production and oil service sector with several related industries in Norway (Wijnolst et al., 2003). The strength of this cluster is to be rooted in the large number of shipping companies, where a majority of these are family firms and several of which have been family-owned for generations. Reve and Jacobsen (2001) find that the maritime clusters have higher performance, higher growth and productivity, and higher salaries than other industries in Norway. They also find that cluster firms have higher innovation capacity, higher commercialization rates, higher spin-off activity and dynamism of change. Several cluster-mapping studies have been conducted worldwide and the European cluster-mapping project (Appendix I) identifies many clusters with long-term trust based relationships and high degrees of collaboration and entrepreneurial activity (European Commission, 2002).

It is interesting that family ownership is so prevalent in this specific industry worldwide, in spite of the fact that it is characterized both by high capital intensity and high risk (Granitsas, 2005). These elements are often mentioned in the literature as arguments for dispersed ownership in order to spread risk and as a result of difficulties with raising enough capital (Carney and Gedaljovic, 2002). Some segments of the shipping market are also characterized by high asset specificity, making it more difficult to debt finance the assets, which could be another argument for dispersed ownership. In other segments of the shipping market, however, there is a high degree of assets tangibility with low asset specificity, and a global resale market. This makes it easier to debt finance the operations due to a higher degree of collateral and firms can remain family owned in spite of high capital intensity. This industry is also extremely volatile due to large price variations in freight rates and prices of new and second-hand ships (Stopford, 1997). Volatile environments have been used as one argument for family ownership due to gains from closer monitoring (Demsetz and Lehn, 1985; Pedersen and Thomsen, 1998, 1999). It is plausible that this closer monitoring can be an efficient way

to deal with the uncertainty in the market, leading to more timely market decisions. Based on this, family ownership can be a viable governance mechanism in these environments in which shipping firms operate (Demsetz and Lehn, 1985; Pedersen and Thomsen, 1998, 1999). In addition, investments in shipping are long-term investments, and fit well with the contention that family firms are in a position to make better investment decisions due to their long-term thinking, their long traditions, as well as the altruism prevalent in these firms (James, 1999).

Many family firms in the maritime cluster have a long history in the industry and have been able to establish long-term personal and commercial relations. Therefore, in addition to the above-mentioned arguments for family ownership, long history and traditions may potentially have resulted in this ownership structure. In the shipping industry, there is a high degree of investment in other firms in the same industry, co-investments or partnerships, enabling firms to overcome problems of capital intensity and risk. This makes it possible for family firms to take part in capital intensive and high-risk projects without absorbing all the risk, thus strengthening the industry networks and the chance to remain family owned. I argue that family ownership can be favorable in shipping due to networks, melting of clusters through interlocking boards, knowledge transfer and social relations. Interlocks secure access to critical resources and competence through board members or managerial positions and give valuable insight into other parts of the industry (Løining, 2001). In addition, the positive effect of clusters on innovation and value creation may well increase as cooperation and interdependency increase. Family ownership also seems prevalent in other clusters, where the Californian wine cluster, the Norwegian furniture industry, the Italian textile industry, as well as the Italian ceramic industry, may be examples of this.

In section 3.2, I present some propositions regarding networks and family ownership. One may argue that family ownership is endogenously determined by exogenous changes in the environment, where strong industry and social networks are a part of this environment. Demsetz and Lehn (1985) argue that manager's ownership is not exogenous but is an endogenous variable determined by different variables reflecting the business environment, firm characteristics, differences in managerial contracting environment, and the firm's performance. Gugler and Weigand (2003) find that managerial ownership is endogenous, in line with findings in Himmelberg et al. (1999).

My interest is in the interaction between family ownership and networks, with focus on trust and owner identity (assuming no large conflicts) often found in family firms versus closely held firms in general. I argue that strong networks can enable firms to develop and remain family owned, if this is the goal, but also that new firms can develop and become family firms due to these networks. The starting point for the analysis is an industry network with a large portion of family firms. I assume that these networks further foster the creation of family firms, and that this contributes to maintain this ownership structure in some industries. There are also strong industry clusters characterized by dispersed ownership structures. These typically are cases where the firm, industry and nation specific elements are stronger than the network effects, or that the founding family, managers or insiders want the firm to become widely held for various reasons (Helwege et al., 2007).

3.2 Industry Networks and Family Ownership - Propositions

Hansmann (1996) states that the optimal ownership structure in any given environment is the structure that minimizes transaction costs for given activities. This is one explanation for why some ownership structures are more dominant than others in particular industries. Pedersen and Thomsen (1998) have made a study that focuses on industry distribution of different structures and characteristics. They find strong industry effects due to firm size, volatility, growth rates, capital and R&D intensity. They also find strong nation effects through the regulation of the financial sector, taxation of personal ownership, and ownership regulation. In between the micro level (firms) and the macro level (nation/industry), I argue that there is a cluster level that can explain "cluster effects" on ownership structure. Reasons for these effects and the possibilities they create include knowledge of people, products and markets.

Assuming an underlying driving force to remain family owned, strong networks can be one way of achieving this objective. Factors like social capital, relational contracting, trust, common knowledge and altruism may ease establishment of contracts between parties making it easier to establish new firms. Other network effects may help family firms overcome resource constraints, increase the market potential and business opportunities, and spark innovation. Building on these propositions, I present some possible explanations for why industry clusters may enhance family ownership. There are challenges with cause and effect of networks and family ownership, but in a network perspective I argue that networks foster creation of family firms.

Easier to establish new firms due to social and commercial relations

Rosenfeld (1997) states, that many effective clusters are located in small inter-related industries. He emphasizes the role of social interaction and firm cooperation in determining the dynamic nature of a cluster, where social infrastructure is an important dimension in facilitating technology and knowledge transfer. Location specific factors may be of importance to start-up firms when founder starts a business in a familiar industry close to a familiar labor pool or other resources. Effective clusters must also include trust and a shared vision in order to be dynamic (Rosenfeld, 1996). Furthermore, implementation of social relationships of exchange with business partners may reduce uncertainty within the given business environment (Granovetter, 1985) and may mitigate risk aversion, low rates of investment in business development, and resource scarcity. Social networks and relations can reduce uncertainty either through common R&D projects or other commercial agreements and give a competitive advantage. Networks ease establishment of new firms and thereby contribute to the growth of small, emerging family firms in an industry. New firms may be in competition with existing family firms, but they also contribute to new family firms.

Proposition 1: *Network externalities ease establishment of new founder family firms.*

Easier access to capital due to social networks and trust

Access to capital is important, especially in capital-intensive industries where there is a need to reinvest continuously to remain competitive, and where strong networks can ease this access. Access to debt financing depends to a large extent on collateral within firms, where asset specificity is an important factor. Trust and strong relations between the founder and the local "bank market" may facilitate access to and reduce cost of debt financing because it decreases the risk aversion on the part of banks. Trust, long-term relations and social networks may also give easier access to private equity markets because investors trust the founder. This capital is especially important for small, emerging, non-listed firms. In addition, venture capital is important for financing growth, where strong networks and trust are critical factors. It is crucial for firms to maintain extensive contacts and build intellectual capital within their industry. Venture capitalists are often specialists in assessing ventures and their founders. The social capital these actors bring in is essential for enhancing competitiveness and the growth of firms in the cluster (<http://encyclopedia.thefreedictionary.com>).

Firms in capital-intensive industries, operating in countries with well-developed financial markets, will tend to have dispersed ownership. This is not always the case, because strong networks with a high degree of social capital may enable families to remain family owned also in these industries.

Proposition 2: *Strong trusting networks enhance family ownership through easier access to capital.*

Easier access to human resources due to social networks and trust

Normally, resource dependency (Pfeffer, 1982) is used as an argument for dispersed ownership, where this ownership structure is assumed to give access to the right type of human resources. However, another means of securing resources is dense networks, which are often found within clusters. According to Granovetter (2005), social networks play a key role in most labor markets. Prospective employers and employees prefer to learn about one another from personal sources whose information they trust, referred to as social capital (Lin, 2001). Another resource base is interlocking boards where networks are important sources for references. This may also help the establishment of strategic alliances and partnerships (Gulati and Westphal, 1999). Løining (2001) uses learning, knowledge transfer, information and coordination as key concepts when discussing effects of board interlocking. Family firms often experience a scarcity of human resources at levels of manager or board member. Strong social networks mitigate this scarcity due to the possibility of recruitment from personal networks where trust, confidence and personal references are elements.

One could argue that the gain from social networks is higher in family firms compared to other firms due to family ties, tradition and long term relations, factors that contribute to a higher level of trust.

Proposition 3: *Robust network structures improve family firms' access to human resources.*

Increased solidness and survival rate

Granovetter (2005) argues that social structure and networks have a powerful impact on the extent and source of innovations, the diffusion of these innovations, as well as the economic outcome. Pedersen and Thomsen (1998) find some evidence that profit margins increase the scope for insider ownership and that concentrated ownership is prevalent in high margin industries. When put in the context of cluster theory, do new firms establish themselves in these industries, reinforcing the effect of this ownership structure? Research has not established whether the presence of large owners improve firm performance or not

(Holderness, 2003; Short, 1994). Pedersen and Thomsen (2003) find that the identity of owners matters and that it has an effect on financial performance. However, owners differ and there may not be a universal relationship between ownership concentration and firm value. There is evidence that family firms run more efficiently, carry less debt, run with lower overall cost of debt financing, and have greater value (Anderson and Reeb, 2003; Amit and Villalonga, 2006; Anderson, Mansi and Reeb, 2003). One could argue that strong networks in a cluster can replace dispersed ownership as a means of getting access to financial or human resources. This makes it possible for family firms to remain competitive and innovative, in spite of possible resource constraints, increasing their solidity and survival rate.

Proposition 4: Network externalities favour family firm ownership through increased survival rate

My focus is on how the social capital embedded in strong networks enhances family ownership in some industries. Putnam (2000), states that horizontal networks enhance productivity and that cohesion is positive social capital, whereas self-serving exclusive groups and hierarchical patronage systems can be thought of as negative social capital. Nahapiet and Ghoshal (1998) suggest that social capital should be considered in three clusters: structural, relational and cognitive. The structural dimension focuses on the ability to build weak or strong ties to others within a system, the relational dimension on the character of the connection, and the cognitive dimension on how to use social capital in exchanging and managing information (Nahapiet and Ghoshal, 1998). I find that the relational dimension is of interest within the framework of this paper, because it focuses on the trust of others, their cooperation and how individuals identify themselves within a network (Nahapiet and Ghoshal, 1998). Fukuyama (1995) describes social capital as the existence of a certain set of informal values or norms shared among members of a group that permit cooperation among them. Some empirical research shows a positive relationship between interpersonal trust and economic growth (Knack and Keefer, 1997; Beugelsdijk et al., 2004). I will now discuss possible effects of strong networks, both the potential financial benefits, as well as how these networks may affect modes of operation in firms.

4.0 EFFECTS OF INDUSTRY NETWORKS

There are some general effects of networks which apply both for family and non-family firms. Granovetter (2005) states that social structures, especially social networks, affect economic outcome for three reasons: 1) Social networks affect the flow and quality of information, 2) they are an important source of reward and punishment and 3) in the context of social networks, trust emerges through the confidence that others will do the right thing, with a positive effect on the outcome. Assuming that there is a larger degree of family firms in industries with strong networks, do family firms gain more from these networks compared to the general benefits of trust and strong networks?

4.1 General Economic Effects of Networks

In dense social networks, there is a higher likelihood of strong social norms that generate shared ideas on how to behave and create a higher degree of trust. These shared ideas on behavior, especially in the immediate family, may also solve the free-riding problem (Granovetter, 2005). The density of networks varies and there may be strength in weak ties in some environments, because the exchange of information can represent different views than those that are transmitted between members in immediate and close networks. Members with close ties tend to see things in similar ways and may not offer or consider alternative solutions (Granovetter, 1973, 1985). Burt (1992) has extended this view by focusing on how different parts of networks are bridged, and how “structural holes” can be an advantage for individuals with weak ties in several networks. The information flow between networks can also contribute to a higher degree of innovation. How the information flows is dependent upon how economic and non-economic activities are mixed, the “social embeddedness” of economic action in social networks, culture, politics and religion (Granovetter, 1985). Granovetter (2005) argues that trust and obligations arise from how society’s institutions pattern kin and friendship ties. He also states that economic efficiency gains resulting from these ties are “by-products” of actions and patterns enacted by individuals with non-economic motivations.

Social structure affects labor markets, prices, productivity, alliances as well as corporate governance mechanisms (Granovetter, 2005). In most labor markets, social networks play a key role where both employers and employees use personal sources whose information they trust. Lin (2001) has defined this as social capital where social networks affect information on job flows. Trading within social networks affects prices to varying degrees and depends on

the strength of the relationship, the cost of shifting to different partners and the market situation (Granovetter, 2005). Ingram and Roberts (2000) find that friendship among managers in the hotel industry in Sydney, Australia, had a positive impact on performance and made it easier to resist price wars. Social relations are also closely linked to productivity, where one's position in a social group can influence productivity. Some forms of knowledge are best developed through interaction with knowledgeable others, leading to "tacit knowledge". Group norms and cultures in networks shape skill and productivity (Granovetter, 2005), representing a competitive advantage in some industries.

Corporate governance research emphasizes systems of control where the principle-agent model with direct surveillance or incentives in work relationships, has been prevalent. Another potential controlling mechanism is social groups, where these groups create compliances through a "loyalty system". This may create identification with a firm and encourage productivity and high standards. Firms may then benefit from loyalty and social control within the network they recruit from, with a possibility of transferring this loyalty into the firm (Granovetter, 2005). In order to see how the firm structure affects productivity and profits, one needs to consider the formal organization (Williamson, 1975; Chandler, 1977) as well as the social elements of any social community (Granovetter, 2005). Davis and Greve (1997) find that social structures and networks have a positive effect on the diffusion of changes, and that some references are more important than others for accepting changes. The above-mentioned positive effects of networks may apply for all forms of ownership structures. Therefore, the question is whether family firms gain more from some factors than non-family firms.

4.2 Do Family Firms Gain more than other Firms from Strong Networks?

The concept of "trust" is an important element in both social capital and family firm research. One general definition is given by Sobel (2002). He states that trust is the willingness to allow the decisions of others to influence one's welfare and that the level of trust determines the degree to which one is willing to extend credit or rely on advice and actions from others. Fukuyama (1995) defines trust as "the expectation that arises within a community of regular, honest, and cooperative behavior, based on commonly shared norms" (Fukuyama, 1995, page 26 in Tonkiss 2000, page 79). Recent literature distinguishes between three forms of trust (Putnam, 2000; Newton, 1997) categorized as: 1) Generalized trust, 2) thick trust and 3) institutional trust. Generalized trust is the level to which people in general can be trusted.

Thick trust is the trust generated by family networks and by living in close-knit communities (Newton, 1997). Institutional trust is the extent to which people have confidence in certain institutions (Roth and Schuler, 2006). I regard “thick trust” as the basis for discussing whether family firms benefit more from networks in clusters than others. I make the assumption that the trust discussed in family firm research is in line with the definition of “thick trust” by Newton (1997). Family firm literature has focused on altruism, goal congruence, social mechanisms, trust, and kin networks as characteristics of these firms (Ouchi, 1980).

Trust plays an important role in the operation of economic systems (Arrow, 1972) and in general trust has an effect by reducing the transaction costs of exchanges. Coase (1937) argues that all kinds of transactions require trust (and it may be assumed that this applies to all ownership forms). Research into the relationship between trust and economic growth mainly focuses on the effect of generalized and institutional trust (Knack and Keefer, 1997; Coleman, 1990; Putnam, 1993; Roth and Schuler, 2006). Many of these studies ask how the basic level of trust in a society affects democracy, economic development, competitiveness and innovations, finding a positive effect of trust on several of these variables. It may be more difficult to distinguish which aspect of trust benefits family firms vis-a-vis other firms in strong networks, but I maintain it is “thick trust”.

The influence of trust on economic growth is not unidirectional. There are some negative relationships between trust and economic growth. Olson (1982) argues that networks with a high degree of trust can undermine necessary reforms through collective actions. Secondly, if trust increases through an increase in wellbeing, there is a disincentive to invest in further effort, impacting economic growth negatively (Olson, 1982). This perspective may be applicable in a family firm context where the level of wellbeing and trust is regarded to be high, and may result in lower efficiency and cost effectiveness. It has been stated that in “high-trust societies”, the actors can solve the collective action and free-rider problems (Putnam, 1995). Putnam (1995) argues that trust has a positive effect because: 1) It facilitates coordination and cooperation for mutual benefit, 2) it solves the problems of collective action, 3) it reduces the incentives for opportunism and 4) it reduces egoism. In line with Putnam (1995), Whiteley (2000) states that: 1) In high trust societies the returns on educational investments are higher, 2) high-trust societies are less risk-averse, which creates greater incentives to invest in physical and human capital and, 3) the diffusion of innovation and new technologies will be faster in high-trust societies.

By regarding family firms in strong networks as high-trust societies with a high degree of “thick trust”, I argue that these firms benefit more from networks and clusters than others through the social capital embedded in these relations. Strong social and commercial networks can change the mode of operation in family firms due to the owner-manager relations in these firms, as well as the relational governance structure in these firms. This can give family firms some benefits contra non-family firms operating in the same network and industrial cluster. Even though there are potential negative implications of strong networks, I will limit my discussion to the possible positive effects.

Benefits for family firms in networks due to owner-manager relations

The agency context in family firms reduces monitoring costs (Jensen, 1983) and solves some of the incentive problems of moral hazard and adverse selection. These reduced agency costs give a competitive advantage because of managerial efficiency in some business environments (Carney and Gedaljovic, 2002). Due to knowledge of the business and owner-manager relations, family firms can be flexible and fast decision-making organizations, which may be advantageous in some industries.

Family firms focus more on human capital in response to a common set of values and norms and long-term thinking (James, 1999). Furthermore, because of the low agency context, founding family firms can focus more on increasing long-term values of the firm. Family firms can use their unique ability to manage intangible assets, thanks to a common set of values and norms (Kets de Vries, 1993) and long term thinking (James, 1999). Goel and Randøy (2002) state that family-led firms are able to exploit their low agency context in a way that gives them better access to critical intangible resources, which may enhance firm value and financial performance. This argument is rooted in resource dependency theory, which focuses on the importance of firms’ ability to get access to critical resources (Pfeffer, 1982; Mintzberg, 1983). As a result, one possible reason for the existence and longevity of family firms is their superior management of intangible assets (Goel and Randøy, 2002) where some families are able to reap the benefits of low agency costs and some are not.

Family firms can use their boards and insiders for strategic purposes, giving them the ability to take advantage of entrepreneurial opportunities (Boot and Macey, 2004). Strong networks may then ease the establishment of spin-off firms, giving an easier access to human and capital resources. Jenssen (2001) finds that social networks and intangible assets are

important predictors of entrepreneurial success in Norway. Neubauer and Lank (1998) mention entrepreneurial character and strong social responsibility as competitive elements, and Kets de Vries (1996) focuses on expertise concerning the business and shared identity gained by family members during their childhood. Tagiuri and Davis (1982) focus on owner-manager relations enhancing loyalty and long-term perspectives for the firm.

Moreover, trust and interlocking networks characterize family firms and are also important elements in the development of industry clusters. A detailed discussion is outside the scope of this paper, however, I do assume that trust enables people to work together and establish social and business networks. Coleman (1988, 1990) argues that strong ties among members in a social network decide the social capital in that group. Strong ties and interlocking networks (i.e. board interlocks) influence the formation of strategic alliances, enhancing or impeding competitiveness of firms in the network.

Family firms may have a strong sense of social responsibility (Kets de Vries, 1996) where trust, collective goals and values, a shared vision and social reputation are important elements (Ouchi, 1980; Jones et al., 1997). In addition, these firms are often embedded in networks with strong social and family ties. If the controlling owners do not suffer from myopic altruism, they can enjoy the governance efficiencies associated with Ouchi's (1980) concept of clan control. The shipping industry is a useful example. This market is highly competitive with high speed, and owners who cannot afford "myopic altruism". They need to have a long-term plan in order to be able to survive a recession when it comes. In other words, the success of family firms depends on whether the current family managers have a long-term perspective. This has demonstrably been the case in many shipping firms. If decision makers have a horizon extending beyond their tenure, the firm should enjoy positive effects from their investment activities because managers need to consider the long-term implications of their consumption and investment decisions (James, 1999; Kepner, 1983).

Relations with a high degree of trust can induce innovations due to cooperation among participants in the network, because the parties trust each other and share ideas and knowledge in the network. This trust may be higher in family firms where one may assume a development of "thick trust" both internally in the family, but also between families in the same industry network. It is not necessarily easy for others to adopt or imitate the

relationships developed through years, even generations. That is why non-family firms may not be able to reap the benefits of strong networks in the same manner.

Proposition 5a: *Family firms, in relation to non-family firms, can take better advantage of entrepreneurial opportunities due to managerial efficiency in these networks*

Proposition 5b: *Family firms, in relation to non-family firms, can take better advantage of entrepreneurial opportunities due to “thick trust” in these networks*

Benefits for family firms in networks due to relational governance

The choice of governance model depends on agency context, country and business environment. Some governance systems nurture and protect firm and asset specific investments (Macey, 1998), while others do not. Boot and Macey (2004) find that take-over entrepreneurs are dynamic and inventive, and that relational investors are crucial to investments in firm specific assets. They find that Italy, with its weak capital markets and venture capital, has flourished because investors and entrepreneurs have innovated around deficiencies in its corporate governance system by utilizing closely held firms. They eliminate agency relationships by using family ownership, providing strong incentives for managers to make firm specific human and capital investments necessary to develop specialized skills, knowing that they will not be exploited (Boot and Macey, 2004).

In definitions of clusters, the focus is on the quality of firm networks, co-operation, horizontal and vertical relationships, social interaction within the networks, as well as shared visions and trust (Rosenfeld, 1996, 1997; Jacobs and De Man, 1996). These features should enhance competitiveness through positive externalities, where family ownership can be one of the factors that give rise to these positive externalities. A network of relationships between firms is a third alternative to the markets and hierarchies in previous literature (Coase, 1937; Williamson, 1975). In a network perspective, economic actions and institutions are embedded in social structures and interactions (Granovetter, 1985), where social capital among suppliers and customers creates a competitive advantage and value (Coleman, 1990). Ouchi (1980) argues for a “clan” form based on goal congruence. Family firms may be facilitators for social mechanisms, with a reduction in opportunistic behavior and lower transaction costs as result.

Strong networks are characterized by trust and confidence among partners, reducing the costs of control and coordination (Larson, 1992). These networks can mitigate some of the negative elements in family ownership because they represent a viable, strong network outside the family network. Engagement in a network, including the prospect of social reputation, can also mitigate family conflicts, myopic altruism and managerial entrenchment. It may also reduce the extraction of private benefits and the expropriation of minority shareholders. In fact, it may be easier to obtain capital from this network because the shareholders know the people and the business they are investing in. These networks are often based on competence and knowledge of the industry. The cluster represents a pool of managerial resources and potential board members that can solve this problem for some family firms. Interlocking directorates can be a valuable source of information and new influences (Burt, 1992), enhancing innovation and competitiveness. This implies that the choice of governance model (the relationship between ownership, board and management) affects the way firms deal with the networks in the specific industry in which they operate.

Rajan and Zingales (1997, 1998) define firms as “a nexus of specific investments: a combination of mutually specialized assets and people”, and recognize that a firm is a complex structure that cannot be instantaneously replicated. This definition is consistent with “the economic essence of a firm: a network of specific investments that cannot be replicated by the market” (Zingales 1997). In a discussion of governance structure in clusters and industries, the broader definition of the firm by Rajan and Zingales (1997, 1998) fits into agglomeration economics, as well as network and knowledge externalities. They focus on mutually specialized parties belonging to the firm (workers, suppliers or customers), highlighting the importance of networks (Rajan and Zingales, 1997, 1998).

The strength of networks and relations also influences the choice of governance models, where firms make use of a more “relational” or a “contractual” governance model depending on these factors. A contractual governance system has its basis in agency theory. It regards firms as a nexus of contracts (Alchian and Demsetz, 1972; Jensen and Meckling, 1976) with the focus on alignment of interests between owners and managers (Fama and Jensen, 1983). This model stresses ownership because of its influence on board composition and board role (Zahra and Pearce, 1989). Key words are board and ownership structure, board monitoring and counsel, agency problems and control. A relational governance model focuses on optimal usage of the social capital embedded in social relationships between the owner family

members and the management (Mustakallio, 2002). Whether a family firm is successful or not depends on how it manages to reap the benefits of long lasting relationships, shared vision and trust among family members, as well as loyalty and long traditions (Harvey, 1999a; Ouchi, 1980). Differences in performance are a result of differences in the ability to create and use the social and human capital in the firm (Nahapiet and Ghoshal, 1998). Granovetter (1985) argues that the relational governance model can complement the contractual governance of family firms, with the focus on trust, shared vision, family institutions and social interaction.

Family firms in strong clusters are in an agency context where some governance problems like opportunism, incentive problems, capital and takeover markets are taken care of. They focus on dynamic relations and flexibility, where trust within the group is perceived as solving the incentive problems. Board members are recruited from networks, and boards are regarded as a resource base and mentoring function more than a controlling function. Clusters melt into each other through interlocking directorates and strategic alliances. In an agency context, where a cluster has a strong network of firms and relational capital in a family ownership structure, a "relational governance model" may be the most appropriate. Here, the social capital is embedded in relationships between family and management or between family firms. Conversely, a contractual governance model may apply in an agency context with weak networks among firms and a non-relational ownership structure. Volatility in the industry, product competition and the legal and financial environment all affect the choice of model, and firms should choose a governance model reflecting their needs. I argue that family firms use a more relational governance model due to strong networks and relational capital, enhancing existing advantages of the family ownership structure. Consequently, a relational governance model can contribute to enhanced innovation and competitiveness in firms and reinforce the strength of networks in clusters.

