

The Impact of Ownership Structure
and Executive Team Composition
on Firm Performance

The Resolution of a Leadership Paradox

Eva M. Meyerson



Department of Sociology



The Industrial Institute
for Economic and Social Research



The Industrial Institute for
Economic and Social Research

is an independent non-profit research institution, founded in 1939 by the Swedish Employers' Confederation and the Federation of Swedish Industries.

Objectives

To carry out research into economic and social conditions of importance for industrial development in Sweden.

Activities

The greater part of the Institute's work is devoted to long-term problems, especially to long-term changes in the structure of the Swedish economy particularly within manufacturing industry.

Board

Curt Nicolin, chairman

Rune Andersson

Gösta Bystedt

Torbjörn Ek

Per-Olof Eriksson

Gunnar L. Johansson

Ulf Laurin

Magnus Lemmel

Lars Nabseth

Björn Svedberg

Göran Tunhammar

Sven Wallgren

Gunnar Eliasson, director

Address

Industriens Utredningsinstitut

Box 5501, S-114 85 Stockholm, Sweden

Tel. 08-783 80 00

**THE IMPACT
OF OWNERSHIP STRUCTURE
AND
EXECUTIVE TEAM COMPOSITION
ON FIRM PERFORMANCE**

The resolution of a leadership paradox

Eva M. Meyerson

Distribution: Almqvist & Wiksell International,
Stockholm, Sweden

©1992 The Industrial Institute for Economic and Social Research
Technical production: Industriförbundets Förlag AB
Cover design: Andreas Lindberg
ISBN 91-7204-395-4
ISSN 1102-6057
Printed by AB Grafiska Gruppen
Stockholm 1992

To my son Erik

Foreword

It has been increasingly understood that the knowledge and experience base of a firm constitutes its most valuable asset and determines its competitive performance. Thus, the analysis of knowledge in its various manifestations as the source of economic growth should be a major preoccupation of economists. The management of people with competence then becomes a particularly important executive task. This study by Eva Meyerson focuses on the selection and characteristics of the top competent teams of major Swedish corporations and the ability of those teams to lead their firms out of crises successfully. This book reflects the IUI orientation towards the study of the micro foundations of macro behavior.

IUI would like to thank the members of the 29 executive teams who participated in the interviews.

This book has been submitted as a Ph.D. thesis at the Department of Sociology at the University of Stockholm. Generous financial support from the Browaldh and the Wallander research foundations is acknowledged.

This report is the 41st doctoral or licentiate dissertation completed at the Institute since its foundation in 1939. It is the first to appear in this new dissertation series.

Stockholm in February 1992

Gunnar Eliasson

Doctoral Dissertation
Department of Sociology
Stockholm University

Abstract

The present study attempts to explain variations in firm performance. The main objective is to test the relative significance of an executive team's external social network (social capital) for the firm's performance. It is suggested that the two main factors concerning team efficiency are the team's ability to process novel and relevant information (the information accrual ability) and the team's ability to take decisions (the decision-making ability). However, the incompatibility of these two abilities is a leadership paradox, one that is shown to be rooted in the difference between the structures of the team's social capital. In order to detect the relative significance of the team's social capital, other important characteristics of the firm are controlled for, such as ownership structure, recruitment procedure and team composition. The analysis is based on both economic and sociological variables.

The analysis suggests that the Chief Executive Officer (CEO) and the owner who dominates the ownership in the firm create a partnership, thereby giving the CEO relatively easy access to financial capital. This type of CEO is free to compose an executive team that can help him and the firm in another way: by gathering novel and relevant information, and thus he seeks an information-competent team. It was found that this type of CEO composes a differentiated team with a social capital conducive to information accrual. The social capital of such a team is characterized by weak and nonoverlapping external ties.

The CEO in a firm with a dispersed ownership, on the other hand, has difficulty mobilizing financial capital through the several small shareholders. This type of CEO takes the strategy of composing an executive team with the decision-making ability and with a social capital conducive to mobilizing strategic resources. The social capital of such a team is characterized by strong and overlapping external ties.

The social capital has a significant effect on firm performance. The present study examines how different firms react to an external crisis signal, such as a drop in stock prices. Firms with a decision-competent executive team whose social capital is conducive to mobilizing strategic resources take longer to recover than do firms with an information-competent team whose social capital is conducive to accruing novel information. The data renders support for the suggested relationship.

The statistical analysis is based mainly on the application of LISREL and regression models. Survey data was obtained by collecting information from 29 Swedish public companies in existence during the period between 1980 and 1988 and experiencing a strong drop in stock prices in 1985. Interviews with team members concerning demographic data, professional career, internal relationships and external networks of the executive team members in office were performed.

Contents

✓ Acknowledgements	ix
✓ Introduction	1
✓ Description of the Data	15
Chapter I Ownership Structure and Recruitment Procedures	27
Introduction	27
The problem of control	28
Entrepreneurs and investors	30
Control for hidden action - the establishment of a partnership	33
Control for hidden types - the selection procedure	34
Ownership structure, partnership and recruitment procedures	38
Results from the empirical investigation	43
Conclusions	53
Chapter II Recruitment Procedures and Team Composition	55
Introduction	55
Leadership design and the task of the executive team	56
The leadership paradox	60
Homogeneity and integration	62
CEO preference for integration or differentiation	63
Results from the empirical investigation	65
Conclusions	72

Chapter III Team Composition and Social Capital	74
Introduction	74
The executive team and the structure of its social capital	75
Nonredundant ties are likely to be weak	77
Social capital for mobilizing or for information accrual	79
Size of social capital	81
Results from the empirical investigation	82
Conclusions	88
Chapter IV The Impact of Financial and Social Capital on Firm Performance	91
Introduction	91
The effect of social capital on performance	92
The effect of financial capital on performance	94
Results from the empirical investigation	102
Conclusions	108
√ Summary	111
√ Appendix 1. Definitions of variables, their transformation and the characteristics of the univariates	115
√ Appendix 2. Abnormal return	127
√ Appendix 3. The performance measure	130
Appendix 4. Frequency tables	133
Appendix 5. Two correlation matrices	140
√ Supplement: Questionnaire	155
√ References	157

Acknowledgements

For some, writing a Ph.D. thesis can turn into a long and lonely uphill experience which one is grateful to see come to its conclusion. In my case, the stimulating discussions with those who generously shared their time and knowledge turned this project into an adventure and an exiting way of establishing a social network. I have many people to thank.

If it had not been for a car ride to Uppsala where Professor Gudmund Hernes encouraged me to study in the US, and later wrote a letter of recommendation, I doubt I would ever have embarked on the well-known traumatic experience of writing a Ph.D. thesis. Thanks to Professors Aage B. Sørensen and Michael Spence, I was provided with a visiting scholar status at Harvard University. Financial support was provided by the Fulbright Commission, the Swedish Institute and the Personnel Administrative Association.

Valuable comments from Marc S. Granovetter, Peter V. Marsden and Trond Petersen set me on a feasible course. Before I left Harvard in 1987 to return to Sweden, my thesis project had begun to take shape. Back in Sweden Professor Gunnar Eliasson kindly provided me with a positive milieu for scholarly work at the Industrial Institute for Economic and Social Research.

I have Pavel Pelikan to thank for teaching me the difference between structure and structure. Harald Lang formalized my thoughts into mathematical language and Kenneth Burdett, through countless discussions, gave me basic economic understanding. Nils Henrik Schager was a master in neatness and consistency. My future applications for financial support will surely never be so well-written as those he reviewed and corrected. Ernst R. Berndt read the whole thesis without mercy.

Some of the most valuable assistance a student can get is when his fellow colleagues read the almost unreadable product at an early stage. The existence of such a group is in fact what makes the thesis-writing endeavor possible. Hence, colleagues at the Industrial Institute for Economic and Social Research, Sten Nyberg, Christina Hartler, Stefan Fölster and Jonas Häckner, my father Per-Martin Meyerson, and Steve Turner and Michael Tåhlin at the University of Stockholm, have been of invaluable help by not only reading and giving suggestions for improvement of the text, but also for

generally showing their support and belief in me in a thoughtful and considerate way.

A group of people with expert competence were always there when I was stuck, for instance Adri DeRidder in the field of financial theory and Erik Mellander who knows all there is to know about confidence intervals and significance tests. Erik Berglöf gave me some very important insight on the property rights literature. Others were experts in always finding a creative way out of seemingly unsolvable situations – Lars Oxelheim and Karl-Markus Modén, in particular.

I am grateful to Tom Colbjørnsen at The School of Economics in Bergen, Norway, Erik Berglöf and the people at the Institute of International Business (IIB) and Lars-Gunnar Mattsson and his group at the Department for Distribution, Marketing Distribution and Industry Dynamics at the Stockholm School of Economics for giving me the opportunity to present my ideas at seminars. Professor Peter Hedström sharpened my arguments with his thorough readings and bright comments. His sense of logic and his skill in asking the questions that reveal the weak points were invaluable. Professor Ingrid Munck's calm and expert advice in LISREL made the unimaginable reality: that I would do statistics. Professor Göran Ahme, the one responsible for advising this project, is a very patient man. He often showed an encouraging belief that something good eventually would come out of the project, although I cannot blame him for having had his doubts at other times.

Since you cannot ask a computer to explain itself when it behaves in a way you did not expect it to, you need a computer man. My computer man, Jörgen Nilson, is thanked for the courteous and friendly way he made himself and his expertise available to me. He always had the time to lend his eyes, his ears, and his common sense. Olle Josephson kept up with my writing, while Cynthia Miller gave me important advice in the written English language. Erol Taymaz guided me in the world of Word Perfect and Birgitta Burman, Jeannette Åkerman and Maria Hedström finally organized the text into a printable manuscript.

Finally the board of the Industrial Institute for Economic and Social Research and, in particular, their chairman, Dr. Curt Nicolin, are thanked for their interest and support. At home my son, Erik, took the main responsibility. Erik revealed his doubts when he asked if I would ever finish my "life thesis". Nevertheless, it is finished, and it is my responsibility. I coordinated it all.

Saltsjöbaden 13 January 1992

Eva Meyerson

Introduction

The aim of this study is to show that economic and sociological variables interact in shaping firm performance. When they are investigated jointly, ownership structure and executive team composition can be shown to affect a firm's performance in ways not captured by previous studies. Using a model built on typical economic and sociological variables, this approach can duplicate important restrictions and opportunities faced by the leadership of a firm, which in turn can explain the choices made, and actions taken by them, as well as provide an explanation for the consequent effects on performance.

A second related objective is to demonstrate the variable linkage between types of leadership competence and firm performance. One would imagine that different competence of leadership is efficient in different circumstances. For instance, the competence demanded in periods of rapid growth or threatening competition may differ from that demanded in periods of stability. Hence, performance needs to be more specifically defined. The major theme for the present thesis is that variations in firm performance can be better understood by relating factors drawn from different disciplines and by narrowing the focus of the investigation through observing performance in specified situations.

Empirical results from a complex phenomenon

The role of the executive team in explaining the variation in firm performance has normally been treated as a "black box" by economists. One example is The Swedish Power Investigation (SOU 1988:38) that ambitiously tried, but failed, to relate ownership structure to firm performance. Other attempts to establish a straightforward relationship between ownership structure and firm performance have also failed (Sorensen 1974). Although Weston, Chung and Hoag (1990) refer to empirical results indicating that individual majority-owned firms underperform corporate majority-owned firms, the property rights literature proposes the contrary. Individual majority owners, due to their incentive to monitor, do better than other types of ownership (Hedlund et al. 1985). According to Jarymiszyn, Clark, and Summers (1985,

117) the reason for the difficulty in yielding any results is due to the fact that " ... economists have modeled productivity as a function of the factor inputs chosen by firms." and that "Neoclassical economic theory provides a clear justification for this approach since managerial compensation represents a trivial fraction of firms's cost."

Other economists, such as Simon (1976), have tried to open the black box to understand the management process of a firm and have suggested that administrative competence creates variation in performance. Pelikan (1988) expresses the view that variation in firm performance is related to the economic competence of the leadership. Pelikan claims that economic competence of a leadership is tied to the individual agent's talent and to his ability to learn. Each agent is originally endowed with potential economic competence, and may acquire more competence through learning, subject to the constraint of the initial endowment (Pelikan 1988, 35). Economic competence is defined as the ability of an individual to handle economic information. Additionally, Pelikan regards economic competence as the ability to communicate and use economic information, solve economic problems and take economic decisions. A firm's competence is made up of the social arrangement of its competent members. "Any failure to select the most suitable employees and to motivate them by the most suitable incentives is fully ascribed to the firm's inadequate economic competence" (Pelikan 1988, 38).

In contrast to the economic approach, social scientists from the fields of psychology, sociology and business administration have focused their attention on the characteristics, personality traits and behavior of the leader, i.e., the chief executive officer (CEO) (Calder 1977). Nevertheless, attempts to relate leadership traits to performance have been disappointing.

Lieberson and O'Connor (1972) found that leadership, measured as the actual reported changes of top officers in the firm, influenced performance to a lesser extent than did organizational and environmental factors. Salancik and Pfeffer (1977) investigated the background and experience of mayors and related this information to performance, measured as the variation in budget expenditures and incomes. The lack of evidence for a clear and straightforward relationship between leadership and performance lead Pfeffer to write an article entitled "The Ambiguity of Leadership". Leadership was important, Pfeffer argued, but it was not directly related to performance. Instead, leadership played an important role in the perception of individuals' minds as a symbol, and served as a phenomenological construct (Pfeffer 1977, 104). Pfeffer concluded that "Leadership is associated with a set of myths reinforcing a social construction of meaning which legitimate leadership role occupants, provides belief in potential mobility

for those not in leadership roles, and attributes social causality to leadership roles, thereby providing a belief in the effectiveness of individual control.” (Pfeffer 1977, 111).

Weiner and Mahoney (1981) duplicated Lieberman and O’Conner’s study of the impact of leadership on performance. They concluded that the leadership measure used to explain performance did not explain very much of the variance in performance. Therefore they suggested means to identify causal variables of leadership at the corporate level (Weiner and Mahoney 1981, 469).

Jarymiszyn, Clark and Summers (1985) studied the background and experience of the CEO, and attempted to relate this data to firm performance. Three types of CEO attributes: age, experience and functional background, were related to firm performance controlling for industry, time and size of firm. Although the three attributes were found to have an impact on firm performance, they each told a different story. Managerial experience had an impact, but this impact varied depending on the size of the firm. The same pattern characterized functional background. Even education gave equivocal results, depending on performance measure. For instance, managers with undergraduate business degrees raised profits and reduced productivity compared with managers not holding a specialized bachelor’s degree (Jarymiszyn, Clark and Summers 1985, 132). Hence, no clear relationship between CEO background and experience and performance was found. Instead, Jarymiszyn, Clark and Summers suggested that the significant relationship was to be found between the background of the executive suite (team) as a whole and the firm’s performance.

One reason why traditional leadership research has been insufficient is that leadership is increasingly carried out by a group of leaders, rather than by one leader alone. Recognizing this development opens the way to new investigation, one that may reveal a relationship between the leadership team and firm performance.

Pelikan (1988) suggests that the actual social arrangement of talent as one important factor affecting variation in performance has been investigated. Other scholars have argued that leadership is a social influence process, rather than strictly one man’s work. Wagner, Pfeffer and O’Reilly (1984, 75) for instance, suggest a more relational approach to understanding the impact of leadership. They argue that the distribution properties of the demography of an organization are most critical, and not the simple descriptive statistics, such as the proportion of the membership with a given attribute. Thus, in organizations it is not only the simple demographic characteristics such as age, tenure, race or education that are important to understand, but also the potential compositional effects of these variables.

O'Reilly, Caldwell and Barnett (1989) report the findings that the degree of heterogeneity in the group demography is negatively associated with group integration, which in turn decreases turnover. Although, individual-level and group-level demography of age directly affect turnover and are not moderated by social integration. Tsui and O'Reilly (1989) related degree of similarity of attitudes to performance and found that increased dissimilarity between superiors and subordinates in demographic aspects is directly related to performance. The findings imply that group or organizational demography is an important aspect to understanding organizational and individual behavior.

Terborg, Castore and DeNinno (1976) found that the relationship between the degree of group cohesion, measured as attitude similarity, had an equivocal effect on performance. Performance could be both negatively and positively related to cohesion depending on the growth of the firm (Terborg, Castore and DeNinno 1976, 787). However, the results of the Terborg, Castore and DeNinno investigation (in a social experiment setting) support the hypothesis that group performance is dependent on the skills and abilities of the individual group members.¹

I suggest that the central factor concerning group effectiveness in the firm is the composition of the executive team.² The skills and resources of

¹ The research on the impact of leadership on performance is ambiguous, despite the fact that scholars apply different research designs -- such as differences in methods from social experiment to natural experiments -- and different operationalization of variables such as performance. Typically, performance measures applied are sales, earnings, profit margins, profitability, stock prices and Tobins q (see Brealey and Myers (1984) for a discussion of performance measures).

² Simon (1976) defines team work as "... where two or more participants share a common goal, and where each has sufficient information as to what the others are going to do to enable him to make correct decisions. When more than one individual is involved in decision-making the decision of the other individuals has to be considered in the decision-making." Simon further expresses that "... each individual, in order to determine uniquely the consequences of his actions, must know what will be the actions of the others. This is a factor of fundamental importance for the whole process of administrative decision-making. This situation is a model for any purely competitive activity involving two participants" (Simon 1976, 71.) Marschak and Radner (1972) define a team as an organization of members who have a common interest (goal) but with imperfect information of each others action (Marschak and Radner, 1972, 9). Holmstrom (1982) gives a more general definition of a team as "... loosely a group of individuals who are organized so that their productive inputs are related". Where both goals may differ and where imperfect information exists. For our purposes the Holmstrom definition of teams is more appropriate to the present study compared with the other definitions. In our study the ambition is to compare teams with different goals and with imperfect information about each other (a differentiated team) with the group with a common goal and perfect information about each other (integrated team).

the executive team are suggested to be a function of the social arrangement of all its members together, which implies effects over and above the sum of the group members' attributes. How do the skills, personality characteristics, the likes and dislikes of group members affect the competence and output of the group as a whole?

The relationship between the resources an individual has to draw on – acquired abilities, such as education (human capital) and social contacts (social capital) – and the relative success of the individual has been discussed (Coleman 1988; Flap 1988; Lin 1982). The joint access to social capital on the part of the executive team has been less investigated.

Yet, a team's access to one type of resource is not always compatible with its access to another. I argue that the talents of a leadership team, such as an executive team in a public firm, can be divided into two main ingredients: 1. the talent to make decisions and 2. the talent to accrue relevant information for the making of decisions. I also conjecture that the mechanism conducive to the first type of talent is not consistent with the mechanism producing the latter type of talent. The line of reasoning explaining the inconsistency of the two talents of leadership is as follows: Group members who are similar in significant aspects create a group consensus (an integrated group) that facilitates decision-making, yet the same factors that produce consensus act as obstacles to efficient accrual of information. Members of a group that has a strong group consensus tend to resist any information that threatens this consensus. On the other hand, a group whose members are not similar in significant aspects (a differentiated group) do not create a strong group consensus. The members of this kind of group have difficulty reaching consensus – a decision – yet the differences in their education, opinions and social circles make them more susceptible to novel information.

In sum, the leadership paradox is rooted in the inconsistency between the ability to acquire and apply novel information and the ability to make decisions. In order to investigate the problem of the leadership paradox I will try to combine ideas and insights from the research done in both economics and sociology on outcomes of social action, such as firm performance.

In applying economic and sociological variables two different research approaches are confronted: the approach based on the assumption that individuals are guided by norms (the sociological tradition) and the approach based on the assumption that individuals are guided by utility maximizing (the economic tradition). For instance, sociologists explain variation in performance by referring to the oversocialized individual. According to Coleman (1988) the oversocialized view assumes that individuals are socialized into certain types of behaviors; their actions are

directed by social norms, rules and obligations. Hence, individuals will perform differently, depending on the social context. Economists, on the other hand, have been accused of the opposite view, that of the undersocialized man. Individuals act intentionally with a specific purpose and according to the principle that they maximize their utility. Hence, differences in the performance of an individual are explained by his difference in preferences when maximizing utility. By combining the two approaches I try to explain variations in performance by investigating the interaction between assumed intentionally acting individuals with a social context that at the same time both restricts and offers opportunities to act.

I assume CEOs to be intentionally acting individuals confronted both with restrictions and with opportunities. When CEOs compose their executive team, they actively choose to resolve the leadership paradox in an instrumental way. In the present analysis I suggest the ownership structure to be one of the main factors setting the restrictions and opportunities on the CEO's choices and actions, for the most important function of the owner is to appoint and dismiss the CEO. The owner also provides the CEO with financial capital and hence discretion to take action concerning larger investment plans. Contrary to the CEO's wishes the owner(s) may sell the firm. The control the owners have over the CEO's discretion makes it reasonable to capture the relationship among the ownership structure, the typical control behavior of the owners, and the CEO's relative discretion in order to gain an understanding of the CEO's opportunities and restrictions.

To limit the scope of the analysis, I use what Mizuchi (1983) refers to as the "bottom line control argument". The ones in control are the ones who can shape and set the premises for others. Consequently, although the board of directors may have an effect on recruitment and on corporate performance, the bottom line control is exercised by the owners of the firms, since they are the ones appointing the board of directors. Consequently, our investigation is simplified in the analysis below by the fact that the board of directors are not taken into consideration.³ Rather than looking at the board of directors, I suggest that the ownership structure is of main interest in determining recruitment procedures. The board of directors represents the owners, i.e., they are the owners' tools in managing the firm. Going one step further, I assume the simplification that the board of directors is a direct

³ Others have analyzed the role of the board of directors, their actions, and the effects of their composition on performance (Pfeffer 1972, 1973; Weston, Chung and Hoag 1990). Molz (1988) claimed that there is a lack of empirical evidence for the effect of the board of directors on corporate performance. This is partly due to shortcomings in measurement (see Molz 1988), but also due to problems with defining variables, such as control (Mizuchi 1983).

reflection of the owners' interest, since the owners have the power to appoint and dismiss them.⁴

A second important factor left out of the present investigation is the role played by banks. Although banks in Sweden are an important control device for corporate control, this factor lies far outside the scope of this investigation.⁵

The reward for managers, as well as the board of directors' stockholding in the firm, could be important factors affecting the performance of the firm. Nevertheless, we do not investigate this aspect. Others have related performance to reward or compensation. Kerr and Bettis (1987) did research in this area and found no such relationship between compensation and performance. (See also Jensen and Murphy 1990.)

Performance in a crisis situation

The concept of performance is very little discussed and hence, not very well defined. What do we mean by performance? A certain type of action or behavior can have a positive effect in one situation, and a negative effect in another. In crisis situations both the talent to make decisions, and the ability to accrue information ought to be of importance. (In times of stability one or the other may have a greater impact on stockholders' evaluation.) I therefore narrow the scope of the study by focusing on performance in a specific situation: when firms are confronted with a crisis signal. The main concern is the capacity of the firm to recover effectively from a crisis

⁴ It has been assumed that the board of directors at best legalize the firm's activities, and at worst are tools of the officers. The latter circumstance enables managers to act opportunistically to benefit themselves rather than their principals, the shareholders. Hence, poor performance from the stockholders' point of view is the result. There has been research done to investigate the validity of this belief, i.e., whether the board is an active governance body or a passive one. Pearce and Zahra (1991) in the article "The Relative Power of CEOs and Board of Directors", showed a difference between the types of relative power expressed by the organization of managers and the board of directors. A powerful board exhibits vis-à-vis management a superior corporate financial performance than other types of relationships between managers and board of directors. The composition of the board is of importance for the relative power of the board. Internal board members - officers in the firm - do not promote the stockholder's wealth as much as outsiders (Molz 1988). Kesner (1987) found that when board members are financially dependent on firm performance, they monitor more actively. However, the relationship was only partially supported, as the positive relationship existed only when the firm experienced strong growth and not in periods of low growth.

⁵ See for instance a discussion of the financial system's effects on types of ownership structures in Berglöf (1990).

situation. The definition I use for a crisis signal and for the evaluation of the recovery is taken from the shareholder's point of view, and this will be shown to affect the choice of measures and approaches.

Two factors were taken into account when selecting a crisis criterion. First, the management should be unable to manipulate directly the measures applied as a selection criterion. Second, the crisis signal should be relevant to the managers concerned in that it restricts their discretion, e.g., their access to financial capital. The stock market is therefore chosen as the agent defining a crisis situation for a firm.

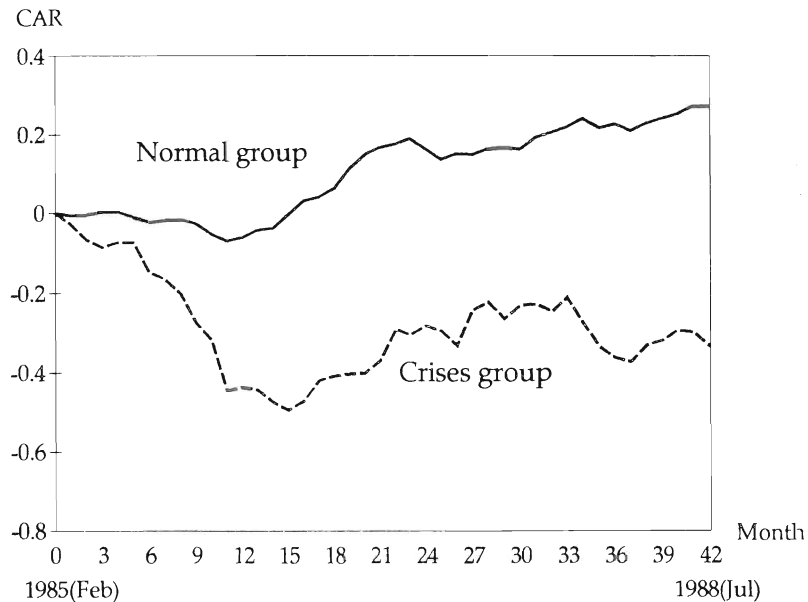
The stock market was chosen to be the external agent defining a crisis situation for a specific firm and signalling a crisis signal, because the actors on the stock market evaluate the firms daily, and new information about a firm is immediately reflected in the stock price. One stock market measure of the performance of a firm is the "abnormal return" (AR). The abnormal return is the difference between the investors' expectation of a firm's return on their stock holdings and the actual return. A negative abnormal return means that the firm has failed to live up to the investors' expectations: the return on investment is not as high as expected. The expectation of the return on the share is a function of previous performance. Hence, in comparison to other investment alternatives the firm's shares are less attractive than other investment objects. Any firm, well or poorly managed, may experience a crisis signal due to causes outside the managers control such as an ownership struggle, a takeover event, a financial crisis or an external shock, for example, when the prices on the international market dive.

The criterion for selecting firms for the sample of firms confronting a crisis signal was expressed by the strength of the signal. A strong signal means that the stock market actors have gained new information and have reacted to this new information. (For the assumption of the efficient market where the market prices reflect all relevant information see Appendix 2. Abnormal return.) The firm may have many crisis signals due to one major cause; however, we assume here that a strong abnormal return in any direction means that new information has come. If the abnormal return is negative a new crisis has arisen.

To secure that the sample selected represented a group of firms in a crisis situation, the accumulated monthly AR for the sample from the first of February 1985 to the first of July 1988 was compared to the population of firms from which the sample was drawn. The result, depicted in Figure 1, shows that the sample was more of a crisis group than the "normal" group.

The choice of a performance measure for firms confronted with a crisis signal is guided by the decision to value firm performance from the shareholders' perspective. Others may look at growth or profit and other

Figure 1 Comparing CAR for the crisis group with the normal group



perfectly valid measures, however with no indication of the shareholders' appreciation of them. Profit may be low due to heavy investment. While this strategy can benefit the managers' ambition to expand, it may not benefit the shareholders' interest. The measure of performance, given that a firm has confronted a crisis signal at the stock market, is defined as the stock market agents' definition of recovery from a crisis situation. (For a discussion of the performance measure see Appendix 3.) A stock market evaluation of the firm's performance avoids the problem of cause and effect. Lieberson and O'Conner (1972) address the problem of relating performance in a specific period to the incumbent CEO, that the performance may be a function of an earlier CEO's actions. The stock market evaluates, in every instance, information about the firm, including what is known about the potential of a firm's leadership, and materializes this information in the stock price system.

The criterion chosen to measure performance is the time taken for the abnormal return to recover from a negative value to a zero or positive value. The justification for choosing this measure of performance is as follows: The

definition of a crisis signal as a strong and therefore well-defined signal over time, is measured as a negative abnormal return. In this situation the market expectation of the firm's speed of recovery is assumed to be based on the average recovery speed for a typical firm, given that the efficient market assumption is valid. However, my point to be highlighted here is that there are factors not revealed on the market that can affect the recovery speed. The composition of the team, and its talent to deal with a crisis could be a valuable type of information, but since it is invisible, it is not taken into consideration when the market actors form their expectations about firm performance. The firm can surprise the market by recovering more rapidly than expected. Alternatively, the opposite may happen: the firm may disappoint the market. My point is that the team composition has a potential to explain the two possible paths, the positive and the negative firm behavior. Consequently, the performance measure is computed as the time it takes for a firm's abnormal return to return to zero. The variation of speed in recovery is then explained by the effect of the social arrangement of the team, its access to owners (financial capital) and its access to social capital (see Appendix 3.)

The selected sample

A population of public firms in existence both in 1980 and in 1985 were ranked by their most negative abnormal return for any month during 1985. The list with the ranked firms contains only those firms with a negative abnormal return greater than one standard deviation from the mean (0) of the sample (see the characteristics of the univariate distribution in Appendix 1). From the ranking list the 32 firms with the lowest abnormal return were selected. Three of the 32 teams refrained from participation; hence, only 29 firms are analyzed. For reasons of confidentiality the names of the firms cannot be published. I do provide information about size, market value and employment, industry and events during the measurement period to the extent it does not reveal the identity of the firm.

To give a more detailed picture of a typical firm in each of the three ownership categories: 1. the individual owner with a majority shareholding, 2. the individual minority shareholder, and 3. the institutional-minority owner, I single out three firms from the sample. (The institutional majority owner was not represented in the sample.) In addition to the information about the size of the firm and team size, I also present the explanation given by the team members for why the firms were confronted with a crisis signal. Noteworthy is that members of the same team gave different explanations to the stock market reaction to the firm. All reasons mentioned are reported.

Table 1. A description of the firms and events during the measurement period

Ownership structure	Industry	Employment	Market	Events during the measurement period
Individual majority owned firms				
1	mixed	100	550.00	exit stock market, control shift
2	mixed	639	198.72	control shift, merger
3	mixed	4418	124.69	no major change
4	indust	146	40.50	exit st. market, control shift
5	indust	1037	43.75	control shift
6	indust	2157	876.00	exit st. market, control shift
7	indust	3927	1176.49	control shift, acquired
8	other	1004	132.00	no major change
9	indust	2776	504.00	no major change
10	indust	6871	1306.01	no major change
11	propert	988	225.12	no major change
12	finance	5461	340.07	no major change
13	trade	18045	729.14	exit st. market, control shift, acquired
14	bank	638	391.74	control shift, acquired
15	bank	416	270.37	control shift
Individual minority owned firms				
1	indust	8814	1543.54	hostile takeover
2	indust	2355	15.01	control shift
3	financ	4	153.92	exit st. market
4	indust	10900	1110.37	control shift
5	other	6065	3554.21	control shift
6	other	3	810.75	no major change
7	other	1407	297.50	control shift, acquired
Institutional minority owned firms				
1	mixed	1980	1324.80	exit st. market, control shift
2	indust	6813	472.32	exit st. market, control shift, acquired
3	fin/prop	115	3658.34	no major change
4	indust	74320	7052.98	no major change
5	other	431	198.45	no major change
6	mixed	6401	904.12	control shift
7	indust	8356	713.53	exit st. market

An example of the first ownership type is a typical family-owned firm that recently went public. At the time of the investigation the market situation was positive and there was an increase in demand. However, members of the executive team reported tensions between board members and family representatives on the board. Unrest in the factories combined with an introduction of new technology were other factors cited by the team members to be part of the problem around 1985. Depending on the measure used, the size of the firm is both larger and smaller than the average sample firm. In 1985 the market value of the firm at the time was 1.24 billion SEK, which is above the sample mean of 990 million SEK. At the same time, the firm employed around 5 000 individuals, which is below the sample mean of 6 090 (see Appendix 1 for the univariate description). The executive team was large with nine members, compared to the sample mean of five. All team members were still with the firm in 1988 and there had been no control shift of owner. The recovery from the crisis signal took 14 months, which is below the mean for the sample.