Proposition 6: *Family firms benefit more than non-family firms from networks when the relational governance model is applied*

5.0 CONCLUDING REMARKS

In this paper, I have focused on an alternative explanation for family ownership. I have used network theory to supplement agency theory to create a broader picture of possible determinants of family ownership. I have proposed that family firms tend to cluster in industries, regions and nations, combining flexibility and incentives for personal ownership with economies of scale and scope. Furthermore, strong personal networks, trust and reputation help overcome capital rationing and hold-up problems, and interlocking directorates, family ties, friendships and trade associations reinforce synergies between firms.

I have proposed that strong social and industrial networks change the ratio of family firms in an industry, because of the social capital embedded in these relations. Within strong social and industrial networks, I have argued that it is easier to establish new companies due to the relational capital. Furthermore, I argue that family firms have easier access to capital and human resources due to social networks and trust, and that they have a higher rate of innovation and survival thanks to their network ties. I maintain that family firms gain more from being in strong industrial clusters than non-family firms due to the “thick trust” the family represents in various relations. Finally, I postulate that these benefits are a result of the owner-manager relations as well as the benefits of the governance structures in family firms.

In family firms the governance mode tends to be more relational rather than market based. At the same time, the clustered firms maintain sufficient autonomy and distance to be able to compete and adjust quickly to changes in the economic environment. Thus clustering complements the characteristics of family firm governance emphasized in the family business literature. The Norwegian shipping cluster – which harbours more than 4000 internationally competing firms – is a relevant illustration. The Norwegian maritime cluster is considered to be very complete; it is characterized by a high proportion of family firms that have strong social and industrial interlocks. It is therefore no coincidence that so many of the world’s shipping firms have managed to coexist and thrive in clusters that remain largely organized around closely held firms. In order to broaden our knowledge of the determinants of family ownership, further research should empirically test the propositions put forth in this paper, specifically research into the relationship between the proportion of family ownership and the social and industrial networks in an industry. One crucial challenge in this endeavor will be the identification of relevant proxy variables for trust, as well as measures for strong social and commercial networks in different industries.

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Appendix I

Cluster Mapping Projects in Europe - some Empirical Evidence of Clusters

Final Report of the Expert Group on Enterprise Clusters and Networks (European Commission, 2002) is a study with the objective of finding out to what extent clusters and networks are a favorable framework for enhancing productivity, innovation and competitiveness. Porter's definition of clusters has been used, with the additional points that clusters are groups of independent companies and associated institutions that are:

- 1) Collaborating and competing
- 2) Geographically concentrated in one or several regions, in spite of global extensions
- 3) Specialized in a particular field, linked by common technologies and skills
- 4) Science based or traditional
- 5) Institutionalized or non- institutionalized

The first part of the study gives an overview of cluster mapping in Europe, where the findings are that there are very many different definitions and characteristics of clusters in Europe.

Table I: Cluster mapping studies carried out in Europe

Country:	Number of clusters identified:
Belgium	Flanders 14 and Wallonia 9 economic/technological clusters
Denmark	12 mega clusters, 29 clusters of competence
France	100 existing clusters, 80 emerging clusters
Spain	Hundreds of clusters
Austria	45 clusters
Finland	10 national clusters, several regional and local clusters
United Kingdom	154 clusters
Estonia	1 cluster
Hungary	19 clusters
Latvia	4 clusters
Poland	20-30 clusters + some in Free Economic Zones
Slovenia	9 potential clusters, 12 which need more time
Norway	6 national clusters, 62 regional clusters

Source: Final Report of the Expert Group on Enterprise Clusters and Networks (page 19), European Commission, spring 2002

Table II: Distribution of the surveyed clusters per type and country

Countries	Number of Countries	Traditional Clusters	Science-based Clusters	Total
EU Member States	12	32	19	51
Candidate countries	6	25	4	29
Norway & Iceland	2	2	2	4
Total	20	59	25	84

Source: Final Report of the Expert Group on Enterprise Clusters and Networks (page 20), European Commission, spring 2002

The second part of this study aimed at collecting data to identify driving factors in cluster formation and development to extract particular features of clusters, where 84 examples (see Table II) of European clusters from 20 countries are analyzed, with a variety of clusters (European Commission, 2002). The findings are that the majority of clusters surveyed are small (less than 200 firms) and located near towns. Furthermore, the bulk of the surveyed clusters are dominated by small and medium size enterprises, confirming the traditional picture of a cluster being a local network of mainly SMEs or at least a mix of SMEs and large-scale enterprises, and that regional resources are important for many clusters. Also the type of networking among firms is mapped, where seminars/workshops/working groups, collaborative R&D and informal networks are rated highest (European Commission, 2002). Ownership is not mentioned as a specific factor in this study. However, one may assume that the majority of SMEs in a cluster are firms with concentrated ownership or manager-owned firms.

Another study conducted in the same period is the Regional Cluster in Europe Report (Observatory of European SMEs, 2002, No.3), that analyses 34 regional clusters in 17 countries in Europe. This study finds that: 1) In some of the countries analyzed, clusters outperform the national average on growth and performance 2) there is a dominance of young clusters, 3) there is a dominance of SMEs with high entrepreneurial activity 4) there is an increasing importance of MNEs in some clusters, 5) there is an increasing importance of long-term trust based relationships, 6) regional resources are important 7) clusters often have a strong competitive position, and 8) different types of innovations are important in different clusters.

In this study one finds that even though clusters are fairly small (fewer than 200 firms), both firms in clusters and clusters themselves are growing in size, and that firms in clusters have a better financial performance compared to the national average (Observatory of European SMEs, 2002, No.3) This development may be a result of changes in ownership structure, where firms become more dispersed as they grow, but at the same time there are financial incentives for spin-offs to start-up.

Paper Three
SOCIAL AND COMMERCIAL NETWORKS AS
DETERMINANTS OF FAMILY OWNERSHIP

The Norwegian Shipping Industry

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Abstract

Family ownership has been, and still is, the most prevalent ownership structure in the shipping industry in many countries, in spite of differences in regulations, legal structures, company laws, accounting rules and tax rules. Shipping has long traditions in Norway and many of the firms have roots going decades back in history, with strong social and commercial networks as a result of activities over several generations in the industry. There is a higher degree of family ownership in this industry compared with other industries in Norway, in line with several other countries where the shipping industry is characterized by family ownership (Harlaftis and Theotokas, 2004). Based on the characteristics of the maritime sector of being very capital intensive and having a high-risk profile, traditional arguments should imply that most shipping firms should have dispersed ownership. This is not the case, and I argue that one reason for this is the strong social and commercial networks in this specific industry. Traditions, history and strong networks could be motives for firms to remain family owned, in addition to financial reasons. It may also be that continued family ownership is possible due to these industry networks.

Keywords: Family ownership, social and commercial networks, maritime clusters

1.0 INTRODUCTION

Family ownership has been, and still is, the most prevalent ownership structure in the shipping industry in many countries. Pedersen and Thomsen (1997) compare ownership patterns in twelve European countries and find that family ownership is more prevalent in the shipping and retail industries. Granitsas (2005) states that Greek shipping traditionally has been a family affair, where capital came from retained earnings, bank loans and private investors linked to the family through personal relationships. Harlaftis and Theotokas (2004), state that both British and Greek tramp-shipping firms remain first and foremost family firms. There is also a high degree of family ownership in the Norwegian shipping industry.

Different shipping nations have different legal structures, company laws, accounting and tax rules, but in spite of this, ownership structures seem to be quite similar within this specific industry, across nations. According to Granitsas (2005) “Greeks control about 28 percent of the world's fleet, making Greece by far the biggest ship-owning country, followed by Japan, Norway and the United States”. In these nations, maritime industry seems to be an important part of both value creation and market capitalization. In Greece, several shipping companies have gone public (Granitsas, 2005). In Norway, maritime firms represent approximately 30% of all publicly traded companies and many of them have a high degree of family ownership.

The shipping industry has a high degree of family ownership in spite of the fact that many of the characteristics of this industry do not fit into the general theory on family ownership. Some industry arguments against family ownership are high risk, high capital intensity and limited access to capital (Pedersen and Thomsen, 1998; Gomez-Mejia et al., 2001). Maritime industry is risky due to volatile prices and very capital intensive (Stopford, 1997; Granitsas, 2005). Consequently, a high degree of family ownership in this industry is in contradiction to traditional arguments against family ownership. Other characteristics of the maritime industry are in line with earlier studies on the effects of industry specific factors. Shipping investments are long-term investments and may fit well into the long-term horizon of family firms (James, 1999). The maritime industry is a highly cyclical industry with large variations in prices on tonnage and freight rates (Stopford, 1997). There may be a gain of close monitoring in this specific industry because of the volatility and may, partly explain the prevalence of family ownership. This is in line with Demsetz and Lehn (1985) and Pedersen and Thomsen (1998), who state that family ownership, can be beneficial in volatile and “noisy” environments.

Maritime industry has been characterized as having strong networks among participants in the industry (Minsaas et al., 2000). These networks can be commercial networks based on partnerships, co-investments and co-operation, or they can be personal networks and relations. Harlaftis and Theotokas (2004) argue that the strength and viability of tramp-shipping firms are due to networks on a local, national or international level. Furthermore, they state that these networks are based on trust and a particular business culture that was developed in the maritime regions whence they came, centered on family firms involved in international business. The Norwegian shipping industry is also perceived to have strong personal and commercial networks. Board interlocks is one way of establishing and maintaining personal networks and may therefore be used as a proxy for social networks. Industrial networks may be operated through investments in other firms in the same industry or co-investments with other partners. I argue that these investments can be used as proxies for commercial networks.

Industry affiliation is an important contextual factor affecting ownership, where elements like capital intensity, volatility and risk are central elements. In addition, modes of operation and how firms organize themselves to overcome resource constraints in various industries may affect firms' ownership structure. One interesting question is why some firms choose to be family owned and others choose to become widely held (Helwege et al., 2007). Another interesting question is why it differs between industries (Demsetz and Lehn, 1985). I argue that industry effects like the number of firms in an industry (indicating competition and/or cluster) and the interlocks among participants through investments and collaboration can be determinants of family ownership in some industries. I find support for some of these factors. One reason for this may be that firms are able to remain family owned in spite of high risk, capital intensity and resource scarcity as a result of networks, but also inherited expectations, loyalty and traditions may be among the driving forces to develop and remain family owned.

The fact that so many shipping firms are family owned worldwide is interesting. I therefore use this industry as a "case" to analyse how social and commercial networks affect family ownership. My overall question is why family ownership is more prevalent in some industries than others; especially in the shipping and maritime sector, and which elements that influence this ownership structure. In order to analyse this, I ask two main research questions:

1. Is family ownership determined by firm or industry specific characteristics?
2. Are strong social and commercial networks determinants of family ownership?

2.0 THEORETIC VIEWS ON FAMILY FIRMS

Family firm research often uses agency theory to understand and explain family firms, and it often gives a very positive portrait of family firm governance (Lubatkin, Ling and Schulze, 2003) since family firms are regarded as an efficient agency context and institution (James, 1999; Randøy and Goel, 2003). In network and social capital theory, the focus is on the social aspects of the family firm as an institution, with trust and personal relations as possible determinant of family ownership. By using a theoretic lens derived from both agency and network theory, with elements from social capital theory, we may be able to expand the understanding of determinants of family ownership in different contexts and environments.

2.1 Family Ownership in an Agency Theory Perspective

From an agency theory perspective the reasons for family ownership are often analyzed with a focus on mitigating agency costs (Fama and Jensen, 1983), including both advantages and disadvantages with this ownership structure. Chrisman et al. (2005) suggest that one challenge facing family business research is how to identify the distinctions of family firms and to determine whether these distinctions stem from family involvement or not. In this context, agency costs, and especially altruism, are central elements. In family firm research, altruism is perceived to be important, but the effects of altruism are not certain. It seems to be unclear under what conditions altruism reduces agency costs (Van den Berghe and Carchon, 2003) and under what conditions it may increase agency costs (Schulze, Lubatkin and Dino, 2003).

In the corporate governance literature, the expropriation of shareholders often referred to as self-dealing or tunneling, has been central (Djankov et al., 2006). Specifically, those who control a firm, either managers or controlling shareholders, can use their power to divert corporate wealth to themselves, without sharing with other investors (Shleifer and Vishny, 1997). This ability to divert wealth has also been termed “private benefits of control” (Hart 1995). In addition to self-dealing, another important issue is the legal investor protection that shapes the ability of insiders to expropriate outsiders (La Porta et al. 1997, 1998). Djankov et al. (2006) present a measure of legal protection of minority shareholders against expropriation by corporate insiders, with focus on how easy it is for controlling shareholders to expropriate wealth in different legal structures (Djankov et al., 2006). La Porta et al. (1997, 1998, 1999), state that family ownership is a response to weak capital markets or poor legal protection. Nevertheless, family ownership is also prevalent in countries with good investor protection (Bøhren and Ødegård, 2001), which indicates additional determinants of family ownership.

Family firms are perceived to be a low agency context due to lower monitoring costs (Jensen and Meckling, 1976; Fama and Jensen, 1983) and alignment between owners and managers (Mishra et al., 2001; Lubatkin, Ling and Schulze, 2003). They understand the business and make fast decisions (Anderson and Reeb, 2003) and an extended horizon across generations gives incentives to maximize firm value through investments (James, 1999). It has also been stated that they make larger firm specific investments in human capital (Thomsen and Pedersen, 2000), that they are better at dealing with intangible assets (Goel and Randøy, 2002), and that they are suitable in volatile environments due to closer monitoring (Demsetz and Lehn, 1985). Other arguments in favour of family firms are shareholder identity (Gedaljovic and Shapiro, 2002) and relations to capital markets (Ellul, Guntay and Lel, 2006).

Disadvantages of family ownership are said to be risk aversion due to high stakes in one firm (Daily, Dalton and Rajagopalan, 2003; Demsetz and Lehn, 1985), extraction of private benefits (Filatochev and Mickiewicz, 2001; Anderson and Reeb, 2003), limited access to capital (Carney and Gedaljovic, 2002) and low liquidity of shares (Gugler, 2001). Controlling minority shareholders (Cronquist and Nilsson, 2002; Bergström and Rydqvist, 1990) have also been regarded as negative effects of family ownership, in addition to family management and lack of managerial competence (Gomez-Mejia et al., 2001; Shleifer and Vishny, 1997), as well as generational conflicts in family firms (McConoughy, Matthews and Fialko, 2001).

2.2 Family Ownership in a Network and Social Capital Theory Perspective

Network theory focuses on social reputation, trust, knowledge and social relations (Granovetter, 1985; Burt, 1992), in addition to repeated games, network externalities and agglomeration benefits (Doeringer and Terkla, 1995; Fudenberg et al., 1990). It emphasizes both the commercial and the social characteristics of these networks. By using networks in the governance of firms, focus is also on vertical and horizontal relationships with different types of ties mattering in different business environments (Mesquita and Lazzarini, 2008). Social capital theory focuses on the effects of resources embedded in relationships, and therefore there is an increasing use of this theory also in family firm research (Arregle et al. 2007). I will focus on the social capital embedded through social and commercial networks (often found in clusters), including trust and norms within family firms, but also between family firms. One important issue is how to define social capital and whether it should be regarded as exogenous or not. With this in mind, I discuss how the underlying social capital in strong networks may have an effect on family ownership, and how it varies between industries.

Some general characteristics of social capital in networks

Putnam defines social capital as “features of social organizations such as networks, norms and social trust that facilitate coordination and cooperation for mutual benefit” (Putnam, 1995, page 67). Others argue that social capital can be defined as an asset embedded in social relations and networks (Bourdieu, 1986; Leana and Van Buren, 1999), whereas Baker (1990) and Tsai and Ghoshal (1998) focus on inter-firm and intra-firm networks in their discussions. From this, there seems to be consensus that social capital includes both the social networks and the resources obtained through these networks (Mustakallio, 2002).

In order to benefit from the social capital, there should be some couplings between different networks. Nahapiet and Ghoshal (1998) state that the relational dimension of social capital is an asset, creating and leveraging resources through personal relationships, trust, norms, sanctions, trustworthiness, obligations, expectations, identity and identification. Coleman (1988, 1990) emphasizes the importance of the strength of social ties between members in a social network, arguing that strong ties give a higher level of social capital in a group. Granovetter (1973), on the other hand, argues that weak ties increase information flows between otherwise disconnected social groups. Consequently, the focus is also on information transfer between groups. Burt (1992) has extended this view by showing how “structural holes” can be used to create information and control, and create a competitive advantage.

Many economists tend to focus on trust when they talk about social capital (Knack and Keefer, 1997). Coleman (1988, 1990) states, that social capital is embedded in the relationships between two or more actors. He mentions three forms of relationships that contain social capital: 1) obligations, expectations and trustworthiness, 2) information channels and 3) norms and sanctions (Coleman, 1990). Putnam (1993) stresses that “networks and norms” function as a prerequisite of trust, and thus trust appears as an outcome of norms and networks. According to Roth and Schuler (2006), the definition by Putnam (1993) is a mix between psychological (trust and norms) and behaviouristic (networks) indicators. To separate these concepts, Newton (1997) suggests dividing the dimensions of social capital into its components: trust, norms and networks. By doing so, Newton (1997) argues that one can avoid multicollinearity and avoid that the weighting of the different indicators becomes unclear. In my analyses of the various networks, I assume that trust is an important determinant for the sustainability and development of these networks and that this applies for both the “between-firm networks” and the “within-firm networks”.

Does the social capital in family firms differ from other organizations?

Social capital theory has been used to study family relations (Coleman, 1988) and it has been regarded as a competitive advantage of family firms (Arregle, 2007). Elements in this theory fit into some of the perceptions of family firms and their governance, and one may say that the “soft” side of family firms can be seen in a social capital perspective. It may explain elements such as politics (Bertrand and Schoar, 2006), social networks and reputation (Coleman, 1988, 1990; Granovetter, 1985; Burt 1992), trust, norms and values (Ouchi, 1980; Jones et al., 1997), cultural inheritance (Mintz, 2005), nepotism (Bertrand and Schoar, 2006), altruism (James, 1999; Kepner, 1983) and social responsibility (Kets de Vries, 1993, 1996).

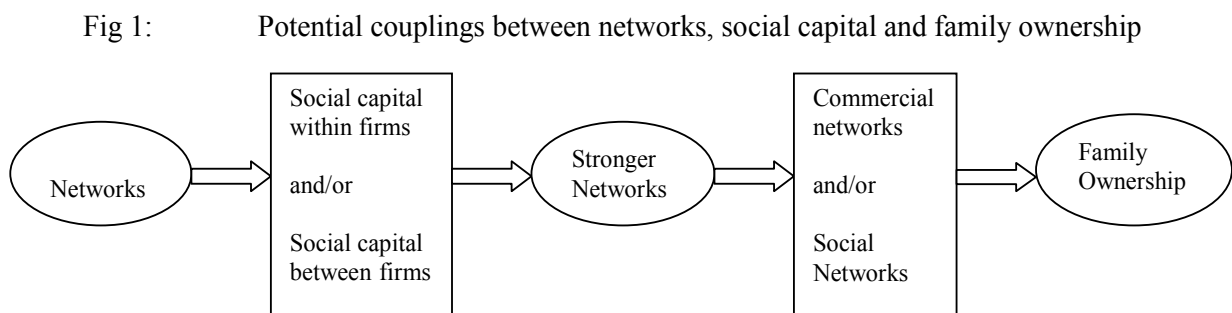
Arregle et al. (2007) argue that family firms’ success comes from their social capital, which is the combination of internal and external relationships. This gives the firm a powerful network, which is leveraged, often unconsciously, to benefit the business (Arregle et al., 2007). The internal social capital can be a trusting relationship and a culture of confidence between the executives and workforce, or close relationships within a group that facilitates information circulation and monitoring (Arregle et al, 2007). Newton (1997) defines “thick trust” as the trust generated by family networks and by living in close-knit communities, and that this is an important part of the social capital in family firms. Externally, social capital can be close relationships with suppliers or other important participants in the business environment (Rosenfeld, 1996, 1997). By measuring a firm’s social capital, we may obtain a clearer picture of its intangible resource and how family firms manage and invest in these resources (Arregle et al., 2007; Goel and Randøy; 2002; Thomsen and Pedersen, 2000).

Family firm literature focuses on trust, altruism, goal congruence, social mechanisms and kin networks (Ouchi, 1980) with altruism seemingly very central. Human beings do not always act in a purely self-interested manner, and social capital can be characterized by being jointly owned by members in a network. One implication is that social capital cannot be traded easily and it is difficult to transfer to others (Nahapiet and Ghoshal, 1998). This is in line with Arregle et al. (2007), who argue that family firms have a social capital that non-family firms cannot imitate. They also state that this unique social capital comes from the family’s social capital, and that these firms should manage this specificity proactively in order to develop a sustainable competitive advantage (Arregle et al., 2007). Social capital may also be a result of long history and traditions, both in the family firm and between family firms that have been in the business for a long time. Can this social capital be one reason for family ownership?

3.0 NETWORKS AND FAMILY OWNERSHIP - HYPOTHESES

Past research suggests that several factors affect ownership structures in firms (Demsetz and Lehn, 1985; Gugler and Weigand, 2003). These factors can be firm specific elements like firm age, size, capital structure and asset specificity (Williamson, 1979), industry specific elements like capital intensity, competition, volatility and barriers of entry (Thomsen and Pedersen, 2000), or nation specific factors like legal structure and accounting rules (La Porta et al., 1999). Some of these factors may explain family ownership, whereas others may not. Nevertheless, there seems to be some form of agreement that the determinants of ownership structure depend on the context the firm operates within. This has the consequence that different ownership structures may be optimal in different environments.

The underlying driving forces for family ownership may be that the family wants the firm to remain family owned or they may want to preserve control of the firm, for various reasons. In order to obtain this objective, the firm needs to be competitive, innovative and financially sound. Various firms choose different strategies to remain family owned, where commercial and social networks may be one such strategy. From this, I argue that strong networks can be additional determinants of family ownership in some industries because of family ties, traditions and altruism, in addition to the dense network the family in itself represents. These different networks may work in an iterative process, potentially reinforcing each other in the following sequence:



Social capital is captured from embedded resources in social networks, and can be considered as an asset in networks (Lin, 1999; Bordieu, 1986; Coleman, 1988). This social capital can be “within-firm social capital”, where both social and family ties are prevalent, strengthening the relations between the different parties. It may also be “between-firm social capital”, which strengthens the social relations between firms with the possibility of mediating complex transactions and further enhance the networks and business opportunities among the parties.

Commercial networks may be motivated by risk reduction, enhanced business and financial opportunities, access to new markets, or they may help firms overcome capital restraints. Social and personal networks can give access to information, mediate complex transactions, increase the level of trust in relations, or be motivated by social control. Various networks can be beneficial to all firms. The question is whether networks gain family firms more because of the special characteristics of family ties (both social and genetic) versus other social relations.

Lin (1999) states that a premise behind the notion of social capital is that it is an investment in social relations with an expected return, and that this investment gives access to the resources embedded in the networks (Burt, 1992; Bourdieu, 1986; Lin 1982). Taking the concept of social capital one step further reveals that there are elements in this theory that correspond with the literature on industrial clusters, sometimes regarded as strong industrial networks. Jacobs and DeMan (1996) focus on the quality of firm networks, cooperation, network externalities and social relations in clusters. Rosenfeld (1997) includes social aspect and interaction, focusing on communication and dialogue in his definition of clusters. Rosenfeld (1996) also argues that an efficient social infrastructure is required to facilitate exchange of information, and that there should be trust and shared vision to create dynamic and effective clusters (LeVeen, 1998). It is outside the scope of this paper to analyse determinants for clusters, but I ask whether it is a coincidence that some industrial networks also have a high degree of family controlled firms, with strong positive feedback effects.

3.1 Effects of Industry Networks on Family Ownership: The Hypotheses

I argue that strong social and commercial networks in clusters enhance family ownership due to a higher degree of social capital embedded in these networks. However, there is a challenge with reverse causality, where the question is what is the cause and what is the effect of family ownership. Demsetz and Lehn (1985) argue that managerial ownership is an endogenous variable determined by different variables reflecting firm characteristics, the business environment, differences in the managerial contracting environment, as well as performance. Also Himmelberg et al. (1999) argue that both managerial ownership and performance are endogenously determined by exogenous (and only partly observed) changes in the firm's contracting environment. I treat ownership as endogenously determined by exogenous changes in the firm's environment. However, social capital may not be exogenous, but a function of family ownership due to traditions and long lasting relationships. I now present three hypotheses on some of the underlying mechanisms determining family ownership.

Porter (1990) argues that competition in clusters is important because it forces firms to remain competitive and innovative, and that vertical integration generates new firms and horizontal clustering generates a demand for products and services in related industries. In addition, some industries are characterized by strong horizontal or vertical ties among the participants in the marketplace (Porter, 1990), affecting the relationships and means of operation in different markets (Mesquita and Lazzarini, 2008). I argue that strong clusters can enhance the establishment of new founder family firms in these industries, but also enable existing family firms to develop and remain family owned due to competitiveness in their operating markets.

Hypothesis 1: *There is a positive relationship between the number of firms in an industry and family ownership due to the possibility of increased trade among the firms in a cluster*

Access to capital, risk aversion, diversification and liquidity are arguments against family ownership, (Carney and Gedaljovic, 2002; Fama and Jensen, 1983; Becht, Bolton and Roell, 2002). However, strong horizontal and vertical industry networks may mediate complex transactions (Macneil, 1980) and ease the access to new markets or technologies. Mesquita and Lazzarini (2008) find that both vertical and horizontal relationships can enhance collective efficiency through either manufacturing productivity, sourcing of collective resources or product innovations. I argue that by engaging in strong industrial networks through a “commercial infrastructure”, family firms can overcome resource constraints and increase competitiveness, enabling them to develop and remain family owned over time.

Hypothesis 2: *There is positive relationship between commercial networks in an industry and family ownership due to reduced risk and better access to capital and business opportunities*

In many family firms, access to human resources is another crucial factor, where strong social and personal networks can be an important resource base for securing access to both managerial and board competence (Løining, 2001). In these relations, trust, confidence and personal references are important factors and can be referred to as social capital (Lin, 2001). Løining (2001) argues that board interlocks can ease the processes of learning, knowledge transfer, information sharing and coordination among firms, and that there may a copy effect among firms regarding board members and how they organize themselves. In this paper I argue that a “social infrastructure” containing trust and social relations can enhance family ownership in some industries due to the access of resources and increased competitiveness.

Hypothesis 3: *There is positive relationship between social networks in an industry and family ownership due to trust and increased access to information and human resources*

3.2 Norwegian Maritime Industry – Some Stylized Facts

Many elements affect business environments, and family ownership may be a more viable structure in some environments than in others. My data shows a higher degree of family ownership in firms belonging to the industry clusters in the furniture and maritime industry. I ask whether strong networks can be an additional explanation for family ownership by using the Norwegian maritime industry as an illustration. This industry has long traditions, strong networks, and it has a high degree of family ownership. I do not regard the social capital in this specific industry as a coincidence, but more a result of long-term social relations.

Characteristics of the Maritime Industry in General

The maritime industry is extremely volatile due to large price variations in freight rates and the prices of new and second-hand rigs and ships, where the second-hand values of tonnage may vary up to 70% between peaks and troughs (Stopford, 1997). This industry is sensitive to changes in business environments, political conflicts, interest rates, exchange rates, oil prices, commodity prices or other factors affecting global supply and demand (Stopford, 1997).

Volatile environments have been used as one argument for family ownership (Pedersen and Thomsen, 1998). Consequently business environments may be one reason for family ownership in this industry worldwide, in contradiction to the portfolio theory.

High risk and high capital intensity also characterizes this industry (Granitsas, 2005). These elements are often mentioned in the literature as arguments for dispersed ownership, in order to spread risk and due to difficulties with raising enough capital (Carney and Gedaljovic, 2002). In many segments of this market, there is a high degree of asset tangibility, making it possible to debt finance investments due to collateral (Stopford, 1997), which may enable families to remain in control in spite of high capital intensity. As mentioned, the maritime sector is very cyclical with great risks in some periods and cash restraints may become a problem for some firms in parts of the cycle, especially if they are forced to sell in very low periods. Timing is the key to success (Stopford, 1997), where decisions on when to buy or sell tonnage and what kind of freight contracts to enter, are important. The long-term perspective of family firms may imply that they make decisions without considering the short-term implications as much, because they plan on being in the business for a long time. Many families know the business well, they know that markets will turn and calculate the risk to be bearable in a long-term perspective. They may have hedging strategies where they do not obtain the maximum from a good market, but they reduce the downside of poor markets.

The Norwegian Maritime Cluster

Norwegian maritime industry owes its strength to completeness, but is largely dominated by the shipping sector which accounts for 50% of maritime value creation (without oil companies (Jacobsen et al., 2004)). As of 2005 it represents 57 movable offshore-installations, 1642 ships, 55 000 seamen, and 90 000 people employed in the industry. It also has some of the biggest shipping banks in the world, leading firms in brokerage, insurance, classification, and maritime research (Annual report 2005, Norges Rederiforbund). Oslo Stock Exchange is said to be “The Oil and Shipping Exchange” and the maritime industry, including publicly listed companies, is characterized by a large degree of family ownership.

Table I presents the sample of 167 firms divided into the eight industry groups used in this paper. The criterion for including a firm in the sample is that it has been listed three years or more, excluding the financial sector. On average, this gives 167 firms in the sample period from 1996-2005, including 52 maritime firms (31%). In order to reduce the risk of an overrepresentation of the maritime sector and a sample bias, I have analyzed all firms listed on the main list on the Oslo Stock Exchange as of December 2008. I find that there are 212 firm listed in 2008, excluding the financial sector, with 84 maritime firms (40%). There has been an increase in the share of maritime firms due to high oil prices, whereas the other industry groups show approximately the same split compared with the sample period (1996-2005). The sample should give a fairly accurate picture of industry affiliation over time.

Table I: Industry groups and ownership structure

Industry:	Family firm*	%	Non-family*	%	Total	Family firm**	%	Non-family**	%	Total
Manufacturing	20	38 %	32	62 %	52	7	13 %	45	87 %	52
Shipping	21	70 %	9	30 %	30	19	63 %	11	37 %	30
Offshore	11	50 %	11	50 %	22	3	14 %	19	86 %	22
IT/Telecom	12	34 %	23	66 %	35	1	3 %	34	97 %	35
Transportation	1	20 %	4	80 %	5	1	20 %	4	80 %	5
Retail	2	17 %	10	83 %	12	0	0 %	12	100 %	12
Property	2	40 %	3	60 %	5	1	20 %	4	80 %	5
Media/Publishing	1	17 %	5	83 %	6	2	33 %	4	67 %	6
Total	70		97		167	34		133		167

*Definition: Family has minimum 20% ownership, or CEO/Chair (dummy variable, binary)

**Definition: Descendants have minimum 20% ownership, or CEO/Chair (dummy variable binary)

Benito et al. (2003) define the Norwegian maritime cluster as very complete due to dense couplings between different participants in the cluster. Minsaas et al. (2000) state that there is a larger degree of networks and alliances in the Norwegian maritime industry than in other industries, and that it has a high degree of interaction via different channels: Personal contact across different firms and networks, labor mobility across firms and cross-deliveries.

These networks can be expressed in different ways either by personal (interlocking boards) or by commercial networks (investments within industry). The extent of these networks varies between industries, with a higher degree in the maritime industry compared with other industries. Table II is a comparison of the means of social and commercial networks between the different industry groups used in this paper, showing higher means in maritime sector than in other industries. (Appendix I include definitions of the proxies used for these networks).

Table II: Number of Firms and Means of Industrial Ownership and Board Interlocks

Industry:	Maritime	Property	Manufacture	Retail	IT Telecom	Media Pub.	Transport
N-Firms of total sample (167)	52	5	52	12	35	6	5
Average % Industrial Ownership in industry	24%	6%	15%	3%	4%	3%	2%
Average % Board Interlock in industry	30%	14%	13%	4%	12%	3%	1%

It may be difficult to detect whether social and commercial networks and family ownership are separate phenomena, or if there are points of overlap between them. Family firms may focus on networks as a part of their presentation. In the following, I have included two large family owned and international shipping firms, to illustrate how they present themselves.

1) Wilh. Wilhelmsen (WW)

Morten Wilhelm Wilhelmsen founded Wilh. Wilhelmsen (WW) in 1861. When his eldest son, Halfdan Wilhelmsen, was in charge of the company, they diversified into different parts of the shipping business. Captain Wilhelm Wilhelmsen took over the management of WW when his brother Halfdan died in 1923, and his visions were a highly specialized, global shipping company in the international top class. Between 1920 and 1940 WW took delivery of 59 new cargo liners, financed and paid for by the owner. WW had an ambitious post-war new building program that was put into effect immediately, and WW regained its position as one of the world’s leading liner operators, also with nine tankers in their fleet. A new ro-ro concept was developed jointly by WW, Transatlantic and East Asiatic in the Australian trade. In the 1970s they entered into the offshore oil industry, perhaps the biggest step into new activities, including drilling operations as well as supply services. WW also entered into car transportation in 1983. In the 1980s and 1990s WW established the operating company Wallenius Wilhelmsen Lines (owned 50% by WW), the agency chain Barwil (100% owned by WW) and the ship management and shipping company Barber International (100% owned by WW). In 2002, EUKOR Car Carriers Inc. was established together with Wallenius and Hyundai Motor Group (www.ww-group.com).

2) *The Stena Group*

Stena was formed in 1939 by Sten Allan Olsson, initially trading in metals and materials, and entering shipping 61 years ago in 1946. Today Stena has a highly diverse fleet with operations in Dry Cargo, Tankers, Passenger, RoRo Cargo as well as Offshore Support Operations. The book *Stena: A Group Fleet History* gives full details of 420 vessels, where 270 were owned, 130 chartered or either technically or commercially managed by Stena subsidiaries, with the remainder being part owned through associated companies (Harvey, 2006). An article in the paper *Stena Bulk* states: “The Stena Group is owned and run by the Sten A. Olsson family in Göteborg, Sweden. The company works with using a long-term entrepreneurial strategy. One facet of this approach is maximum delegation of business responsibility achieved by, amongst other things, employing strong, independent managers not afraid to either make or to delegate decisions while giving employees freedom and responsibility. If proof were needed that this approach works, the financial results speak volumes – turnover in 2006 was SKr. 46bn. Further evidence that this approach works is the long term employment records of many of the employees”, (Stena Bulk, Supplement to *Affarstidningen Næringsliv* nr. 3, 2007).

Both of these firms focus on long traditions, family ownership for generations, diversification into other segments of the market and means of diversification through investments in other firms and partnerships. Entrepreneurial orientation and partnerships seem to have been crucial in this development, enabling them to remain family owned and still competitive. In this paper I test the effect of social and commercial networks on family firms in maritime sector, and especially in shipping firms. Shipping is regarded as the core of the Norwegian maritime cluster, as can be seen from the cluster map illustrated in Appendix II (Porter, 2000). It has also been stated that: “Norway has 01% of the world’s population, represents 1.0% of the world’s economy, yet accounts for 10% of world seaborne transportation” (Porter, 2000).

I will focus on shipping, but also other firms are central in this maritime cluster. These firms are oil companies, maritime equipment suppliers and maritime services, in addition to yards, shipping banks, maritime insurance and ship classification firms, to mention only some. In order to avoid additional elements of nation specific factors, I use a Norwegian dataset as an example which may imply a sample bias due to the use of only one country’s data. However, the same phenomenon may apply in other countries with a high degree of family ownership in shipping, like Greece, Sweden, Britain or Denmark, and a cross country study could be of interest to see whether the same phenomena appear in other nations.

4.0 METHODOLOGY AND DATA

Focus in this study is the relationship between family ownership and industry, especially social and commercial networks with a main interest in the “between-firm effects”. As a result of this, I mainly focus on the ordinary least square (OLS) and logistic regression models for my regression analyses, controlling for firm and industry specific factors. However, there are some variations in family ownership in some industries, both yearly and in the time period, and I therefore also run a fixed effect panel data model (see model specification in 5.1).

4.1 The Sample

This data is based on a sample of 167 companies listed on the Oslo Stock Exchange in the period 1996-2005 where the criterion is that they are listed for three years or more, giving 1165 firm-year observations. I have hand-collected data from annual reports and a Norwegian database, Bizweb, containing information on ownership structure, accounting figures, board structure and networks. In all, this dataset contains 82 variables. The companies belong to all industries except finance, banking and insurance, representing considerably more than half of the companies on the main list. Table I provides a break-down of the sample by industry. I have divided the sample into eight different industry groups for comparison: shipping, property, retail, manufacturing, transportation, offshore, media/publishing and IT/telecom.

In this dataset, 42% of all the 167 firms are family firms, according to the main definition in this paper. I use a fairly strict definition of family firms compared with some studies from US companies (Amit and Villalonga, 2006) and I will revert to this definition in the next section. Families operate in a broad array of industries, but are more prevalent in shipping and offshore than in other industries (see Table I). By taking out “Maritime Family Firms”, other industries in the sample have 32% family firms. The maritime sector (both shipping and offshore firms) represents 31% of the total 167 firms in the sample. Oslo Stock Exchange is regarded a shipping/offshore stock exchange, where maritime firms represent approximately 30-40% of all listed firms. Of the 46 new listed firms in 2005, 14 (30%) of these were maritime firms. However, the activity of listings depends to a large extent on oil prices, a very important external factor in this market. Many papers have addressed the importance of testing for industry affiliation in the analyses of a possible relationship between family ownership and financial performance (Anderson and Reeb, 2003; Amit and Villalonga, 2006). In this paper, industry and industry networks are the some of the main independent variables, controlling for other firm and industry specific variables that may affect ownership structures.

4.2 Definition of Variables

I use network and social capital theory in addition to agency theory in the analyses of social and commercial networks as possible determinants of family ownership in some industries. One challenge is to develop a model with relevant proxy variables in order to test the effects of networks on family ownership. Another concern is how to define the family firm, for which prior research provides no authoritative common definition. Randøy and Goel (2003) use influence as one key element when defining family firms, focusing on descendant or founder influence. Amit and Villalonga (2006) focus on ownership, control and management in their definition of family firms. I compute four dummy variables, where each definition assumes a minimum of 20% family ownership, but different criteria for the type of ownership. One definition is yes, or no to family ownership in general, another is the family's influence, the third is whether the founder is the owner and the fourth is descendant ownership. The dummy variables are expressed as binary 0/1 variables computed from the dataset, where the dummy equals one when the criteria for that variable are obtained and zero otherwise.

In the OLS and panel data regressions (Table V, VI a) and VI b)) my dependent variables are ownership in percent by family, founder or descendant. In the logistic regression (Table VII), I have four dependent variables with different definitions of family firms expressed as dummy variables:

- 1) Family Firm (at least 20% ownership, or CEO or Chair)
- 2) Family Influence (at least 20% ownership, and CEO or Chair)
- 3) Founder Family Firm (at least 20% ownership, or CEO or Chair)
- 4) Descendant Family Firm (at least 20% ownership, or CEO or Chair)

I use three main independent variables. The first is the *industry variable* which is divided into two elements: 1) N-firms is the number of firms in an industry counted in each industry group and each year, measuring the strength and competition between different industries in the sample, and 2) eight industry groups are used to separate the effects of industry context. The second main independent variable is *commercial networks* measured by industrial ownership in the same industry (binary). This variable is divided into four levels of ownership, following the threshold for the financial and accounting treatment of this ownership: 1) The existence of industrial ownership in general, 2) ownership above 50% of the other firm (needs to be consolidated in the accounts), 3) ownership between 20% and 50% (needs to be taken into the accounts according to the equity method, where 33.34% of shares gives "negative control" and enables a blocking of certain decisions) and 4) ownership below 20% (not consolidated).

The third main independent variable is *social networks* measured by different forms of board interlocks in the same industry. I have four different binary variables depending on how tight these interlocks are: 1) Board interlocks in some form; 2) two firms within the same industry have the same chair of the board, 3) several board interlocks between several persons or several firms, and 4) one board interlock with one person in two boards in the same industry. In the analyses I combine levels of industrial ownership and board interlock in an attempt to reflect the strength of networks in the following combinations: 1) Industrial ownership and board interlocks in general, 2) above 50% industrial ownership and board interlock through chair, 3) between 20-50% industrial ownership and several board interlocks and, 4) below 20% industrial ownership and one board interlock (other combinations have also been tested).

I include a set of control variables to control for firm and industry specific characteristics. Firm size is the book value of total assets and firm age is measured as the natural log of the number of years since it was founded. In the case of mergers and acquisitions the age of the takeover firm is used. Time is the years 1996 to 2005 (minus 1). I control for financing structure by computing a debt to equity ratio, using total interest bearing debt to the book value of equity. In order to measure capital intensity (how much assets that are needed at different levels of sales), I compute the sales to assets ratio by dividing sales to total assets. A high ratio represents low capital intensity because sales are high compared to the total balance sheet and gives an indication of limited amount of fixed assets. Equity ratio is total equity divided by book value of total assets, used to measure solidness and survival.

In order to analyse the effects of networks on family ownership in one specific industry, in this case the shipping industry, I use two interaction variables combining shipping with the network variables. I compute two dummy interaction variables consisting of commercial networks (measured by industrial ownership) in shipping and social networks (measured by board interlocks) in shipping to see the industry specific network effects on family ownership.

By using data from one legal structure, I have eliminated some of the nation specific factors that may influence results. Norwegian Company Law allows for dual-share classes, A-shares with voting rights, and B-shares without, - or with limited voting rights. In spite of this, investor protection is still regarded to be fairly good (Bøhren and Ødegard, 2001; Nenova, 2003). Families are able to remain in control in spite of potential capital needs due to a high portion of shares with voting rights, but not generally at the expense of minority shareholders.

4.3 Sample Characteristics – Summary Statistics

Table III a), b) and c) provide summary statistics for the data used in my analyses. This dataset consists of 167 firms in the period 1996-2005, giving 1165 firm-year observations (n=1165). Table III a) is a summary of means, standard deviations and maximum and minimum values for the most important variables in the full sample. Table III b) compares means between family and non-family firms on key variables. Table III c) is a comparison of family/non-family firms in shipping versus family/non-family firms in non-shipping industries. Table IV is a simple correlation matrix for some of the variables in the sample.

Table III a) Summary Statistics for Full Sample (n=1165 firm-year observations)

Variable	Observations	Mean	Std. Dev.	Min	Max
Family Ownership	1165	15.411	20.649	0	90
Founder Ownership	1165	8.731	16.571	0	90
Descendant Ownership	1165	6.680	15.559	0	66
Tobin's q	1165	1.811	2.878	.052	82.816
Market Capitalization	1152	4116.849	17800.52	0	339385.8
Return on Assets -ROA	1165	.763	18.142	-100	79.645
Return on Equity -ROE	1165	5.929	40.313	-100	200
Industrial Ownership	1164	.532	.499	0	1
Board Interlocks	1165	.641	.480	0	1
Total Asset (mill.NOK)	1165	6292.931	24104.58	10	288979
Firm Age Ln	1164	3.669	.930	1.386	5.472
Debt Ratio %	1165	29.234	23.350	0	165.151
Equity Ratio %	1165	43.606	21.445	-65.151	179.239
Debt to Equity Ratio %	1162	.768	8.608	-187.855	192.714
Sales to Assets Ratio %	1165	100.104	73.463	0	500
Sales (mill. NOK)	1157	5175.89	23750.09	0	393298
Profit before Tax %	1153	2.831	39.099	-100	200
Board Ownership	1150	23.467	24.051	0	99.03
Largest 3 Owners %	1146	47.548	20.205	4.1	100
Board Size	1165	6.468	1.812	3	11
Multiple-share Classes	1165	.0807	.2724	0	1

Tobin's q is a market evaluation of the firm, and in my sample there is one firm, Opticom, that has a Tobin's q of 82.82 in the year 1999. This is due to an extreme valuation of the firm this year. Opticom has not delivered according to expectations and in the end of the period these values are closer to average. In the years between 1996 and 2005 with the exception of 1999, Tobin's q varies between 0.52 and 21.57 (Opticom). I have truncated return on assets and return on equity to give a minimum of -100% and a maximum of +200%. A few cases had extreme outliers, where two examples were firms in the R&D phase with very negative profit and no sales, and one example where income was booked as financial income (an offshore company) and low sales. These outliers gave extreme values (- 30.000% and +60.000%) on some of the variables, and are limited to provide a more normal distribution.

Table III b): Comparison of Means in Family and Non-family Firms

Means:	Family Firms 1)	Non-family firms 1)
Total obs.: 1131	Observations: 450	Observations: 681
Family Ownership	36.513***	1.610
Founder Ownership	19.891***	1.218
Descendant Ownership	16.622***	.392
Tobin's q	1.672***	1.770
Return on Assets -ROA	2.235	-.106
Return on Equity -ROE	5.666	6.332
Industrial Ownership	.560	.517
Board Interlocks	.740***	.576
Total Asset (mill. NOK)	2866.01	8559.881
Firm Age Ln	3.347***	3.547
Debt Ratio %	31.917***	27.639
Equity Ratio %	46.639***	41.305
Debt/Equity Ratio %	1.488	.280
Sales/Assets Ratio %	86.550***	108.843
Board Ownership %	33.815***	16.648
Largest 3 owners %	48.799***	46.596
Board Size	5.920***	6.868
Multiple-share Classes	.138***	.037

- 1) Based on main definition of family firms (definition 1): either minimum 20% ownership, or CEO/Chair
- 2) Wilcoxon ranksum significance tests due to some binary variables that are not normally distributed
- 3) Significance levels are marked if there is a significant difference between Family and Non-family. Asterisks denote statistical significance at 1% (***) level

Table III b), shows that family firms have a significantly higher debt and equity ratio. This may be due to a higher degree of collateral and a solid balance sheet, which makes it possible to debt finance operations and still remain in control. The sales to assets ratio is significantly lower in family versus non-family firms, giving significantly higher capital intensity in family firms. This is the opposite of what previous literature states, but can be explained by the high representation of maritime firms in the sample. These firms are very capital intensive and have a high degree of family ownership (Table I). Board ownership, block holdings and the use of multiple-share classes are significantly higher in family firms, in line with the perception that family firms want to remain in control through board control and voting rights. In Norway, 1/3 of the votes give a “negative control” and enables families to block important decisions that require 2/3 majority, like the issuing of new shares or change of statutes. The level of total assets is larger in non-family firms indicating that these firms are larger than the family firms in the sample. Tobin's q is significantly higher in non-family firms, which may be due to a perception that family firms are less willing to take a risk, have lower liquidity in shares or that non-family firms are better in governing firms. ROA and ROE do not turn out significantly different between family and non-family firms. Industrial ownership is quite similar in family and non-family firms, indicating that these investments are not just dependent on ownership, but also on which industry they belong to. Board interlocks on the other hand, are significantly higher in family versus non-family firms.

Table III c): Comparing means of Shipping Family/Non-family Firms and Non-shipping Family/Non-family Firms

Table III c), is a four-way table combining ownership and industry by using binary variables on family firm (1=yes and 0=no) and shipping industry (1=yes and 0=no).

Means Total obs.: 1138	SHIPPING:		NON-SHIPPING:	
	Family Firms ¹⁾ Observations: 166	Non-family Firms ¹⁾ Observations: 56	Family Firms ¹⁾ Observations: 284	Non-family Firms ¹⁾ Observations: 625
Family Ownership	44.835***	2.220	31.649***	1.555
Founder Ownership	13.510**	1.695	23.621***	1.175
Descendant Ownership	31.325***	.524	8.028**	.380
Tobin's q	1.053***	1.160	2.034***	1.824
Return on Assets -ROA	4.827	-1.447	.719	.014
Return on Equity -ROE	8.366	-1.109	4.088	6.998
Industrial Ownership	.892***	.679	.366***	.502
Board Interlocks	.964***	.625	.609	.571
Total Assets, mill.NOK	4124.333***	1170.008	2130.518***	9222.013
Firm Age Ln	3.898***	3.776	3.026***	3.526
Debt Ratio %	41.071***	45.540	26.566**	26.035
Equity Ratio %	44.500	34.674	47.888***	41.899
Debt/Equity Ratio %	2.622***	1.279	.826***	.190
Sales/Assets Ratio %	53.899***	81.559	105.635	111.288
Board Ownership %	39.498***	42.005	30.493***	14.376
Largest 3 owners %	53.711***	58.911	45.928	45.493
Board Size	5.807***	6.339	5.986***	6.915
Multiple-share Classes	.247***	0	.074	.040

- 1) Based on main definition of family firms (definition 1): either minimum 20% ownership, or CEO /Chair
- 2) Wilcoxon ranksum significance tests due to some binary variables that are not normally distributed
- 3) Significance levels are marked if there is a significant difference between Family and Non-family. Asterisks denote statistical significance at 1% (***) and 5% (**) level

I will first make some comments on the differences between family and non-family firms in the shipping industry, and thereafter make a few comments to the non-shipping sample.

Tobin's q reflects the running share prices for smaller investors, with the possibility of discounts on shares with large shareholders and less liquidity. In the shipping industry, Tobin's q is significantly lower in family firms compared to non-family firms, indicating a discount on shares in the family firms in this specific industry. This may be a result of a high degree of family influence and control through the use of multiple-share classes. On the other hand, there is a positive accounting effect (ROA/ROE) of family firms in shipping, but this difference is not significant. It has been stated that families often have a longer planning horizon and that it could be that they are able to make better investment decisions due to this long-term view (James, 1999). One effect of this may be that families sacrifice short-term profits for long-term return. Another element may be that this is an old industry, with a specialized infrastructure where different parties have had time to adjust to this market, and hence make better strategic decisions. A third element may be good market knowledge.

In the shipping industry, board interlocks and industrial ownership are significantly higher in family firms compared with non-family firms. This may be explained by the already existing ownership and network structure in the industry or it may be derived from a need of getting access to human resources or capital, where co-investments or partnerships can be a way to get around high capital intensity. Another explanation could be tax incentives, where limited partnerships are one way of reducing taxes. In addition, it may contribute to reduced risk or it can be a way of getting in control of the supply chain. Total assets and capital intensity are significantly higher in family firms and it seems as if these family firms have more assets on their own books. This may be because they operate in different segments of the market or they want to be in control of operations by controlling the assets. Family firms have higher equity and debt to equity ratios, enabling them to debt finance their investments and still remain in control. The family firms in shipping have lower board ownership, block holdings and board size than non-family firms, but they are still able to remain in control due to use of dual-share classes, which is still extensively in use in family firms in this specific industry.