The second ownership type to be illustrated is an institutional-minority-owned firm. The example firm has the following attributes: The firm's main activity is industrial production. The firm has been managed by family members even though it has been a public company for 20 years. The institutional minority owner is one of the main banks in Sweden (35.8 %). Members of the executive team pointed to three main factors to explain the crisis signal: 1. the team had gone wrong in investments, 2. there were some production problems at a foreign plant and 3. there had been a failed takeover attempt. The market value is 904 million SEK. The firm employs 6 000 persons. The team consisted of four members in 1985. There has been a shift in control ownership over the period. It took 36 months for this firm to recover. Three out of four team members were still in the firm in 1988.

The third example to be illustrated is an individual-minority-owned firm that during the first years of the 1980s grew into a conglomerate of many different types of firms by selling instruments to high-tech companies. The market value of the firm is 1 billion SEK and there are 1 329 employed. The team consisted of four members in 1985. All members were still on the team in 1988. The time for recovery was 41 months. There was a control shift during the investigated period. The team members' listed reasons for a crisis signal at the stock market were: 1. a hostile takeover attempt, 2. the firm had acquired too many new companies and 3. expansion had occurred too fast.

The organization of the thesis – the model

I argue in Chapter I, that ownership structure has an effect on the composition of the executive team primarily through the possible establishment of a partnership between the owner and the CEO. A firm owned by an individual majority owner, an entrepreneur, is likely to have an established partnership between the owner and the CEO. On the other hand, firms owned by many individual or institutional investors who have small shareholdings are not likely to have an established partnership between the CEO and the owners. It is argued that an established partnership between the CEO and the owner is in place when the most important owner control functions – that of the selection and dismissal of managers – are delegated to the incumbent CEO.

Chapter II explores the effect of a partnership between the owner(s) and the CEO on the CEO's preference for team composition. Given the ownership structure, restrictions are set on the CEO's discretion. How does the CEO choose between an information-accrual-talented team and a decision-talented team? It is conjectured that a CEO who has established a partnership with the owner has access to a decision-making team, "supra team", where strategic decisions are made. The supra team gives the CEO access to financial capital through the partner: the entrepreneur. This CEO will complement the decision-making supra team with an executive team that has the talent for information accrual. The information-accrual team exhibits a relational structure that is conducive to the acquisition of novel and relevant information. The CEO with no immediate access to a supra team is conjectured to be left to choose another strategy. Given the choice between information-accrual talented team and the decision-making talented team, the CEO chooses the team with a relational structure efficient in decision-making.

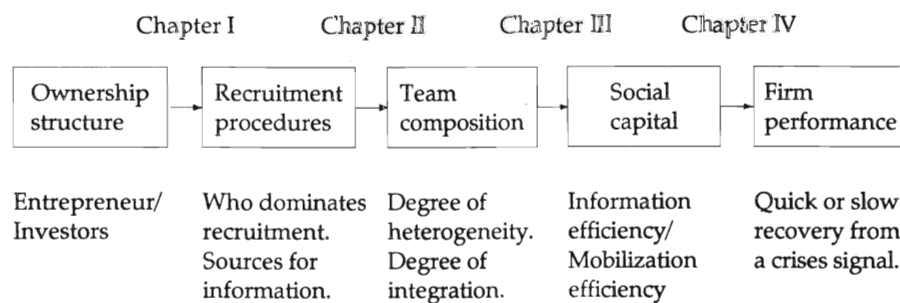
Chapter III examines the effects of the composition of the executive team, specifically the relationship between its internal relational structure and its external network. It is argued that the firm with a supra team as its main decision-making unit has an executive team with an internal relational structure that increases the information accrual efficiency via its external relational structure. This type of executive team has access to a social capital conducive to acquiring information. The executive team with no access to a supra team exhibits an internal relational structure conducive to decision-making, and this is reflected in its external relational structure. Its social capital is a mobilization-oriented network, and this type of social capital is developed in order to be able to influence the strategic environment. Instead of trying to mobilize financial capital through the several investors, the team

mobilizes other strategic actors for access to the important resources that increase managers' discretion, like financial capital.

Chapter IV examines the impact of the ownership structure (the access to financial capital) and the executive team's access to social capital on the capacity of the firm to recover from a crisis situation. The firm that has the external network conducive to acquiring novel information and that has access to the supra team is suggested to recover quicker from a crisis signal on the stock market than does the other type of executive team. The first type of executive team's access to financial capital through the entrepreneur and the decision-making mechanism in combination with its own access to novel information speeds up the response to and the recovery from a crisis signal. The integrated team with decision-making talent and with a mobilization-oriented network not only restricts the accrual of necessary information, but the external network prevents the corporate market from working, i.e., their social capital prevents or delays management shake ups and takeovers.

The investigation of the effect on performance of the interplay between the ownership structure and the social capital is exploratory. The four chapters are structured by the hypotheses generated from the theoretical discussion (see Figure 2).

Figure 2. A model of the research design



Description of the Data

The statistical analysis is based on firm data and aggregated team member data. The data collected is rather unique. Seldom is one allowed to investigate manager respondents about their relationships with their colleagues and about their social network. Furthermore, a description of the whole executive suite is seldom captured in a systematic way. In light of this, I will describe in more detail the collected data below. Definitions of variables, their transformation and the characteristics of their univariate distribution are shown in Appendix 1.

Firm data

The data base contains information such as the firm's market value, the number of employees and its ownership structure for the period 1980 to 1988. The information about ownership structure can be captured both by categories of owners, investors and private owners, and by the degree of ownership concentration. From Sundqvist's 1985 annual report on ownership for public companies listed on the Swedish Stock Market, the concentration ratio (CR) is computed. The CR measure is computed to show the largest shareholder's percentage of votes. In Figure 1a-b the sample distribution of ownership concentration is depicted.

Figure 1a Sample distribution of ownership concentration

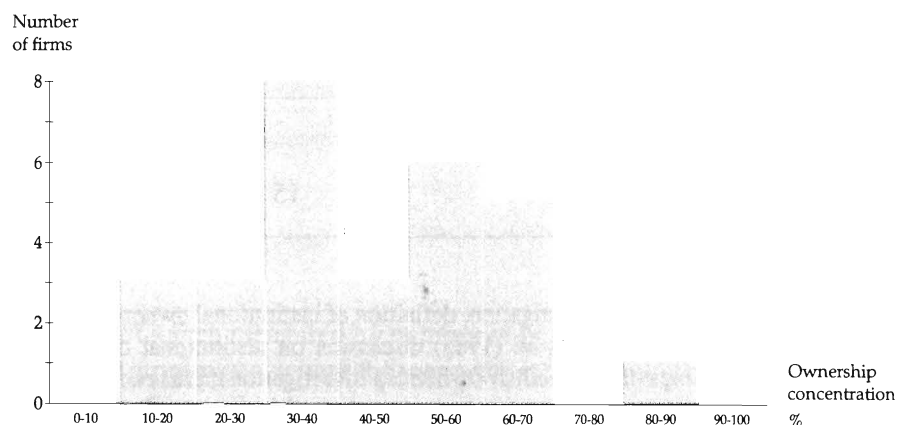


Figure 1b Sample distribution of ownership concentration



The classification of ownership categories is normally done by differentiating between physical owners and legal owners. The final controlling owner is located through Sundqvist's annual descriptions of ownership structures (Sundqvist 1984 - 1988). Institutional owners may be private, cooperative, state or municipal. Institutional owners in this context are defined as those firms with no clear final physical owner.¹

Firms with an ownership concentration (CR) larger than the mean value of the ownership concentration for the sample (CR = 44.25%) are separated into one group, and firms with an ownership concentration equal to or higher than 44.25% are assigned to a second group. In Table 1 the 29 firms are categorized by four ownership categories.

Table 1. The number of firms in each of the four ownership categories

Ownership categories	Degree of ownership concentration		Sum
	Less than 44.25	Equal to or greater than 44.25	
Individual ownership	7	15	22
Institutional ownership	7	-	7
Sum	14	15	29

¹ See the Swedish Ownership Investigation, definition of institutional ownership, SOU 1988:38, 91. See also Hedlund et al. (1985) discussion on institutional ownership. According to the findings of the Swedish Ownership Investigation there is an increased institutional ownership over the ten years investigated.

As shown in Table 1, no institutional owner has a share of votes larger than 44.25%. Hence the analysis performed below applies only to the three categories: individual majority owners (with votes equal to or greater than 44.25%), individual investors (less than 44.25% of the votes) and institutional investors (with less than 44.25% of the votes).

The size of the firms, measured by the market value, varies from 15 million to 7.052 billion with a mean value of 990 million SEK (see Figure 2a-b).

Figure 2a Sample distribution of market value

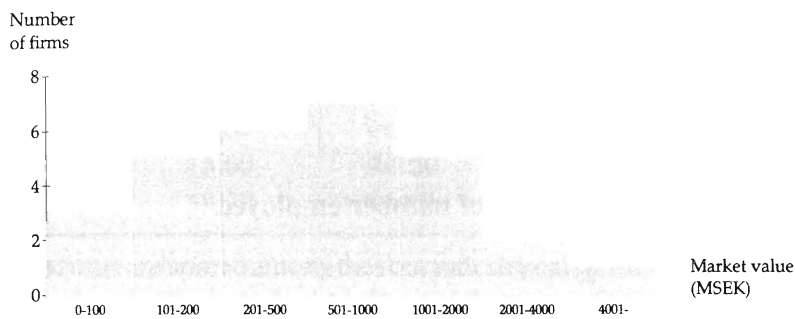


Figure 2b Sample distribution of market value



Figure 3a Sample distribution of number employed

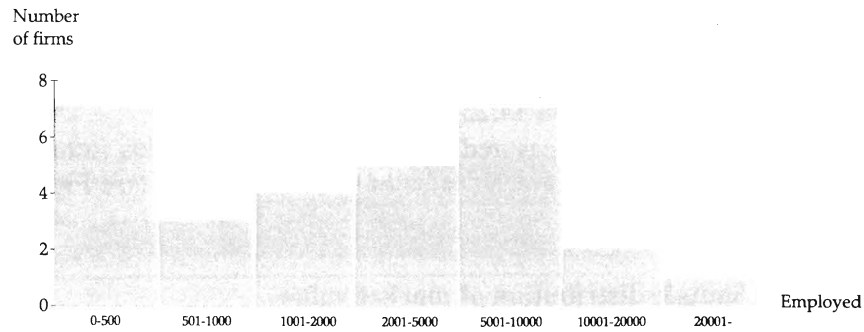


Figure 3b Sample distribution of number employed



Table 2. Variation in ownership concentration (CR) and market value (MV) in each of the two groups: strong and weak ownership concentration

	Ownership concentration less than 44.25% (N=14)		Ownership concentration equal to or larger than 44.25% (N=15)	
	CR	MV	CR	MV
mean	29.81	460.57	57.72	1557.84
median	30.45	340.06	55.70	857.43
standard deviation	7.99	399.31	9.27	1951.59
skewness	-0.44	1.03	1.28	2.04
kurtosis	-1.04	0.13	1.26	4.30
min	15.60	40.50	45.60	15.00
max	39.70	1306.01	82.20	7052.98

The firms are spread among the four industry categories: mixed firms² (n=5), industry (n=12), trade (n=1) and other (finance, banking, transport, property, insurance and other (n=11)). The frequency of each category of ownership structure is depicted in Table 3.

Table 3. Firm distribution and ownership structure

Ownership structure	Institutional investors	Physical investors	Dominant physical owner	Sum
Mixed firm	2	-	3	5
Industry	3	3	6	12
Trade	-	-	1	1
Others such as:				
Finance	(1)*	1	1	2
Property	1*	-	1	2
Insurance	-	1	-	1
Banking	-	-	2	2
Others				4
Total				29

* a firm with both financial and property activities

² Mixed firms are firms performing activities that belong to different types of industries.

The *team size* for each firm was computed by the number of officers stated to be on the executive team according to the firm's annual report. The distribution of team size in the sample is depicted in Figure 4a-b.

Figure 4a Sample distribution of team size

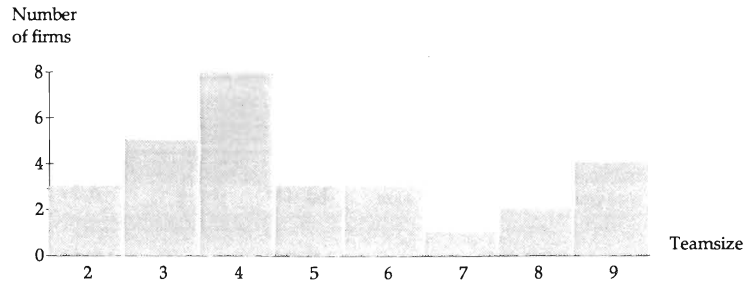
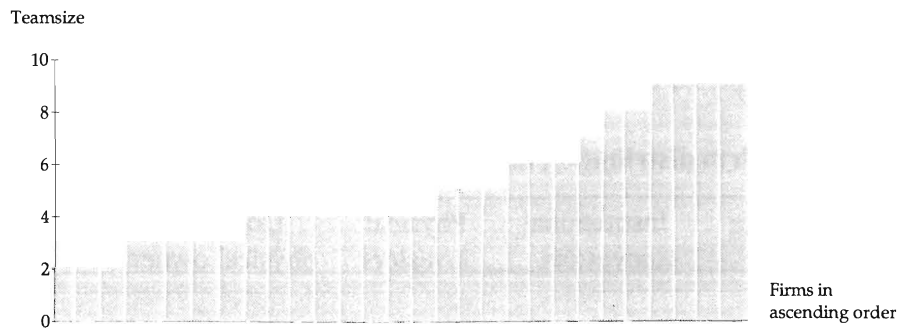


Figure 4b Sample distribution of team size



For each firm a *performance* measure is computed. Performance is measured as the time it takes for a negative abnormal return to recover from negative to an abnormal return equal to or larger than zero (see Appendix 2 for a more technical presentation).

Individual data

The analytical focus below is at an aggregate level, that is, on the executive team. However, the team data is based on aggregated data of the individual

team members. The size of the team varies from 2 to 9 and the mean for the sample is 5.

In its annual report, each firm announces the members of the executive team. The team members announced as being in charge in 1985 were asked to participate in an interview. Out of the 154 team members invited from 29 firms, 7 team members refused to participate in the survey. 2 members refrained from participation due to traumatic experiences from an unfriendly takeover. 1 member was working abroad at the time of the interview, and another team member had to turn down the request for an interview for family reasons. 1 member saw no point in the research project and 2 members gave no reason for their refusal. Nevertheless, some information about these 7 missing individuals was available, and some of the lacking information could be reconstructed by filling in values for the missing data in a way that did not distort the mean value of each variable for each team. The mean for a specific variable was computed for the team and used to fill in for the individual's lacking value. Still, if there are missing values, they are reported.

The team members were asked about their recruitment procedures, their demographic characteristics, their social relations with other team members and their external network. (See Supplement.)

The interview took about 30 minutes and was carried out either at the team members' present office or at the Industrial Institute for Economic and Social Research (IUI). Below is a description of the data collected from the interviewed team members. Frequency tables of the described variables are found in Appendix 4.

Demographic data

In order to determine the degree of heterogeneity for each team, information about each of the team members' social background, age, place of upbringing, education and marital status was collected. A common demographic variable in investigations is gender. In this particular study this variable turns out to be redundant since only one woman is represented in the sample. A description of the demographic characteristics is given in the frequency tables in Appendix 4.

The *social background* is categorized according to the SEI codes (see variable definition in Appendix 1). The different categories are condensed into the following: blue collar workers (unskilled and skilled workers), white collar workers (assistant, intermediate non-manual employees), white collar workers (employed and self-employed professionals, higher civil servants and executives) and others, such as farmers. Relatively few of the members

are from a working class background (16%), while 25% have a father who was a businessman (see frequency table A4:1 in Appendix 4).

Education is categorized as follows: No university education (1), Law degree (2), M.Sc. in Engineering (3), B.A. in Economics (4), Forestry degree (5), degree in other academic discipline (6), uncompleted Ph.D. degree (7), Ph.D. degree (8) and more than one university degree (9). As few as 19% do not have an academic degree. 40% have a B.A. in Economics, the most common academic degree in the sample (see frequency table A4:2 in Appendix 4).

Age is categorized by the year of birth for each team member. 57% of the team members were born during the 1930s or earlier. Relatively few executive team members are born in the 1950s (3.2%).

Place of adolescence seems to be an important aspect of an individual's perception of being similar to and being understood by others. It matters whether colleagues come from a small village, from the countryside or from a large metropolitan area. Swedish individuals who did not come from a metropolitan area expressed that "he is from the same sort of place as I am, so we get along fine". The variable "place of upbringing" is first categorized according to LNU geographic codes (see Appendix 1), and then further condensed into four categories. A large percentage (26%) of the team members come from towns that had a population of up to 15 000 individuals at the time for their adolescence. There are as many brought up in different parts of northern Sweden (Norrland) as there are team members brought up in large metropolitan areas (19%). Many of the members have been brought up in different areas during their adolescence.

The *marital status* of the team members is captured in Table A4:5 in Appendix 1. However, these data are not used in the statistical analysis below since variation was small. Some team members argued that organization of the private life was an important aspect as to whether the potential member would fit in a team or not. If someone could keep a family together, he may benefit a team which may undergo equally strong strain and stress as a marriage does. Hence, being married seems to be important, but moreover, it is important to be married to the same partner. The data show that most members are married, and have stayed married to the same person. Few are divorced and few are single. The team members are seldom married a second time. No one in the survey is married more than twice.

Recruitment data

Team members were asked about their professional career. Specific information about the professional transition of each member was collected.

Furthermore, the length of time spent at each position and the way in which the team members collected information about new job openings were surveyed. Finally, team members were asked about the type of recruiter involved in this recruitment.

The recruitment to the firm showed no different pattern than earlier studies have reported (see Chapter I for a more elaborate presentation on the subject). Recruitment to the firm was seldom made through formal channels such as advertisements or headhunters. The most common procedure was recruitment through a workmate or a client. The sources of information about potential candidates for the CEO and for the rest of the team members are shown in Table 4.

Table 4. Source of information about potential candidate for CEOs and other team members respectively

	CEO		Other team members	
	Freq	%	Freq	%
1. Workmate, school- or university mate	6	20.7	39	31.2
2. Headhunter	1	3.4	7	5.6
3. Advertisement	1	3.4	21	16.8
4. Mergers			13	10.4
5. Other middle-man contact or mediator	7	24.1	16	12.8
6. Board of directors	3	10.3	10	8.0
7. Client	4	13.8	4	3.2
8. Relative	1	3.4	1	0.8
9. Summer job	6	20.7	7	5.6
10. Own effort	-	-	3	2.4
11. Friend	-	-	3	2.4
16. Other	-	-	1	0.8

The events or the recruitment sources leading to the appointment of new members to the executive team were categorized into Mergers/Acquisitions, Owners, and the CEO. The most common procedure for selecting a team member was through the CEO who had information about potential members from within the firm through his operative position in the firm. However, in 23 cases the owners recruited new members themselves. These members recruited were both CEOs and others. In certain cases, as statistics tell us, the owners did not appoint the succeeding CEO.

International studies point to the fact that team members, and especially CEOs, are loyal to the firm and make their careers within one firm. Swedish managers seem to be less loyal to the firm compared to other nationalities (see Chapter I). The team members in the present sample are not as loyal as one would expect. 41% of the CEOs and 45% of the rest of the team members have worked within the firm for less than 10 years (see Table 5). Table 5 shows the number of years spent in the firm for the two categories of team members, the CEOs and the other team members. There is no large difference between CEO loyalty and that of the other firm members.

Table 5. Years in the firm by CEOs and other team members

Years in the firm	CEO		Other team member	
	Freq	%	Freq	%
1-3	4	13.8	22	17.6
4-6	5	17.2	16	12.8
7-9	3	10.3	18	14.4
10-12	6	20.7	12	9.6
13-15	3	10.3	17	13.6
16-20	2	6.9	17	13.6
21-30	4	13.8	15	12.0
31-	2	6.9	8	6.4

The internal relational structure of the team

It is a common view that businessmen are very well-integrated in their immediate business community. However, the data in this sample show another picture of the relationships manager have with each other.

The team members were asked about their relationships to the other members of their team. Four questions were asked of which three were used in the statistical analysis. The four questions were if the members (1) socialized, (2) confided in each other, (3) shared values, or (4) exercised any hobby or sport together (see Supplement). The frequency of team members who socialized with others in the team is depicted in Table 9 in Appendix 4. The variable Socializing is computed as the share of all socializing relationships of the total possible team relationships. The variables Confiding, Shared values and Exercising a hobby are computed in the same way as the socializing variable, i.e., the team's share of the variable over the total possible relationships in the team.

The average share of a team member's socializing relationships with other team members is .33, with .22 being the median. 57% of the team members claimed they socialized with less than 30% of the other team members. The average share of a team member's mutual confiding relationships with others in the team is .42, with .4 being the median. 50% mutually confide in less than 30% of their colleagues. The average share of relationships where the member shares a hobby with other team members is .34 with .33 being the median. 47% share a hobby with less than 20% of their colleagues. Sharing values is the most common aspect of integration. The average share of a member's relationships sharing values is .61, with .62 being the median. 56% of the team members share values with 60% of the others in the team (see Appendix 4. Frequency tables 4:9 - 4:12).

The mean value for sharing the same values among team members is .47 for the sample. The mean value for mutual confiding among team members is .32 and the median value for the degree of socializing among the team member is .25 (see Appendix 1, characteristics of the univariate distribution).

External network

In order to capture the team's connection to an external resource network, i.e., their social capital, information about each member's most important external ties was collected. Each team member was asked about his ties to resource persons outside the firm and the executive team.³ Information was collected about these persons as to their age, their profession, and whether the member and these persons socialized with and/or confided in each other. Furthermore, the member was asked if, to the best of his knowledge, these persons had ties among each other.

Most team members mentioned between 3 to 13.5 contacts as their main resource persons: 9 was the mean number of external ties per team member. 57% had less than 30% external ties with whom they mutually

³ When respondents are asked about their resource persons outside the firm it is likely that they mention those individuals they have most frequent contact with, like the best or socialize with and confide in. Those that they may have as a resource person but do not socialize with and confide in may not be mentioned as readily. Hence, there may be a selection bias of the mentioned external ties, i.e., the external networks for all the team members may be systematically biased towards strong ties. However, results from comparing different executive team's structure of external network is not affected by this bias since the tendency of members answering in the same "biased" way is assumed to be the same for all members.

confided. For 54% of the team members, the crossover between having external ties and socializing with these external ties was less than 40%. However, team members seem to be more inclined to socialize with their external ties than with their own colleagues (see Appendix 4, compare Table A4:9 with Table A4:14). Furthermore, for 56% of the team members, the incidence of external ties with whom they both socialized and confided was less than 20%.

Finally, 48.2% of the team member had an external network with less than 40% ties who were acquainted with each other. 37% of the team members had more than 60% of their external ties acquainted with each other (see the univariate distribution Appendix 1).

CHAPTER I

Ownership Structure and Recruitment Procedures

Introduction

The appointment of members to the executive team of a firm is a difficult decision that affects the future direction of the firm, yet very little is known about the recruitment for the executive team. The purpose of the present chapter is to test a suggested relationship between recruitment procedure and the ownership characteristics of a firm.¹ The main ideas are drawn from the principal-agent literature, the property rights literature and the literature on recruitment, drawing from the fields of psychology and sociology.

As mentioned in the introductory chapter, research on the effects of the ownership structure on a firm's performance often treats the recruitment process for management and the organization of leadership as a "black box" (Holderness and Sheehan 1988). In sociology and psychology different techniques for the evaluation of candidates are often discussed, without any consideration given to the factors behind different recruitment procedures. One exception to this is the research performed by Vancil (1987b) on succession patterns in U.S. corporations where the organization of leadership explains recruitment procedures. Furthermore, since the most important function of owners is to appoint and dismiss management, the characteristics of ownership may be decisive for explaining variations in recruitment procedures. Little research has been done where causal factors such as ownership structure are related to recruitment procedures for leadership teams. Hence, the main purpose of the present investigation is to test whether ownership structure affects who performs recruitment for members to the executive team (the owner, the CEO, or someone else) and how this in turn affects the recruitment procedure as a whole through the method of collecting information about potential members and the use of external or internal recruitment.

¹ Although the focus of the chapter is set at recruitment, no attempt is made to evaluate or even describe the different recruitment tools available (for an extensive survey on recruitment evaluation methods and assessment research see Tollgerdt-Andersson 1989).

Organization of the chapter

The owner's problem of control is identified in the first section. I refer to the two types of control problems identified in the principal agency literature: the problem of relating managers' actions to performance (moral hazard) and the problem of selecting individuals with the desired talent and character (adverse selection). I argue that different types of owners differ in their incentive and opportunity to act in the two situations.

In the second section, I suggest that in the case where the owner is an individual majority owner he will solve the moral hazard problem by engaging in a partnership with the CEO. The restriction set on the parties in this partnership is that either party would be injured if he exited the cooperation, even though it is possible to exit the cooperation. Furthermore, it is argued that even though all owners have an interest to recruit managers who have the desired characteristics, owners have different opportunities to engage in the selection of the manager. The owners who have an established partnership with CEO organize recruitment differently than owners with no such established partnership.

The owner who handles the moral hazard problem by creating a partnership with the CEO affects his opportunity to control the adverse selection problem. This type of owner has a different (limited) source of information about potential members. This limitation manifests itself in a tendency toward internal, rather than external, recruitment.

In the third section the hypotheses generated are empirically tested. Conclusions are drawn on the basis of the findings.

The problem of control

The main task of the leadership of a firm is to see that an efficient allocation of the firm's resources is attained. In the classical firm, resources were managed by the owner, and the owner was rewarded for his own efficient management. In the modern firm ownership and management are usually separate. Typically owners do not engage in management; instead, they play the role of monitoring managers to ensure that they do not depart from the goal of maximizing profit. Professional managers run the day-to-day operation of the business; they exist to implement the production plan. The

leadership of a modern firm therefore exhibits two main features: the control and the management of the production plan.²

The separation of ownership and control results in a problem often denoted as the principal-agent problem. The principal (owner) has incomplete information³ about the agents' (managers) characteristics and past action. Managers do not necessarily share the same goals as the owner. Managers may want to live an easy life or build an empire, activities not necessarily in line with the owner's goal of maximizing profit. The owner would want to prevent such undesired managerial behavior by aligning the manager's interests with his own. For example, an owner can construct an incentive scheme related to the manager's performance, a contract based on the managers' interests where bonuses act as rewards.

Nevertheless, complete contracts are difficult to construct. If the principal knew what made the agent tick, he could construct a contract based on this knowledge. Yet, the owner's lack of complete information about the manager's preferences or characteristics (the problem of adverse selection/hidden type) makes an alignment of interests difficult. Apart from the hidden-type problem, it is still not possible to relate effort to performance in a straightforward way (the problem of moral hazard/hidden action). The owner may have incomplete information about what the manager knows or about what he or she has done in the past. Even when managers act with good intentions, factors outside their control may affect the outcome, and this is difficult for the owner to monitor accurately.

The situation of having incomplete information combined with the difficulty in constructing a contract where a third person judges whether or

² According to Mizuchi (1983) there is confusion regarding the concept of management. Management is often defined as consisting of the board of directors and the senior officers of the corporation (see Mizuchi 1983, 428). Over time, management has come to be defined as those top senior officers (full-time top officers) in a firm who are separate from the board of directors, though some of these executive officers are members of the board of directors. Another source of confusion about firm leadership is the variation of organization across countries. For instance, in the U.S. the top officer, such as the CEO, can also be the chairman and/or the president of the board of directors. In Sweden the CEO is usually not the chairman of the board of directors. In the present thesis managers and management are defined as the top officers in the executive team.

³ In game theory two concepts, incomplete information and imperfect information, are distinguished. A player is argued to have imperfect information when he does not know what the other players have done beforehand. A player has incomplete information also when he does not know his rivals' precise characteristics (preferences, strategy space). However, according to Tirole (1988) the distinction is somewhat semantic. Since in this context the actors do not know each other's characteristics, and hence cannot foresee each other's future behavior, the concept of incomplete information is applied.

not the parties have fulfilled the contract is a problem (Holmstrom 1979; Stiglitz 1987; Hart 1988).⁴ Having incomplete information can lead to two dangerous situations: the managers may turn out to be incompetent (and the owners may have difficulty detecting this in time) or the managers may indeed be competent, but they behave opportunistically, favoring their own interests at the expense of the owner's.⁵

The relationship between the ownership structure and the control mechanism is discussed below. Certain owners solve the hidden-action problem by establishing a partnership where it would hurt the manager to disappoint the owner, and where the manager is rewarded with greater control over his situation, including his own career.

The second issue deals with the problem of hidden type. How does one find a partner or put together a competent team? Even when an attempt is made to control managers already in office through contractual arrangements or a partnership arrangement, owners would want to perform a careful selection *ex ante* of members for executive teams. A screening process to weed out unsuitable candidates is in the owners' interest. Yet, owners differ in their incentives to engage in monitoring and recruitment activities, and consequently their opportunity to control the selection process for management differs, as will be shown.

Entrepreneurs and investors

The control actually exercised by the owner depends on two factors: The first factor is discussed in the property rights literature and deals with the incentive the owner has to engage in the monitoring of management. The second factor suggested here is that the opportunity to monitor is determined by the owner's incentive to monitor.

The different types of owners differ in their incentive to handle incomplete information about managers. Some owners believe they are capable of handling the incomplete information problem; others consider it too costly to monitor management. In the property rights literature these two

⁴ The control problem (the principal-agency problem) is a generic problem for all types of organizations and all types of cooperative efforts (Jensen and Meckling 1976, 309).

⁵ The empirical facts on the actual monitoring devices on managers, such as reward systems, seem to be rather obscure. For instance, studies on the relationship between managers' performance measured as the firm's performance, and managers' financial reward such as salary and stock options, show non significant covariance (Jensen and Murphy 1990). Other reward systems may come into play. In the present chapter one reward system is conjectured: the reward for the manager to gain influence. However, the route for gaining influence is argued to depend on the firm's ownership type.

main types of owners are identified as the entrepreneur and the investor (SOU 1988:38, supplement 12, 35).⁶ The two owner types also differ with respect to their response to the firm's departure from the expected rate of return.

The entrepreneur dominates the ownership of a firm, often having a large portion of personal assets in the firm.⁷ The entrepreneur believes that he has the ability to monitor management and he believes that he is the one best fit to monitor management. The entrepreneur signals with his relative large shareholding his intent to monitor, or actively engage in controlling, the management of the firm. The entrepreneur's behavior is in accordance with what Hirschman (1970) calls the voice behavior. When the entrepreneur is dissatisfied with results, he dismisses the managers and/or engages himself in management.

The investor, on the other hand, is an owner with a comparatively small shareholding who diversifies his portfolio in order to reduce his risk exposure (Demsetz and Lehn 1985). The investors, with Hirschman's vocabulary, exit the firm as soon as they are dissatisfied and take their wealth elsewhere. Hence, investors tend to be less stable owners compared to the entrepreneur who stands by his firm.⁸

⁶ The concept of the entrepreneur is given a variation of meanings in the research literature of economics and organization theory (Casson 1987, Aldrich and Zimmer 1985). The word has been traced to 16th century France where the entrepreneur was a private coordinator of recruitment aiming and transportation of men for a commissioned military junket (Burt 1991, 15). Yet, the word is most often associated with the meaning Schumpeter (1934, 1976) gave it: the exploiter of an invention and the prime motor of economic change. Although, Schumpeter did not see the entrepreneur as the risk bearer of an uncertain project; bearing risk was the role of the capitalist. The capitalist lent money to the entrepreneur, who was the decision maker and manager. In this specific context, however, the concept of the entrepreneur is understood as a capitalist, i.e., a risk bearer, with an overall decision-making capacity, and who has the belief that he can exploit an opportunity which he is also able to monitor.

⁷ An owner with dominant share in a corporation is most likely to hold an undiversified portfolio, (Bergström and Rydqvist 1990, 240). The reason why certain owners forego the benefits of portfolio diversification, and instead hold large stakes in a single firm, is not detected. There are many theoretical arguments to the empirical findings, however, and exactly which one of them fits is not as yet detected (see Bergström and Rydqvist's overview of the theoretical arguments, 1990).

⁸ It is proposed that the frequency of each owner category is dependent on the type of financial system in existence. In Sweden the banks dominate the financial system, while the market dominates in the U.S. and in Great Britain. The bank-oriented system emphasizes risk sharing and the need to give owners an incentive to control the executive team. Hence, entrepreneurs are more frequent in this system. The market-oriented financial system emphasize the specialization of control and risk spreading. Here, the investors are more frequent (SOU 1988:38 supplement 12, 156; Berglöf 1990).

Entrepreneurs are control oriented. They invest a large enough share in the firm to give them the opportunity to control the management of the firm. The investors are portfolio oriented, having no interest, and little opportunity, to control managers.

The entrepreneurs can, at least in theory, be either an institution or an individual owner. Investors can also be either institutions or individuals (SOU 1988:38, supplement 12, 36). Hedlund et al. (1985) argue that the characteristics of the owner are of importance for the degree of control exercised, given the equity at stake. Institutionalized ownership is argued to distort incentives to act on behalf of the owners, i.e., maximize the owners' wealth. The monitoring function is carried out by individuals who do not risk their own capital, but represent other capital investors. An individual entrepreneur carries all the cost and revenue himself, and hence has a stronger incentive to control management actively. The problem of monitoring activity made by institutional owners is suggested to be even more accentuated where there is no final controlling individual owner.⁹

Although entrepreneurs and investors differ in the way they manage their portfolio, in their risk behavior, and in their incentive to monitor management, they are all interested in a competent and non-opportunistic management team. Both investors and entrepreneurs can participate in the control function of appointing an executive team. However, the different owner categories differ in their opportunities to recruit the executive team and thereby control management *ex ante*. If an entrepreneur wants to pursue his idea and believes he is capable of monitoring management, he invests a relatively large amount of capital in the firm in order to secure his controlling position and prevent any takeover attempts by other investors. An owner with a large stake in a firm signals two messages to his environment: I am good at being an owner, and I intend to implement my ideas. In other words, not only is he in control, he is there to stay as long as he wishes.

Firms owned by investors will typically have a high turnover of owners, especially in crisis situations, compared to firms with one dominant owner. The former type of firm's executive team is likely to experience external control from the market for corporate control, such as takeovers, mergers and controlling owner shifts. Regardless of the investors' incentive not to monitor primarily, but to vote with their feet and exit the firm if dissatisfied, they still have to appoint an efficient executive team. Hence, the question

⁹ One situation where the control of management is hazardous is where representatives of the institutional owner can create alliances with the management. These alliances may pursue their own private interests at the expense of for instance small share holders and tax payers (Hedlund et al. 1985).

discussed below is: How do differences in owner incentives, measured as the firm ownership structure, affect the control of the executive team (the hidden action problem) and the selection procedure for the executive team, including the CEO (the hidden type problem)?

Control for hidden action – the establishment of a partnership

A partnership is defined as a cooperation based on joint interests, a joint utility function (dependency) and the possibility for the involved parties to leave the partnership, if so desired. The partnership idea is based on assumptions about the incentives of the actors (the employer and the employee) and the reward and opportunity structure they face.

Assumptions about actors

1. Managers have interests to realize. They realize these interests through influencing their significant strategic environment. Since managers are risk averse (they do not buy their own company and become owners)¹⁰, their gain in influence is materialized through mobility up a career ladder.
2. The employer promotes the manager's career conditional on the manager's expected future behavior. The employer's expectation is based on what he successively observes of the potential manager's behavior and on his perception of the candidate's character during a period of interaction prior to the appointment to a top position.

Assumptions about the reward system

3. The employee, the potential manager, has an incentive to engage in a partnership since, if he exits the firm, his long-term investment in social relations and firm-specific knowledge is wasted. A manager who fails to send his employer the right signals for a partnership may have to leave the

¹⁰ It is assumed that someone who wants to become an owner can acquire capital either through his inherited or self-made access to it, or through the access to the financial market.

firm for another in order to gain influence. And if he leaves the firm, he has to start his attempt to establish a partnership with the owner all over again.¹¹

4. The employer confronts costs associated with gathering information about candidates for management. If no partnership is established, the employer has to invest time and energy to seek out partnerships or he must use other costly tools such as external referees or formal channels.

Based on these four assumptions I derive the following conclusions: It is too costly for both the managers and the employers to leave the cooperation. The information cost due to failure to establish a cooperation restricts opportunistic actions on either side. As will be shown below, not all relationships between CEOs and owners end in a partnership like the one described above.

Control for hidden types - the selection procedure

The second type of imperfect information problem comes forth in the search for knowledge about applicants to a position within a firm. In order to separate out individuals who have undesired characteristics or lack talent, a careful screening is suggested to take place, especially for crucial positions on an executive team. Three types of screening devices are discussed with respect to their potential to give reliable information about the characteristics of job applicants: formal hiring and two types of informal hiring: referrals and direct observation.

Scholars in economics study formal hiring and recruitment mechanisms in the hiring process, especially the screening device of higher education (Arrow 1973; Spence 1973; Stiglitz 1975). Formal screening devices are assumed to be objective tools for making unbiased selections. Yet formal hiring (e.g., through help-wanted advertising or employment agencies) is less frequent than informal hiring, e.g., when people recruit

¹¹ Leaving a career track in one firm for a career track in another may be associated with stigmatized signalling that increases, the further up the career ladder one goes. Empirical data support the fact that most managers make their career inside the firm (Vancil 1987a, 1987b; Fortune 1983, 1988; Affärsvärlden 1988).

¹² According to Montgomery (1988) the distinction between formal and informal channels, as made in the job-search literature, rests upon the existence (or absence) of labor-market intermediaries (labor-market intermediaries are institutions such as advertisement and employment agencies). Informal channels in this paper are further divided into two categories: direct informal observation and referrals.

friends or relatives.¹² A large percentage of employees locate jobs through friends and relatives (Granovetter 1973, 1982). Recent empirical results on the subject report that 50% of workers currently employed found their jobs through friends or relatives (Montgomery 1988, 3). Furthermore, Montgomery (1988) reports that blue-collar workers use referrals more often than do white-collar workers.

In a study of the career paths of members of the Swedish government in power in 1982 and 1985, informal channels were more likely to be used for recruitment, the higher up the ladder was the government position to be filled. Individuals who socialized with each other and shared work experience recruited each other to higher positions (Meyerson 1987). Saloner (1985) argues that old boys networks provide signals, i.e., references, about potential management candidates. Hence, it appears unlikely that formal hiring channels such as help-wanted advertisement or employment agencies are used for the recruitment of top management. Firms must rely heavily on informal channels in general, but especially in cases where recruitment of top leadership is concerned.¹³ Third party references (referrals) and direct observation (direct experience of a potential employee) are two types of informal channels used to gather additional information ex ante about suitable candidates for management.

Selection by direct observation

The first type of informal channel frequently applied when selecting members for an executive team is based on the search for trust. The selection procedure based on direct observation reflects a long-term investment in trust.

Trust is a concept given many meanings. In this context trust is defined as "*... a particular level of the subjective probability with which an agent assesses that another agent or group of agents will perform a particular action, both before he can monitor such action (or independently of his capacity ever to monitor it) and in a context in which it affects his action.*" (Gambetta 1990, 217).

Trust is not a commodity like a car or a lemon that you can buy on a market whenever you want.¹⁴ Trust between individuals evolves through a long period of interaction. According to Dasgupta (1990) trust evolves from

¹³ See Montgomery (1989) for an extensive survey of the research on job-search and firms' hiring procedures.

¹⁴ Although, trust can be treated as a commodity since the value of trust can be measured (Dasgupta 1990).

an individual's creation of expectations of another person's future behavior based on previous action taken by that individual and previous experience of that individual's character.

Direct observation is one way to collect the information needed in order to create expectations about a candidate's tendency to act opportunistically. Direct observation takes place during a probationary period when the employer and the potential manager observe each other and derive conclusions about each other's future behavior. An employer judges a potential manager by observing him in different situations performing different tasks. The action taken in different circumstances during the testing period gives information about the person's character.

The selection process is also a learning process by which the potential candidate, by trial and error, learns the employer's values and expectations and vice versa. A former director of Volvo, Håkan Frisinger, explained the procedure he used in selecting management. *"First I try them out in different assignments. If they fulfill them well, I give them more advanced tasks. If they fulfill them satisfactorily too, I try them out in a completely different setting and at different tasks. If that works out I consider them as potential candidates. The method is to give potential candidates broader and broader tasks or assignments under successive delegation combined with straightforward discussions about performance."* (Ledarskap 1986, 16).

Information about the characteristics and prior actions of a potential colleague or partner is not enough on which to build an important trustworthy relationship. Even if an individual has behaved desirably in the past, he may still behave in an opportunistic way under certain circumstances. Nevertheless, future cooperation requires information about the person's prior behavior and characteristics. According to Gambetta (1990) a partnership between two or more individuals is possible when all parties believe that when offered the chance, each party is not likely to behave in a way that is damaging to the other(s), yet at least one party is free to disappoint the other(s), i.e., the relationship is free enough to be an attractive option, and constrained enough to avoid risk (Gambetta 1990, 219).

Selection through referrals

The second strategy of informal recruitment is the use of referrals. Referrals are normally defined as employee referrals (Montgomery 1988, 4). Referrals are an alternative to formal hiring channels, such as advertising or hiring agencies, when direct observation and a partnership are difficult to develop.

Recruitment by referral implies a reliance on someone else's information and judgment about suitable candidates for a position. Montgomery

(op.cit.) gives four reasons for why employers use referrals. He derives the first two from the personnel literature and the last two from the literature in economics.

First, the personnel argument states that: "...workers hired through referral have (at least on average) inherently higher ability levels". The underlying argument of this hypothesis is that employees tend to refer others similar to themselves. If a worker is a high-ability worker, he tends to refer high-ability workers. The underlying assumption for this proposition is that friendship typically develops between individuals who have similar traits. But it is also stated that individuals who interact continuously will develop similar traits, such as common values.¹⁵

The second argument drawn from the personnel literature focuses on the information about the job available. Workers hired through referrals possess information about the job to be filled since they have been informed by a referee, a friend or relative working inside the firm, and therefore have a realistic preview of the job. Since they know what is to be expected of them, they can set their own expectations as well. The assumption behind this proposition is that these individuals will not apply, if they do not like what they know about the available job. And if they like what they know, they will do a good job, once hired.

The first argument from the economic literature is: "... a worker who learns of a job opening in his firm will refer only well-qualified applicants, as his reputation is at stake." (Montgomery 1988, 10). Montgomery further refers that this proposition implicitly assumes that an employer is both willing and able to penalize workers for referring unqualified applicants through either pecuniary or non-pecuniary means.

The fourth and last explanation referred to by Montgomery is that firm hiring through employee referrals is associated with lower hiring costs. When employees utilize referrals there are no agency or advertising fees to be paid. According to Stigler (1961) there may exist two wage/hiring strategies: some firms pay high wages and hire through referrals, while others pay low wages and recruit through more expensive formal hiring channels (see an extensive discussion on the issue in Montgomery 1988, 11).

Whatever the true motive is for employers to choose referrals, it is a frequently used method for gathering information about candidates. Direct observation gives information about a specific person based on the recruiter's own judgment and perception. No middleman, who may create even more uncertainty, is involved in the gathering and the transmission of information about candidates. However, the opportunity of a recruiter to

¹⁵ The concept of similarity is further elaborated in Chapter II.

directly observe can be a rare opportunity, and so the referral system is used. The two types of informal channels used to gather information about candidates for an executive team involve both benefits and costs vis-à-vis the problem of adverse selection. The direct observation method reduces the risk of selecting someone with unsuitable characteristics, however, information sources are limited to one's own "limited" sphere which prevents any talented unknown candidate to enter into consideration for the executive team.

Ownership structure, partnership and recruitment procedures

I suggest that the existence of a partnership between the entrepreneur and the CEO, as a solution to the hidden-action problem, can be measured by the actual delegation of the control function: the recruitment of the CEO's successor. The hidden-type problem is argued to be a struggle for a reliable source of information about candidates. If the hidden-action problem is solved, I argue that the owners have found a reliable source of information in the CEO, and hence the recruitment procedure is organized by him. Otherwise, lacking this source of information, the owners spread their risk and rely on many different sources of information. The argument is as follows:

The entrepreneur signals both his intent to monitor the executive team and his intent to remain the owner as long as he desires. These two conditions are argued to be conducive to the development of a partnership between the CEO in office and the entrepreneur.

A partnership between the CEO and the investors is less likely for two reasons. First, since the investors signal their intent to exit the firm as soon as they find a better investment, they are not stable partners. Second, the investors are many, making a partnership more difficult to establish than it would be between two individuals.

In order to determine if a partnership between the owner(s) and the CEO has been established, I suggest that the delegation to the CEO the owner's most important control device, namely that of the recruitment and dismissal of managers, to mean that a partnership is implicit or explicit in existence. Hence, observing the recruitment procedure being led by not only the CEO alone, but also by the executive team as a whole, serves as evidence of a partnership. The existence of a partnership between the entrepreneur and his CEO in office makes it possible for the entrepreneur to delegate to him the recruitment of his successor. No such partnership is likely to exist between

the many investors and the CEO; a delegation of the recruitment responsibility for the next CEO is therefore less likely. In order to investigate this conjecture, the relative discretion of the CEO in recruitment is a measure of the individual owner's trust in the CEO. The more of the control function of recruitment is delegated to the CEO, the greater the likelihood that the owner has considerable confidence in the CEO's judgment and actions, which, again, points to the existence of an established partnership.

According to the Swedish Corporate Law (*aktiebolagslagen*), one of the most important tasks of the owner is to appoint a CEO. However, there are no directives regulating who is in charge of the recruitment for the rest of the executive team. Ownership structure is conjectured to affect the division of labor for the recruitment of the new CEO and of the rest of the members for the executive team. Hence, the analysis below is divided into two parts: the recruitment of the CEO and the recruitment of the rest of the executive team. Hence,

H1a: Entrepreneurs are more likely to delegate the responsibility for the recruitment of the new CEO to the retiring CEO, while investors are likely to take on the responsibility of recruiting the new CEO.

The rest of the executive team can be appointed by the CEO, or by the owners. One would think that in most cases the CEO is the main recruiter. However, if owners take part in the recruitment of team members, they are likely to be individual investors or individual entrepreneurs rather than institutional owners. In accordance with ideas from the property rights literature, individual owners whose own assets are at risk are more likely to act than are institutional owners who risk the assets of others. Hence,

H1b: The CEO is likely to be the dominant recruiter for executive team members, with the exception of his replacement, irrespective of the type of firm.

and

H1c: Owner involvement in the recruitment of members to the executive team (excluding the CEO) is more likely in individually-owned firms than institutionally-owned firms.

Access to information

Two main categories of recruiters for the executive team are identified: the owners (investors or entrepreneurs) and the incumbent CEO. The actors in

these categories differ in their access to information about potential candidates.

Regardless of whether the owner is an investor or an entrepreneur, he is likely to be dependent on others for information about potential managers. The reason for this is that typically he is not involved in the actual operation of the firm and therefore has little opportunity to recruit through direct observation. An owner can apply two strategies when gathering information through referrals. He can either use several referees and reduce the risk that all recruited managers are unsuitable, or he can choose a few referees whom he can monitor and/or trust. The use of several referees is a time consuming strategy that demands investment in the maintenance of reliable referees. Consequently, owners instead may use few referees in order to save time. It is suggested that if a reliable referee is available who has good access to information about potential managers, this is a plausible strategy. If there is no such option, several referees are likely to be used.

Entrepreneurs are suggested to rely on one referee and investors on several, the reason being that the entrepreneur is likely to have developed a partnership with the CEO, while the investors have had no such opportunity. Hence, the entrepreneur is likely to use the CEO as the main referee for recruitment for an executive team. The entrepreneur relies on the CEO's will to pursue the entrepreneur's interest and, alternatively the CEO expects the owner to provide for his ambition to gain influence. Furthermore, the CEO has the opportunity to apply direct observation of potential management candidates since he is involved in the operation of the firm. Thus the entrepreneur is satisfied, because the CEO fulfills the criteria for an efficient search for candidates. By using the CEO as the sole referee, the entrepreneur avoids the expense of using several reliable referees. At the same time, in the CEO he has a referee with access to direct observation, thereby reducing the risk involved with having incomplete information.

Investors are less likely to have established a partnership with the CEO and thus they are more likely to rely on several other parties for referrals. Members of the board of directors of the firm, members of the board at other firms, business and social contacts and headhunters are examples of the parties they turn to. Hence,

H2: Entrepreneurs are likely to use few referrals for recruitment, while investors are likely to turn to several categories of referrals.

Since owners (investors or entrepreneurs) have different observation opportunities, the outcome of their recruitment activity for the executive team also differs. The entrepreneur, as mentioned above, relies on his CEO. Investors

use various referrals, including members of the board of directors, in addition to turning to the CEO. This is because some directors may be serving on the board of another firm, or firms, and therefore may have information about potential candidates, either through direct monitoring or through fellow board members.

CEOs have the opportunity to observe a potential candidate in the actual operation of the firm. The CEO, if he likes what he observes, can promote his candidate's career. In this way the CEO can be seen as the administrator of an employee's career. The creation of trust between the CEO and an employee can lead to a partnership and, eventually, to the recruitment to a top executive position. Hence,

H3: Owners are likely to use referrals for gathering information about potential candidates for an executive team. The CEO is likely to use direct observation.

The difference between the owner's and CEO's opportunity to choose information sources has implications for the choice between external and internal recruitment.

External or internal recruitment

Owners traditionally recruit CEOs from inside the firm. Even if the tendency to recruit CEOs from outside the firm increased during the 1980s, the dominant strategy to recruit from within the firm remains. During the 1960s in the U.S., 93% of CEOs appointed in public firms were recruited from inside the firm, while in the beginning of the 1980s it had fallen to 75% (Vancil 1987a). In 1988s in Great Britain 80% of the largest firms appoint CEOs from within the firm (The Economist 1988). It is interesting to note that the frequency of inside recruitment is not as high elsewhere. For example, only half of the people acting as CEOs in the largest Swedish public companies in 1988 had made their career within the firm (Affärsvärlden 1988).

In general, leaders of firms have often been with the firm for a long period, although this trend is not as strong as it was ten years ago. Bank leaders are the most faithful. Private firms, in contrast to firms on the stock market (e.g. public firms), are more inclined to select successors from outside (Affärsvärlden 1988).

In the literature of both management and of economics, the frequency and causes of internal and external recruitment of CEOs are discussed (Vancil 1987b; Fama and Jensen 1983; Morck, Shleifer and Vishny 1988a). Some empirical findings are that the performance of the firm relative to the industry and the proportion of external board members are factors affecting the choice of internal or external managers. One factor affecting the relative frequency of externally appointed managers is a crisis situation. Crisis situations increase the likelihood of the CEO being replaced by an externally recruited CEO (Morck, Shleifer and Vishny 1988a). An additional factor is the number of outside members on the board of directors. The greater the number, the higher the probability of external recruitment of the CEO. The empirical data is based mainly on data from U.S. corporations. No information is provided on the relative importance of ownership structure and the recruitment sources. Even though there are reports on the tendency for outside board of directors to dismiss unsuccessful CEOs, we do not know the extent to which the various types of ownership structures affect the proportion of outside directors of the board directors who have no prior history in the firm.

Two circumstances can affect the choice of recruitment sources. First, who recruits? The owner or the CEO? And second, if it is the CEO who recruits, has he made the larger part of his career inside the firm or outside the firm?

As mentioned above, owners typically recruit using referrals, and these referrals are not necessarily positioned inside the firm. Therefore, the likelihood of external recruitment increases. CEOs, on the other hand, depend heavily on direct monitoring, recruiting their colleagues from present and past workplaces. Hence, externally recruited CEOs recruit former colleagues, and consequently they use external sources. If they have more of their professional career inside the firm they are likely to recruit from within the firm.

H4: When owners (most likely investors) recruit, they are likely to recruit outside their firms. Internally recruited CEOs are likely to recruit inside to the firm. Externally recruited CEOs are likely to recruit outside to the firm.

Results from the empirical investigation

To remind the reader I will repeat how the sample was selected. A population of public firms in existence both in 1980 and in 1985 were ranked by their most negative abnormal return for any month during 1985. The list with the ranked firms contains only those firms with a negative abnormal return greater than one standard deviation from the mean (0) of the sample (see the characteristics of the univariate distribution in Appendix 1). From the ranking list the 32 firms with the lowest abnormal return were selected. Three of the 32 teams refrained from participation; hence, only 29 firms are analyzed. Since the sample is not randomly selected no general conclusions can be drawn about the relationship between ownership structure and recruitment procedures for all Swedish public firms or, for that matter, for all public firms in general.¹⁶ However, some light may be shed on factors affecting recruitment procedures in firms confronted with a crisis signal.

The executive team was identified by the firm's annual report and confirmed by the secretary of the CEO in office in August 1988.¹⁷ A strict statistical testing is not realistic for all hypotheses. In hypotheses 1a, 1b, 1c, 3 and 4, the four ownership categories (entrepreneurs/investors and individual/institutional) are considered. The sample being small, few observations are found in each ownership category. The strategy for testing these hypotheses is to confront the simple statistical description of data with the respective hypothesis, and look for outcomes that are consistent with the hypothesis in question. In this way empirical evidence is received, although with no measurable precision. Hypotheses 1 and 2 are tested with standard regression analysis where ownership structure is reduced to degree of ownership concentration due to the size of the sample.

The tests of hypotheses 1a, 1b and 1c

Ownership structure is the explanatory variable in the test of hypotheses 1a—1c. Four ownership categories were measured: the individual and institutional entrepreneur, and the individual and institutional investor.

An entrepreneur is defined as someone whose influence as owner dominates and who has ensured this dominance by holding a share of the

¹⁶ There were not enough firms with a crisis signal on the Swedish Stock Market in order to draw a random selection of firms confronted with a crisis signal.

¹⁷ The recruitment of the members of each executive team was performed prior to 1985. Therefore, nothing can be said about recruitment procedures after a crisis situation (for a survey on the subject Weston, Chung and Hoag 1990).

votes large enough to minimize or prevent any takeover. An investor may be a controlling owner, but in contrast to an entrepreneur, an investor has a small proportion of the votes, so that takeovers or proxy fights are possible threats to him. Consequently, the degree of concentrated share of the votes per controlling owner identifies the entrepreneur and the investor in this particular context.

The most frequently used measures of the degree of ownership concentration are the concentration ratio (CR) and the Herfindahl index.¹⁸ From Sundqvist's 1985 annual report on ownership for public companies on the Swedish Stock Market, the concentration ratio is computed. The concentration ratio is applied for two reasons: First, the concentration ratio is simpler to compute. Second, since the objective is to identify and separate out entrepreneurial firms from firms owned by investors, the information needed is the percentage of the votes held by the largest owner. The CR measure is therefore suitable for our purposes since it is simply equal to the largest shareholder's percentage of votes.

Two types of entrepreneurs and two types of investors are used to describe and capture the ownership structure: the individual investor, the institutional investor, the individual entrepreneur, and the institutional entrepreneur. The classification of ownership categories is normally done by differentiating between individual owners and legal owners. However, individual owners may exercise their ownership through a legal constellation¹⁹, making a separation between the two categories insufficient. Since the objective here is to detect the incentive for monitoring, the actual controlling owner is important to identify. The final controlling owner is located through Sundqvist's annual descriptions of ownership structures (Sundqvist 1984 - 1988). Institutional owners may be private, cooperative, state or municipal. Institutional owners in this context are defined as those firms with no clear final individual owner.²⁰

As argued above, a partnership between owners and managers is plausible, as long as the owner signals his intent to engage in a long-term involvement. This intent to remain a controlling owner is reflected in the owner's share of votes, i.e., his stake in the firm. Of course if his share of the

¹⁸ See the Swedish Ownership Investigation, SOU 1988:38 Appendix B, 341-344.

¹⁹ Such is the case with some main entrepreneurs in Sweden, for instance, the Wallenbergs (Glete 1989, 3).

²⁰ See the Swedish Ownership Investigation, definition of institutional ownership, SOU 1988:38, p. 91. See also Hedlund et al. (1985) discussion on institutional ownership. According to the findings of the Swedish Ownership Investigation there is an increased institutional ownership over the ten years investigated.

votes is 45% he is more secure and unchallenged as a stable owner than if he has only 30% of the votes. It is easier for a raider to take control over a firm (undesired by the minority owners or managers) that has a more dispersed ownership than it is to take over a firm with a concentrated ownership, *ceteris paribus*. However, the exact dividing line between investors and entrepreneurs is somewhat arbitrarily chosen.

Consequently, entrepreneurial ownership is defined as ownership concentration being larger than the mean value of the concentration for the sample $CR > 44.25\%$. An investor is defined as someone with a share of less than 44.25% of the votes. The question as to where to draw the dividing line between an entrepreneur and an investor is not answered in the property rights literature, hence the line has to be drawn, given the context.

As was shown in Table 1 in the Data chapter, no institutional owner has a percentage of votes larger than 44.25%. Hence the analysis performed below applies only to the three categories: entrepreneurs (individual owners with more than 44.25% of the votes), individual investors, and institutional investors who have less than 44.25% of the votes.

The size of the firm varies negatively with the degree of ownership concentration. The higher the ownership concentration, the smaller the firm, measured by the market value (see the data description in the Data chapter).

Typically, the owner(s) or their representatives (the board of directors) select a CEO, and the CEO in turn selects the rest of the executive team; however, this is not always the case. Sometimes the CEO selects his successor, which shifts the control from the owner(s) or the board to the management domain. Sometimes the owner or the board of directors not only appoint the CEO, but also his team, and this shifts part of the management function to the controlling body.

The first hypothesis we test is that entrepreneurs are more likely to delegate the responsibility for the recruitment of the new CEO to the retiring CEO, while investors are likely to take on the responsibility of recruiting the new CEO. Table 1 presents the data on who selects the CEO in each firm for each category of ownership.

The results in Table 1 suggest that when a CEO recruits his successor, the firm's owner is an entrepreneur, not an investor. Furthermore, it suggests that it is more often the case that the entrepreneur delegates to the CEO the selection of his successor than that the entrepreneur selects the successor himself. In the case of entrepreneurs, 8 times out of 13, the CEO recruited his successor. With the institutional investor case in 1 instance out of 7 the CEO recruited his successor. In the individual investors case, 7 out of 7 owners recruited the CEO. In the investor case the control function is clearly administered by the investors, irrespective of whether the investors are

Table 1. The selection of CEOs by owners and retiring CEOs

Ownership structure	Recruitment by CEOs	Recruitment by owners	Total number of firms
Individual entrepreneurs	8	5	13*
Institutional investors	1	6	7
Individual investors	0	7	7
Sum	9	18	27

* Two teams were taken out from this particular analysis since they were management-owned firms where managers were the largest shareholders. Hence only 13 out of 15 concentrated owned firms are considered.

private or institutional. We now test hypothesis 1b that the CEO is likely to be the dominant recruiter for executive team members, with the exception of his replacement, irrespective of ownership. Table 2 shows the dominant recruiter for the rest of the executive team.

Table 2. The number of firms by ownership structure where owners were involved in the recruitment of executive team members excluding the CEO

Ownership structure	Number of cases of owner involved	Cases where CEO is involved	Total number of firms
Individual entrepreneurs	3	10	13*
Institutional investors	0	7	7
Individual investors	3	4	7
Sum	6	21	27

* Two teams were taken out from this particular analysis since they were management-owned firms where managers were the largest shareholders. Hence only 13 out of 15 concentrated-owned firms are considered.

The data indicates that CEOs generally are responsible for the recruitment of the executive team members excluding CEOs. Hence the data support hypothesis 1b.

Hypothesis 1c is next tested: that the owners' involvement in recruitment of members to the executive team (excluding the CEO) is more likely in individually-owned firms than in institutionally-owned firms.

Data in Table 2 also support hypothesis 1c. The categories of individual ownership, irrespective of degree of concentration, are where owners take active part in recruitment. In the 13 cases with entrepreneurs, 3 firms have owners or his representative recruiting team members not the CEO. In the institutional investor cases none of the 7 firms' owner(s) had any involvement in the recruitment of executive team members, with the exception of the CEO. 3 out of 7 individual investor-owned firms had a board of directors involved in the recruitment of team members.

The small size of the sample makes it difficult to express the complex relationship between the ownership structure and the degree of dominance by others than the CEO in a simple regression analysis. Instead a summary of the recruitment of the whole executive team by ownership structure is provided in Table 3. The indicator measuring the dominance of others than the CEO is measured by the percentage of the members of the team recruited by these people (see Appendix 1 for the description of the variable dominance of the recruiter for the whole executive team NOCEO).²¹

Table 3. Percentage of the team members (total) recruited by others than the CEO

Ownership structure	Dominance of others than the CEO recruiting the executive team (NOCEO)
Entrepreneurial firms	25
Investors:	
Institutional minority owned firms	34
Individual minority owned firms	30

²¹ The result of a regression analysis shows that market value or number of employed exhibit no significant effect on the degree of dominance of the CEO in the recruitment of team members.

Table 3 shows that the dominance of the CEO in the recruitment procedure for the executive team is more pronounced in the entrepreneurial firms than in the investor-owned firms. Compared to the sample mean of 30%, the dominance of others than the CEO in entrepreneurial firms is 25%.

Investigation of hypothesis 2

The second hypothesis to be tested is that entrepreneurs are more likely to use one referee, while investors are likely to use many types of referees. The endogenous variable in hypothesis 2 is the number of individuals involved in the recruitment for the executive team.

"Who recruited you?" was a question posed to all team members surveyed. This question provides information about which category or categories of individuals at different positions were responsible for a particular team recruitment. The answers were coded into four categories: mergers of firms²², the owner or his representative, the CEO, or others. The individual data were aggregated to a team measure for the dissimilarity of categories of individuals involved in the recruitment. A dissimilarity index, Index for Quantitative Variation (IQV), is computed (see Appendix 1 for a technical discussion on the dissimilarity index). The IQV for the variable measures the dissimilarity in the number of different categories of recruiters engaged for recruitment of the executive team members. When IQV_{rec} approaches one, several categories of recruiters are involved in the recruitment. When IQV_{rec} approaches zero, only a few categories are involved in the recruitment for an executive team.