Differences between family and non-family firms in “non-shipping industries” are less interesting because this “non-shipping group” consists of seven very different industries. I only comment on some figures where industrial ownership is the most interesting difference. It is now significantly lower in family firms, which is the opposite of the findings in the shipping industry. Board interlocks do not turn out significantly different between the two groups. Tobin’s q is now higher in family firms, but it is difficult to compare due to large industry differences regarding market and asset valuation in the non-shipping groups. However, there are differences among industries due to different asset tangibility and R&D intensity. In the “non-shipping group”, ROA is still higher in family firms. ROE is lower in family firms compared with non-family firms, but this is also difficult to compare due to industry differences. Total assets are now significantly higher in non-family firms, in line with previous research, which focuses on elements like capital intensity and risk (Anderson, Mansi and Reeb, 2003). Accounting figures may also be difficult to use when comparing different industries. Various industries may use different accounting measures due to large variations in levels of turnover, margins or leverage (www.wikipedia.com). Return on assets and equity is an indication of the efficiency in the allocation of resources and may show how good firms are in converting investments to profit. Different industries have different measures for this, and different owners may have different goals for these measures. Some owners are concerned with short-term profits, whereas others are more long-term oriented.

Table IV: Correlation Matrix

	Shipping	Family Firm	N-Firms	Industrial Ownership	Board Interlock	Total Assets	Firm Age	Debt-Equity	Sales-Assets	Board Ownership	Dual share Class
Shipping	1.000										
Family Firm	0.341***	1.000									
N-Firms	0.335***	0.257***	1.000								
Industrial Ownership	0.305***	0.032	0.144***	1.000							
Board Interlock	0.246***	0.153***	0.083***	0.277***	1.000						
Total Assets	-0.060**	-0.120***	0.082***	0.158***	-0.066**	1.000					
Firm Age	0.171***	-0.088***	0.035	0.266***	-0.021	0.131***	1.000				
Debt-Equity	0.086***	0.066**	0.051	0.008	0.043	0.001	0.031	1.000			
Sales-Assets	-0.266***	-0.143***	-0.194***	-0.131***	-0.077***	-0.066**	-0.025	-0.083***	1.000		
Board Ownership	0.340***	0.343***	0.052	0.090***	-0.026	-0.153***	-0.011	0.096***	-0.113***	1.000	
Dual-share Classes	0.189***	0.173***	0.233***	0.215***	0.090***	0.082***	0.186***	0.018	-0.130***	-0.003	1.000

Asterisks denote statistical significance at the 1% (***) or 5% (**) level.

Table IV provides a correlation matrix for some of the key variables. Shipping, family firms, industrial ownership and board interlocks are of main interest in the analyses of a possible relationship between family ownership and strong networks in different industries. There is a strong correlation between shipping and family firms, number of firms in the industry, industrial ownership and board interlocks. This is in line with findings in Table I and Table II, and the summary statistics in Table III c). Shipping is also positively correlated with firm age, the debt to equity ratio, board ownership and dual-share classes. This indicates an industry with many firms in the same industry and a high degree of commercial and social networks. Shipping has a strong negative correlation with sales to assets and total assets.

By analyzing correlations between family firms and the other variables, I find that there is a negative correlation between family firms and total assets, firm age and sales to asset ratio. This may imply that capital intensity in general does not suit family firms, in line with previous research. Family firms and N-firms (number of firms) are significantly positively correlated, indicating that family firms remain in industries containing many firms in the same industry. Family firms are also positively correlated with controlling mechanisms like board ownership and dual-share classes, also in line with previous research (Cronquist and Nilsson, 2003), in addition to the board interlocks variable. There is a significant and positive correlation between N-firms, industrial ownership and board interlocks, with the exception of capital intensity measured by sales to assets, being negative. I will now turn to the regression analyses to see whether I find support for stating that industry context and commercial and social networks are important determinants of family ownership in some industries, and that this may contribute to a better understanding of the contextual factors in family firm research.

5.0 EMPIRICAL FINDINGS

The analysis so far shows a higher degree of family ownership, board interlocks and industrial ownership in maritime firms compared with other industries (Table II and III c). This section discusses possible reasons for the high degree of family ownership in this specific industry. I ask whether family ownership is determined by firm or industry specific characteristics, or if it also could be explained by strong social and commercial networks. These questions indicate that I am more interested in the “between-firm” effects than the “within-firm” effects. I focus on the long lines and regard family ownership as the original form of the firm, also assuming that this does not change considerably over time. Taking this into account, my main focus will be on the cross-sectional analyses as ordinary least square and logistic regression models.

Himmelberg et al. (1999) argue that fixed effect estimators should be used when examining the relationship between managerial ownership and firm performance. However, a key assumption for justifying the use of the panel data approach is that managerial effort is a random variable dependent on year-to-year changes in managerial ownership (Zhou, 2001). Furthermore, Zhou (2001) shows that managerial ownership is substantially different across firms, but that it changes slowly from year to year within a firm, indicating that when the between-firm variation is substantial and the within-firm variation is small, cross-sectional variation is removed by firm fixed effects. In my sample, the variations in family ownership across firms are larger than the year-to-year variations within firms, in line with Zhou (2001).

My sample shows a yearly average reduction in family ownership of 1% (from family to non-family) with a 5% reduction for the whole period 1996-2005. During this 10-year period, 22 firms change status from family to non-family and one firm changes status from non-family to family firm. (Appendix III shows changes in the first 50 firms in my sample). Due to the fact that there are some year-to-year changes in family ownership in general (Appendix III), I run a fixed effect panel data model for the whole sample. In this study, my main interest is the “between-firm” effects and for this reason, I find that the panel data model does not give the whole picture. There are substantial differences between industries regarding changes in family ownership, and the maritime firms show a consistent family ownership structure over the sample period. Average variations in family ownership in this industry are -0.5%, which is smaller than the average changes for the whole sample. In the further analyses of networks and family ownership, I will focus on cross sectional OLS and logistic regression models.

5.1 Models

This dataset contains 167 Norwegian listed firms in the period from 1996 to 2005, with an average of 7.5 years, presenting 1165 firm-year observations. I will apply different regression equations where the main differences are whether the dependent variables are continuous or binary. All regression models include a robust test clustered by firm in order to control for serial correlation and heteroskedasticity. I first estimate a model including all industries by using a robust ordinary least squares (OLS), clustered by firms, and I include the same model with a fixed effect panel data model. I then run a robust OLS-regression model, separating the different industries. Finally, I run a robust logistic regression model, with different definitions of family firms. I run the analyses on the shipping industry without including offshore. The reason for excluding offshore firms is that there are two large state-owned oil companies in this group. In addition, the offshore industry is fairly young and has not had the opportunity to build the same strong networks through several generations of family ownership.

The OLS and panel data models (and Tobit) are based on continuous dependent variables (percentage family ownership). To make a clear definition of family firms, I add dummy variables for four definitions of family firms, using a logistic regression model for analyzing these effects. In my logistic regression models, the binary dependent variable is based on at least 20% family ownership or CEO/Chair (strongest definition in Amit and Villalonga, 2006). I run the models with dummy variables on family, founder or descendant ownership as well as on family influence, with one being yes and zero no. Industrial ownership is used as a proxy for commercial networks and board interlocks as a proxy for social networks.

The regression equations used are: (see Appendix I for the definition of the variables used)

1) OLS and panel data regressions on family ownership in % (Table V)

$$\text{Family Ownership} = (\text{Number of firms}) + (\text{Social and industrial network variables}) + (\text{Control variables}) + (\text{Year dummy Variables})$$

2) OLS regression on family ownership in % divided by industry (Table VI a) and VI b))

$$\text{Family Ownership} = (\text{Industry}) + (\text{Social and industrial network variables}) + (\text{Control variables}) + (\text{Year dummy variables}) + (\text{Interaction effects})$$

3) Logistic regressions on family firms and family influence (Table VII)

$$\text{Family Firm} = (\text{Industry}) + (\text{Social and industrial network variables}) + (\text{Control variables}) + (\text{Year dummy variables}) + (\text{Interaction effects})$$

5.2 OLS and Panel Data Regressions on Family Ownership - All Industry Groups

In the OLS regressions, I run a robust test clustered by firm in order to control for serial correlation and heteroskedasticity. I have 1165 firm-year observations on 167 firms that I cluster by firm, and get 166 groups. In these regressions, I use family ownership in general as my dependent variable and I analyse generational effects by dividing into founder and descendant family ownership. In the fixed effect panel data model, I use the same definitions of family ownership and I test for the same independent variables as in the OLS regressions.

Table V is a cross-sectional and fixed effect panel data regression on family ownership in general, with no restrictions on ownership level, focusing on the main effects of the independent variables. Table V does not distinguish between different industries, but focuses on industry effects in general, where the number of firms in each industry is one determinant. The variable N-firms is a proxy for the strength of an industry in the sample but may also reflect the competition in various industries. Industrial ownership and board interlocks in the same industry are included as independent variables, measuring the strength of networks.

In this OLS regression I find that the number of firms, N-firms, in an industry has a positive effect on family ownership, but it only has a significant effect on descendant ownership. Furthermore, board interlocks have a significant and positive effect on descendant ownership. This may indicate that if firms survive the first start-up phase with strong competition, they gain from being in an industry with many participants. There are large variations between different industries depending on whether they operate in a global, local or national market, which may imply that industries operating in a global market are less vulnerable to local competition. Total assets and sales to assets (the capital needed for a given volume of sales) show a negative effect on family ownership. This is in accordance with Carney and Gedaljovic (2002), who state that capital intensity and limited access to capital are valid arguments against family ownership. My findings are in line with this on a general basis, looking at all industries together. Nevertheless, there are variations between the different industries which will be discussed later.

As earlier mentioned, family ownership tends to be fairly stable (see Appendix III) and “between-firm” effects are more interesting than “within-firm” effects, indicating that time-series are less interesting in the analyses of the industry effects on family ownership. I therefore mainly focus on cross-sectional analyses, but I have included a panel data model

because there are some variations in family ownership when looking at the whole sample. Table V also includes a fixed effect panel data model for family, founder and descendant ownership (explaining little for descendant ownership), using the same independent variables as in the OLS-regression. In the fixed effect panel data model, there are 165 groups with an average 6.9 years per firm, giving 1143 firm-year observations. The random effect panel data model was rejected by running the Hausman test, with the exception of founder ownership.

The fixed effect panel data model shows stronger industry effects than the cross-sectional OLS-regression model. The number of firms in the same industry now has a highly significant positive effect both on family and founder ownership but is of no significance for descendant ownership. Industrial ownership now shows a significant positive effect at the 5% level on family ownership and at the 10% level on descendant ownership, but no effect on founder ownership. This may indicate that investments in other firms in the same industry make it possible to remain family owned across generations. However, there may be an endogeneity problem in this relationship. The question is whether family firms invest more in other firms due to a stronger balance sheet and stronger networks, or if they are able to remain family owned due to these investments, hence reducing risk and overcoming capital restraints. For shipping the last element may be relevant due to the specific industry characteristics. I will discuss the potential problems with reverse causality and endogeneity later in the paper.

I partly find support for the hypothesis that the number of firms in an industry has a positive effect on family ownership. However, it is difficult to separate the effects of industry and the firm specific factors in this relationship. One can argue that many firms in an industry increase the trade between firms in the same industry as a result of both horizontal and vertical relations. Some firms are competitors but they may also be complementary and therefore gain from increased trade among themselves, hence, founders can gain from the existence of these trade relations. The question is whether these relations in an industry enable firms to remain family owned compared with selling out their stakes and become widely held.

Table V presents regressions with N-firms as one variable, including several industry groups with large internal differences. As can be seen from the correlation matrix in Table IV, there is a strong correlation between N-firms and the shipping industry. In the following section, I split these N-firms into eight industry groups (see Table I). I focus on shipping and how the industry structure (competition/cluster) in this specific industry affects family ownership.

Table V: OLS Regressions on Family, Founder and Descendant Ownership in % (N-Firms representing the number of firms in all industries)

This table reports the results of the regressions on family ownership, including all industries, the network variables and the control variables. *Family ownership* is ownership in percent for family, founder or descendant. *Network variables* are the number of firms in each industry (N-firms measure of strength of cluster), industrial ownership in same industry group (binary) and board interlocks in the same industry. *Control variables* are firm age (log), firm size measured by total assets, debt to equity and equity ratio reflecting financing structure and sales to assets ratio measuring capital intensity. *Year dummy* is a binary variable with one for each year of sample period (1996-2005) and is not reported. The columns 1, 2 and 3 show results from the OLS-regression model and the columns 4, 5 and 6 report the fixed effect panel data model. I report the un-standardized coefficients with t-values in parentheses. Asterisks denote statistical significance at the 1% (***) , 5% (**) or 10% (*) level.

Dependent Variables:

	<u>Ordinary Least Squares Model</u>			<u>Fixed Effect Panel Data Model</u>		
	Family Ownership (1)	Founder Ownership (2)	Descendant Ownership (3)	Family Ownership (4)	Founder Ownership (5)	Descendant Ownership (6)
<i>Independent Variables:</i>						
N-firms	0.25* (1.96)	0.06 (0.55)	0.19*** (2.88)	0.24*** (3.28)	0.25*** (3.28)	-0.01 (-0.13)
Industrial ownership	1.27 (0.37)	0.31 (0.14)	0.96 (0.38)	6.68** (2.16)	3.75 (1.19)	2.93* (1.81)
Board Interlock	5.00 (1.60)	-1.92 (-0.84)	6.92*** (3.60)	1.66 (0.68)	3.88 (1.55)	-2.22* (-1.73)
Total Assets	-0.00*** (-3.91)	-0.00*** (-3.05)	-0.00*** (-3.08)	0.00 (1.07)	0.00 (1.22)	-5.85e06 (-0.32)
Firm Age Ln	0.52 (0.39)	-5.01*** (-5.43)	5.53*** (5.09)	-8.36*** (-7.37)	-8.74*** (-7.55)	0.38 (0.64)
Sales/Assets	-0.48** (-2.06)	-0.15 (-0.78)	-0.03*** (-2.78)	-0.01 (-1.15)	-0.01* (-1.67)	0.00 (1.05)
Equity ratio	0.06 (0.87)	-0.04 (-0.89)	0.10* (1.75)	-0.00 (-0.23)	-0.00 (-0.20)	-0.00 (-0.04)
Debt/Equity	0.08 (1.46)	0.04 (1.03)	0.05 (0.78)	0.03 (1.51)	0.03 (1.08)	0.01 (0.78)
Firm years	1143	1143	1143	1143	1143	1143
R-squared	0.12	0.15	0.31			
F-statistics	3.20***	4.17***	2.61***			
Within-R-sq				0.17	0.18	0.02
Hausman Chi-sq				34.29***	14.65	26.68**

5.3 OLS Regressions on Family Ownership with Focus on Shipping

In this section, I run a robust cross-sectional OLS-regression, clustered by firm, on two different levels of the binary variables; industrial ownership and board interlocks. Table VI a) is a regression with industrial ownership or board interlocks in general, whereas Table VI b) is a regression with at least 50% industrial ownership and board interlocks by chair (see section 4.2 for these definitions). I use the industry groups in Table I to analyse the industry effect on ownership. This split is made due to large internal differences among the industry groups, both regarding markets they operate in, and the different effects this may have on ownership. I report and comment on the shipping industry because of its core role in many of the networks. In order to be able to compare the results, I choose to use the same control variables in all of the regressions. This implies that the control variables do not turn out significant in all the analyses (Table V, VI and VII), but they are significant in one or more of the regressions. I report the main effects of the independent variables defined in section 4.2, as well as two interaction variables reflecting the social and commercial networks in the shipping industry. There are small yearly variations of family ownership in the shipping industry and therefore, I do not run a panel data model.

Looking at the main effects in Table VI a), the overall finding is that shipping has a highly significant positive effect on all three forms of family ownership, indicating strong industry effects on ownership structure. Industrial ownership is not significant in the main effects, but board interlocks have a positive effect on descendant ownership at a 5% significance level. Total assets have a significant and negative effect on all three forms of family ownership (only two decimals are reported). This is line with earlier research stating that size has a negative effect on family ownership (Carney and Gedaljovic, 2002). The sales to asset ratio (capital intensity), on the other hand, does not turn out significant which is surprising due to previous research arguing that capital intensity has a negative effect on family ownership (Thomsen and Pedersen, 2000). One reason for this may be the use of commercial networks in the maritime industry, which is very capital intensive, where these investments can help firms overcome potential capital restraints. The equity ratio shows a significantly positive effect on family and descendant ownership. This can be regarded as a proxy for solidness and survival in these firms, and the finding is in line with expectations. The debt to equity ratio, a proxy for the financing structure, does not have a significant effect on family ownership in general. It does, however, turn out significant in the logistic regressions when we define the family firm with a given set of criteria (Table VII).

By including the interaction effects in Table VI a), the offshore industry has a significantly positive effect on family and founder ownership. Total assets are still significantly negative, and the equity ratio has a significantly positive effect on family and descendant ownership. Looking at the effects of social or commercial networks (in general) in the shipping industry, I find that shipping*board interlocks have a significantly positive effect on family and descendant ownership, and a positive effect on founder ownership on the 10% significance level. The variable shipping*industrial ownership does not turn out significant in any form of family ownership. In this regression there are no criteria on levels of industrial ownership and board interlocks, and only social networks turn out as significant, indicating that when firms are not in control of the other firm, social networks are more important for family ownership.

Table VI b), introduces the criteria of minimum 50% industrial ownership and board interlocks by chair, giving some different results. In the main effects, industrial ownership now has a significant and positive effect on family and descendant ownership, indicating a strong effect of being in control of the other firm. Board interlocks now have a weaker effect, and the other variables are in line with the main effects in Table VI a). In this regression the variable shipping*industrial ownership now has a significantly positive effect on family and descendant ownership, indicating a strong effect of controlling the other firm, with strongest effect of commercial networks. The variable shipping*board interlocks is significant and positive at the 1% level on descendant ownership, but not significant on family ownership. I run different combinations of levels of ownership and interlocks, and find that the different combinations in 4.2 are significant on either the social or commercial networks in shipping. I find support for the hypotheses that there is a positive relationship between commercial and social networks in an industry and family ownership, but whether the effect is stronger from social or commercial networks depends on the investment level and type of board interlocks.

In these regressions there may be a problem with endogeneity and reverse causality. In order to control for this, I have tried to find relevant instrumental variables to run a two-stage least squared regression. However, the dataset does not provide any good instruments for this purpose, nor was I able to find relevant exogenous events that could be used in a difference in difference estimation. Bøhren and Ødegård (2006) use the lagged dependent variable to control for endogeneity in their study, but due to very small yearly changes in the family ownership in my sample, a GMM analysis appears less relevant. With the variables in my dataset, it seems difficult to solve the problem of endogeneity and reverse causality.

Table VI a): OLS Regressions on Family, Founder and Descendant Ownership in % Divided into industry groups and focusing on shipping and the existence of industrial ownership and board interlocks in general.

This table reports results of regressing family ownership on industry, network variables and control variables. *Family ownership* is ownership in percent for family, founder or descendant. *Industry variables* are eight industry groups, but I only report the shipping and offshore industry. *Network variables* are the existence of industrial ownership and board interlocks in the same industry group (binary) without focusing on the size of investments or the number of board interlocks. *Control variables* are firm age (log), firm size measured by total assets, the debt to equity and equity ratio to reflect the financing structure, and the sales to assets ratio measuring capital intensity. *Interaction effects* are some of the independent variables together with the shipping industry in order to isolate the effects in this specific industry. These are board interlocks and industrial ownership in the shipping industry. *Year dummy* is a binary variable with one for each year of the sample period (years 1996-2005), not reported. Column 1, 2 and 3 are main effects and 4, 5 and 6 are with industry interaction effects. I report the un-standardized coefficients with t-values in parentheses. Asterisks denote statistical significance at the 1% (***) , 5% (**) or 10% (*) level.

Dependent Variables:

	<u>Main effects</u>			<u>With interaction effects</u>		
	Family Ownership (1)	Founder Ownership (2)	Descendant Ownership (3)	Family Ownership (4)	Founder Ownership (5)	Descendant Ownership (6)
<u>Independent:</u>						
Shipping	28.49*** (5.28)	10.78*** (2.63)	17.72*** (4.03)	1.72 (0.18)	4.39 (0.64)	-2.67 (-0.32)
Offshore	12.31** (2.15)	8.09* (1.85)	4.23 (1.01)	14.64*** (2.70)	8.81** (2.04)	5.82 (1.44)
Industrial Ownership	-1.66 (-0.51)	-0.30 (-0.13)	-1.36 (-0.57)	-3.12 (-0.98)	0.03 (0.01)	-3.14 (-1.45)
Board Interlocks	2.05 (0.59)	-2.15 (-0.85)	4.19** (2.03)	-1.17 (-0.36)	-3.41 (-1.27)	2.24 (1.29)
Total Assets	-0.00*** (-2.96)	-0.00* (-1.91)	-0.00** (-2.28)	-0.00*** (-3.28)	-0.00** (-2.17)	-0.00** (-2.38)
Firm Age Ln	-0.17 (-0.11)	-5.31*** (-4.66)	5.14*** (4.45)	0.05 (0.03)	-5.27*** (-4.61)	5.31*** (4.74)
Sales/Assets ratio	-0.01 (-0.53)	0.00 (0.22)	-0.01 (-1.24)	-0.00 (-0.16)	0.01 (0.38)	-0.01 (-0.77)
Equity ratio	0.12** (2.23)	0.00 (0.17)	0.12** (2.39)	0.12** (2.39)	0.01 (0.18)	0.11** (2.42)
Debt/Equity Ratio	0.02 (0.62)	0.01 (0.25)	0.15 (0.38)	0.03 (0.76)	-0.00 (-0.12)	0.04 (0.95)
<u>Interaction effects:</u>						
Shipping*Industrial Ownership (Proxy for commercial networks)				3.57 (0.28)	-6.29 (-0.68)	9.87 (0.97)
Shipping*Board Interlocks (Proxy for social networks)				29.43*** (2.97)	13.85* (1.89)	15.58** (2.03)
Number firm years	1153	1153	1153	1153	1153	1153
R-squared	0.27	0.20	0.44	0.32	0.21	0.47
F-statistics	5.35***	3.10***	3.05***	7.18***	3.14***	3.50***
Clustered groups	166	166	166	166	166	166

Table VI b): OLS Regressions on Family, Founder and Descendant Ownership in % Divided into industry groups and focusing on shipping and with the industrial ownership above 50% and board interlocks through Chair

This table reports results of regressing family ownership on industry, network variables and control variables. *Family ownership* is ownership in percent for family, founder or descendant. *Industry variables* are eight industry groups, but I only report the shipping and offshore industry. *Network variables* are the existence of at least 50% industrial ownership in other firms in the same industry and board interlocks through the Chair of the board in the same industry group (binary). *Control variables* are firm age (log), firm size measured by total assets, the debt to equity and equity ratio to reflect the financing structure, and the sales to assets ratio measuring capital intensity. *Interaction effects* are some of the independent variables together with the shipping industry in order to isolate the effects in this specific industry. These are board interlocks and industrial ownership in the shipping industry. *Year dummy* is a binary variable with one for each year of the sample period (years 1996-2005), not reported. Column 1, 2 and 3 are main effects and 4, 5 and 6 are with industry interaction effects. I report the un-standardized coefficients with t-values in parentheses. Asterisks denote statistical significance at the 1% (***), 5% (**) or 10% (*) level.

Dependent Variables:

	<u>Main effects</u>			<u>With interaction effects</u>		
	Family Ownership (1)	Founder Ownership (2)	Descendant Ownership (3)	Family Ownership (4)	Founder Ownership (5)	Descendant Ownership (6)
<u>Independent:</u>						
Shipping	22.98*** (3.88)	9.57** (2.03)	13.40*** (3.13)	9.75 (1.34)	13.92* (1.84)	-4.17 (-0.89)
Offshore	10.55* (1.78)	6.65 (1.47)	3.89 (0.99)	12.71** (2.29)	5.75 (1.23)	6.97* (1.81)
Industrial Ownership (Over 50%)	7.13** (2.28)	-0.35 (-0.14)	7.47*** (3.40)	2.59 (0.76)	-0.02 (-0.01)	2.61 (1.47)
Board Interlocks (By Chair)	5.15 (1.55)	1.28 (0.43)	3.86* (1.73)	1.92 (0.54)	2.91 (0.96)	-0.99 (-0.60)
Total Assets	-0.00*** (-3.20)	-0.00 (-1.36)	-0.00** (-2.15)	-0.00*** (-3.51)	-0.00 (-1.28)	-0.00*** (-3.16)
Firm Age Ln	-0.37 (-0.25)	-5.40*** (-4.83)	5.03*** (4.64)	-0.41 (-0.28)	-5.45*** (-4.83)	5.04*** (4.64)
Sales/Assets ratio	-0.00 (-0.23)	0.00 (0.19)	-0.01 (-0.60)	-0.00 (-0.10)	0.03 (0.18)	-0.05 (-0.36)
Equity ratio	0.15*** (2.77)	0.00 (0.12)	0.14*** (2.93)	0.11** (2.46)	0.01 (0.23)	0.11*** (2.59)
Debt/Equity Ratio	0.02 (0.57)	-0.00 (-0.01)	0.02 (0.49)	0.05 (1.12)	0.00 (0.19)	0.05 (1.01)
<u>Interaction effects:</u>						
Shipping*Industrial Ownership (Proxy for commercial networks)				17.25** (2.06)	1.01 (0.12)	16.24** (2.53)
Shipping*Board Interlocks (Proxy for social networks)				7.77 (0.89)	-7.78 (-0.71)	15.56*** (2.80)
Number firm years	1154	1154	1154	1154	1154	1154
R-squared	0.31	0.20	0.48	0.34	0.21	0.56
F-statistics	5.95***	3.09***	3.98***	6.79***	2.96***	6.69***
Clustered groups	166	166	166	166	166	166

5.4 Logistic Regressions on Different Definitions of Family Firms – Shipping

In section 5.2 and 5.3 I have looked at the effects of networks on family ownership without defining whether these are family firms or not. In this section, I use four dummy variables to define different types of family firms, where each of these definitions assumes a minimum of 20% ownership, but different criteria for type of ownership. One definition is “yes-or-no” to family ownership and another is family influence by CEO or chair, whereas the third and fourth definitions are based on founder or descendant ownership. These dummy variables are expressed as binary 0/1 variables computed from the dataset, where the dummy equals one when the criteria for that variable are obtained, and zero otherwise (see section 4.2). I use a logistic regression model to run these regression analyses. In order to control for serial correlation and heteroskedasticity, I run a robust test clustered by firm, giving 166 groups. By using a minimum of 20% ownership, this analysis is stricter than the OLS regressions and gives some different effects. In general, however, I find the same directions as in the OLS regression on most variables with some effects being weaker and some effects being stronger. This may be due to a smaller sample fulfilling the criteria for being family firms, even though there is family ownership, and it may be due to different modes of operations in these firms.

Table VII shows the logistic regression analysis with 50% industrial ownership and board interlocks by chair (as in Table VI b). Other combinations are also tested, showing similar results to the OLS regressions on the same combinations, but these are not reported. The main effects are very similar to the OLS regression in Table VI b), except from the debt-to-equity ratio which now shows a significantly positive effect on family firms and family influence. By including the interaction variables, industrial ownership still has a significantly positive effect on descendant family firms, but board interlocks do not turn out significant. Total assets have a significantly negative effect on family and descendant family firms. The equity ratio still has a significant and positive effect on family and descendant family firms, and the debt-to-equity ratio now also has a significantly positive effect on family ownership and influence. Looking at the shipping industry, I find that the variable shipping*industrial ownership (above 50%) has a significant and positive effect on family ownership and family influence, and that the variable shipping*board interlocks (by chair) has a significantly positive effect on descendant ownership. Other combinations of industrial ownership and board interlocks in the shipping industry (see section 4.2) show, that some levels give stronger effects of industrial ownership, whereas other levels show a more significant effect of board interlocks. The effects of social and commercial networks seem more significant the closer the networks are.

Table VII: Logistic Regression of Different Forms of Family Firms – Shipping Divided into industry groups focusing on shipping, industrial ownership above 50% and board interlocks through Chair

This table reports results of a logistic regression of family firms on industry, network and control variables. *Family firm*=Binary variable that equals one for criterion on four different definitions of family firms, (family, influence, founder and descendant (section 4.2)). *Industry variables* are eight different industry groups, with the main focus on the shipping industry. *Network variables* are industrial ownership over 50% and board interlocks through Chair of the board within the same industry group (binary). *Control variables* are firm age (log), firm size measured by total assets, debt to equity and equity ratio reflecting financing structure, and sales to assets ratio measuring capital intensity. *Interaction effects* are shipping with the network variables to isolate the effects within this specific industry. These interaction variables are industrial ownership over 50% and board interlocks through Chair in the shipping industry. *Year dummy* is a binary variable with one for each year of sample period (years 1996-2005). I report un-standardized coefficients with t-values in parentheses. Asterisks denote statistical significance at the 1% (***), 5% (**) or 10% (*) level.

<u>Dependent Variables</u> (see definitions below*)								
<u>Types of family firms*:</u>	<u>Main effects</u>				<u>With interaction effects</u>			
	1	2	3	4	1	2	3	4
<u>Independent:</u>								
Shipping	3.04*** (2.97)	2.88** (2.44)	1.33 (1.23)	3.95*** (3.18)	1.18 (0.97)	1.99 (1.51)	1.00 (0.69)	2.49* (1.70)
Offshore	2.33** (2.34)	2.38* (1.95)	1.14 (1.11)	3.07** (2.36)	2.57*** (2.85)	2.55** (2.14)	1.16 (1.14)	4.21*** (2.98)
Industrial ownership (Over 50%)	0.93** (2.24)	1.02** (2.55)	-0.06 (-0.14)	1.73*** (2.93)	0.37 (0.77)	0.49 (0.95)	-0.29 (-0.58)	1.76** (2.22)
Board Interlocks (Through Chair)	0.44 (1.11)	0.65 (1.59)	0.03 (0.07)	0.77 (1.13)	0.03 (0.06)	0.45 (0.92)	0.04 (0.08)	-0.61 (-0.70)
Total Assets**	-0.00** (-2.32)	-0.00* (-1.74)	-0.00 (-1.49)	-0.00* (-1.90)	-0.00** (-2.40)	-0.00 (-1.64)	-0.00 (-1.49)	-0.00** (-2.06)
Firm Age Ln	-0.25 (-1.43)	-0.02 (-0.09)	-1.01*** (-5.10)	1.27*** (4.04)	-0.25 (-1.41)	-0.04 (-0.23)	-1.02*** (-5.29)	1.49*** (3.89)
Sales/Assets ratio	0.00 (0.84)	0.00 (0.91)	0.00 (1.21)	-0.00 (-0.63)	0.00 (1.09)	0.00 (1.21)	0.00 (1.26)	-0.00 (-0.75)
Equity ratio	0.03*** (2.79)	0.01 (1.02)	0.00 (0.40)	0.03** (2.38)	0.02** (2.45)	0.01 (0.68)	0.00 (0.23)	0.03** (2.44)
Debt/Equity Ratio	0.16** (2.23)	0.16*** (2.64)	0.00 (0.59)	0.08 (0.84)	0.17** (2.12)	0.18*** (2.73)	0.01 (0.82)	0.06 (0.54)
<u>Interaction effects:</u>								
Shipping*50% Industrial Ownership					2.48** (2.22)	1.84** (2.08)	0.96 (0.81)	-0.60 (-0.50)
Shipping*Board Interlock by Chair					1.32 (1.34)	0.11 (0.11)	-0.23 (-0.16)	3.82*** (2.64)
Number observations					1154	1154	1096	1154
Number of groups					166	166	160	166
Pseudo R-sq					0.24	0.23	0.21	0.48
Wald chi2					63.26***	61.37***	67.15***	115.18

- *1= Family Ownership (minimum 20% ownership, CEO or chair)
- 2= Family Influence (minimum 20% ownership, and CEO or chair)
- 3= Founder ownership (minimum 20% ownership, CEO or chair)
- 4= Descendant Ownership (minimum 20% ownership, CEO or chair)

**Total assets are very small numbers when increasing the number of decimals

6.0 DISCUSSION AND CONCLUSION

My main objective of this paper is to analyse the effects of industry and industry networks on family ownership. Different contextual elements affect firms and their ownership structure, and I test how firm and industry specific elements as well as different networks affect family ownership, especially in the shipping industry. My industry and firm specific variables are in line with earlier research, using agency theory as the theoretical framework. In addition, I use the network and social capital theory, where I define some proxy variables for clusters and social and commercial networks. I use the number of firms in an industry as a proxy for competition and clusters, industrial ownership as a proxy for commercial networks, and board interlocks as a proxy for social networks. By using these variables, I find that the number of firms in an industry has a positive effect on family ownership. I also find that both social and commercial networks have a significant and positive effect on family ownership, where social networks are most significant in some cases and commercial networks in others. Important issues in these relations seem to be control and involvement in firms in the same industry.

Industry affiliation is commonly used as a control variable in empirical papers on ownership and firm performance, but not that often as a determinant of different ownership structures. Pedersen and Thomsen (1998) analyse the relationship between industry and corporate ownership structure and find that the industry effect is stronger for some ownership categories than others. They find that shipping has a high degree of family and majority ownership and state that this may be due to tangibility of assets and degree of collateral. Demsetz and Lehn (1985) argue that the structure of corporate ownership varies in ways that are consistent with value maximizing and state that the noisier the environment is, the greater the pay-off of monitoring; hence some industries have more concentrated and family ownership.

Pedersen and Thomsen (1998) also find evidence that industry affiliation has a significant effect on ownership structure after controlling for national differences. By using one national context, I am able to analyse differences in ownership structure between industries in the same legal structure. I therefore focus more on the cross-sectional analyses. These cross-section analyses show a strong industry effect on family ownership in the shipping industry. Other industries (from Table I) vary between having a positive or negative effect on family ownership, but none of them are consistently significantly positive, as the case is in shipping. I run the same analyses with other industries as interaction variables (not reported), but no other industry has the same effect of networks on family ownership as the shipping industry.

Shipping firms have long traditions in Norway. Many of these firms have roots going back decades in history, with strong social and industry networks due to several generations in the industry. At the same time it is a highly competitive global product market, requiring the right long-term strategic decisions, where many shipping firms have pursued a diversification strategy into other segments, like the offshore market (Offshore & Shipping, nr.1, 2006). In this paper I find support for the hypotheses that there is a positive relationship between the number of firms in an industry and family ownership. I also find a positive effect of industry networks on family ownership in shipping, but whether the effect is stronger from the social or commercial networks depends on the investment level and type of board interlocks. Is it so that family ownership is a more viable ownership structure in this specific industry and that owners and managers make social and commercial arrangements to remain family owned? If this is the case, why is it important to remain family owned and not become widely held?

Traditionally, ship owners have been regarded as commercially oriented business people, and altruism has not been used as a common characteristic on this industry. Nevertheless, old traditions and history, strong personal and family networks with an “inherited expectation” and obligation to steward the firm could be motives for remaining family owned, in addition to financial reasons. Families are tied together through “genetic ties” and one could expect these bonds to increase the level of trust in these relationships, with a positive effect on family ownership in some cases. On the other hand, conflicts in family firms may be more even emotional and destructive for the firm due to these strong ties. This has been defined outside the scope of this paper. The use of multiple share classes is significantly higher in family firms in the shipping industry (Table III c) indicating that families want to remain in control, with the possible effect of reduced liquidity of the shares. I argue that family ownership is possible due to social and commercial arrangements in networks in spite of high risk and capital intensity in shipping, assuming an underlying drive to remain family owned.

A weakness of this study is the danger of running into an endogeneity problem. If strong networks are one reason for family ownership, will this enhance networks and developments of clusters, or is it the other way around – that clusters enhance family ownership through industry networks? These questions are interesting areas for further research, as well as a cross-country study of strong industry networks in other industries and legal structures. In order to control for endogeneity and reverse causality, one should try to establish relevant instrumental variables making it possible to run a 2SLS-regression model.

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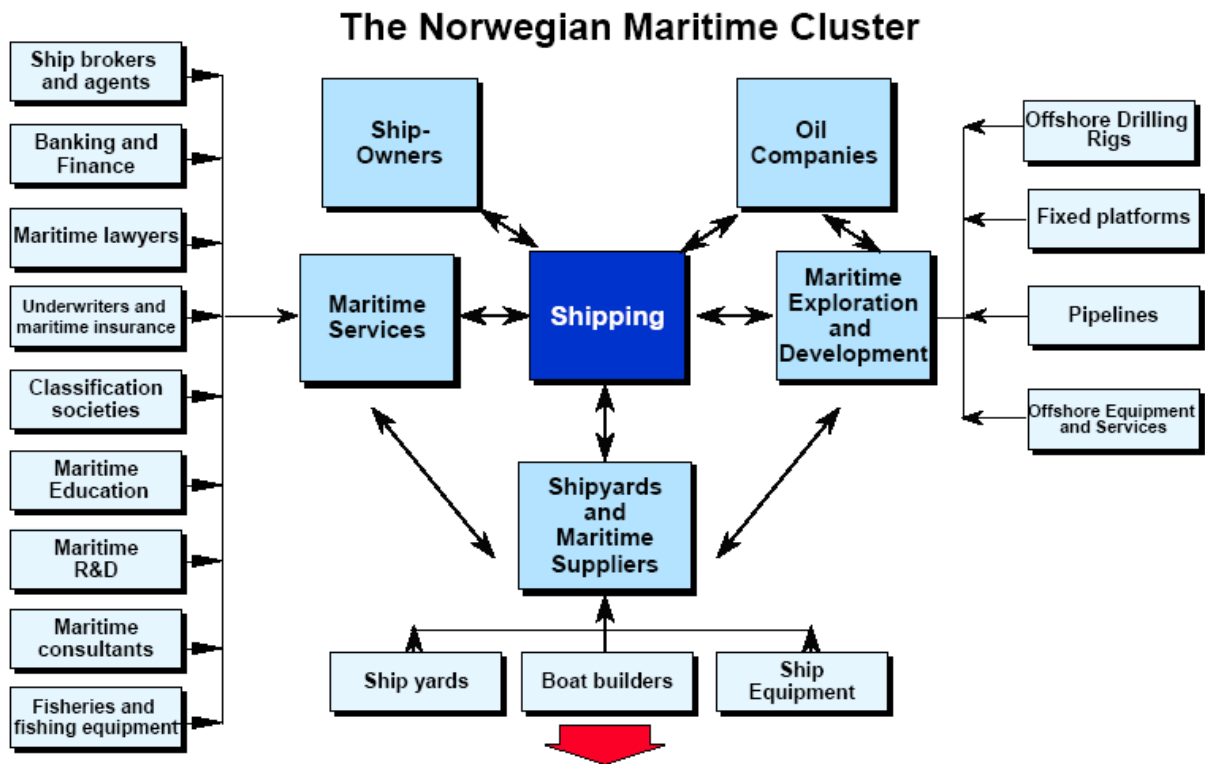
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Appendix I Variable definitions

Variable	Description
1. Family ownership	Family ownership in percent of total shares in all share classes
2. Founder ownership	Founder ownership in percent of total shares in all share classes
3. Descendant ownership	Descendant ownership in percent of total shares in all share classes
4. Family firm	Founding family owns more than 20%, a family member is CEO or a family member is Chair of the board. This is the main definition with yes=1 to this definition of family firm and no=0 to this definition
5. Founder Family Firm	Founder owns more than 20%, or a family member is CEO or Chair. Binary yes=1 and no=0 to this definition.
6. Descendant Family firm	Descendant ownership is 20%, or descendant is CEO or Chair. Binary yes=1 and no=0 to this definition.
7. Founder	Responsible for start up and development of firm. Sources are annual reports, VISMA Bizweb database and Web searches.
8. Firm age	Number of years since the founding of the oldest firm. If merged, the founding of overtaking firm as founding year (sources as for founder)
9. Multiple-share classes	Multiple-share classes as binary variable with no=0 and yes=1.
10. Industry	Binary dummy variable with eight industry groups, with yes=1 to specific industry and no=0 to this industry.
11. Return on Assets	Profit before tax as a ratio of total assets in percent.
12. Return on Equity	Profit before tax as a ratio of total equity in percent.
13. Market capitalization	Number of shares multiplied with year-end closing rate
14. Total Assets	Book value of total assets in balance sheet
15. Profit before Tax %	Profit before tax as a ratio of total sales
16. Debt-ratio %	Interest bearing debt as a ratio of total assets
17. Equity-ratio %	Equity as a ratio of total assets
18. Debt to Equity ratio	Measure finance structure - relationship between Debt & Equity
19. Sales to Assets %	Measure capital intensity - relationship between Sales & Balance sheet
20. Board Ownership	Number of shares owned by board members (measure of influence)
21. Largest three owners in %	Measure ownership concentration
22. Board Size	Number of board members
23. Industrial Ownership	Different levels of investment in shares in other firms in same industry (proxy for commercial networks)
24. Board Interlocks	Various levels of board interlock, as one or several board members or same chair in two firms in same industry (proxy for social networks)
25. N-Firms	Number of firms in different industries (competition and/or cluster)

Appendix II

This cluster map is an illustration of the Norwegian Maritime Cluster (Porter, 2000), where shipping firms are regarded the core of the cluster.



Norway has 0.1% of the world's population, represents 1.0% of the world's economy,
yet accounts for 10% of world seaborne transportation

Source: Sven Ullring, presented to M.I.T., Author's analysis
CACM Bahrain Presentech 05-28-07 Ck.jpg

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Source: Michael E. Porter, 2000

Appendix III

Changes in Family Ownership in the First 50 Firm in the Sample – Alphabetically

Variations Family Ownership, Whole Period, Yearly Average Change and Status Family Firm

Company	% Change in family ownership during 1996-2005	% Average yearly change in family ownership	Change Family Firm Status - Binary 1/0
Actinor Shipping	0.0	0	0
Adresseavisen	0.0	0	0
AF Gruppen	-21.2	-2	0
Agresso Group	-25.0	-8	0
Aker Maritime	0.0	0	0
Alcatel STK	0.0	0	0
ALTINEX	0.0	0	1
Alvern Norway	0.0	0	0
A-Pressen	0.0	0	0
Arendals Fossekompagni	0.0	0	0
ARK	0.0	0	0
ASK	3.8	2	0
Avantor	0.0	0	0
Awilco Offshore	-6.0	-1	0
Axis-Shield ASA	-6.0	-1	1
Belships Co.	14.0	2	0
Bergen Nordh Rutelag	0.0	0	0
Bergesen d.y.	-4.5	-1	0
Bjølfvossen	0.0	0	0
Blom	-18.9	-2	1
Bona Shipholding	0.0	0	0
Bonheur	0.2	0	0
Borgestad	-11.0	-1	0
Braathens SAFE	-21.2	-7	0
Byggma	0.0	0	0
Camillo Eitzen & Co	-0.6	-1	0
C. Tybring-Gjedde	-42.0	-5	1
Choice Hotels Scand.	0.0	0	0
Color Line	0.0	0	0
Consorte	-5.1	-1	0
Computer Advances	0.0	0	0
CorrOcean	0.0	0	0
Crystal Production	1.2	0	0
Data Respons	0.0	0	0
Det Søndenfjeldske	0.0	0	0
DNO	0.0	0	0
DOF	-2.9	0	0
Dyno Industrier	0.0	0	0
Ecuator	0.0	0	0
EDB	0.0	0	0
Eidsiva Rederi	-5.2	-1	0
Ekornes	-10.7	-1	1
Elkem	0.0	0	0
Elkjøp	0.0	0	0
Eltek	-27.0	-4	0
Expert	0.0	0	0
Farstad Shipping	-5.8	-1	0
Fesil	0.0	0	0
Fjord Seafood	-88.4	-11	1
Fosen Trafikklag	0.0	0	0
Change from 1996-2005 for all firms in whole sample (167 firms)	-5%	-1%	23

Paper Four
FAMILY OWNERSHIP, NETWORKS
AND FINANCIAL PERFORMANCE

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2009

Abstract

This paper focuses on how the effects of family ownership on performance may vary in different business environments. Industry and various forms of networks are important variables in this analysis, controlling for other firm and industry specific variables. I find that some industries have a larger degree of family firms, as well as a higher level of social and commercial networks. I also find that these networks have a positive effect on performance in some industries, which especially applies to commercial networks in the maritime industry.

I state that it is not necessarily the ownership that affects performance, but that it is how the ownership is executed through strategic choices, that makes a difference. I argue that both social and commercial networks in an industry are ways of operating and executing the strategy. I find that maritime family firms are more likely to utilize industry networks as a means of operation, and that this has a positive effect on performance.

Keywords: Family ownership, social and commercial networks, firm performance

1.0 INTRODUCTION

It seems to be difficult to establish a general relationship between family ownership and firm performance. Some studies find that there is a premium with family ownership (Amit and Villalonga, 2006) whereas others find that family ownership destroys values (Cronquist and Nilsson, 2003). One could argue that this ambiguity in results stems from large differences in agency context, either in legal structure, financial markets and regulations, industry or culture. This opens for a discussion on how to isolate the effects of context from ownership effects, and how to measure the various effects on financial performance. It may also imply greater focus on *why* family firms differ in addition to *how* these firms differ from non-family firms.

One explanation for the different results on the relationship between family ownership and performance may be the national context these studies are made in, with variances in legal structure and accounting rules. Some studies find that family firms have a lower financial performance than non-family firms (Bertrand and Schoar, 2006) like Claessens et al. (2002) with evidence from Asian countries, Morck, Strangeland and Yeung (2000) with a study from Canada, and Cronquist and Nilsson (2003) using Swedish data. Bloom and Van Reenen (2005) find that family firms in France, Germany, Britain and the United States perform worse than non-family firms. Other studies find the opposite, showing that family firms have a better financial performance than non-family firms. Among these are Amit and Villalonga (2006) and Anderson and Reeb (2003) with data on American firms, Sraer and Thesmar (2004) on family firms in France, and Mishra et al. (2001), on Norwegian firms.

Another explanation to the variations in results may be the different definitions of family firms. Three interesting studies on family firms are by Amit and Villalonga (2006), Anderson and Reeb (2003) and Claessens et al. (2002), all focusing on the effects of family ownership on firm value, but with different definitions of family firms. Anderson and Reeb (2003) focus on family versus non-family firms and find that family firms perform better than non-family firms, both on ROA and Tobin's q for younger and older firms. Amit and Villalonga (2006) focus on active versus passive family ownership, and find that family ownership only creates value, measured by Tobin's q, when it is combined with certain forms of family management and control. Claessens et al. (2002) focus on incentives versus entrenchment by using multiple-share classes with controlling rights being larger than cash-flow rights. They find that firm value, measured by market-to-book ratio, falls when the controlling rights of the largest shareholder exceed cash-flow rights, consistent with an entrenchment effect.

A third explanation to the different results on the relationship between family ownership and performance could be differences in business environments. There are reasons to believe that some business environments suit family ownership better than others, due to firm, industry or nation specific factors. In addition, there are some interaction effects between ownership and the business environment firms operate within, that affect the advantages and disadvantages of family ownership in different agency contexts and environments. I find a higher fraction of family firms in some industries than others, and that the effect of family ownership on performance varies between industries. I also find that there is a higher degree of social and commercial networks in some industries compared with others, and that these networks affect financial performance differently in different industries. From this, I argue that it is not the ownership alone that makes a difference, but it is how this ownership is executed through different means of operations that has an effect on firm value and performance. Strong networks may affect performance because they are characterized by trust and confidence among partners, thereby reducing the costs of coordination and control (Larson, 1992). Various networks can also mitigate some of the negative elements in family ownership because they represent a viable, strong network outside the family network.

The empirical analysis in this study is based on a hand-collected dataset consisting of 167 Norwegian companies listed on the Oslo Stock Exchange from 1996 to 2005, giving 1165 firm-year observations on 82 different variables. Important variables are industry and various forms of industry networks and I compute a set of network variables to analyse the effects of social and commercial networks on firm performance in the different industries. I try to disentangle some of the contextual elements that affect firm performance, in addition to the possible effect of family ownership. In this paper, firms are defined as family firms if the family holds more than 20% ownership, with variations in generations and level of influence.

My overall question is whether it is the family ownership per se that affects performance or whether it is how family firms operate in different industries, sometimes through networks, that affect the financial performance. To analyse this, my main research questions are:

- 1) How does family ownership affect firm performance in general?
- 2) How does family ownership affect performance in different industries?
- 3) Which industries are most likely to establish various industry networks and how do these networks affect performance?
- 4) Do family firms gain more from these networks than other firms?

2.0 FAMILY OWNERSHIP AND PERFORMANCE

In the analysis of the relationship between family ownership and financial performance, one main question is whether family ownership should be regarded as endogenous or exogenous. Demsetz (1983) states that ownership structure can be regarded as “an endogenous outcome of competitive selection in which various cost advantages and disadvantages are balances to arrive at an equilibrium organization of the firm”. Ekeland (2002), on the other hand, states that ownership structures must be taken as given as a set of exogenous conditions formed by legal and business history, specific to each country and industry. He also states that it is the business strategy that affects performance, and that these issues are less determined by ownership structure and agency problems (Ekeland, 2002). In this paper, I focus on the industry dimension, how families operate through various industry networks to increase competitiveness, and whether this has a positive effect on firm performance or not. This section presents benefits and costs with family ownership from an agency theory perspective. In this view, the main idea is often that the reduced agency costs enhance firm performance.

2.1 Potential Benefits with Family Ownership

Family ownership may provide competitive advantages because the coupling of ownership and control creates powerful incentives for owner-managers to manage their operations efficiently and profitably (Carney and Gedaljovic, 2002). Opportunism (and the need for monitoring) can be very costly for the owners and a reduction of monitoring costs is said to be one of the benefits with concentrated and family ownership. The perception is that when ownership and control are more aligned, the agency costs will be reduced as a result of this alignment. Families have strong incentives to monitor managers and minimize free-rider problems (Anderson and Reeb, 2003). James (1999) states, that family loyalty may overcome the incentive problems and increase the efficiency of the firm. Consequently, from an economic standpoint, personal and family ownership is regarded as an efficient institution.