The control variables are the size of the executive team (measured by the number of members of an executive team), the number of employees in the firm, and the market value of the firm. The reason for controlling for the size of a firm is that size as such can have an effect on the recruitment strategy. A large firm may have a large team in order to control a large organization. A large team may increase the number of individuals involved in the recruitment. Since the market value of the firm is argued to relate to ownership structure, the market value is controlled for as well.²³ A

²² In mergers, the deal can contain an agreement that the management is to be transferred to the new executive team of the firm. The motives may be that the firm's existence is based on particular individuals in the executive team. Other motives can be that the "inherited" managers are near retirement age.

²³ More capital is needed to control a large corporation than to control a small corporation. Hence, small firms in the sample have a more concentrated ownership than do large firms, measured by market value. This is consistent with findings elsewhere (Demsetz and Lehn 1985; Berle and Means 1932).

correlation matrix is depicted in Appendix 5. To test hypothesis 2 a path analysis is performed.

Pathmodel H2:1. The differences in the individuals involved in recruitment explained by ownership structure

$IQV_{rec} =$	$-.045*TEAM$	$-.62*CR$	$-.29*MV+$	$.16*EMPLOY$	$+ .82 *Z1$
Standard errors	.18	.20	.32	.31	
T-values	-.25	-3.13	-.91	.54	
Significant	no	yes	no	no	

The variation of the dissimilarity of categories of recruiters by the explanatory variables is $R^2 = .32$. The indicator ownership concentration (CR) has a significant negative effect on the variation of categories for recruitment (IQV_{rec}). (The T-value is larger than 2 hence the regression coefficient is parted from 0 on a 5% level.) A tentative conclusion from the relationship presented is that strong ownership implies similarity in categories of recruiters. Alternatively, in firms with a less concentrated ownership a diversity of categories of recruiters persists. The hypothesis that investors are more inclined to use several types of referrals, while the entrepreneur only a few, is therefore supported.

Investigation of hypothesis 3

The third hypothesis investigated is that owners are more likely to recruit by referrals while CEOs are more likely to use direct observation.

It is argued that the CEO and the owners collect information about potential executive team members in different ways. The CEO has the opportunity to directly observe his business contacts, his competitors and his previous colleagues in light of a possible future appointment. The owner does not have the same opportunity. The hypothesis investigated is that owners use references while CEOs use direct observation.

Direct observation is defined as recruitment based on knowledge and information from direct interaction in a social, work or business context. A referral is the one who responds with judgment or advice on a candidate. Common examples of referral sources are members of boards of directors or headhunters. In this category is also included the case where members are

recruited through firm acquisitions or mergers since they are not necessarily chosen based on direct observation, but on someone else's judgement. With direct observation, the recruiter has his own information about the candidates's actions and characteristics. (The owner who seeks someone else's judgment is compensating for information he lacks.)

One question posed to the 149 members of the 29 firms' executive teams was "What relationship did you have to the person recruiting you and what was his relationship to the firm?" The CEO's choice of a recruitment device and the owner's choice of a recruitment device are measured by looking at the proportion of referral-type recruitment used by each.

If the proportion of owners' recruitment based on referrals is greater than 50% then the owner in that firm more often than not behaves in accordance with the hypothesis. Table 4 presents the results for owners' search for information about potential team members.

Table 4. The frequency of firms with owners using referrals and direct observation

	Data in accordance with hypothesis Owners use of referrals > 50%	Not in accordance Owners use of referrals < 50%	Total cases with owners recruiting
Sum	13	9	22

The general recruitment pattern for owners shows that out of 22 firms where owners recruit, there are 13 cases of use of referrals and 9 cases of direct observation. Hence the data weakly supports hypothesis 3.

Table 5 depicts the results for CEOs' search behavior. If the CEOs' proportion of recruitment by referrals is less than 50% for a particular firm then the CEO is considered to behave in the predicted way by the hypothesis.

Table 5 The frequency of firms with CEOs using direct observation and referrals

	Data in accordance with hypothesis: The proportion of CEO using referrals < 50%	Not in accordance with hypothesis The proportion of CEO using referrals > 50%	Total
Sum	22	3	25*

* In two cases no CEO was involved in recruitment. In these cases the firms are management-owned firms and the CEO is treated as the owner in the analysis.

Data on CEOs' recruitment behavior give strong support for the predicted behavior. According to Table 5, in 25 firms where CEOs recruit, 22 choose direct observation as their main strategy for recruiting members for an executive team.

Investigation of hypothesis 4

Hypothesis 4 proposes that owners are likely to use external sources. Internally recruited CEOs recruit internally. Externally recruited CEOs are likely to recruit team members external to the firm. When owners in a firm recruit and their proportion of external recruitment is greater than 50%, they then behave in the predicted way. The results are presented in Table 6.

Table 6 The number of firms where owners recruit outside respectively inside to the firm

	Data in accordance with hypothesis: Owners' proportion of recruiting outside > 50%	Not in accordance with hypothesis Owners' proportion of recruiting outside < 50%	Total number
Sum	15	7	22

* In two cases no CEO was involved in recruitment. In these cases the firms are management-owned firms and the CEO is treated as the owner in the analysis.

Table 6 shows that out of 22 firms where owners recruit members for an executive team, 15 firms have owners that recruit externally while 7 recruit from inside the firm. Hence, the majority of the cases are in line with hypothesis 3.

A CEO categorized as internally recruited has been within the firm (the corporation) more than 5 years. Otherwise the CEO is considered externally recruited. If the internally recruited CEOs' proportion of external recruitment for his incoming replacement is less than 50%, the CEO behaves in the predicted way. The results are found in Table 7.

Table 7. The number of firms with internally recruited CEOs recruiting inside respectively outside the firm

	Data in accordance with hypothesis: Internal CEO's outside recruitment < 50%	Not in accordance with hypothesis: Internal CEOs outside recruitment > 50%	Total number
Sum	11	2	13

The data in Table 7 support hypothesis 4. Out of 13 firms with internally recruited CEOs, 11 firms have CEOs who recruited members of the executive team within the firm, while two have CEOs who recruited outside the firm.

If the externally recruited CEO's proportion of external recruitment is greater than 50%, then the externally recruited CEO behaves in the predicted way. Table 8 presents the results.

Table 8. Externally recruited CEOs choice of external versus internal recruitment

	Data in accordance with hypothesis: External CEO's outside recruitment >50%	Not in accordance with hypothesis: External CEO's outside recruitment < 50%	Total number
Sum	10	2	12

Thus hypothesis 4 is supported by the data. Table 8 shows that 10 out of 12 firms with externally recruited CEOs have CEOs who act in accordance with the hypothesis, i.e., they recruit from outside the firm.

Conclusions

In the present study it is argued that ownership structure affects the procedures selected to recruit members for an executive team. The findings suggest that ownership structure, whether the owners are entrepreneurs or investors, affects the probability of the establishment of a partnership between the CEO and the owner. Ownership structure also affects recruitment procedures for the CEO and for the rest of the team members, the frequency of external and internal recruitment of executive team members, as well as the source of information about potential team members.

The entrepreneurial owner's propensity to delegate to the CEO one of his most important control devices, namely the recruitment of the executive team and particularly the recruitment of the next CEO, is treated as an indicator of the existence of an implicit or an explicit partnership between the entrepreneur and the CEO. The empirical analysis shows that in those cases where recruitment of the CEO is delegated to the incumbent CEO, the owner is often an entrepreneur. Hence the data implies that the CEO has more discretion to choose his team and his successor in an entrepreneurial firm than in an investor-owned firm.

Typically CEOs are more likely to use direct observation when recruiting team members. If the CEO in an entrepreneurial firm recruits his successor, he tends to recruit someone from within the firm, since that is where he has the opportunity to directly observe. An internally recruited CEO who uses direct observation as a recruitment device thus leads the team members to be internally recruited.

Investors, on the other hand, tend to use referrals, and are therefore likely to recruit outside to the firm, even when they are recruiting to fill the position of the CEO. An externally recruited CEO is also likely to apply direct observation as a selection tool for candidates. Therefore this CEO tends to recruit outside the firm for executive team members.

Hypothesis 1a, that entrepreneurs are more likely to use the CEO in office for recruitment of his incoming replacement, while investors do the recruiting for the CEO's successor, renders some support by the data. However, it should be noted that there exist cases where the entrepreneur himself appoints his CEO.

Hypothesis 1b is also supported by the data. The normal procedure for recruiting the rest of the team members is that the CEO selects them.

Hypothesis 1c, that, irrespective of whether the owner is an entrepreneur or a group of investors, individual owners tend to be more involved in the recruitment of team members than institutional owners, is supported by the data. Institutional investors recruit the CEO, and typically the CEO recruits the rest of the team at his own discretion.

Hypothesis 2 proposes that entrepreneurs are likely to use few categories of referrals for the recruitment, while investors are likely to turn to several categories of referrals. This is also supported by the data.

Hypothesis 3 proposes that owners are likely to use referrals for gathering information about potential candidates for an executive team, while the CEO is likely to use direct observation, and is also supported by the data.

Hypothesis 4 is supported by the data. When owners recruit (most likely investors), they are likely to recruit outside their firms: Internally recruited CEOs are likely to recruit inside the firm, and externally recruited CEOs recruit outside the firm.

The results point to the complex issue of management discretion. It is often argued that the managers in the investor-owned firm have more discretion vis-à-vis the owner(s) than do the managers in entrepreneurial firms. However, if the degree of management discretion is measured by the amount of control over the recruitment process, the CEO in the entrepreneurial firm has a noteworthy amount of discretion compared to the CEO in the investor-owned firm. The partnership outweighs the "monitoring owner" effect of the entrepreneurial owner.

Finally, the results presented have some bearing on the research on labor markets for managers. Future research on the efficiency of the market for managers could benefit from taking the ownership structure of firms into consideration. The findings imply that the market for managers is less developed in the case when entrepreneurs dominate the stock market as compared to when investors dominate. In entrepreneurial firms the market for managers is more of an internal labor market in contrast to the investor-owned firms, where the managers are more likely to be recruited from outside the firm. Hence, in a bank-oriented financial system that fosters the dominance of entrepreneurs, a market for managers will remain underdeveloped.

CHAPTER II

Recruitment Procedures and Team Composition

Introduction

Sweden, with its homogeneous population, has a fairly homogeneous establishment of businessmen. It is often stated that the attraction for similarity is strong in the Swedish business community. Individuals within this group tend to make fine distinctions between individuals less similar and more similar to oneself. However, when the Chief Executive Officer (CEO) selects his executive team members, he does not necessarily choose them for their similarity to himself. Instead, it is plausible to suggest that he selects his team members based on his interests and based on the opportunities he confronts. Sometimes a selection based on similarity is instrumental to the realization of the CEO's interests, sometimes it is not. I shall argue that the ownership structure is one of the main factors setting the opportunities for the CEO's selection and composition strategy.

Ownership structure is decisive for selection strategy. Ownership structure, as shown above, affects the division of labor between the two leadership functions of control and implementation of the production plan. In the entrepreneurial firm control and implementation is assumed to be concentrated with the supra team, implying a partnership between the entrepreneur and the CEO. (See Chapter I). In the investor-owned firm control and implementation is concentrated with the executive team.

Since the control of management is organized in different ways, executive teams differ in their functions. The CEOs in the two types of owned firms assign different tasks to the two types of executive teams.

Below, I note two points. First, CEOs follow their interests and select a recruitment strategy based on the opportunity structure, and not on the availability of likable individuals. Second, given the instrumental behavior of the CEO, it is not always in his interest to yield to his attraction for similarity: CEOs can benefit from diversity. A CEO chooses a recruitment strategy conducive to diversifying his team when he has access to a partner in the entrepreneurial owner. The CEO will recruit for similarity when he has no such partner in the owner; he establishes a partnership with members of the executive team instead.

Organization of the chapter

In the first section it is argued that a CEO chooses a selection strategy for the executive team that is instrumental to his interests. The ownership structure is argued to be decisive for the CEO's opportunities to realize these interests. Given the possibility to establish a partnership with the entrepreneurial owner, the CEO assigns to the executive team as its main function, the accrual of information or possibly the decision-making. In the second section, the team's problem of an incompatibility between decision-making talent and the talent to accrue information is discussed. It is argued that the talent for information-accrual benefits from teams being differentiated while the talent for decision-making benefits from teams being integrated. Furthermore, it is argued that the opportunity structure, i.e., the ownership structure, is decisive for determining the selection strategy, and as well as for determining whether information-accrual talent or decision-making talent is sought.

In the third section different selection strategies are discussed. Team homogeneity is argued to be a prerequisite for integration, and team heterogeneity for differentiation. If decision-making talent is wanted by the CEO, the first strategy is chosen and vice versa. In the fourth section, the hypotheses are empirically tested. Finally, some conclusions are drawn.

Leadership design and the task of the executive team

The CEO, irrespective of the firm's ownership structure, dominates the recruitment of the executive team members. The CEO typically recruits his collaborators at his own discretion. In only six cases of recruitment for members of the executive team were the owners involved. When owners did actively take part in the recruitment of team members, they were often individual owners as opposed to institutional ones. Given the tendency of the CEO to be in control of executive team recruitment, what determines his selection strategy?

Autonomy or embeddedness in leadership selection

In the social science literature, two explanations are presented for an individual's choice of relationships, both in a work context and in other social settings: the "embeddedness" explanation and the "autonomy" explanation.

The embeddedness explanation states that a social structure is imposed on an individual restricting his autonomy to act. Many places and social

contexts (foci) are limited to people with certain characteristics (Feld 1982)¹ and the more frequently persons interact with one another, the stronger their sentiments of friendship for each other are apt to be² (Homans 1965, 133; March 1988; see a discussion of the embeddedness argument in Burt 1987, 1289-1290).

The autonomy argument states that individuals have a certain degree of autonomy in selecting their associates. For instance Andersson and Carlos (1979) define the establishment of a relational pattern as a product of an individual's instrumental and emotional choices and take the view that preferences direct an individual's choice of relationships.

Burt (1987) argues against the embeddedness idea (cohesion or socialization idea) and presents an alternative hypothesis. His idea of structural equivalence focuses on the competition between two individuals, ego and alter. Two individuals who are structurally equivalent occupy the same position in a social structure, i.e., they have the same relationship to all the other individuals in the studied population (Burt 1987, 1291). When two individuals occupy the same "structural equivalent position" they are in a competing situation with each other: the first individual may be substituted by the second. Hence, the action of one individual may lead to the necessity for the second individual to act in the same way in order to be perceived as attractive as the first individual.³

It is difficult to test whether a variation in action is a consequence of the differences in an individual's preferences or if they are only outcomes from a different opportunity structure. From the rational choice theory I assume

¹ Foci is defined as social, psychological, legal or physical objects around which joint activities are organized. Foci can be formal e.g., a school, or informal e.g., a regular hang-out (Feld 1981, 1061). Most associates are drawn from focused sets and foci sets tend to be relatively homogeneous (in relevant aspect). The more homogeneous the focus set, the more age similarity found with the associates of the individuals.

² Feld argues (1982) that the structure of opportunities must be understood before one can estimate the importance of preferences as a cause of observed relational patterns.

³ Burt's reexamination of the Coleman, Katz and Mentzel (1966) work on the diffusion of the medical drug, tetracycline among some physicians in Illinois during the 1950s shows that preferences in a competitive environment are decisive for whom you associate with. Burt's (1987) argues that the doctors' interest to stay in business made them choose with whom to interact in order to get the right information about medical innovations. Both the embeddedness idea and the autonomy idea predict diffusion of ideas and information. However, they provide different explanations for it.

that CEOs have certain preferences.⁴ These preferences are realized through a certain mechanism: influence through which the CEO's discretion increases. However, the actors do not act in isolation but interact within a social setting, often called an opportunity structure. I argue that a CEO's chosen strategies derive from the different opportunity structures, in this context by the ownership structure. By investigating the CEO's social relations to significant others, such as owners and other persons important for the CEO's career, his choice of actions can be explained.

The findings seem to imply not only that the social context limits the CEO's opportunity to select associates at his discretion, but also that individuals have a preference for similarity per se. If that were truly the case, all groups would become homogeneous and show a strong homophilic tendency over time. It is conjectured that sometimes it is beneficial to yield to the "attraction for similarity" and sometimes it is more beneficial to choose a selection principle based on diversity. In order to understand why sometimes similarity, and other times diversity, is sought, the effect of the ownership structure on the CEO's discretion in recruitment is investigated.

The opportunity structure of the CEO

The most important control function of an owner is the selection and dismissal of management. Nevertheless, as shown in the previous chapter, some owners (more often entrepreneurial ones) delegate to their CEO the appointment of his executive team, as well as the appointment of his own successor. The findings suggest that there is a difference in the division of labor between the control function and the management of the production plan. The traditional division of labor between the two functions is that the owners carry out the controlling function and the CEO and his executive team take care of decisions and the implementation of the production plan.⁵

⁴ This theory states that "...the actors choose among alternatives available in a certain situation, that course of action which promises the highest expected utility. The utility expected is a function of the utilities and disutilities that an actor expects from the consequences of a given course of action, and the subjective estimated probability with which the actor thinks these consequences will flow from that course of action. The actor's choice among alternatives cannot be explained by a rational choice theory unless assumptions are made which describe how structural conditions ... influence the utilities, the expectations, or even the behavioral alternatives." (Flap 1988, 96)

⁵ See Chapter I for a more elaborated discussion.

The delegation to the incumbent CEO the responsibility of recruiting his own successor is enabled by the establishment of a partnership between the entrepreneur and the CEO.⁶ The establishment of a partnership between a CEO and several investors who each have a small shareholding is less likely, and hence it is improbable that the CEO in an investor-owned firm recruits his successor. The investors themselves usually appoint the CEO. An investor with a controlling share, however small this share is, may have information about capable CEOs through sources other than the incumbent CEO, for instance through CEOs in other firms or through members of board of directors.⁷

One may hypothesize that the leadership tasks, i.e., the control and the management of the production plan in the entrepreneurial firm take place within a dual team consisting of the entrepreneur and the CEO. The dual team, the supra team, may be based on a partnership between the owner and the CEO. The investors, on the other hand, obey the traditional division of labor. The investors appoint the CEO and leave it up to him to determine and implement the production plan. The two types of ownership structure establish two types of opportunity structures for the CEO to select his team.

It is plausible to suggest that the two types of leadership structures imply different tasks for the executive team. The firm with a supra team does not particularly need an executive team that is talented in deciding over the production plan because the supra team takes care of that task. The CEOs in these firms prefer that the executive team be mainly talented in information-accrual. However, in the investor-owned firm that has no supra team, the CEO prefers an executive team to be talented in taking decisions about the production plan.

Selection strategies for similarity or diversity

Given the interests of the CEO, what would be his choice of an instrumental selection strategy? Is it the attraction for similarity, or another principal, or is it ad hoc?

It is often argued by scholars that given an individual's free choice to select whom he wants to work or socialize with, he typically chooses similar others (McPherson and Smith-Lovin 1987; Feld 1981; Kandel 1978; Cohen

⁶ See Chapter I for a more elaborate discussion of the prerequisite for the establishment of partnership between the CEO and the entrepreneurial owner.

⁷ As shown in Chapter I, a CEO in an investor-owned firm is likely to be externally recruited.

1977; Laumann and Pappi 1976; Berscheid and Walster 1969; Rogers and Bhowmik 1969; Homans 1965; Lazarsfeld and Merton 1954). However, I claim that the choice between similarity and diversity strategies in composing an executive team is contingent on the opportunity structure identified by the CEO.

The research on the attraction for similarity is often discussed in the context of friendship choices. Empirically, tests have more often been performed on children and young adults (Verbrugge 1977; Kandel 1978; Cohen 1977), even if there does exist research on the attraction for similarity in adult work groups (Fischer et al. 1977; McPherson and Smith-Lovin 1987). Both Kandel (1978) and Cohen (1977) showed prior similarity on a variety of behaviors and attitudes to be determinant in interpersonal attraction and association. Friendship further increases as the two individuals relate to each other, since an influence upon each other is a result of the continued association.

However, individuals within a competitive setting such as an executive team do not necessarily prefer to select members on the basis of similarity. Below it is suggested that the CEO's action, given his instrumental interests, is guided by his opportunity structure. His purpose is to obtain an executive team instrumental to his interests. If the ownership structure is conducive to the establishment of a partnership between the owner(s) and the CEO, the CEO can realize his interest by giving the executive team a specific task. Hence, the CEO in an entrepreneurial firm who establishes a partnership with the entrepreneur mainly needs a team with information-accrual talent, while the CEO in an investor-owned firm needs a team talented in decision-making.

The leadership paradox

When a group is involved in decision making, it must be able to reach agreements. It is important that a decision-making body find ways to decide on issues quickly, and then be able to obey the plan decided upon. Research on small groups suggests that the more similar the members are, the easier they reach consensus decisions (Moreno 1934; Rogers 1962). *"When the source(s) and receiver(s) share common meanings, attitudes, and beliefs, and a mutual code, communication between them is likely to be more effective."* (Rogers and Bhowmik 1969, 528).

If a CEO needs a team talented in decision-making, he will choose members with similar characteristics in order to ease communication and increase the likelihood of reaching decisions by consensus. If the CEO

needs a team efficient in information- accrual, the optimal group composition is likely to be diverse. Group cohesion⁸, the mechanism that makes groups efficient in taking decisions, is likely to impede or restrict the accrual of relevant information.

The literature suggests two ways in which cohesion restricts information accrual. One of the processes is formulated by Granovetter (1973). Granovetter claims that what makes a small group cohesive are strong ties. Granovetter suggests that *"... the strength of a tie is a (probably linear) combination of the amount of time, the emotional intensity, the intimacy (mutual confiding), and the reciprocal services which characterize the tie"* (Granovetter 1973, 1361). Granovetter claims that more intensive dyadic interaction ultimately leads to the formation of a dense, close-knit network in which most members directly interact with each other while weak dyadic ties produce a loose-knit network in which many of its members do not interact directly with each other. As a result, a highly cohesive network tends to become exclusively self-sufficient and increasingly isolated. The network, or group, becomes more or less closed to outsiders and the boundary between members and non-members becomes rigid (Granovetter 1973). Granovetter's point is that individuals in loose-knit networks are more likely to be exposed to information sources that provide novel information.

The reasoning behind Granovetter's idea is twofold. First, building strong ties involves more time commitment (Granovetter 1973). The more cohesive the group gets, the greater amount of interaction it demands, and vice versa. Ties external to the network will be less entertained.

Second, cognitive balance theory postulates that if a and b are connected by strong ties and a and c interact intensively, b and c also will interact (the transitivity argument). However, it is possible to find examples of how a person learns to live with, or even learns to prefer, imbalanced triads, especially in larger structures. While there is no doubt that *"... structural balance theory has received impressive corroboration in empirical research ... transitivity is certainly not expected to occur as a matter of course in political networks, in fact imbalance triads are very common in politics."* (Anderson, 1979, 455-456). Anderson further states that a friendship relation is in practice often intransitive as well. Meanwhile, research points to the fact that an individual who is dissimilar to the rest of his team members

⁸ Shaw (1981) defines cohesiveness as the degree to which members of the group are attracted to each other (Shaw 1981, 213). Social integration is a term used synonymously with cohesion. Katz and Kahn (1978) define social integration not only by the degree of attraction between members, but also by the satisfaction among members of the group and the social interaction among the group members.

tends to exit the team (Wagner, Pfeffer and O'Reilly 1984) and groups marked by internal differences are most likely to dissolve (Newcomb 1961; McCain, O'Reilly and Pfeffer 1983).

A second factor likely to limit information accrual in cohesive groups is cognitive dissonance. According to the theory of cognitive dissonance, individuals are more willing to expose themselves to information that is consistent with their beliefs or decisions than they are to information that conflicts with their beliefs or previous decisions. Individuals connected with strong ties tend to develop a commitment to each other and to their group. According to theories of cognitive dissonance, information that disturbs the consensus of the group's basic perception of reality is likely to be rejected. If there is a collision between an individual's values and those of his group the individual will handle the situation and avoid experiencing cognitive dissonance by adjusting his values.

An illustration of cognitive dissonance is given by Gilad, Kaish and Loeb (1987). They found that poorly performing business acquisitions are often not divested until the senior executive responsible for the acquisition leaves the firm. This suggests the biasing effect of strongly held beliefs on the ability to cope with contradictory information, and to arrive at important decisions, such as that to divest. (For further elaboration of cognitive dissonance see Frey 1982; Festinger 1957.)

The CEO who wants a team talented in information accrual would thus want to recruit members who have tentacles into different spheres of life and who are free to take in novel information. In order to achieve this goal the CEO must avoid creating a cohesive team, and recruit dissimilar members instead.

Homogeneity and integration

The term similarity is given various meanings by different scholars. Some use similarity to describe individuals thinking in the same way or sharing the same goals (Lazarsfeldt, Berelson and Gaudet 1944; Simon 1976). Others understand similarity in the sense of observable attributes such as similarity in education, age and other typical demographic aspects (Wagner, Pfeffer and O'Reilly 1984). Homophily is a related concept that refers to the tendency of people in friendship pairs to be similar in various respects, such as beliefs, values, education and social status (McPherson and Smith-Lovin 1987; Rogers and Bhowmik 1969).

In the present discussion a team is defined as a homogeneous unit if it consists of members with similar observable attributes such as age, social

background, marital status and education. Members of a homogeneous unit thus defined, do not automatically share the same values and do not necessarily reach unanimous decisions. An integrated group therefore is defined as a group characterized by strong group consensus. Members of an integrated group share the same goals, and the group has an important influence on its members' values and actions. Members of a differentiated group, on the other hand, do not share common goals and therefore the group is not cohesive.

Homogeneity increases the degree of integration

Similarity in attributes such as age and socio-economic status is argued to be conducive to group cohesion or integration (Hoffman 1985; Ward, La Gory and Sherman, 1985; Tsui and O'Reilly 1989; Wagner, Pfeffer and O'Reilly 1984). As mentioned above, relationships formed at the workplace are likely to be homogeneous with respect to socio-economic status (Fischer et al. 1977; McPherson and Smith-Lovin 1987). Individuals who are similar with respect to age and other demographic characteristics tend to communicate and understand each other better than do dissimilar individuals (Rogers and Bhowmik 1969). Similarity in demographic aspects increases the propensity for strong contacts between two individuals. Strong contacts between individual members increase the cohesion of a group (Bercheid and Walster 1969; Granovetter 1973). The findings that homogeneity increases the likelihood of integration are consistent with theoretical explanations including Heider's balance or congruity theories (1958) and Homans' (1961) reward theory.

CEO preference for integration or differentiation

It is suggested that three factors affect a team's degree of integration. The first is the possibility of recruiting and dismissing at the CEOs' discretion. In Chapter I it was found that CEOs in general have the discretion to choose their team members. The second factor is the possibility for individuals to leave the team. This is an option that, at least in theory, all employees have by law. Furthermore, it has been shown empirically that an individual leaves the firm if he differs too much from the rest of his work group (Wagner, Pfeffer and O'Reilly 1984). Given the existence of the first two factors, it is suggested that the third factor affecting the degree of integration is the degree of homogeneity.

A CEO is expected to recruit executive team members following his preferences. The strategy he chooses to fulfill his interests varies with the

presence or absence of a partnership between himself and the owner, as influenced by the ownership structure. It is suggested that the CEO who belongs to a supra team is primarily interested in having an executive team talented in information-accrual, and therefore his strategy is to recruit a differentiated team. The CEO who has no easy access to the owners (the investors) and who is dependent on the executive team for decision-making and for implementing the production plan, is primarily interested in a team with decision-making talent, and therefore would want an integrated executive team.

The CEO who has a partnership with the owner will look for team members who are heterogeneous. The heterogeneous team is then assumed to become differentiated. The other type of CEO will look for similar team members in order to create a homogeneous team which is anticipated to become an integrated one. Hence,

H1: A CEO having a likely partnership with the owner(s), is likely to put together a heterogeneous executive team. The CEO with no such partnership is likely to compose a homogeneous team.

Even if the CEO is the dominant recruiter and has the discretion to select at will, others may be involved in the recruitment. In the previous chapter it was shown that ownership concentration affected the number of categories of individuals involved in recruitment. The analysis below therefore considers the number of individuals involved in the recruitment of the executive team. A likely conjecture is that the more categories of individuals (owners, headhunters, and others) involved in the recruitment, the more dispersed are the selection criteria applied and the more heterogeneous the team membership is. Consequently,

H2: The larger the number of categories of individuals involved in the recruitment of the executive team, the more heterogeneous is the team.

CEOs who seek a team with information-accrual talent are suggested to want a relatively large team consisting of members from different key positions in the firm. CEOs with the ambition to compose a cohesive team are suggested to want a small team, as the smaller the membership, the easier it is to reach a consensus.⁹

⁹ Research on the effect of group size on conformity and consensus is somewhat ambiguous. However, the findings suggest that group size is an important factor in determining the amount of yielding to conformity pressure. Increased group size increases the group pressure to conform to the group's opinion (Thomas and Fink 1963). However in the present context, the group is to be acting and taking decisions in accordance with the CEOs' preferences. The CEOs' control of a consensus is possibly easier in a smaller group than in a larger.

Hence,

H3: CEOs who want an information-accrual team are likely to put together a large team. CEOs who want a decision-talented team are likely to put together a small team.

Finally, as shown above, there are reasons to believe that homogeneity affects the degree of integration of an executive team. Hence,

H4: A homogeneous membership is likely to result in an integrated team. A heterogeneous membership is likely to result in a differentiated team.

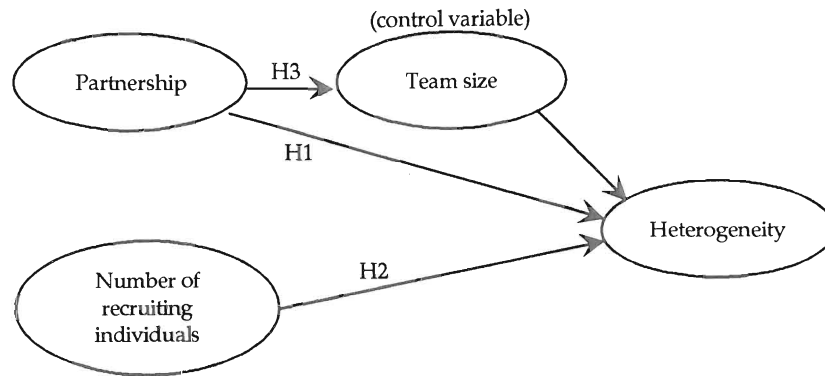
Results from the empirical investigation

The structural relationships between the variables in the hypotheses are investigated by two covariance structural models. The testing and the estimation of the models are performed by SIMPLIS. SIMPLIS is a user-friendly program for the analysis of covariance structural models such as LISREL models (Jöreskog and Sörbom 1986). A LISREL model contains two main elements: a structural model and a measurement model, and is a combined path analysis and a factor analysis (LISREL VI 1984). In the proceeding, the structural model is the focus of the analysis. The structural model is based on the assumption of relationships existing between the unobserved variables (latent variable(s)) represented by the concepts in the conceptual path model. The parameters that measure these relationships are analogous with standardized regression coefficients. The measurement model creates the latent variables used in the path analysis. Direct measurable indicators are assumed to be caused by a latent variable. The correlations between the indicators therefore are explained by this common factor, expressed by the latent variable.

The input in the statistical LISREL analysis is a correlation matrix. A comparison is made between the correlation matrix and the matrix produced by the theoretical model to see if the specified model fits the data (for more elaborate information on LISREL, see Jöreskog and Sörbom 1987; Loehlin 1987; Colbjørnsen, Hernes and Knudsen 1984).

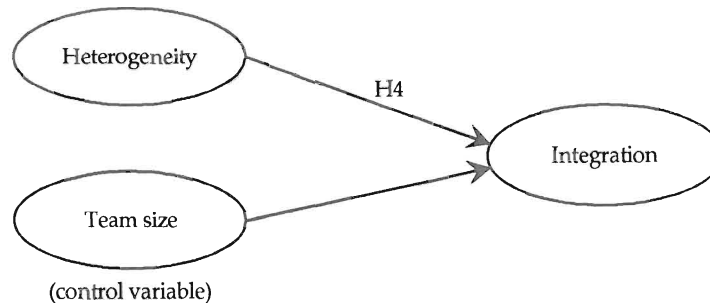
It is plausible to suggest that the larger the executive team is, the less homogeneous and integrated the team is likely to be. Hence, the team size is controlled for in the two LISREL models. In the first LISREL model, sub model 2:1, the first three hypotheses are tested. The sub model is captured in the conceptual path model shown in Figure 1.

Figure 1. Sub model 2:1, a conceptual path model of recruitment effects on team composition for hypotheses 1-3



The second LISREL model, sub model 2:2, tests the third hypothesis with consideration to team size. Sub model 2:2 is captured in the conceptual path model shown in Figure 2.

Figure 2. Sub model 2:2, a conceptual path model for hypothesis 4



The basic descriptions of covariances concerning the three hypotheses are presented in Appendix 5 and the characteristics of the univariate distributions are presented in Appendix 1.

Sub model 1: The effect of CEO dominance on team heterogeneity

The first hypothesis tested is that the CEO who has a partnership with the owner(s) is likely to recruit heterogeneous individuals for his executive team. The CEO who has no such partnership is likely to appoint similar

members. This explanatory variable, partnership, measures the degree of control the CEO has in selecting the whole executive team. As explained earlier, the CEO in the entrepreneurial firm tends to recruit his own successor, in addition to selecting the rest of the team. The CEO in the investor-owned case has less control, since the investors always play an active role in recruiting the CEO. The degree of control the CEO has over the selection process that determines his own successor is interpreted as an indicator of the establishment of a partnership between the owner and the CEO.

Hence, the degree of control over recruitment distinguishes CEOs between those who are likely to recruit executive team members for their information-accrual ability and those who are likely to recruit team members for their ability to reach a decision.

The explanatory variable is operationalized by the percentage recruited by somebody other than the CEO (NOCEO). The categories contained in other are mergers, owners and others (see coding scheme in Appendix 1). When the indicator NOCEO takes on a high value this means that people other than the CEO take active part in recruitment. When NOCEO takes on a low value, the CEO dominates the recruitment process for the executive team.

The explained variable in hypothesis 1 is the degree of heterogeneity (Heterogeneity). This variable is measured by four indicators: heterogeneity in age (AGE_{sd}), dissimilarity of social background (SEI_{iqv}), dissimilarity of place of adolescence (ADO_{iqv}) and dissimilarity of education (EDU_{iqv}).¹⁰ The 149 individuals were asked about their education, age, place of upbringing and social background. The individual data are aggregated to the team level (see Appendix 1 for the codings of the indicators). For each team a dissimilarity index is computed for three of the four heterogeneity aspects, education, social background and place of adolescence. The indicator Age_{sd} is measured by the standard deviation.

The second hypothesis tested is that the more categories of individuals involved in the recruitment of the executive team, the more heterogeneous is the team. The explanatory variable is defined as the number of individuals involved in recruitment of executive team members and is computed by the indicator IQV_{rec} described in Chapter I. (See also Appendix 1 for the univariate description of the distribution.) The third hypothesis to be tested is that CEOs who want an information-accrual team are likely to put together a large team. CEOs who want a team talented in making decisions are likely to put together a small team. The explanatory variable is the degree of CEO control (NOCEO) over recruitment described in Chapter I. The explained

¹⁰ See definition of dissimilarity index (IQV) in Appendix 1.

variable is the size of the team and is measured by the number of individuals in each team. A description of the univariate distribution of team size is presented in Appendix 1.

In order to show the net effect of the explanatory variables for each of the four discussed hypotheses, a LISREL analysis is performed. A LISREL analysis is preferred to a regression analysis because there is a possibility to consider measurement errors in estimating the regression coefficients. Including a measurement model with several indicators gives the option to estimate the structural relationship between "true" latent variables.

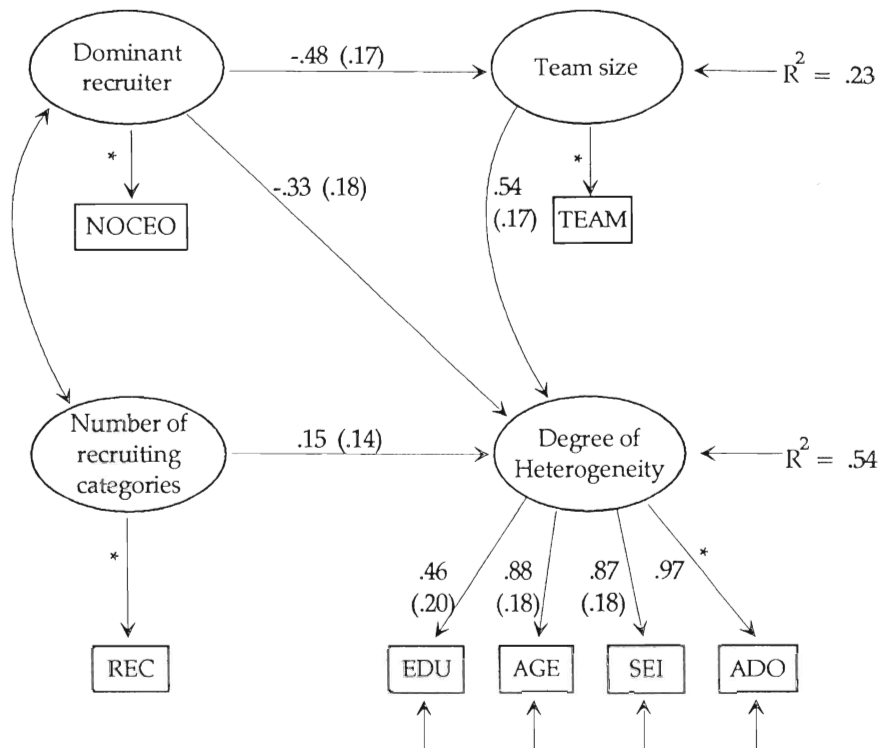
The measurement model for the degree of heterogeneity is a one-factor model measured by the four indicators. When the endogenous latent variable has a measurement model, the coefficient of determination will be higher compared to when a measurement model is lacking. The explanatory variables (REC, NOCEO and TEAM) lack estimates of measurement errors. This may result in an underestimation of these structural parameters if the indicators are unreliable (see a discussion on disattenuation in Jöreskog and Sörbom 1981, 132). This is not likely to happen in our case where the dominance of the recruiter is measured by the actual individual and his characteristics, and where the team size is an accurate number.

The sub model 2:1 is depicted in Figure 3. Circles in the figure symbolize the unobserved variables while the observed variables are indicated with squares. The outcome of the parameter estimation is presented with the standardized solution with the standard errors in parentheses for the coefficients reported. Since the sample is small, the standard errors for the structural parameter estimates are quite high. In the figures only the significant paths are reported. The estimates of the parameters are based on the assumption that the latent variables (the circles) have a variance equal to 1. The standard solution makes it possible to compare the partial regression coefficients to each other.

The analysis shows that there is a weak direct effect of a dominant recruiter on the degree of team heterogeneity, but a strong indirect effect through the choice of team size. The number of individuals involved in recruitment has no significant effect on degree of heterogeneity.

The data support the model specification, although some results are weak. The test of the fit of the model is acceptable with a chi-square equal to 11.2, with degrees of freedom equal to 11, and with a probability of .42 including, over and above the structural relationship between the latent variables, a direct effect of 'dominant recruiter' on 'place of adolescence' as indicated by the modification indices.¹² The coefficient of determination for the structural equation is high ($R^2=.23$, and $.54$). The more dominant the CEO is in recruitment process, the more likely it is that the CEO will choose

Figure 3. LISREL model 2:1, Recruitment procedures and degree of heterogeneity¹¹



* = fixed parameters are inserted to make the measurement¹¹ model identified

$$\chi^2 = 11.28 \quad df = 11 \quad p = .42$$

¹¹ LISREL has the ability to take measurement error into account. Two alternative approaches are applied in the present analysis. The first is a simple relationship between an observed variable and the corresponding latent variable. The parameter in this relationship is fixed to one which means identity between these variables. The other type of measurement model is a factor model with several indicators. In this case it is necessary to fix the scale of the latent variable to get the model identified. For instance latent variable degree of heterogeneity the observed indicator ADO is chosen as the scaler.

to recruit a large team (-.48). Furthermore, the more dominant the CEO is in the recruitment process, the more likely he is to put together a heterogeneous team (-.33). Alternatively, the more people other than the CEO involved in recruitment, the more homogeneous is the resulting team. Yet the strongest effect on the degree of heterogeneity is the team size. The larger the team, the more heterogeneous is its membership (.54).

Sub model 2: The degree of heterogeneity affects the degree of integration

The fourth hypothesis to be investigated is that a homogeneous team is likely to result in an integrated team. Heterogeneous team is likely to result in a differentiated team. The explanatory variable in the test of the fourth hypothesis is heterogeneity. Team size is also considered in the analysis since it is plausible to assume that large groups have more difficulty reaching consensus, *ceteris paribus*.

The explained variable, degree of integration, is measured by three indicators: integration with respect to having mutual values (GV), to discussing personal matters (GP) and to socializing privately (GS). The questions posed to each team member were: "With whom on the team do you (1) socialize (family wise)? (2) discuss private and personal matters? and (3) share common values about business and life?"

A relation matrix showing each team member's relationship to all the other team members in all the three dimensions of integration is constructed. From the matrix a cohesion index is constructed for each aspect of integration. The index G divides the number of mutual choices in a binary matrix of directed ties by the maximum possible number of such choices (Knoke and Kuklinski, 1983, p. 50). Only the symmetric ties are counted, i.e., only when both respondents claim to relate to the other in a certain integration aspect is the tie counted (see a technical description in Appendix 1). The cohesion index ranges from 0 to 1. A large G value indicates that a greater proportion of the team members is related in a certain way, for instance that they socialize. For illustrative purposes an index with all the

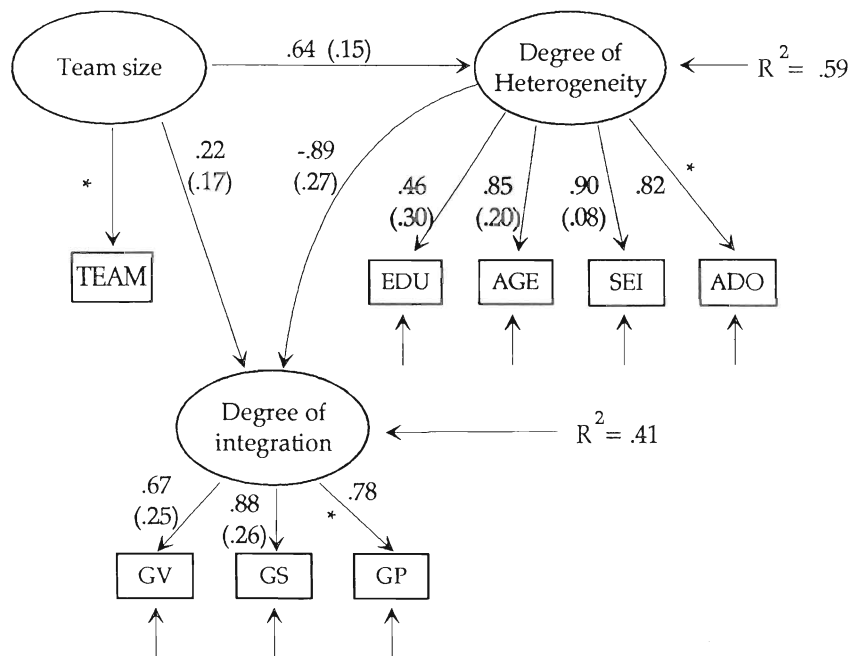
¹² The test statistic chi-square, (11.28) df=11, expresses the difference between the input covariance matrix and the corresponding matrix achieved under the assumption in the specified model. The p-value (.42) equals the probability of getting the observed chi-square or a larger value. As this probability is larger than .05 (critical value) the model has an acceptable fit. The rule of thumb is that a model with a chi-square approximately equal to the degrees of freedom has an acceptable fit. The t-test for all estimated regression coefficients are above plus minus 2 on a 5% confidence level.

cohesion indicators is constructed and labelled INTEGR. (See the correlation matrix in Appendix 5.)

In order to sort out the net effects of the explanatory variables and to determine whether the heterogeneity variable has a direct effect on integration over and above the effect explained by the size of the team, sub model 2:2 is constructed.

The model fits the data. The chi-square is 23.2 with 18 degrees of freedom and the probability value is .182. The coefficients of determination are large (.41 and .59 respectively) in this model compared to sub model 1.¹³ Hence, the data support hypothesis 4. The degree of heterogeneity has a strong negative effect on the degree of integration for a team (-.888). The effect of the size of the team on the degree of integration (.22) is not significant.

Figure 4. LISREL model 2:2, Degree of heterogeneity decreases degree of integration



* = fixed parameters are inserted to make the measurement¹¹ model identified

$$\chi^2 = 23.22 \quad df = 18 \quad p = .18$$

Conclusions

The present exploratory study confirms that the CEO composes his team differently depending on whether or not there exists a partnership between himself and the owner. The first type of CEO, engaged in a partnership with the owner, tends to compose an information-efficient team while the second type of CEO tends to compose a team talented in decision-making. Either type of CEO could, if he so desired, choose a selection strategy based on similarity since both types of CEOs have the discretion to select their executive team. However, the empirical results support the idea that CEOs choose different strategies.

The ownership structure seen as the opportunity structure for the incumbent CEO exhibits a very complex relationship to team composition. Moreover, the sample is small. The research strategy is therefore to let the effect of the ownership structure on team composition be mediated by the existence of a partnership between the owner and the CEO. The recruitment procedure for the executive team serves as the device to identify the existence of a partnership.

When a CEO in an entrepreneurial firm, where partnerships are most likely to occur, composes his executive team, he chooses a strategy different from his counterpart in the investor-owned firm. The CEO in the first case has access to the owner (the entrepreneur) and he can discuss and take important decisions on investment plans with the owner. The main task this kind of CEO gives to his executive team is that of giving and receiving information and therefore this team should be information-accrual talented. In an investor-owned firm the owners are more difficult to mobilize in matters of importance and urgency. Furthermore they are assumed to leave if they do not like the rate of return. The CEO in this type of firm chooses the strategy that puts together a team efficient primarily in taking decisions, decision-talented team.

The CEO who wants an information-talented team puts together a large and differentiated team made up of members who have different demographic characteristics and who do not develop a strong consensus through the sharing of values and strong personal bonds to each other. Conversely, the CEO who wants a decision-talented team chooses a small and well-

¹³ This is partly due to the fact that measurement errors are considered, since both the explanatory factor and the explained variables have measurement models. The estimates give the "true" structural relationship, a disattenuated relationship (structural relationship where measurement errors are controlled).

integrated team made up of members who have similar social backgrounds, similar educations, shared values and established personal relationships among each other. The results are only valid for firms confronted with a crisis signal. Statistical analyses support three out of four hypotheses.

Hypothesis 1: A CEO with discretion to compose his team is likely to put together a heterogeneous team, while a CEO with less discretion is likely to create a homogeneous team of members who are similar to each other.

Hypothesis 2: The number of categories of individuals involved in the recruitment of the team members has no significant effect on team composition.

Hypothesis 3: The CEO who is likely to want an information-talented team is likely to choose a large team. The CEO who seeks to create a decision-efficient team is likely to choose a small team.

Hypothesis 4: A homogeneous team is likely to become an integrated team, while a heterogeneous team is likely to become a differentiated team.

CHAPTER III

Team Composition and Social Capital

Introduction

It was shown in Chapter I that the entrepreneurial firm's executive team can have direct access to the financial capital through the establishment of a partnership between the CEO and the entrepreneur. The ease with which the owner can be mobilized for an investment project increases the team's discretion. On the other hand, those executive teams with no partnership, typically found in investor-owned firms have difficulty mobilizing the owners. These teams have to rely on other resources for financial assistance. In the second chapter it was argued that the composition of the executive teams varies with the existence of a partnership. In the case where a partnership exists, the CEO typically selects an executive team that is differentiated and information-accrual oriented. When a partnership is absent, the team is integrated and decision-making oriented.

It is not, however, the internal relational structure alone that differs between the two types of executive teams, but the team's external relational structure as well. It is suggested below that the members of an integrated team compensate for their poor access to financial capital (their inability to mobilize the investors) with a special type of social capital. The integrated team members try to increase their control over their environment by utilizing a part of their social capital, i.e., their external network, through which they can mobilize their strategic environment. An external network with a mobilizing purpose is argued to contain a specific relational structure among resource individuals.

The differentiated executive team members with their relatively easy access to financial capital through the established partnership with the entrepreneur do not have to mobilize their external network for financial capital to the same extent. Instead, it is suggested that since their main task is to accrue novel information, they will develop an external network conducive to receiving novel information.

The two types of developed social capital mentioned above are structured in different ways. A mobilizing external network is suggested to be built on strong and redundant (overlapping) ties. This relational structure is suggested to be conducive to the sharing of values and to the establishment of norms that enable the members to influence their ties. The relational

structure will restrain or activate individual actions in the strategic external network of the team. An external network conducive to information accrual is argued to be built on weak and non-overlapping ties. These types of ties are argued to increase a team's reach to new networks which can carry novel information, and to crowd out routine information.

Organization of the chapter

In the first section I argue that the efficiency of social capital must be related to its purpose. Consequently, executive teams that are assigned varying tasks and hence have a contrary composition exhibit a different structure of their social capital. In the second section it is argued that weak ties are more often nonredundant than redundant (overlapping). In the third section, it is suggested that the social capital of an executive team (in this case the external relational structure) is structured in a way to provide the integrated team with an external network that has a mobilizing function, while the differentiated team's efficient social capital is more oriented towards information accrual. Furthermore, it is suggested that a mobilizing external network contains strong and redundant ties whereas the information-accrual network is structured by weak and nonredundant ties. In the fourth section the derived hypotheses are tested. Finally, some conclusions are drawn.

The executive team and the structure of its social capital

An important idea within network research is that personal relationships are resources for instrumental action (Lin 1982; Lin and Dumin 1986).¹ Burt refers to social networks as a form of social capital analogous to human capital. Human capital is defined as the array of valuable skills and

¹ There is a great variety of research that presents networks from different perspectives, yet there is not to be found an integrated systematic theory of networks. The concept of a network is often used as a metaphor. The problem with metaphors, especially in science, is that the concepts in use become unclear and therefore difficult to interpret (Mitchell 1969). There are however suggestions as to how to define a network and its body of concepts.

A frequently used definition is that network is a set of direct and indirect social relations centered around a given person, object or event (see Mitchell 1969). Anderson and Carlos (1979) state that these links are instrumental in the sense that they serve to attain certain ambitions or goals and to communicate aspirations and expectations.

Links/ties that connects different actors in a network can be expressed as strong or weak, and as positive or negative. Ties are dynamic by nature and likely to change.

knowledge a person has accumulated over time. Social capital is the array of valuable relationships a person has accumulated (Burt 1991, 2).² According to Burt, a network is not only a device to receive resources, but a network is also a device to create resources such as new networks that in turn create resources and opportunities, i.e., social capital. *"Your social capital gives you opportunities to turn a profit from the application of your human capital."* (Burt 1990, 5).

Burt (1990) defines the efficiency of a network by the total number of people one can reach through primary contacts (people to whom an individual is connected through nonredundant ties, i.e., nonoverlapping ties) and by the reach or access to new spheres or circles. Burt also introduces the concept of effectiveness. The effectiveness of a network is defined by the total number of contacts reached with primary contacts which yield the largest size of a network (Burt 1990, 10).³

The two characteristics of network efficiency and effectivity as defined by Burt are too restrictive in my view. Coleman defines social capital more broadly. *"Social capital is defined by its function. It is not a single entity but a variety of different entities, with two elements in common: they all consist of some aspect of social structures, and they facilitate certain actions by actors, whether persons or corporate actors within the structure. Like other forms of capital, social capital is productive, making possible the achievement of certain ends that in its absence would not be possible"* (Coleman 1988, p. S98).

The crucial factor determining how an efficient and effective network should be structured is the social context of the involved actors. One type of relational structure may be instrumental in a specific social structure where another type is not. I propose that the effectiveness and efficiency of the relational structure, i.e., the social capital, is contingent on the strategic situation. In accordance with Coleman's definition, social capital can be applied for different purposes given different contexts, and hence will be structured differently in order to be both effective and efficient.

² Burt suggests that research within this stream may be divided into two sections. In the first network is seen as something that provides you with specific resources, for example becoming wealthy, or getting a job (Lin 1982; Lin and Dumin 1986; Granovetter 1973). The second line of research suggested by Burt is how the structure of your network is a form of capital in its own right (see Burt 1990, 3).

³ The structure of networks yield benefits. For instance, information benefits occur in three forms according to Burt: access, timing and referrals. Access refers to receiving a valuable piece of information and knowing who can use it. *"Timing is making sure that you are informed at the right time. Referrals give you opportunities for the future."* (Burt 1991, 7).

The CEO in the investor-owned firm who lacks access to an entrepreneur, and thus lacks access to easily mobilized financial capital, has to rely almost totally on his social capital. Hence, the CEO and his team are suggested to want to influence those who possess resources valuable to them. Since the relational structure conducive to information accrual has already been discussed in Chapter II, the mobilization ability of the network is the primary focus below. However, first some conceptual differences among scholars over a crucial type of tie need to be discussed and clarified.

Nonredundant ties are likely to be weak

Granovetter presented the thesis that a specific type of weak tie, the bridge tie, is more instrumental for access to novel information than strong ties (Granovetter 1973). Granovetter defines a bridge tie as a tie that links two networks with each other that otherwise would not be connected. The bridge tie is typically weak since the process of cognitive balance tends to eliminate unbalanced triads that make all three persons interconnected (Granovetter 1973, 1364–1365).

Burt's definition of nonredundant ties is similar to Granovetter's definition of a bridge tie. According to Burt "*Nonredundant contacts reach diverse groups of people. Two contacts are redundant to the extent that they lead you to the same people, and the same network benefits.*" (Burt 1990, 6).⁴ The definition given by Granovetter and Burt differ in their characterization of the efficient tie. Burt suggests that an efficient tie is strong and nonredundant, whereas Granovetter's idea is based on the notion that an efficient tie is a bridge tie, which is by definition weak and nonredundant.

Table 1. Concepts used by Burt and Granovetter

Scholar	Network concept			
	Strong ties		Weak ties	
Granovetter	nonredund	unlikely	redund	nonredund bridge ties
Burt	redund	nonredund	redund	nonred""

⁴ The terminology used by Burt is more instructive. Hence, instead of the term "bridge tie", I prefer to use the term "nonredundant tie". Yet when referring to the scholars' work, their choice of terminology is used.

In order to reduce confusion about the network concepts used, Table 1 can clarify the distinctions.

Burt (1990) contends that an ideal contact network is high in velocity, trust, size and diversity. Velocity refers to the rate at which information circulates through the contacts. Network benefits depend on contacts actively communicating with one another. Trust, according to Burt, refers to "*your confidence in the information passed and the care with which your contacts look out for your interests.*" (Burt 1990, 6).

According to Granovetter, the bridge tie (the weak nonredundant tie) is the element that increases the reach to new networks, i.e., that increases the diversity and the size of the network. Burt on the other hand claims that the tie conducive to increasing reach ought to not only be strong but also nonredundant. I argue that Burt's first two characteristics of ties, namely velocity and trust, are not conducive to network diversity and increasing the size of networks. My argument is as follows: Active communication, extensive contacts and trustworthiness (i.e., confidence in and a care for the one you communicate with) are probable characteristics of a strong tie. As argued above, if the network is made up of strong ties, each person can entertain fewer ties than when the network is made up of weak ties, given that strong ties take more time to maintain. Consequently, if the network consists of strong ties, the network size, as well as its reach is restricted. Furthermore, strong ties in a network tend to become overlapping ties, redundant over time. This argument is derived from the concept of cognitive balance discussed above. A strong tie between two individuals increases the likelihood that their other contacts, such as friends, will be introduced to each other (Granovetter 1973). Consequently, I suggest that if an executive team's network is made up of strong ties, the members will have a larger overlap in the network than if the network is based on weak ties, and that a high degree of overlap will decrease a network's reach.

Apart from the theoretical conjecture that weak ties increase the number of nonredundant ties, existing empirical research suggests that instrumental nonredundant ties tend to be weak. For instance, Granovetter's own empirical investigation shows that the most efficient way to get a new job is through bridge ties (Granovetter 1973, 1373). Freidkin's (1980) test of the Granovetter thesis also showed that novel information tends to flow through bridge ties (weak nonredundant ties) and not through strong or weak redundant (overlapping) ties.

Social capital for mobilizing or for information accrual?

The effectiveness of an executive team's social capital is not always a question of diversity or size. I suggest that the social capital of an executive team will contain networks (social arrangements of relationships) based on weak nonredundant ties if the task of the team is to accrue novel information. If, on the other hand, the task of the team is to mobilize others to act in a desired way, the network is more likely to be based on strong redundant ties that in turn connect to valued and desired resources of the team members. The argument to explain the differences in the external network of the two types of executive teams is that team members develop an instrumental network, i.e., social capital.

Strong ties are less conducive to carrying novel information than are weak nonredundant ties. On the other hand, strong ties re-enforce cohesion. For instance, cohesive groups create norms that affect not only the individual's choice of action, but also their choice of refraining from action (Coleman 1988; Pinard 1968; Merton 1968; Granovetter 1973, 1974; see also Chapter II). The executive team network made up of strong external ties is also likely to have a high degree of overlap (redundant ties) (see discussion above).

The theoretical ideas and the empirical results presented above imply that a differentiated team is connected to its external network mainly by weak ties. Since the members of a differentiated team are not connected to each other by strong ties, they have no group consensus to protect. They are free to establish external ties without any restriction set by the team, nor by consideration of the other team members. An integrated team consists of team members connected by strong ties. According to the ideas presented above, these members are not likely to choose external ties without considering the consensus of the team, and the opinions of the other members.⁵ Hence,

H1: An executive team's degree of integration is likely to decrease the team's access to weak external ties.

⁵ I also believe that the members of a differentiated team have no one to protect them (allies) in case of an unfriendly takeover or an undesired change of controlling owner. Hence, it is of vital interest for them to develop a network of their own with a reach and access to different resources such as information about new job openings (see Chapter I for the discussion about leadership organization and its effects on the labor market for managers).

Going one step further with the idea of cognitive balance and time constraint, we should expect that integrated team members introduce their external contacts to the other team members. Friends introduce their friends as integrated team members introduce their external strong ties to the other team members. The network is cohesive, having the potential to both restrict and provide opportunities for joint actions. An individual in the network who falls out of the expected desired behavior will confront a cost that hurts him, i.e., he will receive a bad reputation that may lead to exclusion.

Differentiated team members with weak external ties and with the ambition to accrue information do not have the motivation to introduce their external contacts to the other team members. Thus, nonredundant ties will be weak (bridge ties). Hence,

H2: The number of external weak ties tends to decrease the team's number of nonredundant ties.

For the purpose of gaining influence over the environment, the strong redundant ties are instrumental in exercising influence and mobilizing or restraining the actions of others. The existence of strong ties and redundant ties suggests that the members of an executive team belong to a group configuration having a rigid system of norms. Effective norms demand what Coleman labels closure. "Where there is an interdependence between two or more individuals there is a risk for actor 'a' to impose externalities on actor 'b' if no efficient norms have emerged to restrict unwanted actions." (Coleman 1988, p. S105). The interdependence between individuals such as described above where the actors pay a very high cost to leave the interdependent relationship is argued to create a cohesive network of business associates based on strong ties with emerging norms.⁶

The integrated team that has restricted control over the economic capital (the owner capital) has good reason to develop an external network with a mobilization capacity. A network with this characteristic is built upon strong overlapping ties conducive to the team's ambition to influence its environment.

H3: The more integrated an executive team is, the more likely the team is to have a network conducive to mobilization of strategic resources.

⁶ However, these ties are of course of no use if they do not yield access to valuable resources for the CEO. The strong overlapping network is not instrumental unless it mobilizes relevant resources. In this special context our focus is on the structure of the network given its access to resource contacts.

Size of social capital

The efficiency of an executive team's social capital is a question of size. Burt's last two variables for creating opportunities through networks are diversity and size. It was suggested above that weak nonredundant (bridge) ties create diversity. Additionally, weak nonredundant ties by definition increase the size of a network.

Individuals with a large number of ties and large networks are better off in their access to resources than are individuals with few ties and small networks (Laumann and Pappi 1976; Berkman and Syme 1979). However, there are limits to how large a network can grow. Granovetter (1973, 1974, 1982) proposes that a network based on strong redundant ties does not expand as much as does a network based on weak nonredundant (bridge) ties. It is also assumed that network size is positively correlated with the frequency of nonredundant ties (Burt 1990, 7).

The integrated team members would want as large an external network as the differentiated team members. However, the cost associated with maintaining a mobilizing external network based on strong and overlapping ties restricts the number of ties possible to maintain in the network.

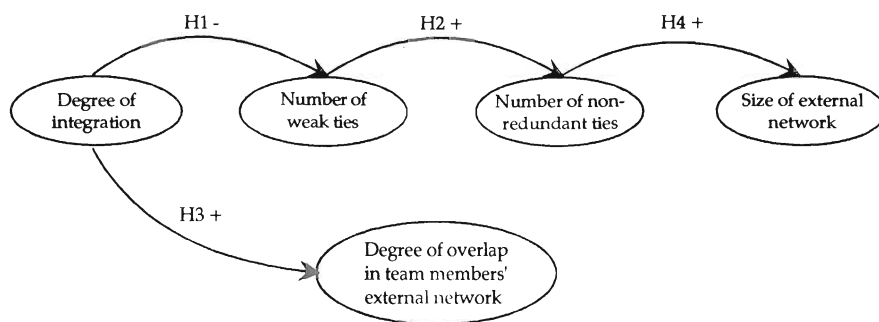
Hence, executive teams that have external networks based on weak nonredundant ties ought to have larger networks than do teams with networks based on the opposite type of structure. However, in accounting for this the size of the executive team ought to be considered. The whole of a team member's social capital, not only his external network, but also his internal network, has to be considered. A team with many members takes time away from an individual's exploration of external ties, though each tie and each team member is given little attention. A team with few members may contain individuals who give their colleagues a lot of attention, however, and since they are few, they may also have time to engage in several outside relationships. Nevertheless,

H4: Integrated teams have smaller external networks than differentiated teams.

Results from the empirical investigation⁷

The main purpose of this section is to test empirically the suggested relationships between the team's degree of integration and the size and the structure of its external network, i.e., the relationship between team composition and the prerequisite for efficiency of information accrual. A path model of the suggested hypotheses is presented in Figure 1.

Figure 1. A path model expressing the four hypotheses



The structural relationships between the variables in hypotheses H1, H2 and H4 are investigated by a LISREL model. Hypothesis H3 is tested by a regression analysis. (The correlations for all variables in the hypotheses are presented in Appendix 5 and the characteristics of the univariate distributions are presented in Appendix 1.)

A LISREL analysis of hypotheses H1, H2 and H4

The three hypotheses are simultaneously tested by two LISREL models, one where team size is considered and one where it is not.⁸ The LISREL models contain one explanatory variable: the degree of integration. The degree of integration is measured by three indicators: cohesion index for socialization

⁷ For a more elaborate description of the empirical design of the investigation see the Introductory chapter. The same cautious interpretation of the results is relevant here as in previous analyses. It should be emphasized that the present analysis is performed at a team level. Individual data on external ties for each team member are aggregated to the team level since it is the teams' external network that is focused on in the empirical analysis.