However, the pay-off from monitoring can vary substantially between different industries and markets. In markets with high volatility and uncertainty, family ownership can be an efficient way of being “hands-on” the decision processes and may lead to more flexible, more efficient and maybe even better decisions. This means that the more volatile and noisy the environment is, the greater the pay-off from close monitoring is, which also gives an incentive for control. From this one can argue that family ownership can be viable governance mechanisms in volatile markets and environments (Demsetz and Lehn, 1985; Pedersen and Thomsen, 1998).

Knowledge of the business is also an important argument for family firms. Families may have been close to the business for several years, maybe for generations, and when used in the right manner this knowledge can create a competitive advantage and contribute to higher firm performance. As a result of a long-term perspective, families may invest time in knowing the business as well as engage themselves in social and commercial industry networks. This long-term horizon may also make families more willing to invest in long-term projects relative to shorter managerial horizons (Anderson and Reeb, 2003). James (1999) states that family firms tend to invest according to market rules, and that family firms invest more efficiently than non-family firms because they have a horizon extending beyond their own generation.

Social reputation and social networks can be important for competitiveness and firm value in family firms, because they have an impact on how families deal with changes in the environment. Innovations that are compatible with norms of a social system may spread faster than those that are not, and managers can look to other firms in the network (Davis and Greve, 1997). There may be a “me too” effect in networks, indicating that strong commercial and social networks can provide an infrastructure that represent a positive effect to firms.

Strong personal relations are the basis for trust in economic life (Granovetter, 1985) and in strong networks this may be a competitive advantage that improves financial performance. Granovetter (2002) states that the success of firm networks depends on compatibility with the local and political network’s social capital, where some networks are highly decoupled and some are highly coupled (i.e. industrial clusters). In order to take advantage of this potential infrastructure, firms need to be able to transfer knowledge and diffusion between parties. Social structures may have a positive economic impact due to better access to skilled labor through personal networks, higher productivity through “tacit knowledge” and group norms, as well as higher innovation due to higher degree of diffusion (Granovetter, 2005). If family firms are able to reap the benefits of strong networks, this can enhance financial performance.

Finally, trust seems to be an important dimension in family firm governance. Trust among family members and management is considered important to a family business’ success, whereas the lack of trust is regarded a threat to the viability of the family firm (Kets de Vries, 1996; Walsh, 1994). It is difficult to find proxies for measuring trust and especially to measure the financial effect, but one could argue that age is a measure for sustainability where trust can be regarded as an important determinant for this long-lasting survival.

2.2 Potential Costs with Family Ownership

Families have the power and incentive to receive private benefits at the expense of firm performance (Anderson and Reeb, 2003); especially in firms where controlling rights exceed cash flow rights. Families can expropriate wealth through tunneling of assets, transfer pricing, special dividends or other means of expropriating wealth (Anderson and Reeb, 2003; Cronquist and Nilsson, 2003). Carney and Gedaljovic (2002) state that majority owners can adopt inefficient practices, reflecting their values and interests, thus reducing firm value. Opportunism can also be current consumption over future consumption or “on-the-job” non-pecuniary consumption (Fama and Jensen, 1985; Demsetz, 1983; James, 1999).

Managerial entrenchment is perceived to be a problem in family firms. Controlling owners can be vulnerable to self-control problems and behave more like “myopic doers” than “farsighted planners”, where their options are biased by their altruism to family members. Another issue is how controlling owners act towards their children. Family employees may be treated more leniently when they free-ride or shirk, or that managerial positions are reserved for family members, even when they are not the most competent managers (Lubatkin, Ling and Schulze, 2003). Gomez-Mejia et al. (2001) find that family ownership and control is associated with managerial entrenchment in Spanish firms and that this reduces firm value. In addition, generational conflicts may impede performance in family firms with the result that firm value is decreased by family instability and lack of succession planning (James, 1999).

Other disadvantages with family ownership are regarded to be low liquidity of shares and access to capital. This is due to the perception that limited financial and managerial resources of a founding family impose constraints on development. “Although family control may be a way to resolve agency problems, the lack of owner support for the new investment results in a need to access capital market funding” (Filatochev, Lien and Piesse, 2003, page 9). There may be a negative effect on the ability to raise external capital since arm’s length minority investors run the risk that the majority owners use their control rights to expropriate private benefits of control at their expense (La Porta et al. 2002; Shleifer and Vishny, 1997).

Risk aversion has often been used as an argument against concentrated ownership, because large owners have so much at stake that they become risk averse. Fama and Jensen (1983) state that concentration of risk increases the effective cost of capital, and results in a risk-averse strategic behavior among firms with coupled ownership and control (Chandler, 1990).

3.0 INDUSTRY AND NETWORK EFFECTS ON PERFORMANCE

Lubatkin, Ling and Schulze (2003) ask why some family firms are able to reap the benefits from being a family firm and others are not. One relevant question is whether it is the family ownership alone or whether it is their business strategies and governance structures, combined with the characteristics of family ownership, that make them successful. In family firms most decision agents are the controlling owner's family members, where family ties link them to a kin network characterized by norms of reciprocity, strong social ties, a shared identity, and a common history (Ouchi, 1980). This can be regarded as a part of their social capital, and the firms that are able to utilize their social capital may obtain a competitive advantage from this.

3.1 Social Capital and Industry Networks

Leana and Van Buren (1999) define social capital as an asset embedded in social relations and networks, whereas Baker (1990) and Tsai and Ghoshal (1998) focus on inter-firm and intra-firm networks in their discussion on social capital. Nevertheless, there seems to be consensus that social capital includes both social networks and resources obtained through these networks (Mustakallio, 2002) and in order to benefit from this social capital, there should be some couplings between the different networks. Coleman (1988, 1990) emphasizes the importance of the strength of social ties between members in a social network, arguing that strong ties give a higher level of social capital within a group. Granovetter (1973), on the other hand, argues that weak ties increase information flows between otherwise disconnected social groups, focusing on information between different groups. Burt (1992) has extended this view by showing how "structural holes" can be used to create information and control.

Family firm literature focuses on trust, altruism, goal congruence, social mechanisms and kin networks (Ouchi, 1980), indicating that human beings do not always act in a purely self-interested manner. Nahapiet and Ghoshal (1998) state, that social capital can be characterized by being jointly owned by members in a network and not easily traded. It has been argued that family firms' success, come from their social capital, which is the combination of internal and external relationships. This gives them a powerful network that is leveraged, often unconsciously, to benefit the business (Arregle et al., 2007). The internal social capital can be trusting relationships and a culture of confidence between executives and workforce, or close relationships in a group that facilitate information circulation and monitoring (Arregle et al., 2007). Externally, social capital can be close relationships with suppliers or other important participants in the business environment (Arregle et al., 2007; Rosenfeld, 1996, 1997).

Newton (1997) argues that “thick trust” is generated by family networks and through the living in close-knit communities, and that this is a part of the social capital in family firms that creates a competitive advantage. Arregle et al. (2007) state that family firms have a social capital that non-family firms cannot imitate, because this unique social capital comes from the family’s social capital. In these networks trust also emerges through confidence that others will do the right thing (Granovetter, 2005). Social capital also has a positive effect on an outcome not accounted for by forms of personal capital, like economic or human capital Lin (1999).

Walker et al. (1997) find evidence that dense social capital has a positive effect on new cooperation for creating information benefits, arguing that this explains the formation of industry networks. These networks may be social or commercial networks, depending on the characteristics and structure of the industry, as well as where the firm is in its life cycle. Assuming that individuals will engage in interactions and networking to produce profits, the social networks will enhance the outcome of actions because: 1) They facilitate the flow of information and reduce transaction costs, 2) they increase influence of decision agents, 3) they give social credential, and 4) they reinforce identity and recognition (Lin, 1999). Commercial networks based on investments or other commercial arrangements, may be one way to remain competitive through overcoming capital and resource constraints, as well as getting access to other markets or segments, being relevant considerations for family firms.

Networks may be horizontal (same industry segments or producing complementary products) or vertical (firms specialized in sequential activities in a supply chain) and these networks may force firms to remain competitive (Porter, 1990). Inter-firm cooperative arrangements can be based on relational governance mechanisms focusing on informal rules and unwritten codes of conduct, that affect behavior of firms in their dealing with others (Baker et al., 2002). Macneil (1980) argues that partners engaged in relational governance solve some of the problems with actions and responsibilities ex post, and that relational governance involves a complex, multidimensional set of norms, including norms supporting informal agreements. Mesquita and Lazzarini (2008) argue that there is a link between relational governance and distinct types of collective efficiencies and find that different types of ties matter in different ways. They find that vertical ties yield manufacturing productivity along the supply chain, while horizontal ties enable collective resource-use and joint product innovation. These collective efficiencies serve as competitive currencies helping SMEs access global markets. Hence, horizontal and vertical networks may increase firms’ competitiveness and innovation.

Most studies control for industry effects in their analyses of financial performance. Industries vary in the degree of fixed assets they carry, as well as the degree to which they use debt (due to differences in collateral), with corresponding differences in firm value and financial performance (Randøy and Goel, 2003). The industry effects are found to be related to differences in firm size, industry growth, earnings volatility, capital, and research intensity (Pedersen and Thomsen, 1998). However, various studies conclude differently on whether firm or industry specific factors have the strongest effect on performance. Mauri and Michaels (1998) analyse 69 industries and find that firm effects are more important than industry effects, with the exception of core strategies such as technology and marketing. Hawawini et al., (2002) examine whether findings of past research can be generalized across all firms in an industry or whether they apply to a particular class of firms within an industry. They use value-based measures of performance instead of accounting ratios and they find that industry effects turn out to be more important for financial performance than firm-specific factors.

The differences in results of the industry effects on performance may indicate a complex set of determinants, with a need to disentangle some of these industry factors. This study focuses on whether family ownership and social and commercial networks can make a difference in some business environments, and in which industries this could be the case. I have included all industry groups in the analysis, but due to the high degree of family ownership and the strong networks in the maritime industry, I focus more on this industry. These social and commercial networks can be expressed through board interlocks, investments in other firms in the same industry, co-investments, partnerships or investments in suppliers or customers.

Table I: Number of Firms and Means of Industrial Ownership and Board Interlocks

Industry:	Maritime	Property	Manufacture	Retail	IT Telecom	Media Pub.	Transport
N-Firms of total sample (167)	52	5	52	12	35	6	5
Average % Industrial Ownership in industry	24%	6%	15%	3%	4%	3%	2%
Average % Board Interlock in industry	30%	14%	13%	4%	12%	3%	1%

It may be difficult to detect whether social and commercial networks and family ownership are separate phenomena, or if there are points of overlap between them. The effect of these networks may also vary among industries and they may vary according to where firms are in their life cycle. It seems difficult to establish a general relationship between family ownership and financial performance. This may be due to underlying factors that are hard to measure and analyse, in addition to large variations in the agency context and business environment.

3.2 Research Focus

The effects of networks vary between different industries, where firms in some industries gain more from networks than firms in other industries. In the analysis of the relationship between family ownership and performance it seems difficult to disentangle the various factors. One way to solve this could be to regard family ownership as a proxy for the means of operating, where being part of different networks is one determinant. How important these networks are, depend on the different business and legal contexts in addition to the industry variances. It may be a challenge to find good proxy variables for social and commercial networks with the aim of understanding the underlying theme of the competitiveness of family firms.

In order to disentangle the contextual effects of industry, ownership and networks, I have divided the overall question into four research questions. These questions focus on different factors that may affect performance, either as a main effect or combined with other variables:

- 1) How does family ownership affect performance?
- 2) How does family ownership affect performance in different industries?
- 3) Which industries are most likely to establish industry networks and how do these networks affect performance?
- 4) Do family firms gain more from networks than other firms in some industries?

In response to the first question, the sample does not provide any significant main effects of family ownership on performance (ROA lagged or QLn). Regarding the second question, I find that the effect of family ownership on ROA lagged and QLn varies between industries and between various forms of family ownership (family, founder or descendant ownership). In question three, I find that there is a significantly positive effect of the maritime industry on the prevalence of social and commercial networks. In addition, I find that commercial networks have a significantly positive effect on ROA lagged in the maritime and retail industry. Regarding the fourth question, I find that firms in the maritime industry gain from family and founder ownership and commercial networks. I do not, however, find significant effects of descendant ownership nor social networks on financial performance.

From this, I argue that it can be difficult to conclude on whether the firm specific factors are more important for performance than the industry specific factors. What affects financial performance needs to be interpreted in the agency context and the business environment the firm operates within at a given point in time, potentially with large variations between firms.

4.0 METHODOLOGY AND DATA

Focus in this study is on how different contextual elements affect financial performance. I try to disentangle some of the determinants of performance by using various forms of family ownership, industry affiliation and different forms of networks as variables, in addition to firm-specific control variables and sample period. My main interest is the between-firm effects and I mainly focus on the cross-sectional OLS-regression analyses. Due to very small yearly variations in family ownership and industry, I do not report the panel data regressions.

4.1 The Sample

This dataset is based on a random sample of 167 companies listed on the Oslo Stock Exchange in the period 1996-2005. The criterion is that they have been listed three years or more, providing 1165 firm-year observations. I have hand-collected the data through annual reports and the Norwegian database, Bizweb, which contains information about ownership, accounting figures, board structure and networks, giving 82 different continuous and binary variables. The companies belong to all industries except the financial sector, and the sample represents more than half of the listed companies. I have divided the firms into eight different industry groups for comparison: shipping, property, retail, manufacturing, transportation, offshore, media/publishing and IT/telecom (shipping and offshore are reported as maritime). There are small variations in the industry structure in the sample period, indicating that I do not have an overrepresentation of some industries that could affect the results. The use of one national context may imply a sample bias. On the other hand, by using data from one legal structure I have eliminated some of the nation specific factors that might influence the results.

In my dataset there are 167 firms, where 42% of them are family firms according to my main definition of family firms (minimum 20% family, founder or descendant ownership). Families operate in a broad array of industries, seemingly more prevalent in some industries than in other industries. There are also large variations in the prevalence and the strength of various forms of networks between industries. Many papers have addressed the importance of testing for industry affiliation in their analyses of the relationship between family ownership and performance (Anderson and Reeb, 2003; Amit and Villalonga, 2006). To my knowledge, however, few papers combine industry, different forms of industry networks and family ownership in the analysis of possible effects on financial performance. My main independent variables are industry, social and commercial networks and family ownership, controlling for other firm and industry specific variables affecting performance.

4.2 Model Specification

Drawing on previous research on corporate governance, the model for testing the research questions includes a variety of independent variables to minimize specification bias. To test the questions presented in section 3.2, I mainly use a cross-sectional ordinary least-square (OLS) regression model. I apply the two-stage least-square (2SLS) regression in two of the regressions. All the regressions include a robust test clustered by firm in order to control for serial correlation and heteroskedasticity. The dataset contains 1165 firm-year observations on 167 firms, and clustered by firm, this gives 167 groups in the analysis. (Appendix I include the different definitions of all the variables used in these models). In the model, I control for family ownership variables (family, founder and descendant ownership), network variables (social and commercial networks), industry (eight industry groups), general control variables (firm size, firm age, debt ratio and capital intensity), and year dummy variables (1996-2005).

Nagar et al. (2005) state that endogeneity is a problem when ownership is chosen as a function of performance (reverse causality) or as a function of unobserved variables that also affect firm performance. This study may suffer from an endogeneity problem, where the question is whether family firms with high performance engage in industry networks or whether they perform better due to these networks. One challenge with the 2SLS-regression is to find the exclusionary restrictions so that the two stages can be estimated. Another challenge is the low power in the first stage, making it difficult to find significance (Nagar et al., 2005). I am not able to run the 2SLS-regression for all of the regressions because of the difficulty of finding appropriate instrumental variables. In two of the regressions, however, I use oil prices over the sample period as the instrumental variable (with no variation between firms, only between years). Oil prices show a significant and positive correlation with performance, but not with family ownership and networks. For the 2SLS-regressions I use oil prices as the instrument, with industrial ownership or family ownership in the maritime industry as the instrumented variables (Table VII and VIII). The 2SLS-regressions show significant results in line with the OLS-regressions. Table VII is only commented, whereas Table VIII is also reported. Even though there is a danger of not having a valid instrumental variable, I do not find that the dataset provides another better alternative for running the 2SLS-regressions. The OLS-regression equation used is:

$$\begin{aligned} \text{Financial performance} = & \quad (\text{Family ownership}) + (\text{Social and commercial networks}) + \\ (\text{Tobin's } q \text{ and ROA}) & \quad (\text{Industry}) + (\text{Control variables}) + (\text{Year dummy variables}) + \\ & \quad (\text{Interaction variables family, networks and industry}) \end{aligned}$$

4.3 Definition of Variables

The main dependent variables for measuring financial performance in this analysis are Tobin's q (log) and lagged return on assets (ROA lagged). Tobin's q is estimated as the market value of total assets divided by the replacement cost of assets, where market value is measured by sum of market value of equity and book value of total liabilities. (In some industries Tobin's q may not be a good measure due to a different valuation of assets). One may assume that the independent variables have an instant effect on firm value and use the same observation date for both the dependent and the independent variables. However, the independent variables may not have the same instant effect on accounting measures and I therefore choose to use a 1-year lagged ROA, by using previous year's profit before tax divided by the average book value of assets (Nickell, 1996; Randøy and Goel, 2003). I use profit before tax to avoid differences in taxation rules among maritime firms and others. Taxation of maritime firms consists of many elements (flag state, registration state, tonnage tax), making it difficult to compare profit after tax between firms in different industries.

There are arguments against using both accounting and market performance measures. Lang et al. (1989) claim that accounting measures only provide limited information about managerial actions because they do not incorporate future benefits or costs of current decisions. These measures (return on assets and return on equity) may also be difficult to apply when comparing different industries. Some industries are characterized by high turnover, high margins or high leverage, implying different accounting measures (www.wikipedia.com). Nevertheless, the accounting measures return on assets (ROA) and return on equity (ROE) can be regarded as important indicators of how efficiently resources are allocated (ROA) or how effectively management is reinvesting shareholders' capital (ROE). In this analysis I choose to use ROA lagged as the main dependent variable.

Arguments against market measures like Tobin's q are that the equity pricing models are imprecise and that it is challenging to control for endogeneity and reverse causality (Anderson and Reeb, 2005; Demsetz and Villalonga, 2001; Himmelberg, Hubbard and Palia, 1999). Comparing different industries is also difficult due to large structural and market differences. Anderson and Reeb (2005) propose publicly traded debt as a performance measure, but in Norway this market is not as developed as in the U.S and would not be a valid measure.

My main independent variables are various forms of family ownership, industry and social and commercial networks. One challenge is to develop a model with relevant proxy variables to test the effects of networks on financial performance. Another concern is how to define the family firm, for which prior research provides no authoritative common definition. Randøy and Goel (2003) use influence as one key element when defining family firms, focusing on founder or descendant influence. Amit and Villalonga (2006) focus on ownership, control and management in their definition of family firms.

In most of the regressions, I use *family, founder or descendant ownership* in percent of all share classes as continuous variables or the same variables as binary. In addition, I have four dummy variables on family firms. Each of these definitions assumes a minimum of 20% ownership, but with different criteria for type of ownership. These dummy variables are expressed as binary variables computed from the dataset. The dummy equals one when the criterion for that variable is obtained, and zero otherwise: 1) Family firm (at least 20% ownership, or CEO or Chair), 2) Family influence (at least 20% ownership, and CEO or Chair), 3) Founder family firm (at least 20% ownership, or CEO or Chair) and, 4) Descendant family firm (at least 20% ownership, or CEO or Chair). *Industry* is divided into eight industry groups based on the one-digit industry groups provided by the Oslo Stock Exchange.

A third main independent variable is *commercial networks* measured by industrial ownership in the same industry (binary). This variable is divided into four levels of ownership, following the threshold for the financial treatment of this ownership: 1) The existence of industrial ownership in general, 2) ownership above 50% of the other firm (needs to be consolidated in the accounts), 3) ownership between 20% and 50% (needs to be taken into the accounts according to the equity method, where 33,34% of shares gives “negative control” and enables a blocking of certain decisions) and, 4) ownership below 20% (not consolidated in accounts).

The fourth main independent variable is *social networks* measured by different forms of board interlocks in the same industry. I have four different binary variables depending on how tight these interlocks are: 1) Board interlocks in some form; 2) two firms within the same industry have the same chair of the board, 3) several board interlocks between several persons or several firms and, 4) one board interlock with one person in two boards in the same industry.

In the analyses, I combine levels of industrial ownership and board interlock in an attempt to reflect the strength of networks in the following combinations: 1) Industrial ownership and board interlocks in general, 2) above 50% industrial ownership and board interlock through chair, 3) between 20-50% industrial ownership and several board interlocks and, 4) below 20% industrial ownership and one board interlock (other combinations have also been tested). I run the regressions for all combinations, but I mainly report the combination of industrial ownership and board interlocks in general (the other combinations show quite similar results).

I include a set of *control* variables to control for firm and industry specific characteristics. Firm size is the natural log of book value of total assets, and firm age is measured as the natural log of the number of years since it was founded. In the case of mergers and acquisitions, age of the takeover firm is used. (There is a high correlation between firm age and family ownership and this variable is excluded from the regressions in Table VIII). The period of time is the years 1996 to 2005 (minus 1) and is included in all the regressions, but is not reported. I control for financing structure by using the debt ratio as a measure, computed from total interest bearing debt divided by booked value of total assets. Capital intensity is measured by a ratio of sales divided by total assets. A high sales-to-assets ratio represents low capital intensity because sales are high compared to the total balance sheet, which is an indication of a limited amount of fixed assets for a given turnover.

In addition, I have included a set of *interaction variables* in an attempt to isolate some of the various effects on performance. The first set combines family, founder or descendant ownership with the different industries to see whether various forms of family ownership affect performance differently in specific industries. The other set of interaction variables combines industry and social or commercial networks with the aim of measuring how industry networks may moderate the industry effect on performance. The third set of interaction variables combines various forms of family ownership with different industries and social or commercial networks. This variable is computed to measure whether firms with some form of family ownership gain more than other firms from various industry networks. I have also computed the same interaction variables with the four definition of the family firm (with minimum 20% family, founder or descendant ownership, and/or CEO/Chair). These results do not turn out significantly different and are therefore not reported, with the exception of the results shown in Appendix II. In all of the regression including the interaction variables, the joint significance of the various interaction variables is tested by a Wald test.

5.0 EMPIRICAL FINDINGS

5.1 Sample Characteristics

Table II provides summary statistics for the data used in the analysis. This dataset consists of 167 firms in the period 1996-2005, providing 1165 firm-year observations (n=1165).

Table II a) is a summary of means, standard deviations and maximum and minimum values for the most important variables in the full sample. Table II b) compares means between family and non-family firms on some key variables. Table III presents a correlation matrix.

Table II: Descriptive Data for Full Sample and Family and Non-family Firms

Table II a) Summary Statistics for Full Sample (n=1165 firm-year observations)

Variable	Observations	Mean	Std. Dev.	Min	Max
Family Ownership	1165	15.411	20.649	0	90
Founder Ownership	1165	8.731	16.571	0	90
Descendant Ownership	1165	6.680	15.559	0	66
Tobin's q	1165	1.811	2.878	.052	82.816
Market Capitalization	1152	4116.849	17800.52	0	339385.8
Return on Assets -ROA	1165	.763	18.142	-100	79.645
Return on Equity -ROE	1165	5.929	40.313	-100	200
Industrial Ownership	1164	.532	.499	0	1
Board Interlocks	1165	.641	.480	0	1
Total Asset (mill.NOK)	1165	6292.931	24104.58	10	288979
Firm Age Ln	1164	3.669	.930	1.386	5.472
Debt Ratio %	1165	29.234	23.350	0	165.151
Equity Ratio %	1165	43.606	21.445	-65.151	179.239
Debt to Equity Ratio %	1162	.768	8.608	-187.855	192.714
Sales to Assets Ratio %	1165	100.104	73.463	0	500
Sales (mill. NOK)	1157	5175.89	23750.09	0	393298
Profit before Tax %	1153	2.831	39.099	-100	200
Board Ownership	1150	23.467	24.051	0	99.03
Largest 3 Owners %	1146	47.548	20.205	4.1	100
Board Size	1165	6.468	1.812	3	11
Multiple-share Classes	1165	.0807	.2724	0	1

Tobin's q is a market evaluation of the firm, and in my sample there is one firm, Opticom, that has a Tobin's q of 82.82 in the year 1999, due to an extreme valuation of the firm this year. In the years between 1996 and 2005 with the exception of 1999, Tobin's q varies between 0.52 and 21.57 (Opticom). I have truncated return on assets and return on equity to give a minimum of -100% and a maximum of +200%. A few cases had extreme outliers, where two examples were firms in the R&D phase with very negative profit and no sales, and one example where income was booked as financial income (an offshore company) and low sales. These outliers gave extreme values (- 30.000% and +60.000%) on some of the variables, and are limited to provide a more normal distribution.