⁸ For a more elaborate description of LISREL analysis see the empirical section in Chapter II.

(GS), cohesion index for mutual confiding (GP, discussing personal issues), and the cohesion index for sharing mutual values (GV) (a more elaborated discussion in chapter II).

The explained variables in the LISREL model are the number of weak ties per team, the number of nonredundant ties per team and the number of external ties reported per team. The three questions were: With whom do you have regular contact outside the team and the firm regarding issues such as legal matters, media matters, political matters, financial matters and discussion partners?

To distinguish between strong and weak ties, the respondents were asked if they socialized with and/or discussed private and personal matters with (i.e., confided in), the persons they were connected to. If the respondent is neither socialized with nor confided in the contact, the tie is considered weak.⁹ The variable weak ties is measured by two observed variables. The first is the sum of weak ties per executive team (WEAK). The second variable is standardized for team size and is computed by the number of weak ties per team divided by the number of individuals in the team (STANWEAK).

The explained variable in the second hypothesis, the number of nonredundant ties, is computed in two ways. The first measure is the number of unique external ties per team (NONRED). A tie is defined as unique if only one team member is connected to the tie.¹⁰ The second measure is standardized for team size. The number of nonredundant ties is summed over all team members and divided by team size (STANNRT).

⁹ Numerous measures for the strength of ties have been used in the aftermath of Granovetter's first article on the strength of ties. The most common measure used has been the indicators "closeness of a relationship" in which close friends are coded as strong ties while acquaintances are weak ties. Other measures are not only the closeness of two parties but also the source of the tie, such as relatives or neighbors. Granovetter (1973, 1982) has used frequency of contact in combination with closeness. Friedkin used mutual acknowledgement of contact as a measure of strong ties in a scientific community. Marsden and Campbell (1984) came to the conclusion that closeness or emotional intensity of a relationship is on balance the best indicator. The measures duration and frequency of contact were badly contaminated by the foci around which ties may be organized. These two measures are suggested by Marsden and Campbell (1984) to be avoided. The measure personal confiding is little used as a measure of tie strength and hence cannot be well evaluated in the Marsden and Campbell study. In this study the three indicators of strength are all aspects of closeness, socializing, mutual confiding, i.e., the respondents opinion on the degree of intimacy he entertains with the party.

¹⁰ There may be a problem with the link between reported primary contacts of the team members (a primary contact is someone to whom you are connected through a weak nonredundant tie) (Burt 1990). The primary contacts may know each other and hence limit the uniqueness of these contacts. This we do not know from the collected data.

The explained variable, the size of an executive team's external network, is measured by two observed variables; the sum of the team members' external ties (TOTEXT) and a standardized measure where the team's total external network is divided by team size (EXT).

In order to consider the standardized measures, two LISREL models are tested, one with nonstandardized measures and the second with standardized measures. Nevertheless, team size is controlled for in both versions. It is plausible that team size has an effect over and above the standardization. The fact that a team member is part of a large team may have an effect on the frequency of weak ties.

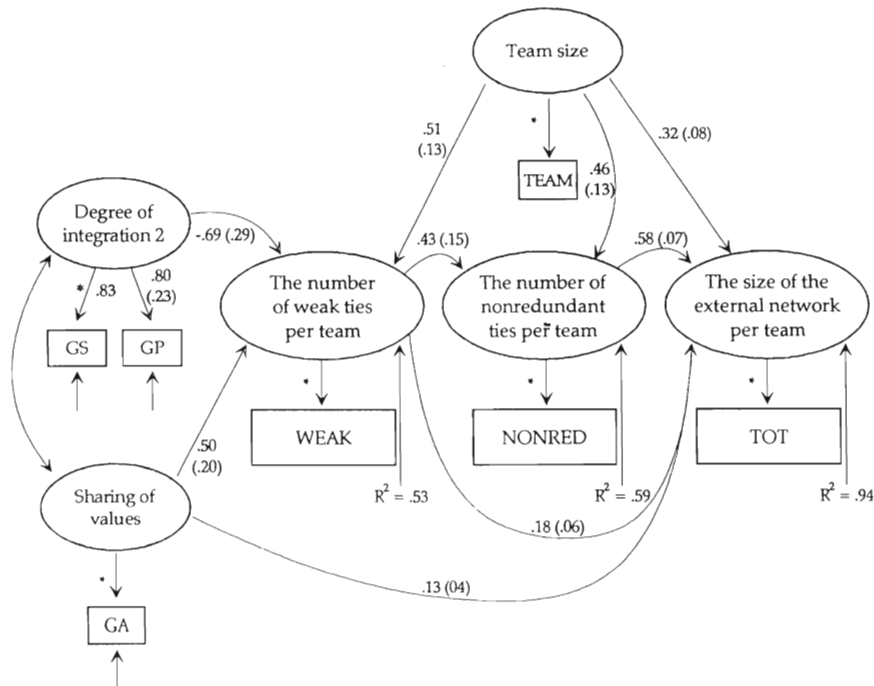
The structural model containing the latent variables described above and their relationship is described in the path model given in Figure 1. The measurement model for the degree of integration (Degree of Integration 2) is a one-factor model measured by two indicators, Gpersonal and Gsocializing. Hence, the latent variable Degree of Integration 2 differs from the previous latent variable Degree of Integration in Chapter II. As will be shown, the reason for the modification is that the cohesion indicator for sharing values goes in a different direction with respect to its effect on the structure of a team's external network, as compared to the other two indicators. Consequently, a new latent variable is constructed by the cohesion index for values (GAL).¹¹

The two LISREL models: the LISREL model 3:1 with no standardized indicators is depicted in a path diagram in Figure 2 and the LISREL model 3:2 with standardized indicators is depicted in a path diagram in Figure 3. The size of the team is considered in both models.

The outcome of the statistical test is presented with the standardized solution. The estimates of the parameters are based on the assumption that the latent variables (circled) have a variance equal to 1. The partial regression coefficients can then be compared with each other. (The standard errors are depicted within parentheses.) Apart from the modelled relationship only significant structural parameters are presented in the Figures 2 and 3. Since the sample is small, and the number of parameter estimates in these two models are large, the result has to be interpreted with caution.

¹¹ The modification indices may indicate strong loading between variables not considered in the original hypotheses. If these loadings give significant results in the LISREL analysis they are reported in the LISREL models below.

Figure 2. LISREL model 3:1. Degree of integration, number of weak nonredundant ties and the size of the external network¹²



* = fixed parameters are inserted to make the measurement model identified¹¹

$$\chi^2 = 14.48 \quad df = 9 \quad p = .24$$

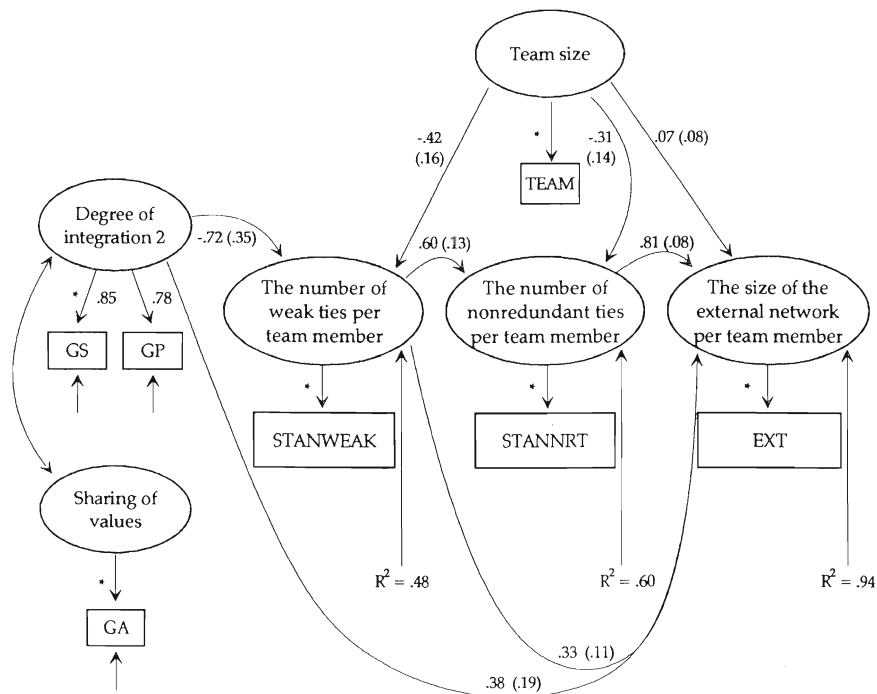
The test for the fit of the model is acceptable with a chi-square equal to 11.4 and with 9 degrees of freedom and a probability of .24. The LISREL analysis shows that the hypotheses cannot be rejected. The more integrated a team is, the fewer are the weak nonredundant ties and the smaller is the size of the external network. The latent variable sharing values has, contrary to the latent variable degree of integration 2, a significant and positive effect on the number of weak ties. Team size plays an important role both for the

¹² LISREL has the ability to take measurement error into account. Two alternative approaches exist. One is a simple relationship between an observed variable and the corresponding latent variable. The parameter in this relationship is fixed to one which means identity between these two variables. The other type of measurement model is a factor model with several indicators. In this case it is necessary to fix the scale of the latent variable to get the model identified. In the presented model below for instance the latent variable degree of integration, the observed indicator GS is chosen as the scaler.

access to weak ties, to nonredundant ties and for the total number of ties. Hence, the larger the team, the more weak nonredundant ties are connected to the team. Furthermore, the larger the team, the larger is the size of the external network. However, the individual member's tendency to develop a large external network made up of many weak and nonredundant ties is of interest. How does the fact that one belongs to an integrated team affect the individual member's external network?

Two direct effects on the size of the external network of a team are worth noting. The first direct effect is caused by the latent variable sharing values (.13). The second direct effect stems from the number of weak ties (.18). The LISREL model 3:2 standardized for team size is shown in Figure 3.

Figure 3. LISREL model 3:2. Degree of integration, number of weak nonredundant ties and the size of the external network standardized by team size



* = fixed parameters are inserted to make the measurement¹¹ model identified

$$\chi^2 = 12.22 \quad df = 8 \quad p = .14$$

The test for the fit of the model is acceptable with a chi-square equal to 12.2 and with 8 degrees of freedom and a probability of .14. The hypotheses cannot be rejected by the test of the LISREL model 2b. However, some interesting changes of team-size effects occur on the structure of network. The fact that someone belongs to a large team does not affect the size of his total network when factors such as the effect of team size on weak and nonredundant ties have been accounted for. When all other factors have been accounted for, the effect of the team size on the number of weak and nonredundant ties is negative, i.e., belonging to a large group tends to restrict the members' access to weak and nonredundant ties. Furthermore, the effect of the cohesion index for sharing values yields no significant results. The effect of sharing values on the endogenous variables not shown in the Figure 3, but which can be found in Figure 2, are not significant in the standardized model. Though the latent variable sharing values loses its effect, both on the number of weak ties per team member and on the size of the external network per team member, the effect of the degree of integration is stronger on the number of weak ties (-.72) compared to the non standardized model (-.69). However, the coefficient of determination is slightly lower for the standardized version (.48) than for the non standardized relationship (.53). Still, the overall coefficient of determination is not changed in the standardized model. Finally, contrary to the non standardized model, the standardized model showed a significant direct effect of the degree of integration on the number of external ties per team member.

The third hypothesis

The third hypothesis is that the more integrated an executive team is, the more likely the team is to have a network conducive to the mobilization of strategic resources. As shown above, there is a negative and significant relationship between the degree of integration and the number of weak and nonredundant ties. However, a mobilizing network also can be captured by the degree of overlap in each team member's external network, labelled by Coleman (1988) as the degree of closures. Unfortunately, no information is available on the type of relationship the external individuals have to each other, whether they are close friends or if they confide in each other. The only available information at our disposal is the team members' awareness of whether or not their contacts are acquainted.

Hence, the explanatory variable is the degree of integration measured by the two indicators: the cohesion index for socializing and the cohesion index for mutual confiding. The cohesion index for sharing values, GAL, is

treated as a separate variable. The explained variable is measured by the degree of overlap in the team member's external network (KONTAND).

Path model 3:1. The degree of overlap explained by the degree of integration

$$\text{Degree of overlap KONTAND} = .81*\text{INTEG2} - .18*\text{GAL} + .02*\text{TEAM}$$

Standard errors	.42	.29	.23
T-values	1.92	-.64	-.12
Significant	almost	no	no

The explained variation of degree of overlap in team members' external network is .39. Belonging to an integrated team (measured by the two indicators: the degree of socializing and the degree of mutual confiding) increases the likelihood of there being a high degree of overlap in the members' external network, i.e., that the individuals in the external network are acquainted. However, the path coefficient (.81) is barely significant, partly because of the small sample size. Notable is that if the degree of overlap is explained in terms of all three integration indicators separately in a path analysis, the path coefficient for the indicator degree of socialization is significant.

Conclusions

Two main points are suggested from the present analysis. First, an external network does not necessarily have to be based on weak nonredundant ties in order to be instrumental to the team. The structuring of social capital is contingent on the team's access to the financial capital provided by owners. Integrated teams can benefit from strong and overlapping external networks that can mobilize their strategic environment. Differentiated teams, on the other hand, benefit from an information-accrual facilitating network based on weak nonredundant ties. Hence, an analysis of the efficiency of a network benefits from being seen in terms of intentionally acting individuals confronting different opportunity structures.

The second point is that nonredundant ties seldom are strong. Granovetter's definition of a bridge tie as being weak and nonredundant, and not as Burt suggests, strong nonredundant, is more in line with the empirical

findings. Despite that fact that it would have been natural for team members to list their closest external contacts as their resource persons (they were restricted to giving only 15 of their most important resource contacts outside their company; see Appendix 1 for definition of variables), most of the external contacts were reported as being weak and nonredundant. Hence, the non-redundant tie that increases diversity and size, as well as increases the reach to new networks (new social capital), is more often weak than strong.

The empirical findings support the formulated hypothesis that an executive team's degree of integration affects the team's external network. Hypothesis 1 was confirmed, which suggests that the degree of integration affects the number of weak ties the members have access to, irrespective of whether the explained variable is standardized for team size or not. Integrated teams have access to fewer weak ties than more differentiated teams. However, a member of a large team has fewer weak ties than a member of an integrated team (or a less integrated team).

Hypothesis 2 was also confirmed. Access to weak ties eases access to nonredundant ties. The significant positive relationship remains even when team size is considered.

Hypothesis 3 was supported by data. The degree of integration increases the likelihood of a high degree of overlap in the individual member's external network.

The results from the test of hypothesis 4 are that the size of a team's external network is explained by the type of ties in the network and the size of the executive team. An executive team's external network grows with the number of nonredundant ties.

Apart from the effect that belonging to an integrated group has on restricting the team member's external network, there is a team size effect working in the opposite direction. In the standardized LISREL version, the team size factor exhibits an effect on the structure of the team member's network over and above the number of individuals. The fact that a member belongs to a large team implies that he has fewer external ties than a member who belongs to a small executive team. Belonging to a small team increases the individual team *member's* external ties. Hence, one conjecture to this contradictory result is that integrated team members, although they devote a lot of time to their team colleagues, have time over to develop outside ties. Yet, members of large teams have many colleagues to spend time on, and hence they have less time to spend outside the team developing external ties. Another conclusion could be that the integrated team members use their external network in a way in which the bulk of the external ties are important individuals, whereas the differentiated team members use their external

network in a more exclusive manner, so that size does not matter. Whatever the explanation, group size ought to be more carefully studied as an artifact.

The general conclusion remains that team composition affects the structure of the external network. The definition of the latent variable integration remains to be more thoroughly investigated. The fact that the factor analysis in the LISREL analysis in the Chapter II accepted the construction of the latent variable degree of integration by the three cohesion indices, but did not do so in the analysis in Chapter III, suggests that the typical measure of integration should be more fully investigated.

CHAPTER IV

The Impact of Financial and Social Capital on Firm Performance

Introduction

The executive team of a public firm, when confronted with a crisis signal, would want to mobilize the available resources to turn a bad situation around to a good one. In such a situation it is proposed that the executive team has two main types of resources at its disposal: financial capital (the access to cash flow) and social capital (social networks).

In Chapter I it was argued that the direct access of financial capital differed among firms according to ownership structure. The entrepreneurial firm's executive team members have direct access to financial capital through the CEO's partnership with the entrepreneur, i.e., through the supra team. The executive team in the investor-owned firm has restricted access to financial capital since it was argued that partnership with the many investors is difficult to establish. Furthermore, in Chapter III it was shown that the establishment of social capital was contingent upon the opportunity structure of individuals. For instance, members of an integrated executive team developed an external network with a different type of structure, as compared to members in a differentiated team. The integrated team tended to develop an external network instrumental to mobilizing financial capital. The differentiated executive team tended to develop an external network facilitating information accrual.

Variation in firm performance is obviously a complex phenomenon. I reduce the line of reasoning in the present chapter by raising the following question: What type of leadership organization is the more efficient to recover from a crisis situation? Is it the differentiated executive team for its access to an entrepreneur and its external network oriented on information accrual or is it the integrated executive team found in the investor-owned firm for its external network oriented on mobilization?

Efficient recovery from a crisis situation can have different meanings for the owners and for the executive team members. There are many ways the team can act in response to a crisis signal; sometimes it may even be in their interest to act contrary to the interest of the shareholders. A new controlling owner or a new ownership structure may infer changes or uncertainties, even the threat of being dismissed. Hence, the team members

would want to control for such undesired events. Takeovers and other control devices that can improve the stockholders return thus may be prevented by the team.

The difference in the social and financial capital among the two types of executive teams is suggested to affect the response to a crisis signal on the stock market in two direct ways. First, the structure of the team's social capital affects the ability to fend off a takeover attempt. A team with a mobilizing external network is more effective in resisting a takeover attempt than is the other type of team. Team members with a mobilizing-oriented social capital are equally effective in resisting turnover of management. Both turnovers and shifts in control can be beneficial to the stockholders wealth, i.e., to a rapid recovery from a crisis situation.

Second, it is suggested that the team that has access to an entrepreneur and a social capital conducive to receiving novel information reacts more quickly to a crisis signal than does the other type of executive team. This is because the design of leadership contains both the information-accrual talent (through the differentiated team's information-oriented external network) and the executive team's access to the decision-making unit (the supra team).

An explorative analysis is performed in order to detect relationships between social capital, financial capital and performance. Traditional economic variables such as ownership structure, shift of controlling owners and financial performance measures are combined with sociological variables such as turnover of management and structural aspects of networks.

Organization of the chapter

Social capital's impact on performance is discussed in the first section. The impact of the access to financial capital on performance is discussed in the second section. The results from the empirical testing are presented in the third section. Finally, some conclusions are derived.

The effect of social capital on performance

As discussed in the previous chapter, the relational structure of social capital is contingent on the strategic situation. The social capital of an executive team contains a network (social arrangement of relationships) based on weak nonredundant ties when the objective of the team is to accrue novel information. When, on the other hand, the objective of the team is to mobilize others to act in an instrumental way, the network is more often based on

strong redundant ties that are conducive to the mobilization of the external environment.

The CEO in the investor-owned firm who lacks the access to an entrepreneur and thus lacks access to easily mobilized financial capital, has to rely on his social capital. The CEO in this type of firm is suggested to develop a strategy to influence those who possess valuable resources. As shown earlier, the integrated team has a social capital that is structured to mobilize its environment. The differentiated team has a social capital that serves to accrue novel information.

Our explorative endeavor is to test if the team with access to novel information is more efficient than the decision-talented team in finding means to respond to a crisis signal. It is plausible to argue that the decision-talented team is able to act decisively for a quick recovery from a crisis situation. The team can reach a consensus on how to renew strategies, and can mobilize all team members to work in the direction agreed upon. To be able to reach consensus is the comparative advantage of the decision-talented team. However, to be able to renew ideas and strategies, novel information is essential for giving impulses to guide the way out of a difficult situation. In other words, team members need to be able to think in non-routine ways and to promote new opportunities and possibilities. In short, they need to be able to welcome changes. In order to promote new opportunities, members need to believe that they will gain, not lose from possible changes. Hence, the fact that the integrated team wants to protect the team, and the differentiated team does not have the same tendency (although each member is for his own welfare) affects the variation of response to changes in the two types of teams.

The rationale for suggesting that the differentiated team will respond more quickly lies partly in the conjecture that the integrated team has an external network oriented on influencing and controlling its strategic environment. Integrated team members will not necessarily act to serve the shareholders' interests, but may resist changes beneficial to the owners in order to protect themselves. Their lack of direct access to financial capital forces them to mobilize their external network to control undesired events.

It is difficult to sort out the two effects: the benefits of information-accrual talent and the cost to the shareholders of having an executive team with high discretion to act (or not to act) through mobilizing its external network. Hence, our first explorative step in the analysis is to investigate whether the structure of the executive team's social capital matters for the speed of responding to a crisis signal. Hence, the first hypothesis to be tested is:

H1: The executive team with a mobilizing-oriented external network is slower to respond to a crisis signal than is the team with an information-accrual oriented network.

In order to isolate the effect of the social capital on performance, other factors have to be considered. For instance it is known from the literature on corporate control that events such as takeovers and takeover attempts, controlling stockholder shifts and management shakeups affect firm performance.¹ However, as argued above, events such as takeovers and turnovers of management are not necessarily independent of the team's social capital. The team's ability to resist takeovers and affect turnover are considered in the analysis of variation of performance between firms.

The effect of financial capital on performance

A market for corporate control is crucial for the efficient allocation of a firm's resources. Whatever the label; be it the labor market for management or a market for competing owners, takeovers, mergers, and/or the removal of poor performing manager's all are control devices decisive for a healthy business community (SOU 1988:38). The control of an efficient allocation of a public firm's resources is dependent on the functioning of the market for corporate control. Below is a discussion of the different aspects of the market for corporate control.

¹ Corporate control is a mechanism to ensure maximization of shareholders value. The market for corporate control consists of both internal and external control mechanisms. They both work to encourage, monitor, and if necessary, replace managers (Jensen and Ruback 1983). The internal control is typified by ownership structure, the composition of the board of directors and competition among management. The external control mechanism is the availability of outside bidders and dissidents. Whenever the internal control mechanism fails to solve problems, the external control mechanism is supposed to come into play (Weston, Chung and Hoag 1990).

Ownership structure and performance

According to the previous results from investigations on the effects of ownership on performance², it seems that the market gives higher value to individual shareholdings than to corporate ones, even though there are no differences in performance.³ Although, the ownership structure can, of course, have a direct effect on an efficient allocation of a firm's resources, especially in recovering and responding to a crisis. In short, does it matter how the financial capital is structured? How important is the character and dispersion of ownership? The conclusions derived from the empirical testing of the question above give a somewhat complex picture of the relationship between the ownership structure and performance.

One aspect of ownership structure, the degree of ownership concentration, and its effect on performance has been empirically tested by Holderness and Sheehan (1988). No statistical differences were found in investment expenditures, frequency of control changes and Tobin's q among firms with

² There is a research literature on the ownership of management and its effects on performance. This aspect of management, their share holdings in the firm and its effect on performance is not discussed in the present study. Two competing hypotheses are found in this research literature, the convergence of interest hypothesis versus the entrenchment hypothesis.

When managers' share in ownership increases, their interest is better aligned with the shareholders' interests and thus deviation from value maximization will decline (Jensen and Meckling 1976). However, a high degree of managerial ownership and their control of voting rights gives managers enough power to guarantee their employment with the firm and pursue self interest at the expense of shareholders wealth (Weston, Chung and Hoag 1990).

Empirical tests of the two hypotheses have been performed. For instance Morck, Shleifer and Vishny (1988a) investigate the relationship between the performance measure Tobin's q and the managers' share holdings in 371 firms from Fortunes listed 500 firms in 1980 (Morck, Shleifer and Vishny 1988a). Morck, Shleifer and Vishny, conclude that the initial rise in Tobin's q as ownership rises among management reflects the incentive effect of rising ownership stakes of managers. Beyond the 5% ownership level, managerial ownership increases are associated with other conditions conducive to the entrenchment effect. Some form of entrenchment effect explains the declining value of assets as managerial ownership rises from 5% to 25%. In this range, the incentive effect is dominated by the entrenchment effect. Management with stakes larger than 25% is not significantly more entrenched than those with 25% ownership.

³ On the other hand Sørensen (1974) found no difference in performance by ownership structure. However, owner controlled firms tended to grow faster than management-controlled firms whether growth was measured by sales or net worth. (Sorensen defines a management-controlled firm when no owner owned more than 5% and a concentration of 20% or more was required for a firm to be identified as owner contract (Sorensen 1974, 14)).

minority ownership, investor-owned firms and majority-shareholder, entrepreneurial firms.⁴ However, they found evidence that individual majority shareholder firms underperform in comparison to firms with minority-owned shareholders in terms of performance measures such as Tobin's q ratio and accounting rates of return. Corporate majority shareholder firms do not underperform, compared to firms with a diffuse corporate shareholding (Holderness and Sheehan 1988).⁵ The reported findings on ownership structure effects on performance indicate that ownership structure should be considered when analyzing performance. In the empirical analysis below the degree of ownership concentration is accounted for.

It is plausible to suggest that entrepreneurs are more accessible than investors. If there exists a partnership, a supra team, in the entrepreneurial firm the CEO has access to financial capital through the interdependent relationship with the owner. Consequently, in a crisis situation financial capital is more accessible and hence easier to mobilize for the CEO and his team. The CEO and the executive team in the investor-owned firm, on the other hand, are left to try to mobilize their social capital, and for this to succeed the social capital has to be structured in accordance with the team's aim to influence its strategic environment.

Consequently, apart from the effect of the social capital structure on performance, the relative easy access to financial capital affects the response to and recovery from a crisis signal. Hence,

H2: The relative accessibility of financial capital increases the firm's speed of response to a crisis signal.

⁴ The Tobin's q is defined by Holderness and Sheehan (1988, 343) as the ratio of market value to the replacement cost of plants and inventory. Accounting rates of return is defined as income available for shareholders divided by the book value of total equity.

⁵ In Holderness and Sheehan's (1988) analysis of NYSE (New York Stock Exchange) or AMEX (American Exchange) listed firms, majority shareholder is defined as individuals or entities owning at least 50% of all of the common stock. In the sample, the majority shareholders are approximately equally divided between individual (46%) and corporations (50%). Firms with individual share holdings are typically smaller and corporate majority shareholdings are larger than the typical NYSE and AMEX listed firms. (Holderness and Sheehan 1988, 323). Furthermore, they report that 90% of the individual majority shareholders, and representatives of 94% of the corporate firms are either directors or officers of their firm.

Shift of controlling shareholders and performance

Takeovers can be divided into several classes. Two main classes are the disciplinary takeover and the synergistic takeover (Morck, Shleifer and Vishny 1988c). The purpose of the first is to correct the non value-maximizing practices of managers of the target firms.⁶ The change of controlling shareholders is a way of changing the target's operating strategy. The second class of takeover is called synergistic since the motive behind them is to combine the businesses of two firms. Synergy gains can come from the increases in market power from combining the businesses of two firms such as "...offsetting the profits of one firm with the tax loss carry forward of the other, from combining R&D labs or marketing networks or from simply eliminating functions that are common to two firms." (Morck, Shleifer and Vishny 1988c, 126–127).

Most empirical studies have found that target firms exhibit a statistically significant positive price response to the announcement of a takeover attempt. The bid per se is good economic news for the target (Roll 1988).⁷ When an unsuccessful tender offer is followed by another offer within a few years, the original price increase around the first bid is maintained permanently. However, when the original unsuccessful offer is not followed by a successful offer within five years the entire market price increase associated with the original bid is reversed (see Roll 1988; Jensen and Ruback 1983).

Holderness and Sheehan (1988) analyzed stock price reactions to 31 announcements of majority block trades to study the effect of firm value and changing shareholders. They found that on average stock prices increase from the day before the announcement to the announcement day by an abnormal 7.3%, and over the 30-day period around the announcement by an abnormal 12.8%. Furthermore, their results indicate that on average a firm's value increases more when both the buyer and the seller are individuals rather than corporations.

⁶ The managers may be engaged in excessive growth and diversification, overpayment to employees and suppliers or debt avoidance in order to secure a quiet life. Disciplinary takeover is a way to address the problem of control discussed in Chapter I (also see Williamson 1964; Jensen 1986).

⁷ Roll states that most of the studies performed find a large price increase in the few days surrounding the original bid announcement and that this announcement effect is much larger per unit of time than observed price movements either before or after. *This result points to the essentially passive role played by the target firm which is an important contrast to the active role of the bidding firms.*" (Roll 1988, 242).

Morck, Shleifer and Vishny (1988c) report that the characteristics of management have an effect on the determination of the form of control change. The presence of a founding family in the top management reduces the probability of both a hostile takeover and a management shake-up. Furthermore, high officer ownership was the most important attribute predicting friendly acquisitions. Morck et al. further report that a large stake of equity held by the top executive reduces the likelihood of hostile takeovers and increases the likelihood of a friendly acquisition. Firms with an insider ownership of over 30% (compatible with degree of ownership concentration) are rarely acquired in hostile takeovers. The friendly targets were smaller and younger but had Tobin q values and growth rates comparable with Fortune 500 listed corporations.⁸

The form of the control change seems to be dependent on who is in control of the management processes. Analogous to the above findings it is plausible to suggest that the control of the management situation differs between the team that has an information-accrual network and the team that has a mobilization-oriented network. Given an efficient market for corporate control, takeover events are likely to be one of the many important devices that turn a poor situation into a good one. However, an executive team with a mobilizing-oriented external network may resist such an event.

As argued in previous chapters, a cohesive network puts pressure on its members through the emerging norms to both act and refrain from action. Therefore, team members belonging to a business community group and engaged in joint ventures, such as a cross ownership with another firm, put

⁸ Roll (1988) presents a number of distinct hypotheses that have been advanced to explain the motives of takeover activities. Motives to takeover activities are not mutually exclusive: different motives can explain different individual takeovers and more than one could be present in any particular case. Roll further claims that most takeover hypotheses are based on the natural presumption that economic benefits will flow from the corporate combination. Roll mentions that potential sources of gains include monopoly, information, synergy, elimination of inferior management of the target firm, financial motivation. The hypothesis about a takeover motivation that does not involve gains for shareholders are management self-interest, the hubris where the bidders overvalue their targets and pay too much, thus "*the takeover is merely a wealth transfer from bidder to target*" (Roll 1988, 243). Furthermore, Roll argues that the motive for a takeover can have a large influence on its mood. For instance disciplinary takeovers are likely to be hostile whereas synergistic takeovers are likely to be friendly. A hostile takeover is to be understood as a public purchase of shares against the will of the incumbent management. Typically a friendly acquisition is a firm with considerable intangible assets, such as growing customer base to which the purchaser can add management skills or access to capital.

pressure on the parties involved.⁹ For instance, when members of an executive team dislike a potential constellation of owners they can engage in negotiations with colleagues in other firms for intervention. A cross or circular ownership structure can be negotiated. An efficient mobilizing network may decrease management control and decrease the external control devices. It is plausible to suggest that a team with a mobilizing external network is more efficient in resisting an unfriendly takeover than is the team that has an entrepreneur in charge.

The former type of team has the ability to influence its strategic environment in order to prevent an undesired takeover. The executive team that has strategically positioned external ties can organize a joint venture with other colleagues in the business community to control undesired events. For instance, one efficient way for managers to restrict the external control of the market for corporate control is to organize a circular or cross ownership (SOU 1988:38). Compared to the integrated team, the differentiated team does not have the discretion to act in an opportunistic way vis-à-vis the entrepreneur. The differentiated team is dependent on the entrepreneur's actions and desires, however, the entrepreneur is dependent on the information he receives from the executive team members.

The possibility for the integrated team to mobilize its external network to control its strategic environment is a survival mechanism for the team. Changes are not always desired by managers even though shareholders would benefit from them. Changes in controlling shareholders, for instance, can be associated with changes in fundamentals such as the firm's strategy or a management shake-up. Consequently, there is a reason for the integrated team members to want to control potential threats and try to prevent them. Furthermore, the integrated team has a tool for this purpose: its mobilizing-oriented external network. Consequently,

H3: Executive teams with access to a mobilizing-oriented external network resist takeover attempts more effectively than do other teams.

⁹ The business community's different clusters consist of interdependent members. The existence of trust is important in this context. Arrow argues that if trust were not there, no trading or interaction would take place (Arrow 1974, 23). To be kicked out of the business cluster creates new investment cost. The investment costs are associated with the cost to enter into a new cluster. (The managers are assumed to be risk averse and chose to stay as managers not as owners. See analogue reasoning in Chapter I, the Partnership model presented in control for hidden action).

Turnover effects on performance

The performance of a firm affects turnover, which in turn can affect performance. Poor performance by a firm increases the likelihood of top management replacement. However, the empirical findings present some difficult interpretations since there is no straightforward relationship between turnover and performance (see note 12) (Puffer and Weintrop 1991; Morck, Shleifer and Vishny 1988b; Wagner, Pfeffer and O'Reilly 1984; Pfeffer and Salancik 1977; Lieberman and O'Conner 1972).

According to some research performance affects turnover (Morck, Shleifer and Vishny 1988b). Owners or the board of representatives are not always effective in recognizing the problems of the firm and standing up to top officers, especially when tough decisions are necessary to solve problems (Jensen 1986). External control in the form of a hostile takeover, for example, is brought in because of the failure of the board according to this view.¹⁰ The results of Morck, Shleifer and Vishny (1988b, 1988c) can be summarized as follows: Firms experiencing a complete management turnover are characterized by their poor performance relative to the industry and not by poor industry performance. When a whole industry is performing poorly, the external control, or takeover, comes into play and takes the place of the board of directors in replacing the executive team.^{11 12} However, when

¹⁰ Competition of ownership is important for an efficient allocation a firm's resources. In the Swedish Owner Investigation (SOU 1988:38) it is concluded that it is difficult to stipulate the best ownership structure for an effective allocation of the firm's resources. Yet the investigators note that a certain degree of concentration is an important condition for monitor management (SOU 1988:38, 317). However, a shift of the controlling owner must be secured. The evaluation of the firm's resource allocation via the stock market is an important control device. Thus, crosswise and circular ownership worsen the conditions for the growth and renewal of the industry (SOU 1988:38).

¹¹ Weston, Chung and Hoag (1990) argue when discussing the Morck et al. findings that when the company underperforms its relatively healthy industry, it is easier for the board to assess blame and fire the top management. They further assess that the board's problem is much harder when the whole industry is performing badly. In the latter case, it is difficult to judge whether the management is making mistakes and even when it is, "*... the board may be reluctant to force the Managers to take painful measure, often required in mature or declining industries. Therefore, under these circumstances an external challenge to shake up the management and the board may be necessary to enforce shareholder wealth maximization*" (Weston, Chung and Hoag 1990, 461).

¹² In the research on American corporations it is not always obvious whether management is the board of directors or if it is the operating management in the firm such as the CEO, COO (Chief Operating Officer), or secretary of treasury.

the firm is performing poorly relative to other firms in the same industry, it is more likely that a new management team is appointed.

That turnover affects performance is a more controversial statement.¹³ Beatty and Zajac (1987) support Grusky (1960) on his thesis that shows with empirical results that succession is disruptive with negative organizational consequences. The announcement of a new CEO reduces the market value of the firm. However, it is the stock market agents' perception of the information sent out from the firm that seems to matter (Pfeffer 1977).

The effect of ownership structure on turnover

As discussed in Chapter II and III the organization of the leadership is different in entrepreneurial firms compared to investor-owned firms. The hypothesized and suggested "supra team" in firms with entrepreneurs consists of the controlling owner and the CEO and takes on the decision-making and the controlling functions. In these firms the executive team is suggested to take on an information-giving and receiving function. The executive team in investor-owned firms works more independently vis-à-vis the owners and takes on the decision-making function. Entrepreneurs (majority shareholders or their representatives) are argued to monitor management teams more carefully than the investors do in investor-owned firms (minority share holdings). The first type of owner is more actively involved in management compared to the latter. The fact that the majority shareholder plays a central role in management is consistent with the findings on management and board turnover following majority block trading. In most of the consummated cases in the sample (actual block trading) in Holderness and Sheehan (1988) new directors and officers were appointed after the trades. However, the existence of a founding family in the top management reduces the probability for a complete management turnover. Even a large equity stake held by the top executive reduces the likelihood of complete turnover (Morck, Shleifer and Vishny 1988c).

In the present study I suggest that if top leadership organizations are compared, a complete management shake-up is more likely to take place in

¹³ Pfeffer and Davis-Blake (1986) report that the consequences of successions are likely to vary dramatically, depending on the conditions surrounding them. Nevertheless, the effects of succession are not clear and are still controversial. For instance, some find that succession lowers organization performance. Others claim that succession improves organizational performance. A third group of scholars argues that succession does not affect the performance of organizations (see an overview of the research in Worell and Davidson 1987).

the entrepreneurial firm than in the investor-owned firm. The reason is that the integrated team has a mobilizing external network and can resist takeovers and other changes that would increase uncertainty for team members. The team members in the entrepreneurial firm are dependent on the one owner who is in control of the firm's economic assets. Consequently,

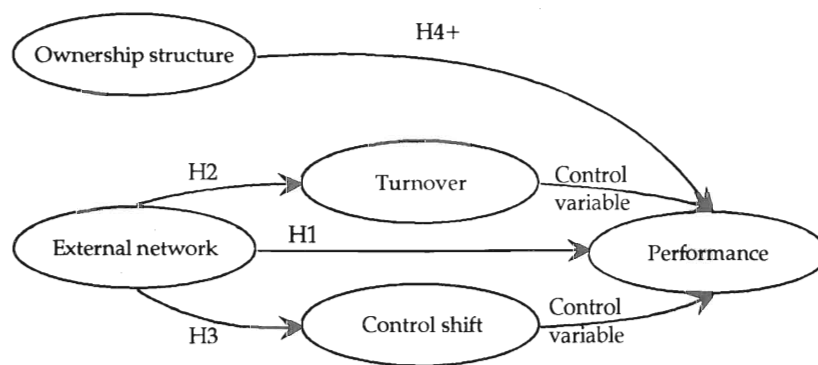
H4: The executive team that has a mobilizing external network is less likely to experience a management shake-up than the team that has an information-accrual facilitating external network.

Results from the empirical investigation

The empirical investigation is mainly an exploratory study of the relationship between the structure of an executive team's external network and a firm's performance.

The strategy for testing the hypothesis is to confront the simple statistical descriptions of data with the respective hypothesis, and look for outcomes that are consistent with the formulated hypothesis. Empirical evidence is received, although with no measurable precision (see univariate description for all variables in Appendix 1 and the correlations matrix Appendix 5). The model to be tested in the empirical section is pictured in Figure 1.

Figure 1. Four hypotheses on ownership structure and network structure effects on performance



Control variables

As mentioned in the previous section, the variables ownership structure, the tendency to leave the firm (turnover of management), and a shift in the controlling stockholder may each have an effect of its own on performance.¹⁴ Even the size of the firm may affect performance in a crisis situation. It is plausible that a large firm takes longer to turn a bad situation around than does a smaller one. Hence, these variables ought to be considered in the statistical analysis.

Unfortunately, it is difficult to control for each variable considered in the descriptive statistical analysis. The sample is small, the variables several and the investigated relationships complex. However, by dividing the sample into two groups: the quick responders to a crisis signal and the slow responders, a description of the variation between the two groups for the control variables is performed. The partition criterion used is the number of months it takes for a firm's negative abnormal return to return to a positive return, AR_t (see Appendix 3 for a discussion of the choice of a performance variable and Appendix 2 for a technical discussion of the financial measure abnormal return).

Turnover is measured by the indicator percentage of members still on the team 1988 (PERCREMA). A shift (or no shift) in the controlling shareholder is measured by the indicator shift in the controlling stock holder (CSHIFT). The size of the firm is measured by the market value in 1985. Ownership structure is measured by the degree of concentration CR (see Chapter I).

Furthermore, the division between the quick responders and slow responders makes it possible to compute each group's mean value for the variables considered. The difference between the two groups is statistically tested with a t-test in order to check whether the difference is significantly separated from zero (p) see Table 1. (The mean AR_t for the sample is 21.34.)¹⁵

¹⁴ No consideration is given to type of industry. The reason for this is that industries in Sweden are heterogeneous. Sweden is a small country with too small a number of dissimilar firms to make it meaningful to group the firms. Also, firms are difficult to group since they often belong to more than one type of industry. Firms may be engaged in both financial activities and the production of newspaper and housing, for example.

¹⁵ Out of a sample of 29 firms, 6 firms were taken out of the sample due to their exit from the stock market during the measurement period. The mean AR_t is 21.34 month for the sample with 23 observations.

Table 1. Difference in ownership structure, control shift, market value and turnover between two groups, the quick responders and the slow responders

	Group 1. $AR_t < 21.34$ quick recovery N = 13	Group 2. $AR_t > 21.34$ slow recovery N = 10	Significance
Variables	Mean	Mean	P
Market value (MV)	726.94	1529.10	(.15) not significant
Ownership concentration (CR)	46.06	39.79	(.16) not significant
Turnover (PERCREMA)	63.46	79.64	.08 significant
Control shift share holder (CSHIFT)	.23	.70	.01 significant

The respective size of the two groups are 13 (short recovery) and 10 (long recovery). The two groups show significant differences for the variables turnover and shift of controlling stockholder. The quick responders have more turnover than the slow responders. The quick responders also have fewer control shifts than the slow responders. Ownership structure and the size of the firm (MV) show no significant difference between the groups.

Test of hypothesis 1

The first hypothesis to test is that the executive team that has a mobilizing-oriented external network is slower to respond to a crisis signal than the team with an information-accrual facilitating network.

The explanatory variable is measured by two indicators for the structure of the social network. The first is measured by the degree of overlap in the team members external network (KONTAND), i.e., the degree to which each team member's external ties are connected to any of the other team member's external ties. The second variable measures the degree of

overlap in the team's external network, the number of unique external ties that are connected to each team member is also computed (OVERLAP) (see Appendix 1).

The endogenous variable, performance (AR_t), is measured by the amount of time taken for recovery from a negative abnormal return to a zero or a positive abnormal return, with the condition that the abnormal return is stabilized for 4 months.

The sample is divided into the two groups: the quick recovery group and the slow recovery group. The criterion for division is the sample's mean AR_t value of 21 months for the time taken to recover from a negative abnormal return to a zero or a positive one (see note 15). The mean values for each group are shown in Table 2, as well as the p value for the t-test.

Table 2. Difference in network structure for the two performance groups

	Group 1. $AR_t < 21$ quick recovery N = 13	Group 2 $AR_t > 21$ slow recovery N = 10	Significance P
Variables	Mean	Mean	
Degree of overlap in team member's external network (KONTAND)	.50	.61	.09 significant
Overlap in the team's external network (OVERLAP)	.08	.07	(.55) not significant

Table 2 shows that the quick recovery teams have members with information-accrual facilitating external networks (mean equals .50 and .61 for each group). The slow recovery teams have a more mobilizing-oriented external network. However, the result from measuring the network structure on the individual level is that there is no significant effect of the aggregate measure of the team's access to mobilizing networks on the time for recovery (mean equals .08 and .07 for each group).

As mentioned previously, the ownership structure may affect the speed of recovery. Since ownership structure also affects, if only indirectly, the social structure of a team's external network, the ownership structure ought to be controlled for in the analysis. Hence, the partial regression coefficient between the structure of the team's external network and the time taken for recovery is computed to control for the ownership structure.¹⁶

The partial correlation coefficient .25 does not differ radically from the bivariate correlation between the team's social capital (KONTAND) and time for recovery .28. This can be taken as an indication of no substantial bias due to the omission of the variable ownership structure. Hence, a team's network structure has a direct effect on the time for recovery. Furthermore, the size of the firm ought to be controlled for. The partial correlation coefficient for the effects of social capital on recovery time, when controlling for size of the firm (the indicator for firm size is market value), is .32. This figure is slightly higher compared to the bivariate correlation.

Test of hypothesis 2

The second hypothesis to be tested is that accessibility to financial capital increases the firm's speed of response to a crisis signal.

As shown in Table 1 it seems as if ownership structure has no effect on the recovery time. If the partial correlation¹⁷ between the ownership structure and the recovery time is computed controlling for the structure of the social capital, the results are consistent with the above findings. The effect of ownership structure on recovery time is small (0.09) compared to the bivariate correlation of -.18.

Test of hypothesis 3

The third hypothesis to be tested is that executive teams with access to a mobilizing external network resist takeover attempts more effectively than other teams.

¹⁶ The partial correlation coefficient measures the relationship between any two variables, when other variables connected with those two are kept constant (Merril and Fox 1970). The formula used is:

$$r_{12.3} = \frac{r_{12} - (r_{13})(r_{23})}{\sqrt{(1-r_{13}^2)(1-r_{23}^2)}}$$

¹⁷ The partial correlation coefficient is computed, see note 16.

The explanatory variable is measured by the indicators: the degree of overlap in the team members' external network (KONTAND) and the degree of overlap in the team's external network (OVERLAP¹⁸). The explained variable is the event of a takeover (regardless of whether it is friendly or hostile). The variable is measured by a shift in the controlling shareholder during the test period 1985-1988 (CSHIFT).

The firm sample is divided into two groups: one with and one without shifts in controlling shareholders.

Table 3. The difference in network structure between the firms with and without a control shift

Variables	Group 1. CSHIFT	Group 2. CSHIFT	Significance
	no N = 13	yes N = 10	
	Mean	Mean	P
Overlap in members' external network (KONTAND)	.58	.50	(.19) not significant
Overlap in team's external network (OVERLAP)	.09	.04	.06 significant

A high degree of overlap in the team's external network is associated with no shifts in the controlling stockholder. A high mobilization capacity, both in the team's and the individual members' external networks, is positively associated with no control shift; however, the effect of the latter variable on control shift is not significant.

Test of hypothesis 4

The fourth hypothesis to be tested is that the executive team that has a mobilizing external network is less likely to experience a management shake-up than is the team that has an external network oriented on information-accrual.

¹⁸ For a definition of the Degree of Overlap, measured by the degree of non unique ties, see Chapter III.

Table 4. The difference in network structure between the teams with high turnover and low turnover

	Group 1. High turnover: few still on the team (%) (PERCREMA) N = 13	Group 2. Low turnover: many still on the team (%) (PERCREMA) N = 16	Significance
Variables	Mean	Mean	P
Overlap in team member's external network (KONTAND)	.50	.57	(.15) not significant
Overlap in external ties (OVERLAP)	.44	.36	(.35) not significant

The explanatory variable is the degree of overlap in a team member's external network (KONTAND). The explained variable is the percentage of members still on the team in 1988 (PERCREMA). The results of the test of the suggested relationship are shown in Table 4.

The team with a high turnover (Group 1) has a low degree of overlap in each team member's external network. The team with a mobilization network has less turnover. However, the results show that the difference between the two groups, the high turnover and the low turnover, is not significant (.15 respectively .35).

Conclusions

The analysis of the impact of financial and social capital on firm performance is a simplified look at a complex issue. Other factors that may play an important role explaining performance omitted in the presented study are special industry characteristics, the board of directors, its composition and its social capital, the firm's market structure (type and number of clients) and the manager's shareholdings in the firm. Finally, one of the more important factors omitted that may affect performance is the cause of the crisis itself.

Nevertheless, in an explorative study such as the present one, the opening of an investigation into simple relationships can shed some light on

the intriguing and controversial issue of causes for variations in firm performance.

The analysis suggests that the accessibility of financial capital, as materialized in the ownership structure of a firm, exhibits an indirect effect on firm performance through the establishment of leadership organizations and the consequent structure of the team's social capital. The social capital exhibits a direct effect on the variations in performance through the team's establishment of instrumental external ties, i.e., through the establishment of an external network conducive to serving the interests of the team members.

The empirical findings suggest that the team with an information-accrual external network is likely to recover quicker from a crisis signal than is the team with a mobilizing external network. (Hypothesis 1 renders support from data.) When the structure of social capital is controlled for, ownership structure explains very little of the variation in performance. (Hypothesis 2 is not supported by data.) Integrated teams with mobilizing networks resist takeovers and changes in the controlling shareholders more effectively than the differentiated teams. (Hypothesis 3 is supported by data.) However, the team that has a mobilizing external network does not necessarily resist a management shake-up more efficiently than the team with the information-accrual network. (Hypothesis 4 is not significantly confirmed by the data.)

The empirical results support the idea that an executive team's social capital affects a firm's recovery from a situation with an external crisis signal. The findings suggest that due to the division of labor between the decision-making unit (the supra team) and the information-accrual unit (the executive team) in the differentiated team, the team performs better, i.e., they perform more in accordance with the shareholders' interest. The division of labor between the tasks of information-accrual and decision-making, a resolution of the leadership paradox, enables the differentiated team to respond quicker to a crisis signal. In contrast, the integrated team is efficient in resisting changes that may threaten the team members' own position, even though the changes could benefit the shareholders. Hence, the latter type of team recovers slower from a crisis situation than does the differentiated team.

The findings are only valid for firms that confront a crisis signal at the stock market. If the differentiated teams always performed better than the integrated teams, undoubtedly there would be no surviving integrated executive teams in public firms. Obviously, integrated teams do exist and survive. One way of interpreting the findings is that integrated teams are

working better than differentiated teams in certain circumstances, for instance in periods of growth and expansion. Finally, larger firms are often investor-owned and therefore are more likely to have an integrated team.

The findings that entrepreneurial firms have a leadership organization that does better in a crisis situation shed some light on the contradictory findings of Holderness and Sheehan (1988) that imply that individual-majority-shareholder firms underperform comparable firms with diffuse-stock ownership when specific performance measures are used. If the composition of the team is accounted for, a more subtle picture appears.

The findings also shed some light on the Shleifer and Vishny (1989) discussion of entrenchment versus convergence. It is unfortunate that data was not collected on the team members' stock options or private stock portfolio. Still, the integrated team exhibits behavior patterns reflecting the hypothesized entrenchment behavior, resisting takeover and turnover, even when resisting turnover renders no significant results.

Worth noting is that although there is a negative correlation between the degree of ownership concentration and the size of the firm, the size of the firm shows no significant effect on the recovery from a crisis signal. However, size may have an indirect effect, not detected in the present analysis.

Summary

Firms are to an increasing extent managed by an executive team. In my thesis I study the effects of the composition of the executive team on a firm's performance, and the factors that affect the composition of the executive team. Such questions have seldom been raised in economic research: the leadership of the firm has remained pretty much a "black box". In addition, sociologists seldom study problems of efficiency, such as efficiency in firms, focusing instead on the type of group processes existing within executive teams. This kind of specialization in research is limiting. A combination of the sociological research tradition and the economic one is promising for yielding new insights.

My statistical analysis is based on data from 29 Swedish public companies. Information about the executive team's composition and firm data was collected. The firms selected were all experiencing a negative phase on the stock market in 1985 (the crisis signal was measured as the difference between the investors' expected return and the actual return on stock holdings). Out of a total of 156 executive team members asked to participate in the investigation, 149 members agreed to take part. In a personal interview, each answered questions about his professional history, his external ties to resource individuals outside the firm, and demographic data (date of birth, social background, place of upbringing, marital status and education).

The results from the empirical investigation indicate that the composition of an executive team affects the firm's capacity to recover from a situation with a crisis signal. Furthermore, the results show that the composition of an executive team is not random. The composition is a product of recruitment strategies and these are, a consequence of the ownership structure of the firm.

Ownership structure and recruitment strategies

The most important control function of the owners in a public company is to recruit and dismiss the company's operating management. In the economic literature it is argued that dispersed ownership (i.e., when firms are owned by many investors with small shareholdings) increases the employed managers' discretion, which can lead to opportunism and guile. In a firm dominated by one owner with a large shareholding (the entrepreneurial firm)

the owner has a strong interest to control the management of the firm and consequently the management has less discretion to actively or passively hurt the interests of the shareholders.

However, the entrepreneurial owner is seldom engaged in the operation of the firm and therefore he has restricted information about potential candidates for the executive team. The CEO, however, is actively engaged in the operation of the firm and thereby has access to information about candidates to the team, both about members in general, as well as successors to the CEO. Consequently, the entrepreneur becomes dependent on the CEO's judgment and on his knowledge about potential candidates for the executive team. Alternatively, the CEO is dependent on the entrepreneur, because he is decisive for the CEO's future career and working conditions. A mutual interdependence emerges between the entrepreneur and the CEO. This interdependence, or 'partnership', implies that the entrepreneur not only delegates the appointment of regular members to the team, but also delegates the appointment of the successor to the CEO. This hypothesis is supported by data.

A CEO in a firm with a dispersed ownership has difficulty establishing a meaningful partnership with the owners, since owners often are several and have small shareholdings. This type of owner behaves differently from the entrepreneur in a crisis situation. The investors, when dissatisfied with the firm's performance, leave the firm and invest their capital elsewhere, while the entrepreneurs have a declared interest to stay in the firm and solve the problem (monitor the management). The empirical results show that owners in investor-owned firms are the recruiters of the new CEO, who in turn selects the rest of the executive team. Hence, the CEO in the entrepreneurial firm does have a good deal of influence and control over the management of the firm, especially regarding the recruitment process, compared to the CEO in the investor-owned firm.

Recruitment strategies and composition of the executive team

An executive team efficient in making decisions is a decision-competent team. An information-competent team is a team that is efficient in accruing novel (as opposed to routine) information. The team made up of members sharing values reaches consensus more readily than the team that has members holding different values. The first type of group is often described as an integrated group whereas the second type of group is called a differentiated group. An integrated and decision-competent team tends to block novel information that may threaten the consensus of the team. The

differentiated team, however, has no strong group consensus to protect and thus is better equipped to accrue novel information. The difficulty in combining decision competence with information competence leads to different choices of recruitment strategies, and consequently to differences in team composition.

Data shows that when a CEO in the entrepreneurial firm puts together his executive team he chooses a different strategy than his counterpart in the investor-owned firm. The CEO in the first case has access to the owner (the entrepreneur). He can discuss and take decisions with him on investment plans and other important firm strategies. The empirical investigation shows that the CEO in this type of firm gives the executive team as its primary task that of channeling information. In an investor-owned firm the owners are more difficult to mobilize in matters of importance and urgency. The CEOs in this type of firm choose the strategy of composing a team efficient primarily in making decisions.

A CEO who wants an information-competent executive team composes a large and differentiated team made up of members who have different demographic characteristics and who do not develop a strong group consensus through the sharing of values and the development of strong personal bonds to each other. On the other hand, a CEO who wants a decision-competent team chooses a small and well-integrated team made up of members having a similar social background, a similar education, shared values and established personal relationships with each other. The size of the team is an important aspect of team composition since it is plausible to suggest that small teams reach a consensus more readily than do large teams, since fewer individuals are involved.

Social capital: the executive team's external network

I argue that the efficiency of a team member's external network, or his social capital, has to be evaluated from the individual's competitive situation. Depending on the instrumental interests of the team members, they establish networks conducive to their interests and organize their social capital from the opportunity structure they confront. The type of executive team they belong to and the type of ownership structure the firm has create the opportunity structure.

The empirical analysis shows that the two types of executive teams not only differ with respect to the internal relational structure, but they also differ in their external relational structure. The information-competent team has at its disposal an owner (the entrepreneur) as well as an external network that efficiently channels novel information. Novel information is dispersed

through ties that are weak and unique. A weak tie is defined as a tie by which the parties do not share the same values or socialize. A tie is unique when only one member in the team is connected by it.

Since the decision-competent team does not have access to an easily mobilized owner, the members establish a network through which they can influence their external strategic environment. Such a network is reinforced by strong ties, in that the individuals socialize and share values and are acquainted.

Social capital, financial capital and the firm's response to a crisis signal

In a situation with an external crisis signal, such as a drop in stock prices, the firms with a decision-competent team take longer to recover than do firms with information-competent teams. This hypothesis renders some support from data.

The argument underlying the hypothesis is that the decision-competent team has a network that effectively resists changes such as takeovers and changes in controlling shareholders. Hence, resisting changes buys the team time to look over the activities in the firm. However, management in the entrepreneurial firm has no such option to buy time. Takeovers and changes in the controlling shareholders are efficient ways of restructuring business that also effect the performance, measured as performance on the stock exchange.

Appendix 1 Definition of variables, their transformation and the characteristics of the univariates

The selection criterion of a public firm confronting a crisis signal from the stock market was a strong negative abnormal return. The 106 public firms on the stock market both in 1980 and in 1988 were ranked according to their strongest negative abnormal return any month during 1985. From that list 32 firms were selected. The characteristics of the univariate distribution of the 106 firms and 32 firms are shown in Table A1:1.

Since no assumption is made about the variable being normally distributed, a complement to the mean (Mean) and the standard deviation (Sd) is given by the median (Md), the skewness (Skew), Kurtosis (Kurtos) and the minimum (MIN) and maximum (MAX) values.¹

Table A1:1. Characteristics of the univariate distribution for the variables negative abnormal return for 106 firms and negative abnormal return for 32 firms

	Mean	Sd	Md	Skew	Kurtos	MIN	MAX
Negative abnormal return (Population of 106 firms)	-.12	.09	-.11	-2.61	12.61	-.68	.012
Negative abnormal return (Sample of 32 firms)	-.22	.10	-.19	-3.16	12.51	-.68	-.15

The *ownership concentration* is measured by the concentration ratio (CR) which is the largest shareholder's percentage of votes. The univariate description of ownership concentration for the sample is shown in Table A1:2.

Table A1:2. Univariates of the variable ownership concentration

N=29	Mean	Sd	Md	Skew	Kurtos	MIN	MAX
Ownership concentration(CR)	44.25	16.55	45.6	.14	-.54	15.6	82.2

¹ Under the normal distribution assumption skewness is equal to 0 and kurtosis is equal to 0 (see definition and computation of kurtosis in SAS Elementary Statistics Procedure p. 11 from SAS Procedures Guide, Release 6.03 Edition).

The distribution of CR shows similar traits with a normal distribution. The distribution is flatter than the normal distribution, which is natural since a public company cannot be owned by one single owner to 100%. The distribution is almost symmetric, although slightly skewed to the right (skewness of .14 compared to the normal distribution of 0). This is also natural, since even a public company has to be owned by someone.

Table A1:3. Univariates of the variable ownership concentration for sample size of 23 firms

N=23	Mean	Sd	Md	Skew	Kurtos	MIN	MAX
Ownership concentration (CR)	43.33	17.33	45.60	.24	-.42	15.60	82.20

Two indicators of *firm size* are computed. The first is the market value of the firm (MV) and the second is the number of employees (EMPLOY) in the firm (total figure irrespective of location).

Table A1:4. Characteristics for the univariate distribution for the control variables

N=29	Mean	Sd	Md	Skew	Kurtos	MIN	MAX
Number of employees	6090	13763.99	2157	4.663	23.419	10	74320
Market ² value (MSEK)	990.29	1469.50	504	3.039	10.424	15.00	7052

The size of the firm, whether measured by the number of employees or by the market value, varies considerably.

The indicator *team size* is the number of individuals in the executive team (TEAM).

Table A1:5. Characteristics of the univariate distribution of team size

	Mean	Sd	Md	Skew	Kurtos	MIN	MAX
Size of team	5.00	2.26	4	.63	-.77	2	9

² The figures of a firm's market value are divided by 100 000 in the statistical analysis.

Table A1:5 shows a relatively large variation in the size of the executive team, and a mean not very different from the median. The distribution implies that the size of the team is more often large than small.

Firm performance is defined as the time it takes for a negative abnormal return to return to zero or become positive and remain stable on that level for a 4-month period. A firm with a 2-month recovery and with 4 months of consecutive stability is given a AR_t value of 2 months. The characteristics of the univariate distribution are captured in Table A1:6. The number of firms included in the analysis of performance is 23 since 6 of the firms exit the stock market during the measurement period.

Table A1:6. Characteristics of the univariate distribution of time for recovery

N=23	Mean	Sd	Md	Skew	Kurtos	MIN	MAX
Time for recovery (AR_t)	21.34	13.95	16	.26	-1.46	4	41

A *shift in the controlling share holder* is defined as a shift in the controlling stock holder (CSHIFT) during the period January 1985 to July 1988. The values take on 0 or 1 depending on if there was a shift, irrespective of how many shifts there were during the measurement period.

Table A1:7. Characteristics of the univariate distribution of control shift

N=23	Mean	Sd	Md	Skew	Kurtos	MIN	MAX
Control shift	.44	.50	0	.28	-2.11	0	1

Dissimilarity measure of demographic characteristics

There are several measures one can use to capture the degree of similarity in an executive team with respect to different individual attributes. One simple way to choose a measure is to use what is already applied in the research. However, the measure used for instance by Wagner, Pfeffer and O'Reilly (1984) is a measure of the relative isolation of an individual vis-à-vis the rest of the team members in order to predict the probability of the individual of leaving the team. The purpose of the present investigation is

different. Allison states "... the choice of an inequality measure is properly regarded as a choice among alternative definitions of inequality rather than a choice among alternative ways of measuring a single theoretical construct" (Allison 1978, 865). In my study the object is simply to describe the overall similarity or dissimilarity of the team members and then to compare the degree of heterogeneity of the executive teams.

Allison suggests using the scale of invariance (income) as the basic criterion for measuring inequality which means that multiplying everyone's income by a constant leaves the degree of inequality unchanged. The relative difference has not been changed by this operation. One measure with such a quality is the coefficient of variation (V), $v = \sigma/\mu$ (Allison 1978, 867). This measure would suit our purposes if all our variables were ratio scaled, i.e., had a true zero point as its origin (see Allison, 1978, 870). However, most of our variables are nominal or ordinal scaled. Hence, a dissimilarity measure for this type of scaled variable has to be applied. Even the V could be applied in some of the cases below, for the case of uniformity the Dissimilarity index is applied for all variables (Bohrstedt and Knoke 1982).

Dissimilarity index (IQV) is the standardized version of Index of diversity (D) where

$$D = 1 - \sum_{i=1}^k p_i^2$$

and where p_i is the proportion of the i^{th} category divided by the total number and where k is the number of categories. When D approaches one, the diversity of e.g. members increases. When D approaches zero, the diversity of members decreases. Since D is dependent on the number of categories of the variable, e.g. team size, as in this particular case, a standardized version of D is applied called the Index of Qualitative Variation.

$$IQV = D \frac{k}{k-1}$$

As for D when IQV approaches one, the diversity in this context for the team members, increases. When IQV approaches zero, the diversity of members decreases, when controlling for the number of categories of the variable. Hence, an executive team with members sharing the same attributes such as social background, the IQV approaches zero. However, if the members are different in the various demographic respects, the IQV approaches one, i.e., diversity increases. All the demographic variables are transformed by the dissimilarity index IQV.