Table II b): Comparison of Means in Family and Non-family Firms

Means:	Family Firms 1)	Non-family firms 1)
Total obs.: 1131	Observations: 450	Observations: 681
Family Ownership	36.513***	1.610
Founder Ownership	19.891***	1.218
Descendant Ownership	16.622***	.392
Tobin's q	1.672***	1.770
Return on Assets -ROA	2.235	-.106
Return on Equity -ROE	5.666	6.332
Industrial Ownership	.560	.517
Board Interlocks	.740***	.576
Total Asset (mill. NOK)	2866.01	8559.881
Firm Age Ln	3.347***	3.547
Debt Ratio %	31.917***	27.639
Equity Ratio %	46.639***	41.305
Debt/Equity Ratio %	1.488	.280
Sales/Assets Ratio %	86.550***	108.843
Board Ownership %	33.815***	16.648
Largest 3 owners %	48.799***	46.596
Board Size	5.920***	6.868
Multiple-share Classes	.138***	.037

- 1) Based on main definition of family firms (definition 1): either minimum 20% ownership, or CEO/Chair
- 2) Wilcoxon rank sum significance tests due to some binary variables that are not normally distributed
- 3) Significance levels are marked if there is a significant difference between Family and Non-family. Asterisks denote statistical significance at 1% (***) level

Table II b), shows that family firms have a significantly lower Tobin's q than non-family firms and that there are no significant differences between family and non-family firms on the accounting measures ROA and ROE. The lower Tobin's may be due to a perception that family firms are less willing to take risk, that they have lower liquidity in shares, or that non-family firms are better in governing firms. Family firms have a significantly higher debt ratio than non-family firms. This may be due to a higher degree of collateral and a solid balance sheet, enabling them to debt finance operations and still remain in control. They also have a higher equity ratio. The sales to assets ratio is significantly lower in family firms than in non-family firms, giving significantly higher capital intensity in family firms. This is the opposite of what previous literature states, but can be explained by the high representation of maritime firms in the sample. These firms are very capital intensive and they have a high degree of family ownership. Board ownership, block holdings and the use of multiple-share classes are significantly higher in family firms, in line with the perception that family firms want to remain in control through board control and voting rights. (In Norway 1/3 of the votes give "negative control", enabling families to block important decisions that require 2/3 majority). There are no large differences between family and non-family firms on industrial ownership which may indicate that these investments are not just dependent on ownership, but also on the industry they belong to. Board interlocks on the other hand, are significantly higher in family firms compared with non-family firms, in line with expectations.

Table III: Correlation Matrix

	Family ownership	Founder ownership	Descend. ownership	Return on Assets	Tobin's q	Industrial ownership	Board interlocks	Equity ratio	Total assets	Firm age	Board ownership	Dual share classes
Family ownership	1.000											
Founder ownership	0.669***	1.000										
Descendant ownership	0.614***	-0.176***	1.000									
Return on assets	0.089***	0.026	0.091***	1.000								
Tobin's Q	-0.061**	0.078***	-0.164***	0.001	1.000							
Industrial ownership	0.073**	-0.101***	0.203***	0.166***	-0.217***	1.000						
Board interlocks	0.155***	-0.052	0.260***	0.059**	-0.098***	0.277***	1.000					
Equity ratio	0.102***	0.025	0.109***	0.097***	0.218***	-0.171***	0.053	1.000				
Total assets	-0.104***	-0.096***	-0.036	0.117***	-0.080***	-0.158***	-0.066***	-0.086***	1.000			
Firm age	0.012	-0.347***	0.383***	0.191***	-0.296***	-0.266***	-0.021	-0.173***	0.131***	1.000		
Board ownership	0.415***	0.383***	0.142***	0.061**	0.057	0.090***	-0.026	-0.059**	-0.153***	-0.011	1.000	
Dual-share classes	0.147***	-0.001	0.196***	0.061**	-0.109***	0.215***	-0.090***	-0.092***	0.082***	0.186***	-0.003	1.000

Asterisks denote statistical significance at the 1% (***) or 5% (**) level.

The correlations in Table III indicate that both family and descendant ownership are significantly and positively correlated with return on assets, and significantly and negatively correlated with Tobin's q. Founder ownership has a significant and positive correlation with Tobin's q. Family and descendant ownership are significantly and positively correlated with board interlocks and industrial ownership, but founder ownership has a negative and significant correlation with industrial ownership. Looking at the correlations between networks and financial performance, there is a significant and positive correlation between both board interlocks and industrial ownership and return on assets, but a significant and negative correlation between the network variables and Tobin's q. Dual-class shares are significantly and positively correlated with family and descendant ownership, industrial ownership and return on assets, but negatively correlated with Tobin's q and board interlocks.

My main interest in this paper is the relationship between family ownership, networks and financial performance, with potential moderating effects. Earlier literature states that contextual elements affect this relationship, such as industry and legal environments, but it seems difficult to disentangle and analyse the possible effect of these different factors. I try to analyse whether it is the family ownership per se that affects performance, or if it is the way families operate in certain contexts that makes a difference. Family firm research often focuses on social and personal networks in analyses of family ownership and performance. This study also includes commercial industry networks, in addition to the industry variable, to determine the effects of environment on financial performance, in addition to ownership.

5.2 General Effects of Family Ownership on Performance

Large owners have stronger incentives to monitor managers and the power to enforce their interests, and this should lead to increased shareholders' value and financial performance (Thomsen and Pedersen, 2000). Various studies show diverging results on the relationship between performance and family ownership. This is both due to costs and benefits of family ownership and due to different legal and business environments. Some interesting studies are:

- Cronquist and Nilsson (2002) focus on controlling owners in an agency context, where the controlling rights exceed cash flow rights through different legal devices, making them “controlling minority shareholders” (CMS). This study analyses a panel of 309 listed Swedish firms from 1991-1997. They find that families are more likely to employ CMS structures, the estimated agency costs are between 6-25% of firm value and that return on assets is lower.
- Mishra et al. (2001) ask whether family control of a public firm makes sense and if family businesses have a governance advantage over widely held firm. They use a sample of 120 Norwegian firms, and find that founding family controlled firms are more valuable than other firms and are governed differently compared with non-founding family controlled firms.
- Gomez-Mejia et al. (2001) use a sample of Spanish newspapers over 27 years, analyzing the role of family ties in agency contracts. The agency context is family-related contracting with family ties between principal and agent. They find that goal conflicts between principal and agent under family contracting can give rise to moral hazard and increased agency costs.
- Gedajlovic and Shapiro (2002) use a sample of 334 Japanese firms from 1986-1991. The Japanese governance system is characterized by separation of ownership and control, where alliances and strong horizontal and vertical networks represent the social context for firms. They find that profit redistribution among firms leads to stronger redistribution effects than agency effects, with a negative impact of ownership concentration for most Japanese firms.
- Anderson and Reeb (2003) make a time-series cross-sectional comparison of 403 listed family and non-family firms from 1992 through 1999. The study explores the relationship between founding family ownership and performance and find that family firms, with either a family member or a “hired-hand CEO”, have higher firm performance than non-family firms.
- Amit and Villalonga (2006) ask whether family firms are more valuable than non-family firms using 508 Fortune 500 firms in the period 1994-2000. They find that family ownership only creates value when combined with certain forms of family management and control, especially when founder serves as CEO of the family firm or as chair with a non-family CEO.

As can be seen from these above-mentioned studies, there are differences in the definitions of the analyses and the environments in which the studies are conducted in. In general, one may argue that the choice of governance mechanisms affects long-term profitability of firms due to differences in decision processes and strategic choices. It seems difficult to measure a general relationship between ownership and performance without taking into consideration the large variations in firm, industry and nation specific factors, in addition to means of operation.

Table IV is an OLS-regression with Tobin's q (QLn) and ROA lagged as dependent variables, using family ownership, networks and industry as independent variables and controlling for the firm specific variables debt ratio, size, age and capital intensity, as well as sample years. I do not find any strong effects of family ownership on performance, with the exception of a weak significant and positive effect of founder ownership on ROA lagged. Neither do I find a general effect of social and commercial networks on performance, indicating that if there is an effect of industry networks on performance, it relates to specific industries or environments. There are, however, strong industry effects on both ROA lagged and Tobin's q (QLn), in line with previous research. In the maritime, manufacturing and transportation industries there are opposing signs between ROA lagged and QLn, in line with findings in Bøhren and Ødegård (2006). They find a strong negative effect of transport/shipping on Q but a positive effect on ROA. This may be due to variations in balance sheets and industry characteristics, but also due to the problems related to valuation of assets (Randøy and Goel, 2003). My first research question is how family ownership affects performance, and this sample does not provide any significant main effects of family ownership on performance. By running the same regression with the four definitions of family firms shown in section 4.2 (above 20% ownership and/or CEO or chair), I find a significant and positive effect of family influence on ROA lagged.

Himmelberg et al. (1999) argue that fixed effects estimators should be used in analyzing the relationship between managerial ownership and performance. Zhou (2001) on the other hand, argues that managerial ownership is substantially different across firms, but typically changes slowly from year to year in a company. Both family ownership and industry tend to be stable over time, and I find the between-firm effects more interesting than the within-firm effects. I therefore mainly focus on the cross-sectional regression models in my analyses of the relationship between family ownership, industry, networks and performance. (The fixed effect panel data model shows a weak significant positive effect of family ownership on QLn. The random effect model was not rejected by the Hausman test. I do not report these regressions.)

**Table IV: Family Ownership, Networks and Firm Performance
Main Effects -OLS Regression (with robust test clustered by firm)**

This table reports an OLS-regression with firm performance (Tobin's q and ROA lagged) as the dependent variables. *Family, founder and descendant ownership* are continuous variables measured in percent of total shares in all share classes. *Industry* is divided into eight different industry groups, with shipping and offshore being reported as maritime industry. *Networks* are divided into *social networks* (board interlocks) and *commercial networks* (industrial ownership). *Control* variables are *leverage* (the debt to assets ratio), *firm size* (total assets log), *firm age* (log), and *capital intensity* (the sales to assets ratio). *Year dummy* is a binary variable for each sample year from 1996-2005 (not reported). The OLS-regression includes a robust test clustered by firm to control for serial correlation and heteroskedasticity. I report un-standardized coefficients with t-values in parentheses. Asterisks denote significance at 1 %(***), 5% (**) or 10 %(*) level.

	<u>ROA Lagged</u>			<u>Tobin's q (QLn)</u>		
	(1)	(2)	(3)	(1)	(2)	(3)
<i>Independent:</i>						
<i>Family Ownership:</i>						
Family ownership	0.06 (1.64)			0.00 (0.15)		
Founder ownership		0.10* (1.89)			0.00 (0.87)	
Descendant ownership			0.01 (0.17)			-0.00 (-0.63)
<i>Networks:</i>						
Industrial ownership	2.06 (1.10)	1.99 (1.06)	2.04 (1.10)	-0.02 (-0.26)	-0.02 (-0.27)	-0.02 (-0.29)
Board interlocks	1.26 (0.62)	1.58 (0.77)	1.31 (0.64)	-0.06 (-0.77)	-0.05 (-0.74)	-0.05 (-0.72)
<i>Industry:</i>						
Maritime	5.79* (1.68)	6.38* (1.94)	6.95** (2.05)	-0.51*** (-4.77)	-0.52*** (-4.92)	-0.49*** (-4.66)
Property	11.99*** (3.31)	11.43*** (3.19)	13.26*** (3.73)	-0.26** (-2.48)	-0.27*** (-2.68)	-0.25** (-2.45)
Manufacturing	3.30 (1.05)	3.09 (0.97)	3.44 (1.10)	-0.26** (-2.54)	-0.27** (-2.56)	-0.26** (-2.53)
Retail	-2.13 (-0.51)	-2.12 (-0.51)	-2.35 (-0.57)	-0.32** (-2.43)	-0.32** (-2.42)	-0.32** (-2.45)
Media/Publishing	10.01* (1.87)	9.75* (1.78)	9.92* (1.84)	-0.06 (-0.34)	-0.63 (-0.35)	-0.06 (-0.36)
Transportation	10.21*** (2.98)	9.61*** (2.76)	9.94*** (2.93)	-0.58*** (-4.96)	-0.59*** (-5.01)	-0.59*** (-4.94)
<i>Control variables:</i>						
Debt ratio	-0.15*** (-2.69)	-0.15*** (-2.79)	-0.15*** (-2.69)	-0.00*** (-2.73)	-0.00*** (-2.75)	-0.00*** (-2.79)
Total Assets (Ln)	2.17*** (3.56)	2.15*** (3.53)	2.10*** (3.43)	-0.05*** (-3.38)	-0.05*** (-3.33)	-0.06*** (-3.43)
Firm Age Ln	1.28 (1.50)	1.84* (1.96)	1.32 (1.32)	-0.07** (-2.55)	-0.07** (-2.29)	-0.07** (-2.07)
Sales/Assets ratio	0.04** (2.50)	0.04** (2.41)	0.04** (2.36)	-0.00* (-1.86)	-0.00* (-1.87)	-0.00* (-1.94)
Number firm years	997	997	997	1156	1156	1156
R-squared	0.16	0.16	0.15	0.36	0.36	0.36
F-statistics	5.09***	4.99***	4.94***	16.30***	17.11***	15.87***
Number clustered groups	167	167	167	167	167	167

5.3 Effects of Family Ownership in Different Industries

Assuming that the context in which firms operate has an effect on performance, it may be relevant to analyse various contextual factors. My second research question is how family ownership affects performance in different industries and I regard industry as such a contextual factor. I expect to find that various forms of ownership structures enhance or impede performance in various industries at different points of time, depending on maturity both of the industry and the firm. In order to isolate these effects, I compute some interaction variables consisting of various forms of family ownership combined with different industries.

Table V is an OLS-regression with ROA lagged and Tobin's q (QLn) as dependent variables, including the interaction effects. The main effects are similar to Table IV and therefore not reported in this table. Descendant ownership has a significant and positive effect on ROA lagged whereas it has a significant and negative effect on QLn. Founder ownership has a weak significant and positive effect on QLn. The interaction variables consist of industry and different forms of family ownership with the implication that parts of the family ownership effects now are included in the interaction effects. The two network variables, social and commercial networks, do not turn out significant on any of the dependent variables. There are still strong industry effects. Property and transportation show a significant and positive effect on ROA lagged, whereas the maritime, manufacturing and transportation industries have a significant and negative effect on QLn. Also here, the industry effects are partly included in the interaction effects. Most of the controlling variables are significant, as in the main effects. Firm Age is highly correlated with founder and descendant ownership (see Table III), but in this model it does not influence the results and the variable is therefore still included.

Looking at the interaction effects we find a very mixed picture regarding both family ownership and industries, with the strongest effects in the retail and media industry. In retail there is a significantly negative effect of all forms of family ownership on ROA lagged and a significant and positive effect of descendant ownership on QLn. In the media industry there is a significant and positive effect of all forms of family ownership on QLn, a significant and positive effect of founder ownership on ROA lagged, but a significantly negative effect of descendant ownership on QLn. There are no significant interaction effects in the property and transport industry, but some significant effects in the maritime and manufacturing industry. From this, I argue that different forms of family ownership (family, founder or descendant), may enhance or impede firm performance in various industries at different points in time.

Table V: Effect of Family Ownership in Different Industries – OLS Regression

This table reports an OLS-regression with performance (ROA lagged and Tobin's q log) as dependent variables. *Family, founder and descendant ownership* are continuous variables in percent of total shares in all share classes. *Industry* is divided into eight industry groups, with shipping and offshore being reported as maritime industry. *Networks* are divided into *social and commercial networks* (board interlocks/industrial ownership). *Control* variables are *leverage* (debt to assets), *firm size* (total assets log), *firm age* (log), and *capital intensity* (sales to assets). *Year dummy* is a binary variable for each sample year from 1996-2005 (not reported). *Interaction variables* are various forms of family ownership in different industries. The OLS-regression includes a robust test clustered by firm to control for serial correlation and heteroskedasticity. I report un-standardized coefficients with t-values in parentheses. Asterisks denote significance at 1 %(***) , 5% (**) or 10 %(*) level. This table reports results with interactions effects. The main effects are the same as reported in Table IV.

Dependent Variable:	Return on Assets Lagged			Tobin's q (QLn)		
	With interaction effects			With interaction effects		
	(1)	(2)	(3)	(1)	(2)	(3)
<u>Independent:</u>						
<u>Family Ownership:</u>						
Family ownership	0.18 (0.94)			0.01 (1.50)		
Founder ownership		0.22 (1.05)			0.01* (1.86)	
Descendant ownership			0.30*** (2.85)			-0.01*** (-2.98)
<u>Networks:</u>						
Industrial ownership	1.53 (0.80)	1.85 (1.01)	2.16 (1.17)	-0.02 (-0.28)	-0.01 (-0.19)	-0.01 (-0.21)
Board interlocks	1.12 (0.51)	2.21 (1.10)	0.97 (0.47)	-0.04 (-0.59)	-0.02 (-0.22)	-0.08 (-1.09)
<u>Industry:</u>						
Maritime	6.22 (1.63)	5.72* (1.70)	7.13** (2.09)	-0.38*** (-3.34)	-0.47*** (-4.36)	-0.46*** (-4.37)
Property	12.54*** (3.11)	12.88*** (3.42)	13.11*** (3.67)	-0.26** (-2.49)	-0.26** (-2.47)	-0.26** (-2.51)
Manufacturing	4.10 (1.10)	4.07 (1.11)	2.71 (0.86)	-0.23** (-2.06)	-0.19* (-1.73)	-0.30*** (-2.88)
Retail	0.89 (0.22)	-0.25 (-0.06)	-1.45 (-0.35)	-0.27* (-1.95)	-0.27* (-1.93)	-0.32** (-2.39)
Media/Publishing	12.02** (2.34)	6.82* (1.85)	12.34** (2.06)	-0.20 (-1.25)	-0.11 (-0.78)	-0.15 (-0.70)
Transportation	11.87*** (3.38)	10.43*** (2.93)	9.89*** (2.92)	-0.56*** (-4.53)	-0.55*** (-4.53)	-0.60*** (-4.91)
<u>Control variables:</u>						
Debt ratio	-0.15*** (-2.73)	-0.14*** (-2.82)	-0.15*** (-2.72)	-0.00*** (-2.83)	-0.00*** (-2.65)	-0.00*** (-2.85)
Total Assets (Ln)	2.28*** (3.60)	2.15*** (3.50)	2.22*** (3.57)	-0.06*** (-3.49)	-0.05*** (-3.20)	-0.06*** (-3.42)
Firm Age Ln	1.34 (1.52)	2.30** (2.44)	1.32 (1.34)	-0.06** (-2.02)	-0.06** (-2.14)	-0.06** (-2.02)
Sales/Assets ratio	0.04*** (2.61)	0.03** (2.35)	0.04** (2.30)	-0.00** (-2.25)	-0.00** (-2.05)	-0.00** (-2.28)
<u>Interaction variables:</u> (Industry*family, founder or descendant ownership)						
Maritime*Family	-0.09 (-0.46)			-0.01** (-2.18)		
Maritime*Founder		-0.05 (-0.22)			-0.01* (-1.84)	
Maritime*Descendant			-0.30** (-2.52)			0.01* (1.88)
Property* Family	-0.12 (-0.62)			-0.00 (-0.90)		
Property*Founder		-0.16 (-0.77)			-0.01 (-1.16)	
Property*Descendant			Dropped			Dropped

Dependent Variable:	Return on Assets Lagged			Tobin's q (QLn)		
	With interaction effects			With interaction effects		
	(1)	(2)	(3)	(1)	(2)	(3)
Manufacturing*Family	-0.12 (-0.60)			-0.01 (-1.02)		
Manufacturing*Founder		-0.20 (-0.91)			-0.01* (-1.75)	
Manufacturing*Descendant			-0.10 (-0.69)			0.02*** (3.19)
Retail*Family	-0.89*** (-2.69)			-0.00 (-0.55)		
Retail*Founder		-0.86* (-1.89)			-0.00 (-0.64)	
Retail*Descendant			-0.97*** (-7.44)			0.01** (2.34)
Media*Family	-0.27 (-0.83)			0.02** (1.98)		
Media*Founder		2.15*** (6.66)			0.06*** (4.85)	
Media*Descendant			-0.71*** (-2.93)			0.02** (2.42)
Transport*Family	-0.29 (-1.53)			-0.00 (-0.79)		
Transport*Founder		-0.30 (-1.37)			-0.01 (-1.11)	
Transport*Descendant			Dropped			Dropped
Number firm years	997	997	997	1156	1156	1156
Number clustered groups	167	167	167	167	167	167
R-squared	0.17	0.18	0.16	0.46	0.38	0.47
Wald-chi (clustered by firm)	2.47**	12.95***	16.11***	4.13***	7.15***	3.70***

5.4 Effects of Social and Commercial Networks on Performance

Table VI and VII, show how different industries engage in various industry networks, and how these networks affect performance in different industries. I expect to find large industry differences, both in the involvement in these networks and the effects of them. Table VI is a logistic regression with various forms of social and commercial networks (see definitions in section 4.2) as dependent variables, representing variances in the strength of the network. The main independent variable is industry. I control for firm age, firm size, capital intensity, debt and the sample years 1996-2005 (not reported). The maritime industry has a significant and positive effect on all forms of social and commercial networks (except from industrial ownership above 50%). In the transport industry there is a significant and positive effect on some of the dependent variables, but property and retail are not significant. There are industry differences in the involvement in networks and the maritime industry turns out considerably different from other industries. This may be due to the high risk and capital intensity in this specific industry, with the need to create alliances in order to remain competitive. In addition, this industry has traditions for investing in tonnage in partnerships, where firms invest in several partnerships and where the investments are organized as single purpose companies.

Table VII is an OLS-regression with ROA lagged as the dependent variable, including the main effects and the interaction effects. The interaction variables are various industries combined with social or commercial networks (using general industrial ownership or board interlocks). Looking at the columns including the interaction effects, there is a significant and positive effect of founder ownership on ROA lagged. The debt ratio has a significant and negative effect on ROA lagged for all forms of family ownership, whereas size, age and capital intensity have a significant and positive effect on ROA lagged. Interaction effects between industry and networks show that the retail and maritime industry combined with commercial networks have a significant and positive effect on ROA lagged in all forms of family ownership. Social networks do not turn out to be significant in any of the interactions, but by running the regression on ROA and not ROA lagged there is a significantly positive effect of social networks in the property industry. In a 2SLS-regression (not reported) with oil prices as the instrumental variable and only using the interaction variable maritime*networks, I find a significant and positive effect of maritime commercial networks on ROA lagged.

Table VI: Industry and Various Forms of Networks - Logistic Regression

This table shows a logistic regression with various forms of social and commercial networks as binary dependent variables. *Networks* are divided into *social and commercial networks* (board interlocks and industrial ownership). The commercial networks are defined as investments in other firms in the same industry and are divided into four groups of industrial ownership, depending on the percentage ownership in the other firm (in general, above 50%, between 20 and 50% or below 20%). Social networks are defined as board interlocks and are divided into four groups (board interlock in general, by chair, several interlocks or interlock through one person). *Industry* is split into eight industry groups, shipping and offshore being reported as maritime industry. *Control* variables are *debt* (debt to assets), *firm size* (total assets log), *firm age* (log), and *capital intensity* (sales to assets), but not reported. *Year dummy* is a binary variable for each sample year from 1996-2005 (not reported). I report un-standardized coefficients with t-values in parentheses. Asterisks denote significance at 1 %(***), 5% (**) or 10 %(*) level.

Dependent variables: Various forms networks (Binary variables)	Board interlocks in general	Industrial ownership in general	Board interlocks by chair	Industrial ownership above 50%	Several board interlocks	Industrial ownership 20-50%	One board interlock	Industrial ownership less 20%
Independent variables:								
Maritime	2.99*** (4.14)	2.11*** (3.34)	1.91*** (3.34)	0.90 (1.38)	2.54*** (3.63)	2.64*** (3.70)	2.94*** (4.10)	1.80** (2.41)
Property	-0.13 (-0.11)	-0.61 (-0.49)		-0.88 (-0.75)		0.41 (0.32)	-0.16 (-0.14)	0.27 (0.20)
Manufacturing	-0.52 (-0.95)	0.72 (1.16)	-1.54** (-2.33)	-0.04 (-0.06)	-1.06 (-1.50)	0.88 (1.25)	-0.41 (-0.75)	0.67 (0.85)
Retail	0.42 (0.54)	0.92 (1.04)	-0.47 (-0.52)	-0.01 (-0.01)	-0.32 (-0.33)	1.06 (1.14)	0.48 (0.63)	0.37 (0.33)
Media/Publishing	0.30 (0.27)	1.38 (1.41)	-1.10 (-0.98)	-0.54 (-0.49)	1.73* (1.64)	1.40 (1.37)	0.28 (0.25)	1.58 (1.51)
Transportation	-0.16 (-0.12)	2.22* (1.83)		0.75 (0.55)	0.59 (0.42)	3.43*** (2.66)	1.45 (1.35)	2.83*** (2.33)
Number of observations	1157	1156	1086	1157	1114	1157	1157	1157
Wald chi2	75.12***	45.76***	50.00***	42.52***	61.03***	56.84***	74.76***	39.46***
Pseudo R-sq	0.23	0.21	0.28	0.14	0.30	0.25	0.22	0.18

Table VII: Effect of Various Networks in Different Industries – OLS Regression

This table reports an OLS-regression with performance (ROA lagged) as dependent variable. *Family, founder and descendant ownership* are in percent of total shares in all share classes. *Industry* is divided into eight industry groups, shipping and offshore being reported as maritime industry. *Networks* are divided into *social and commercial networks* (board interlocks/industrial ownership). *Control* variables are *leverage* (debt to assets), *firm size* (total assets log), *firm age* (log), and *capital intensity* (sales to assets). *Year dummy* is a binary variable for each sample year from 1996-2005 (not reported). *Interaction variables* are social and commercial networks in different industries. The OLS-regression includes a robust test clustered by firm. I report un-standardized coefficients with t-values in parentheses. Asterisks denote significance at 1 %(***), 5% (**) or 10 %(*) level.

<u>Independent:</u>	Dependent Variable: Return on Assets Lagged					
	<u>Main effects</u>			<u>With interaction effects</u>		
<i>Family Ownership:</i>						
Family ownership	0.06 (1.64)			0.07* (1.75)		
Founder ownership		0.10* (1.89)			0.12** (2.34)	
Descendant ownership			0.01 (0.17)			-0.01 (-0.14)
<i>Networks:</i>						
Industrial ownership	2.06 (1.10)	1.99 (1.06)	2.04 (1.10)	-4.68 (-1.09)	-5.43 (-1.28)	-4.86 (-1.13)
(Commercial networks)						
Board interlocks	1.26 (0.62)	1.58 (0.77)	1.31 (0.64)	1.06 (0.25)	1.19 (0.28)	0.62 (0.15)
(Social networks)						
<i>Industry:</i>	Industry dummies are included in all estimations, but not reported					
<i>Control variables:</i>						
Debt ratio	-0.15*** (-2.69)	-0.15*** (-2.79)	-0.15*** (-2.69)	-0.14*** (-2.69)	-0.14*** (-2.85)	-0.14*** (-2.70)
Total Assets (Ln)	2.17*** (3.56)	2.15*** (3.53)	2.10*** (3.43)	2.04*** (3.27)	2.01*** (3.23)	1.94*** (3.09)
Firm Age Ln	1.28 (2.64)	1.84* (3.14)	1.32 (2.36)	1.88** (2.27)	2.64*** (2.85)	2.03** (2.08)
Sales/Assets ratio	0.04** (2.50)	0.04** (2.41)	0.04** (2.36)	0.04** (2.41)	0.04** (2.36)	0.03** (2.19)
<i>Interaction variables:</i>						
Maritime*Commercial networks				11.48** (2.48)	12.36*** (2.78)	12.05*** (2.60)
Maritime*Socia networks				-4.41 (-0.92)	-3.86 (-0.84)	-2.90 (-0.62)
Property*Commercial networks				5.27 (1.11)	7.04 (1.49)	5.78 (1.18)
Property*Socia networks				4.41 (0.92)	6.07 (1.28)	1.42 (0.29)
Manufacturing*Commercial networks				6.41 (1.21)	7.15 (1.35)	6.30 (1.20)
Manufacturing*Socia networks				-0.34 (-0.06)	-0.17 (-0.03)	0.90 (0.17)
Retail*Commercial networks				17.22*** (2.64)	17.91*** (2.71)	17.17*** (2.61)
Retail*Socia networks				7.17 (0.97)	7.15 (0.98)	7.11 (0.96)
Media*Commercial networks				-4.90 (-0.60)	-4.73 (-0.57)	-4.71 (-0.56)
Media*Socia networks				-9.70 (-1.23)	-9.94 (-1.24)	-8.97 (-0.56)
Transportation*Commercial networks				6.38 (1.09)	6.68 (1.05)	5.01 (0.95)
Transportation*Socia networks				-0.36 (-0.08)	-0.49 (-0.11)	0.22 (0.05)
Number of firm years	997	997	997	997	997	997
R-squared	0.16	0.16	0.15	0.18	0.19	0.18
F-statistics/ Wald-chi	5.09***	4.99***	4.94***	2.54***	2.72***	2.46***
Number clustered groups	167	167	167	167	167	167

5.5 Gain of Family Firms in Various Networks?

In this section, I ask whether family firms gain more from these social and commercial networks than other firms, and in which industries this could be the case. Table VIII includes an OLS,- and a 2SLS-regression, using ROA lagged as the dependent variable and including the same independent variables as in the previous regressions. Firm age is now removed from the controlling variables due to its high correlations with commercial networks and founder and descendant ownership. The interaction variables are computed by combining industry, various networks and forms of family ownership. I run the regressions for all industries, but only report the maritime industry due to the significant effects in this specific industry.

In the OLS-regression, the main effects show a significant and positive effect of descendant ownership on ROA lagged, but no effect of other forms of family ownership and no effect of social and commercial networks on performance. Looking at the interaction effects, there is a significant and positive effect of maritime commercial networks in firms with family and founder ownership (at the 1% significance level), but no effect of networks in descendant family firms. There is no effect of maritime social networks in family firms on performance, in contradiction to the expectations. In general, the maritime industry gains from family ownership and commercial networks, but there are no effects of the social networks. The 2SLS regression show similar effects on performance, with a significant and positive effect of commercial networks in family and founder firms within the maritime industry.

I also run the OLS-regressions with the same dependent variables on other industries. I find that there are industry variations in the effects of commercial and social networks and different forms of family ownership. On ROA lagged, I find a significant and negative effect of social networks, but a significant and positive effect of commercial networks, in firms with founder ownership in the manufacturing industry. The effects on QLn show large variations in results. Some industries show a significant and negative effect of social or commercial networks in some forms of family ownership and a positive effect in other forms of family ownership. I argue that there are positive effects of social and commercial networks and family ownership in some contexts, but that this varies between the different industries and it depends on where the firm is in its life cycle. This shows that it is difficult to establish a common relationship between family ownership and performance and that it is important to disentangle environments in the analysis of this relationship. Industry effects, as well as modes of operation through various networks, are important variables in this relationship.

Table VIII: Effect of Family Ownership and Networks in Different Industries

This table reports an OLS and Two-stage least square regression with performance (ROA lagged) as the dependent variable. *Family, founder and descendant ownership* are binary variables with yes or no to ownership by these groups. *Industry* is divided into eight industry groups, with shipping and offshore being reported as maritime industry. *Networks* are divided into *social and commercial networks* (board interlocks and industrial ownership). *Control* variables are *leverage* (debt to assets), *firm size* (total assets log), and *capital intensity* (sales to assets). *Year dummy* is a binary variable for each sample year from 1996-2005 (not reported). *Interaction variables* are different forms of family ownership combined with social and commercial networks in the different industries. I report un-standardized coefficients with t-values in parentheses. Asterisks denote significance at 1 %(***), 5% (**) or 10 %(*) level.

Dependent Variable: Return on Assets Lagged

	OLS			OLS			2SLS		
	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)
<u>Independent:</u>									
<u>Family Ownership:</u>									
<i>(Binary variable)</i>									
Family ownership	1.31			-1.98			Dropped		
	(0.69)			(-0.59)					
Founder ownership		-0.87			-2.64			-5.72**	
		(-0.47)			(-0.74)			(-2.24)	
Descendant ownership			4.71**			1.84			0.53
			(2.25)			(0.44)			(0.12)
<u>Networks:</u>									
Industrial ownership	2.41	2.35	2.15	-0.23	0.59	2.05	0.82	0.97	1.77
(Commercial networks)	(1.29)	(1.27)	(1.19)	(-0.10)	(0.26)	(1.05)	(0.38)	(0.47)	(0.85)
Board interlocks	1.15	1.22	0.72	-0.57	1.54	-0.20	1.25	0.89	1.14
(Social networks)	(0.57)	(0.61)	(0.37)	(-0.26)	(0.71)	(-0.10)	(0.61)	(0.46)	(0.54)
<u>Industry:</u> Industry dummies are included in all estimations, but not reported									
<u>Control variables:</u>									
Debt ratio	-0.14**	-0.15**	-0.14***	-0.15***	-0.16***	-0.14***	-0.14***	-0.16***	0.14***
	(-2.51)	(-2.62)	(-2.62)	(-2.69)	(-2.80)	(-2.69)	(-2.61)	(-2.95)	(-2.62)
Total Assets (Ln)	2.41***	2.26***	2.34***	2.53***	2.21***	2.49***	2.46***	2.11***	2.35***
	(3.97)	(3.74)	(3.79)	(4.25)	(3.67)	(4.01)	(3.99)	(3.39)	(3.79)
Sales/Assets ratio	0.04**	0.04**	0.04***	0.04**	0.03*	0.04***	0.04***	0.03**	0.04***
	(2.52)	(2.39)	(2.65)	(2.46)	(1.89)	(2.69)	(2.55)	(2.19)	(2.61)
<u>Interaction variables:</u>									
Maritime*Family ownership*				8.15***			7.13**		
Commercial networks				(2.69)			(2.47)		
Maritime*Founder ownership*					10.40***			9.83***	
Commercial networks					(3.36)			(3.20)	
Maritime*Descendant ownership*						3.14			3.41
Commercial networks						(0.72)			(0.77)
Maritime*Family ownership*				-0.37			-1.87		
Social networks				(-0.08)			(-0.54)		
Maritime*Founder ownership*					-3.43			Dropped	
Social networks					(-0.88)				
Maritime*Descendant ownership*						-1.07			Dropped
Social networks						(-0.18)			
Number firm years	998	998	998	998	998	998	998	998	998
Number clustered groups	167	167	167	167	167	167	167	167	167
R-squared	0.15	0.15	0.16	0.16	0.17	0.17	0.16	0.15	0.15
F-statistics	4.80***	4.88***	5.18***				6.01***	8.30***	5.03***
Wald-chi (clustered by firm)				1.80*	3.88***	1.89*			
Wald-chi (not clustered by firm)				2.27**	3.13***	3.11***			

6.0 CONCLUDING REMARKS

Previous studies come to different conclusions regarding family ownership and performance (Amit and Villalonga, 2006; Mishra et al., 2001; Anderson and Reeb, 2003; Claessens et al. 2002; Cronquist and Nilsson, 2003; Sraer and Thesmar, 2004). This study indicates that it is not necessarily the family ownership per se that affects performance, but how this ownership is executed through different means of operations. I argue that various industry networks, social or commercial, can be one way of executing the family firm's strategy with a positive effect in some industries and a negative effect in other industries. This study also states that there are variations in the effects of the various networks depending on where the firm is in its life cycle, as well as the type of family ownership (family, founder or descendant). I argue that it is important to control for industry, but also that the different ways of operating in different industries affect performance, family ownership being a moderating factor.

Reve and Jacobsen (2001) find that the maritime cluster has a higher financial performance than other industries in Norway, and that these firms have higher innovation capacity, rates of commercialization, spin-off activity and dynamism of change. I do not find this on a general basis, but I do find that there is a significant and positive effect of maritime commercial networks on ROA lagged. Family ownership does not turn out to have a significant effect on performance in the maritime industry, but when it is combined with commercial networks this relationship is significant and positive. The social networks do not turn out to have a significantly positive effect, indicating that the commercial factors are stronger than the social factors. It may also be related to the difficulty of separating these two phenomena. Family ownership may be favorable in industries, when there are strong networks, a melting of clusters through interlocking ownership, boards, knowledge transfer and social relations.

In order to get a better picture of operations, one would need to find good proxies for business strategies, management style and ideology, strategies on innovation and R&D and business practices. A weakness with this study is that these elements are not included. Another weakness is the problem of reverse causality, where the question is whether firms engage in networks due to performance or whether these networks enhance financial performance. Further areas of research could be a cross-country study comparing industries, with a high degree of family ownership and strong social and commercial networks. One should also expand proxy variables for different networks in order to get a better picture of the contextual elements that may affect the relationship between family ownership and firm performance.

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Appendix I
Variable definitions

Variable	Description
1. Family ownership	Family ownership in percent of total shares in all share classes
2. Founder ownership	Founder ownership in percent of total shares in all share classes
3. Descendent ownership	Descendent ownership in percent of total shares in all share classes
4. Family firm	Founding family owns more than 20%, a family member is CEO or a family member is Chair of the board. This is the main definition with yes=1 to this definition of family firm and no=0 to this definition
5. Founder Family Firm	Founder owns more than 20%, or a family member is CEO or Chair. Binary yes=1 and no=0 to this definition.
6. Descendent Family firm	Descendent ownership is 20%, or descendent is CEO or Chair Binary yes=1 and no=0 to this definition.
7. Founder	Responsible for start up and development of firm. Sources are annual reports, VISMA Bizweb database and Web searches.
8. Firm age	Number of years since the founding of the oldest firm. If merged, the founding of overtaking firm as founding year, sources as for founder.
9. Multiple-share classes	Multiple-share classes as binary variable with no=0 and yes=1.
10. Industry	Binary dummy variable with eight industry groups, with yes=1 to specific industry and no=0 to this industry.
11. Tobin's q	Market value assets and total debt divided by book value total assets.
12. Return on Assets	Profit before tax as a ratio of total assets in percent.
13. Return on Assets Lagged	Last year's profit before tax divided by average book value total assets
14. Return on Equity	Profit before tax as a ratio of total equity in percent.
15. Market capitalization	Number of shares multiplied with year-end closing rate
16. Total Assets	Book value of total assets in balance sheet
17. Profit before Tax %	Profit before tax as a ratio of total sales
18. Debt-ratio %	Interest bearing debt as a ratio of total assets
19. Equity-ratio %	Equity as a ratio of total assets
20. Debt to Equity ratio	Measure finance structure - relationship between Debt & Equity
21. Sales to Assets %	Measure capital intensity - relationship between Sales & Balance sheet
22. Board Ownership	Number of shares owned by board members (measure of influence)
23. Largest three owners in %	Measure ownership concentration
24. Board Size	Number of board members
25. Industrial Ownership	Shares in other firms in the same industry (commercial networks)
26. Board interlocks	Various levels of board interlock, as one or several board members or same chair in two firms in same industry (proxy for social networks)

Appendix II

Effect of Networks in Different Industries – OLS Regression

This table reports an OLS-regression with performance (ROA lagged) as dependent variable. *Family, founder and descendant ownership* are continuous variables in percent of total shares in all share classes *Industry* is divided into eight industry groups, shipping and offshore being reported as maritime industry. *Networks* are divided into *social and commercial networks* (board interlocks/industrial ownership). *Control* variables are *leverage* (debt to assets), *firm size* (total assets log), *firm age* (log), and *capital intensity* (sales to assets). *Year dummy* is a binary variable for each sample year from 1996-2005 (not reported). *Interaction variables* are computed from various forms of family ownership in different industries. The OLS-regression includes a robust test clustered by firm to control for serial correlation and heteroskedasticity I report un-standardized coefficients with t-values in parentheses. Asterisks denote significance at 1 %(***) , 5% (**) or 10 %(*) level.

Dependent variable: ROA lagged

	<u>Main effects</u>				<u>With interaction effects</u>			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
Family Firm:								
<i>(Binary)</i>								
Family Firm	2.22 (1.26)				3.00 (1.60)			
Family Influence		3.41** (2.17)				3.95** (2.40)		
Founder Family Firm			1.83 (0.82)				3.02 (1.35)	
Descendant Family Firm				1.68 (0.76)				1.61 (0.67)
Networks:								
Industrial ownership	2.11 (1.14)	2.04 (1.09)	1.99 (1.07)	2.00 (1.09)	-4.56 (-1.09)	-5.00 (-1.18)	-5.04 (-1.21)	-4.60 (-1.07)
Board interlocks	1.21 (0.60)	1.27 (0.63)	1.46 (0.71)	1.14 (0.55)	1.00 (0.23)	0.98 (0.23)	1.02 (0.24)	0.64 (0.15)
Industry: Industry dummies are included in all estimations, but not reported								
Control variables:								
Debt ratio	-0.15*** (-2.73)	-0.15*** (-2.84)	-0.15*** (-2.76)	-0.15*** (-2.74)	-0.14*** (-2.72)	-0.15*** (-2.88)	-0.14*** (-2.76)	-0.14*** (-2.73)
Total Assets (Ln)	2.15*** (3.53)	2.11*** (3.51)	2.12*** (3.49)	2.13*** (3.48)	2.01*** (3.25)	1.95*** (3.17)	1.98*** (3.19)	1.99*** (3.17)
Firm Age Ln	1.43* (1.67)	1.33 (1.57)	1.69* (1.66)	1.14 (1.21)	2.10** (2.55)	1.96** (2.37)	2.55*** (2.61)	1.75* (1.92)
Sales/Assets ratio	0.04** (2.41)	0.04** (2.36)	0.04** (2.31)	0.04** (2.40)	0.04** (2.31)	0.04** (2.25)	0.03** (2.18)	0.04** (2.25)
Interaction variables:								
<i>(Only maritime and retail reported)</i>								
Maritime*Commercial networks					11.31** (2.50)	11.97*** (2.63)	11.90*** (2.70)	11.44** (2.43)
Maritime*Social networks					-4.28 (-0.90)	-4.78 (-1.02)	-3.70 (-0.78)	-3.20 (-0.69)
Retail*Commercial networks					17.12*** (2.63)	17.63*** (2.68)	17.05** (2.58)	16.96*** (2.59)
Retail*Social networks					7.49 (1.02)	6.85 (0.93)	8.56 (1.15)	7.07 (0.96)
Number firm years	997	997	997	997	997	997	997	997
Number clustered groups	167	167	167	167	167	167	167	167
R-squared	0.16	0.16	0.16	0.16	0.18	0.19	0.18	0.18
F-statistics	4.93***	5.19***	4.91***	4.93***				
Wald-chi (clustered by firm)					2.50***	2.55***	2.38***	2.44***
Wald-chi (not clustered by firm)					2.64***	2.60***	2.67***	2.45***

Conclusion

Within the framework of the four papers in this thesis, I focus more on *why* family firms differ compared to *how* these family firms differ from non-family firms. One central question is why some family firms are able to reap the benefits of being a family firm, whereas others are not, and I argue that social and commercial networks in an industry are one explanation.

Main findings

Family firms tend to make use of a more relational governance model, with a different relationship between owners, managers and board members compared with non-family firms. In family firms these relations are often characterized by family relations and social networks, which affect the selection of board members, board composition, board roles, board practices as well as board processes. I argue that family ownership may be more than a corporate governance mechanism with the aim of reducing agency costs; it may in some cases be regarded as a “social institution”. Consequently, altruism, loyalty, family ties, trust, shared visions, traditions and strong social and commercial networks are central elements. I argue that family firms, through their governance structure, have greater focus on the social capital embedded in the long-term relations between the different parties, and that this social capital is a result of long-lasting relationships in various social and commercial networks.

I also propose that strong social and commercial industry networks change the ratio of family firms in an industry, because of the social capital embedded in these relations. As a result of relational capital, I argue that it is easier to establish spin-off firms and that it is easier to get access to capital and human resources, which may lead to a higher rate of innovation and performance in some of these firms. In addition, I argue that family firms gain more from being in strong industry networks than non-family firms due to the “thick trust” the family represents in the different relations. These benefits could be a result of the owner-manager relations in addition to the benefits of the relational governance structures in family firms.

Furthermore, I find that there is a considerably higher degree of family firms in the maritime sector, compared to other industries in Norway. These firms are also characterized by stronger industry networks and interlocks. Industry affiliation is commonly used as a control variable in empirical papers on ownership and firm performance. To my knowledge, however, it is not that often used as a determinant of different ownership structures in various industries.

Pedersen and Thomsen (1998) find a stronger industry effect for some ownership categories than others, and Demsetz and Lehn (1985) focus on volatility in an industry as a possible determinant of family ownership. I focus on the industry structure, with the number of firms and the social and commercial interlocks between these firms, as possible determinants of family ownership in some industries. The shipping industry is characterized as being a capital intensive, volatile and high risk industry, in addition to having a high degree of social and commercial networks and interlocks. In my analysis, I find significant and positive effects of industry and various networks on all forms of family ownership in the shipping industry.

Finally, I analyse the relationship between family ownership, industry networks and financial performance, measured by Tobin's q and return on assets lagged (ROA). I do not find a general effect of family ownership on performance in my sample, but by introducing an interaction variable with industry and family ownership, I find a positive effect of family ownership in some industries and a negative effect of this ownership in other industries. I also find that there are differences between industries in the prevalence of social and commercial networks, and that there is significant and positive effect of commercial networks on ROA lagged in the maritime and retail industry. Finally, I find that firms in the maritime industry gain from family and founder ownership when combined with commercial networks. I do not find a significant effect of social networks on performance. From this, I argue that it is difficult to establish a general relationship between family ownership and performance and that it needs to be interpreted in the context the firm operates within.

To sum up, I find that there is a higher degree of family ownership in the shipping and the maritime industry, both in Norway and in other countries with a maritime industry. I argue that this is not a coincidence, and that one explanation is the social capital found in the strong social and commercial networks existing in this industry. I find support for the argument that various forms of industry networks have a positive effect on family ownership, and that these networks are more prevalent in the maritime industry than in other industries. I propose that social and commercial networks are among the underlying reasons for the positive effect on performance, and not the family ownership per se. Through this, I try to disentangle some of the contextual elements in the business environments in which firms operate. The aim is to better understand in which contexts family ownership could represent a better ownership structure than other ownership forms, and why this may be the case.

Theoretical implications

Corporate governance research, with focus on family firms often uses agency theory as the theoretical framework in the analysis. This framework has also been used in most studies of the relationship between family ownership and performance, in addition to studies of possible determinants of family ownership. Family ownership is perceived to solve agency problems by reducing agency costs, due to both efficiencies in the governance structures and reduced incentive problems in these firms. In this perspective, family ownership is often regarded as a corporate governance mechanism. Within the field of family firm research, however, theories from the organizational and management literature have also been applied. In these frameworks the emphasis has often been on how family firms differ from non-family firms due to the “institution” the family firm represents, where trust, shared visions and social relations are central factors. The perception is often that governance of family firms includes governance of both the firm and the family.

Another way to regard family ownership is as a response to the business environment the firm operates within, including firm, industry and nation specific factors. This could include resource dependency and transaction cost theory as theoretical frameworks, in addition to agency theory. Empirical papers in the corporate governance literature normally control for firm and industry specific factors, in addition to dealing with the problem of nation specific factors. One could explain the large variations in family ownership between industries by just looking at the differences in the characteristics of the industry. The shipping industry is capital intensive and has a high degree of risk, which could be in favour of dispersed ownership. On the other hand, the shipping industry is very volatile, fitting into the argument by Demsetz and Lehn (1985), who state that firms should benefit from concentrated ownership in volatile industries, due to the gains of closer monitoring in these environments.

To get a better understanding of why some industries have a higher degree of family ownership than other industries, and the implications of this ownership structure, I argue that there is a need to combine different theoretical frameworks. I state that the complexity of this question requires more than agency theory as a framework, and for this purpose I add network theory, including elements from social capital theory. These theories allow for a consideration of the important elements of network externalities, agglomeration benefits, collaboration and cooperation, human capital, relational governance, mitigation of complex transactions, shared visions, “thick trust”, in addition to the social capital embedded in these relationships.

Many analyses of family ownership and performance find agency theory as the most relevant theory, due to the assumption that profit maximization and reduction of agency costs are the main objectives. In some cases however, family firms may have “making enough profit to remain family owned” as the main goal, implying that other mechanisms and theories are more applicable. From this I raise the following questions: 1) Why family firms are family owned and, 2) why they differ from non-family firms. In order to answer these questions, I combine agency theory with network theory and social capital theory. The argument for using several theories is the large differences in agency contexts and business environments in which family firms operate, and this should be accounted for in the theoretical frameworks used to answer the various research questions.

Practical implications:

There are several issues that complicate family firm research. Firstly, it seems difficult to establish one general definition of the family firm. Different studies use different definitions of the family firm, and thereby come to different conclusions. Secondly, there are large differences in the business environment that these family firms operate within; industry and national context being important elements. Thirdly, there are large differences between family firms regarding incentives, planning horizon, level of conflicts, culture, degree of altruism, level of social responsibility and social relations. This implies that family firm research needs to analyse several aspects of this ownership structure. In some environments it may be relevant to compare family versus non-family firms on a set of variables, but this may not be the best approach in all environments. Also, the comparison between controlling versus non-controlling family ownership, or a comparison between different generations of founding family, may be relevant in some agency contexts and not in others.

In order to better understand the mechanisms in family firms, I argue that it is important to disentangle the various factors that affect family ownership or financial performance. For this reason, I state that the industry related variables are central in these analyses, potentially enabling us to identify how firms can reap the benefits of being a family firm. In this thesis, I argue that the agency context and business environments have a strong effect on how family firms operate and perform, compared to non-family firms, and I propose that the social capital embedded in industry networks is important in the various relationships.

The practical implications for family firms are an increased awareness of how the choice of governance model can enhance or impede the benefits of being a family firm. If used in an optimal manner, the governance model can enhance the benefits of being a family firm through better utilization of the social capital embedded in social and commercial networks. This implies that family firms need to make strategic choices about how the ownership structure can enhance the objectives of the firm, and operate according to this in their specific industry. The relationship between the different governance mechanisms will change according to changes in the business environment the firm operates within, and these changes should therefore be reflected in the governance structure at any given point in time.

In the corporate governance research, industry is often included as a control variable and here the focus is on industry specific elements such as margins, capital intensity, asset specificity, volatility and risk. I argue that we need to add industry structure as an important variable into these analyses: The number of firms is important because it indicates the level of competition in an industry, but it can also indicate the strength of an industrial cluster. Also interlocks between the firms in an industry have an impact on how firms in this industry operate, and should be included when analyzing the industry effect on family firms and performance.

Finally, family ownership may in some cases be a competitive advantage, but only if this ownership is used to make better strategic decision and choices. Utilizing strong industry networks in the operation may be one such strategic choice in some industries, and I propose that this is the case in the maritime industry. Family firms gain from networks in this specific industry because they organize themselves according to these networks, either through board social or commercial networks in the same industry, or through other forms of partnership.

A future area for further research could be a cross-sectional study, with the aim of studying whether the same results apply in another industry with strong industry networks, or another national context. One such agency context could be some of the industrial districts in Italy, often characterized as having strong industry networks. Another area of research could be to further disentangle various structural elements within an industry. This can be done by defining new proxies for different industry variables, with the result that we may get deeper into the real causes of the effect of family ownership in different agency contexts.

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