Place of adolescence, ADQ_{iqv} . The place of adolescence (upbringing) was first categorized as follows:

- (01) Upbringing in various places
- (02) Large city (Stockholm, Gothenburg or Malmö)
- (03) Town with 10 000–15 000 inhabitants, excluding Norrland
- (04) Town with 5 000–10 000 inhabitants, -"-
- (05) Town with 500– 5 000 inhabitants, -"-
- (06) Town with less than 500 inhabitants, -"-
- (07) Abroad
- (33) Town with 10 000–15 000 inhabitants, including Norrland
- (34) Town with 5 000–10 000 inhabitants, -"-
- (35) Town with 500– 5 000 inhabitants, -"-
- (36) Town with less than 500 inhabitants, -"-

These categories are further partitioned into four new categories:

The categories	03–07	are merged into the new category	3
-"-	01	-"-	1
-"-	02	-"-	2
-"-	33–36	-"-	4 ³

Dissimilarity of Education, EDU_{iqv} is based on the following constructions:
The first step of education categories are reduced to the following categories.

- (01) No academic degree, transformed to code 1
- (61) Law degree, transformed to code 2
- (62) M.Sc. in engineering, transformed to code 3
- (63) B.A./B.S. in commerce/economics, transformed to code 4
- (64) Degree in forestry, transformed to code 5
- (65) Degree in other discipline, transformed to code 6
- (7) Uncompleted Ph.D. degree, transformed to code 7
- (82) Ph.D. in engineering, transformed to code 8
- (83) Ph.D. in economics, transformed to code 8
- (84) Ph.D. in forestry, transformed to code 8
- (85) Ph.D. in other subject, transformed to code 8
- (09) More than one academic degree, transformed to code 9

The place of education UTBORT is coded as:

³ The members' responses about place of upbringing were coded according to the Year book for the Swedish Administrative Communities (kommun) 1950. Hence, a town that was small at the time of their upbringing may have a large population today.

- (1) Göteborg
- (2) Umeå
- (3) Stockholm
- (4) Lund
- (5) Uppsala
- (7) Abroad
- (8) Linköping
- (6) Other

Dissimilarity of social background SEI_{iqv}

Information about the respondent's social background was traced by asking about the father's occupation at the time for the respondent's upbringing. The SEI classification (1984) was used for socio-economic classification. The SEI classification of persons in the labor force is based primarily on their occupation. Distinctions between self-employed persons and employees, and between employees with and without subordinates must, however, be based on additional information which is not available in the present study.

Blue collar workers: coded	11 – 12 non-skilled workers
	21 – 22 skilled workers
White collar workers: coded	33 – 36 lower-ranked, white collar workers
	44 – 46 middle-ranked, -"-
	54 – 60 higher-ranked, -"-
Businessmen, Self employed: coded	60 – 78
Farmers: coded	86 – 89

(see SCB MIS, 1982:4, 1984, 9)

Dissimilarity of birth, AGE_{sd} , for each team is computed by the standard deviation of birth year for the team.

Marital status is organized into six categories:

- (1) married/cohabitant
- (2) divorced
- (3) widowed
- (4) not married/cohabitant
- (5) married 2 times
- (6) married 3 or more times

Table A1:8. The univariate distribution of the four heterogeneity indicators and the composite index HETER

	Mean	Sd	Md	Skew	Kurtos	Max	Min
AGEsd	6.45	3.00	6.74	-0.13	0.25	13.31	0
SEIiqv	0.61	0.21	0.67	-1.56	3.14	.89	0
EDUIqv	0.58	0.21	0.65	-1.27	2.10	.87	0
ADOiqv	0.63	0.23	0.67	-1.45	2.14	.89	0
HETER	2.51	0.69	2.51	-1.10	1.50	3.40	.53

Recruitment indicators

Recruitment to the firm, REKRYTF, is divided into the following categories:

- (1) Workmate, school or university friend
- (2) Headhunter
- (3) Advertisement
- (4) Mergers/Aquisitions
- (5) Clients
- (6) Other mediating contact
- (7) Relative
- (8) Summer job
- (9) Own effort
- (10) Board of director
- (11) Friend

Recruitment to executive team (REKRYTL) through:

- (1) Mergers/Aquisitions
- (2) Owner
- (3) CEO
- (4) Other

The variable REKRYTL is transformed into the *dissimilarity of recruiter* (IQV_{rec}), i.e., the difference in types of recruiter categories involved in recruiting the members to the executive team.

Table A1:9. Univariate description of the variable dissimilarity of recruitment categories, IQV_{rec}

	Mean	Std	Median	Skew	Kurtos	Max	Min
IQV_{rec}	.44	.22	.5	-.77	-.13	.83	0

The distribution of the variable IQV_{rec} , the dissimilarity in categories of recruiters recruiting each team, shows that the more common recruitment procedure seems to be one where few categories are involved, rather than where several categories are involved. The REKRYTL is also used to construct three indicators of the relative domination of the CEO in the recruiting of the executive team. The first measure is the *percentage of team members not recruited by the CEO*, NOCEO. The second measure is the *percentage of team members excluding the CEO recruited by the CEO* (TEAMREC). The third measure is the *propensity that the CEO is recruited by the incumbent CEO* (CEO). The first measure NOCEO is large when others than CEO dominate the recruitment, and smaller when the CEO dominates. The second and third is large when the CEO dominates and small when others dominate the recruitment of team members. In Table A1:10 the characteristics of the univariate distribution for the three measures are depicted.

Table A1:10. The characteristics for the univariate distribution of three measures of the relative dominance of the CEO in the recruitment procedure

	Mean	Sd	Md	Skew	Kurtos	Max	Min
NOCEO	30.23	19.95	25	1.44	4.17	100	0
CEO	.38	0.49	0	0.53	-1.86	1	0
TEAMREC	74.04	31.00	80	-1.42	1.36	100	0

The indicator *proportion of professional years in the firm* (PROFYEARF) is computed by the total number of years in the firm divided by the total number of years in the professional life of each team member.

Indicators of team cohesion

Degree of integration is measured by three indicators:

1. *mutual values* (GV),
2. *personal confiding* (GP)
3. *socializing privately* (GS)

The questions posed to each team member were: With whom on the team do you (1) socialize with (family-wise)? (2) discuss private and personal matters? (3) share common values about business and life? (See Questionnaire in Supplement, questions No. C1-4.)

A relation matrix is constructed showing each team member's relationship to all the other team members using all three dimensions of integration. From the matrix a cohesion index is constructed for each aspect of integration. The index G divides the number of mutual choices in a binary matrix of direct ties by the maximum possible number of such choices (Knoke and Kuklinski 1983, 50). Only the symmetric ties are counted, that is, only when both the respondents claim they relate to each other in a certain integration aspect is the tie counted.

The cohesion index is measured by

$$G = \frac{\sum_{i=1}^N \sum_{j=i+1}^N (z_{ij}z_{ji})}{(N^2+N)/2} \text{ where } i \neq j$$

and where the term $(z_{ij}z_{ji})$ takes the value of 1 if both elements are 1s, and 0 if either of the elements take on the value of 0. The cohesion index ranges from 0 to 1. A large value indicates that a greater proportion of network relations are reciprocated. A small value indicates that a greater proportion of the network relations are not reciprocated (Knoke and Kuklinski 1983, 50). The cohesion index transforms the binomial indicator into an interval-scaled indicator (at least it is treated as if it were possible to assume interval scale here). The cohesion index for socializing (GS), the cohesion index for sharing values (GV), the cohesion index for personal confiding (GP), and the cohesion index for spending time outside work at sports or other hobbies (GH) are all indicators of integration. For illustrative purposes, an index containing all the cohesion indicators is constructed and labelled INTEGR. INTEGR is computed by summing all the cohesion values for each team, except that for spending time outside work that is not used in the analysis. A univariate description for degree of integration indicators GS, GV and GP is shown in Table A1:11.

Table A1:11. A univariate description of integration indicators

	Mean	Sd	Md	Skew	Kurtos	Min	Max
GV	0.47	0.28	0.46	0.12	-0.16	0	1
GP	0.32	0.33	0.26	0.95	-0.29	0	1
GS	0.25	0.27	0.16	1.45	1.87	0	1
INTEGR	1.05	.76	.83	1.01	1.13	0	3
INTEGR2 (GS,GP)	.57	.56	.37	1.28	1.09	0	2

Table A1:12. A univariate description of the indicator socializing for sample size equal to 23 (used in chapter IV)

N=23	Mean	Sd	Md	Skew	Kurtos	Min	Max
GS	0.28	0.29	0.14	1.57	2.17	0	1

Indicators of external network structure and size

Total number of weak ties per team is measured by summing the ties where the parties claim that they neither mutually confide in nor socialize with each other. (A strong tie is defined as a tie between two who claim that they either confide in or socialize with each other privately.)

Stanweak is the standardized version for weak ties.

Unique ties connect a contact outside the team and firm to only one of the team members and are also known as nonredundant ties (NONRED).

The standardized version of unique ties is the number of unique ties divided by the team size (standex).

The size of a team's external network is the number of ties per team member (TOTEXT). The standardized version of size of external ties is the size of the team's external network divided by team size (EXT).

The degree of overlap in each team member's external network is computed by asking the member whether the external ties mentioned are acquainted with each other or not to his knowledge (KONTAND).

The degree of team overlap is the percentage of the team's external unique ties (OVERLAP).

Table A1:13. Some characteristics of the univariate distribution of the indicators for number of weak ties, number of nonredundant ties and size of external network

N=29	Mean	Sd	Md	Skew	Kurtos	Min	Max
Size of the external network (TOTEXT)	41.86	16.10	40	.09	-0.42	9	74
Size of the external network per team member (EXT)	8.88	2.62	9	-.26	-.18	3	13.50
Number of weak ties (WEAK)	21.72	11.90	21	.13	-1.15	1	42
Number of weak ties per team member (STANWEAK)	4.56	2.35	4.12	.54	.10	.33	10.50
Number of nonredundant ties (NRT)	38.44	14.71	38	.08	-.21	8	70
Number of nonredundant ties per team member (STANNRT)	8.21	2.59	8	-.14	-.05	2.66	12.66
Degree of overlap in team member's external network (KONTAND)	.54	.50	.21	.65	-.15	.24	1.00
Degree of team's overlap (OVERLAP)	7.88	6.92	6.12	1.06	.80	0	26.22

The min and max values show a large variation in the size of the external networks. The values of Kurtosis and Skewness indicate no large deviation from a normal distributed variable.

Turnover is measured by the indicator percentage still on the executive team or at and measured as the percentage of members still on the team (PERCREMA).

The univariate distribution for the variables KONTAND, PERCREMA, CSHIFT, CR and MV was computed for the sample size of 23.

Table A1:14. Characteristics of the univariate distribution with a sample size of 23 firms

N=23	Mean	Md	Sd	Skew	Kurtos	Max	Min
(KONTAND) Degree of overlap in the team members external network	.55	.53	.20	.60	.02	1.0	.24
Degree of team's overlap (OVERLAP)	.07	.06	.06	.82	.07	.21	0
(PERCREMA) Per cent still on the team	70.49	75.0	28.32	-.93	.38	100	0
(ARt) Time (number of months) for recovery from a negative abnormal return	21.35	16.0	13.94	.26	-1.46	41.0	1.0
(CR) Ownership concentration	43.34	45.60	17.33	.25	-.43	82.2	15.60
(MV) Market value of firm	1075.71	391.74	1633.89	2.71	8.00	7052.99	15.01

Appendix 2 Abnormal return

Abnormal return (AR) is a measure taken from the field of financial theory. It is postulated that individuals make consistent and rational decisions, and that all expectations are realized since no one acts on the wrong premises (Hansson and Högfeltdt 1988, 636). Financial theory analyzes the economic effects of both time and risk on resource allocation and gives a rational economic explanation for seemingly random changes in stock prices using stochastic theory. Three major ideas are incorporated in financial theory: information efficiency, diversification and arbitrage principles. The idea of information efficiency is of relevance in our study.

From Hansson and Högfeltdt (1988) the following description on the information efficiency assumption is drawn: When new information enters the market, investors evaluate it and change their portfolio to exploit potential profits from the new knowledge. The new equilibrium prices therefore contain the information. Prices are an efficient information bearer and price changes reflect the market's joint evaluation and response to new information. This implies that investors base their decisions only on the information that has already been exploited by the market. This intuition is called the market efficiency hypothesis; market prices reflect all relevant information. The analysis testing the hypothesis shows that the Swedish market is at least semi information-efficient.

It is assumed that the investors not only base their actions on historical information (weak information efficiency), but also on economic information that is accessible to the public. For example, announcements made revealing a firm's specific information are easily and quickly processed by the actors, and the stock market prices reflect this process. However, empirical analysis shows that insider information is not reflected in the stock prices. Trading with insider information may give abnormal returns. In general, previous studies have been interpreted to support the information efficiency hypothesis because insider information cannot give an ongoing abnormal return for long, since other investors will discover the abnormal returns and try to exploit them.

The expected rate of return is given by the CAPM approach, Capital Asset Pricing Model (Sharpe 1964) or the more general model of APT, the Arbitrage Pricing Theory (Copeland and Weston 1983). The CAPM predicts that security rates of return will be linearly related to a single common factor, the asset's systematic risk. The APT is based on similar intuition but it is more general. CAPM can be viewed as a special case of the APT when the market rate of return is assumed to be the single relevant factor.

Investors put together portfolios by evaluating the stock's expected rate of return and its risk. Risk is defined as the volatility in the returns. A share with high variability is classified as a share with high risk, and vice versa. Because the variability of risk for different shares are not perfectly correlated, investors may reduce risk by diversifying their portfolio. Risk may be divided into unsystematic (or firm-specific) risk and systematic risk (variation due to the market return). The latter is compensated for by investors diversifying their portfolio (Hansson and Högfeldt 1988).

Even though there is a theory behind the CAPM, and not behind the market model, the latter is chosen. The market model is easier to compute (DeRidder 1988, 16). Furthermore, a data set of firms on the stock market during the period of 1980 - 1985 already exists, as well as does a program for computing abnormal return values based on the market model. Also there is evidence that the output from the two models, the market model and the CAPM yield the same results (DeRidder 1988).

Abnormal return for a particular share is defined as the difference between the actual and the expected return. A share's expected return is given by the CAPM as:

$$R_{i,t} = \alpha_i + \beta_i R_{m,t} + \varepsilon_{i,t}$$

where

$R_{i,t}$ = the share i's return in period t

$R_{m,t}$ = return of the market portfolio, R_m , at the period t

α_i, β_i = the share specific parameters

ε_i = error term with the expected value of zero

The expected rate of return given by model is determined by the unsystematic risk, alpha, and the product of $\beta_i R_{m,t}$, determined by the market. The market factor beta indicates how much a share's return is expected to change given a certain change in the market portfolio (approximated by Affärsvärldens "general index"). Given the use of the model the abnormal return is expressed by

$$ar_{i,t} = R_{i,t} - (\hat{\alpha}_i + \hat{\beta}_i R_{m,t})$$

where $\hat{\alpha}_i$ and $\hat{\beta}_i$ are estimates of the share specific parameters. $\hat{\beta}_i$ is defined as

the covariance between R_i and R_m divided by the variance of the market portfolio

$$\hat{\beta}_i = \text{Cov}(R_i, R_m) / \text{var}(R_m)$$

Summing all the single observations of AR and dividing by the total gives us an average abnormal return AR_t .

Some shortcomings of the selected measures and computation are a) abnormal return and information-efficient markets, b) the problem of estimating betas, and c) the problem of thin trading. (DeRidder 1988; Hansson and Högfeldt 1988; Claesson 1989; Berglund et al. 1989) The problem with adjusting betas is especially worth noting. A crisis signal as defined here as some radical new information appearing, of course could change the risk of the firm's share, i.e., the true beta. However, this is not taken into account in our estimation, which is a drawback.

Appendix 3 The performance measure

The choice of a measure for performance is directed by the objective of the empirical investigation and the characteristics of the available measures. The main objective of the empirical investigation is to compare how the composition of executive teams affect firm performance. The assumption behind the objective is that the composition of the team may affect the ability to respond to a crisis signal through the structure and size of its external network.

There are various ways to evaluate the performance of a firm (Bertmar, Engshagen and Widhem 1983; Brealey and Myers 1984). Bertmar et al. (1983). divides the flora of measures into two categories: company rate of return and market rate of return. Economic information that causes sudden changes in market values is not immediately and fully reflected in accounting measures. Although, in the long run, company rates of return and capital markets rates of return tend to tell the same story. Thus, company rates of return can be used as a long-run proxy for capital market measures.¹

Company rates of return can be viewed as a measure that focuses to a greater extent than does investors' return, on factors over which management is supposed to exercise some influence, such as, the when, where and what concerning investment, production, pricing distribution, etc. This leaves the measure unaffected by factors like short-run changes in expectations or in required rates of return that influence the market rate of return (see Bertmar, Engshagen and Widhem 1983, 8-9).

The signal "Reactions by agents to the stock market" is an external approximation of the value of a firm's performance. The stock market signal is an aggregate of investors' perception of future performance and may be a satisfactory surrogate for actual performance (Beatty and Zajac 1987). Furthermore, a stock market signal such as an abnormal return is a standardized measure, i.e., it reveals the relative performance of a specific firm and permits a comparison of different firms on the stock market.

¹ A typical company rate of return is ROC, return on fixed capital: before and after taxes, ROC return on all capital employed fixed and net monetary assets, including real holding gains/losses: before and after taxes (W). REGM, Return on equity; including real holding gains/losses on fixed capital, inflation losses on net monetary assets and inflation gains on debts after taxes. EQ/W Equity ration owners equity as a percentage of all capital employed both factors at current costs (Bertmar, Engshagen and Widhem 1983, 22).

There are at least three aspects of the properties of the selected measure that are of importance: neutrality from management discretion, risk control and the possibility to compare firms.

Given the objective of the investigation, it is important to choose a measure that is neutral to management discretion. Managers are selective in giving away information and may even manipulate accounting figures. This is crucial to take into account. Therefore, reactions on the stock market are chosen as an external approximate reflection of the value of a firm's performance. The second aspect of a measure is that the value of one firm should be able to be compared against the value of other firms. Therefore the measure has to be normalized. The third aspect is that the value of a firm's stock has a unique and systematic relationship to the market portfolio. Therefore, a measure is needed that is standardized or corrected from differences in systematic risk. One measure that meets the above mentioned requirements is the average abnormal return (AR).

There are different ways of using the concept of abnormal return when measuring performance. A common measure is CAR, often used in event studies of mergers (Auerbach 1988). However, using CAR places stiffer rules on the firm's performance. It asks for total recovery from a crisis situation in that it expects earlier losses to be recovered as well. Few firms may live up to that in the short time interval found in the present study.

Another method for using abnormal return as a performance measure is to count the time it takes for a negative abnormal return to become zero or positive. This is a more lenient expectation on performance. When AR returns to zero, the actual share's return is equal to the expected rate of return.

In detecting abnormal returns, the control return is defined as

$$c_{it} = \alpha_i + \beta_i R_{mt}$$

where R_{mt} is the return on the market portfolio, R , at the period t .

Alpha and beta coefficients can be computed according to different models (Auerbach 1988; DeRidder 1988; Copeland and Weston 1983). The model used here is the market model (see Appendix 2 abnormal return, the market model). Hence, alpha and beta are estimated by regressing r_{it} on R_{mt} for the 60 month period. The abnormal return is then detected through the discrepancy between the observed return on a share at a specific time and the control return in the same time period. The performance measure is computed as the time it takes in months for a firm's abnormal return to recover from a negative abnormal return to a zero or a positive abnormal return and remain stable at that level for 4 months.

Hence, the description of the suggested performance measure is: The time it takes for the actual rate of return to equal the expected rate of return, where the expected rate of return is a function of the past behavior of the share in relation to the stock market. As mentioned in Appendix 2 (abnormal return), with the market model, sudden changes of the beta risk are not reflected in the AR immediately.

Appendix 4 Frequency tables for the analyzed variables

Definition and codings of the variables are presented in Appendix 1.

Table A4:1. Social background

	Freq.	%
Blue-collar workers(11-36)	25	16.2
White-collar workers (44-54)	78	50.5
Free academics (60)	8	5.2
Businessmen (68 -78)	38	24.7
Farmers (86/87)	5	3.2
SUM	154	100.0

Table A4:2. Education

	Freq.	%
No academic exam (1)	30	19.5
Academic exam (2)	19	12.3
M.Sc. in engineering (3)	27	17.5
B.A./B.D. commerce (4)	62	40.3
Degree in forestry (5)	2	1.3
Other degree (6)	4	2.6
Uncompleted Ph.D. (7)	8	5.2
Ph.D. (8)	2	1.3
More than one degree (9)	0	0.0
SUM	154	100.0

Table A4:3. Decade of birth

	Freq.	%
1910–19	2	1.3
1920–29	31	20.1
1930–39	56	36.4
1940–49	60	39.0
1950–	5	3.2
SUM	154	100.0

Table A4:4. Place of upbringing (adolescence)

	Freq.	%
Mixed places for upbringing (1)	55	35.7
Large cities, metropolitan areas (2)	29	18.8
Towns up to 15 000 inhabitants (3)	40	26.0
Northern Sweden (4)	30	19.5
SUM	154	100.0

Table A4:5. Marital status

	Freq.	%
Married (1)	126	81.8
Divorced(2)	7	4.5
Widow (3)	2	1.3
Not married (4)	1	0.6
Married two times(5)	18	11.7
Married more than two times(6)	0	0
SUM	154	100.0

Table A4:6. Recruitment source to the firm

	Freq.	%
Headhunter	8	5.2
Advertisement	22	14.3
Other mediator	14	9.0
Mergers/Aquisitions	13	8.4
Workmate	45	29.2
Client	23	14.9
Relative	8	5.2
Friend	3	1.9
Summer job	2	1.3
Own search	13	8.4
Board of director	3	1.9
SUM	154	100

Table A4:7. Recruitment source to the executive team

	Freq.	%
Mergers/Aquisitions	6	3.9
Owners	35	22.7
CEO	113	73.4
SUM	154	100.0

Table A4:8. Team member's years in firm

Number of years	Freq.	%
0–10	74	48.1
11–20	51	33.1
21–	29	18.7
SUM	154	100.0

Table A4:9. Percentage of socializing relationships within a team

Per cent of a member's socializing relationships		Per cent of team members in the sample
%	Freq.	%
0– 9	54	34.6
10–19	12	7.7
20–29	23	14.7
30–39	18	11.5
40–49	9	5.8
50–59	13	8.3
> 60	27	17.3

Table A4:10. Percentage of confiding relationships within a team

Per cent of team member's confiding relationships		Per cent of team members in the sample
%	Freq.	%
0- 9	37	23.7
10-19	6	3.8
20-29	23	14.7
30-39	12	7.7
40-49	15	9.6
50-59	17	10.9
> 60	46	29.5

Table A4:11. Percentage of relationships within the team based on shared values

Per cent relationships sharing values		Per cent of team members in the sample
%	Freq.	%
0- 9	10	6.4
10-19	1	0.6
20-29	10	6.4
30-39	17	10.9
40-49	11	7.1
50-59	20	12.8
60-69	19	12.2
70-79	17	10.9
80-89	11	7.1
90-99	1	0.6
100	39	25.0

Table A4:12. Percentage of team members sharing a hobby or a sport activity

Per cent of team members sharing hobbies or sports	Freq.	Per cent of team members in the sample
%		%
0– 9	45	28.8
10– 19	8	5.1
20– 29	21	13.5
30– 39	24	15.4
40– 49	12	7.7
50– 59	12	7.7
60– 69	11	7.1
70– 79	5	3.2
80– 89	4	2.6
90–100	14	9.0

Table A4:13. Size of external network per team member

Number of external ties	Freq.	Per cent of team members in the sample
		%
0– 5	41	28.22
6–10	60	41.1
11–16	45	30.7

Table A4:14. Percentage of team members who socialize with their external ties

Per cent of socializing ties		Per cent of team members in the sample
%	Freq.	%
0- 9	28	19.6
10-19	9	6.3
20-29	17	11.9
30-39	9	6.3
40-49	15	10.5
50-59	23	16.1
60-69	11	7.7
70-79	10	7.0
80-89	13	9.1
90-99	1	0.7
100	7	4.9

Table A4:15. Percentage of team members who confide in their external ties

Per cent of confiding ties		Per cent of team members in the sample
%	Freq.	%
0- 9	43	30.1
10-19	10	7.0
20-29	16	11.2
30-39	13	9.1
40-49	15	10.5
50-59	17	11.9
60-69	10	7.0
70-79	5	3.5
80-89	4	2.8
90-99	1	0.7
100	9	6.3

Table A4:16. Percentage of team members who both socialize with and confide in their external ties

Per cent of both confiding and socializing ties		Per cent of team members in the sample
%	Freq.	%
0- 9	45	31.5
10-19	16	11.2
20-29	20	14.0
30-39	14	9.8
40-49	16	11.2
50-59	15	10.5
60-69	6	4.2
70-79	3	2.1
80-89	2	1.4
90-99	1	0.7
100	5	3.5

Table A4:17. Percentage of team members' external ties that are acquainted

Per cent of acquainted external ties		Per cent of team members in the sample
%	Freq.	%
0-10	17	12.4
11-30	27	19.7
31-50	42	30.7
51-70	21	15.4
> 71	20	18.3

Appendix 5 Two correlation matrices: One for all variables and a second for the dichotomized variables used in Chapter IV

Pearson Correlation Coefficients / Prob > |R| under Ho: Rho=0
/ Number of Observations

	CR	CART	ART	EMPLOY	MV	TEAM	NOCEO
CR	1.00000 0.0 29	-0.00700 0.9735 25	0.04829 0.8035 29	-0.06239 0.7478 29	-0.35598 0.0581 29	0.27430 0.1499 29	-0.18770 0.3295 29
CART	-0.00700 0.9735 25	1.00000 0.0 25	-0.08937 0.6710 25	-0.11018 0.6001 25	-0.04983 0.8130 25	-0.09328 0.6574 25	-0.21531 0.3013 25
ART	0.04829 0.8035 29	-0.08937 0.6710 25	1.00000 0.0 29	0.38246 0.0406 29	0.31136 0.1002 29	0.09098 0.6388 29	0.17802 0.3555 29
EMPLOY	-0.06239 0.7478 29	-0.11018 0.6001 25	0.38246 0.0406 29	1.00000 0.0 29	0.79200 0.0001 29	0.13989 0.4692 29	-0.18023 0.3495 29
MV	-0.35598 0.0581 29	-0.04983 0.8130 25	0.31136 0.1002 29	0.79200 0.0001 29	1.00000 0.0 29	-0.04737 0.8072 29	-0.06769 0.7272 29
TEAM	0.27430 0.1499 29	-0.09328 0.6574 25	0.09098 0.6388 29	0.13989 0.4692 29	-0.04737 0.8072 29	1.00000 0.0 29	-0.47690 0.0089 29
NOCEO	-0.18770 0.3295 29	-0.21531 0.3013 25	0.17802 0.3555 29	-0.18023 0.3495 29	-0.06769 0.7272 29	-0.47690 0.0089 29	1.00000 0.0 29
CEO	0.10584 0.5848 29	0.24734 0.2333 25	0.11949 0.5370 29	0.24046 0.2089 29	0.38488 0.0392 29	-0.19135 0.3200 29	-0.26543 0.1640 29
TEAMREC	0.15765 0.4141 29	-0.01031 0.9610 25	-0.19174 0.3190 29	0.06060 0.7548 29	-0.25295 0.1855 29	0.40846 0.0278 29	-0.66536 0.0001 29
IQVREC	-0.53963 0.0025 29	-0.31494 0.1252 25	0.05721 0.7682 29	-0.03586 0.8535 29	0.06077 0.7542 29	-0.17948 0.3515 29	0.30869 0.1033 29
HETER	0.06743 0.7282 29	0.05456 0.7956 25	-0.12878 0.5056 29	0.12884 0.5053 29	0.13277 0.4923 29	0.65526 0.0001 29	-0.44602 0.0153 29
IQVADO	-0.06780 0.7267 29	0.09694 0.6448 25	0.01287 0.9472 29	0.03564 0.8544 29	0.11285 0.5600 29	0.55859 0.0016 29	-0.22827 0.2337 29
IQVEDU	0.05616 0.7723 29	0.11466 0.5852 25	-0.16943 0.3796 29	0.09320 0.6306 29	0.08306 0.6684 29	0.46312 0.0114 29	-0.31019 0.1015 29

CORRELATION ANALYSIS

Pearson Correlation Coefficients / Prob > |R| under Ho: Rho=0
/ Number of Observations

	CR	CART	ART	EMPLOY	MV	TEAM	NOCEO
IQVSEI	0.05585 0.7735 29	-0.00296 0.9888 25	-0.19144 0.3198 29	0.07729 0.6903 29	0.12307 0.5248 29	0.50720 0.0050 29	-0.41652 0.0246 29
AGESD	0.20332 0.2901 29	-0.03551 0.8662 25	-0.07540 0.6975 29	0.23366 0.2225 29	0.11110 0.5661 29	0.60126 0.0006 29	-0.52119 0.0037 29
INTEGR	-0.02109 0.9135 29	-0.02502 0.9055 25	0.12449 0.5200 29	-0.03877 0.8417 29	-0.14287 0.4597 29	-0.24759 0.1953 29	-0.15916 0.4096 29
INTEGR2	0.05548 0.7750 29	0.04920 0.8153 25	0.12242 0.5270 29	-0.03745 0.8471 29	-0.12072 0.5328 29	-0.36264 0.0532 29	-0.08168 0.6736 29
GV	-0.16607 0.3893 29	-0.14993 0.4744 25	0.09400 0.6277 29	-0.03063 0.8747 29	-0.14682 0.4472 29	0.04778 0.8056 29	-0.26760 0.1605 29
GS	0.10356 0.5929 29	0.03481 0.8688 25	0.11925 0.5378 29	0.02210 0.9094 29	-0.02237 0.9083 29	-0.35996 0.0551 29	-0.06679 0.7307 29
GP	0.00690 0.9717 29	0.04942 0.8145 25	0.10588 0.5846 29	-0.08098 0.6763 29	-0.18341 0.3409 29	-0.30809 0.1040 29	-0.08124 0.6752 29
NRT	0.14472 0.4538 29	-0.24858 0.2308 25	0.10028 0.6047 29	0.17828 0.3548 29	0.04788 0.8052 29	0.72574 0.0001 29	-0.29818 0.1162 29
OVERLAP	0.16353 0.3966 29	0.17291 0.4085 25	0.03096 0.8733 29	0.10134 0.6009 29	-0.01610 0.9339 29	0.20554 0.2848 29	-0.26793 0.1600 29
WEAK	-0.09585 0.6209 29	-0.17158 0.4122 25	0.05644 0.7712 29	0.23713 0.2155 29	0.24633 0.1977 29	0.65962 0.0001 29	-0.28612 0.1324 29
KONTAND	-0.30676 0.1055 29	0.31800 0.1213 25	0.14571 0.4507 29	0.09794 0.6132 29	0.13764 0.4764 29	-0.32567 0.0847 29	-0.00686 0.9718 29
TOTEXT	0.16888 0.3812 29	-0.21309 0.3064 25	0.10654 0.5823 29	0.22724 0.2358 29	0.06376 0.7425 29	0.83613 0.0001 29	-0.37956 0.0423 29
STANDEX	-0.34606 0.0659 29	-0.14396 0.4924 25	0.03071 0.8743 29	-0.00550 0.9774 29	0.16197 0.4012 29	-0.48841 0.0072 29	0.43541 0.0182 29

CORRELATION ANALYSIS

Pearson Correlation Coefficients / Prob > |R| under Ho: Rho=0
/ Number of Observations

	CR	CART	ART	EMPLOY	MV	TEAM	NOCEO
STANNRT	-0.37328 0.0461 29	-0.14166 0.4994 25	0.00737 0.9697 29	-0.03438 0.8595 29	0.15385 0.4255 29	-0.45988 0.0121 29	0.44040 0.0168 29
STANWEAK	-0.41045 0.0270 29	-0.10886 0.6045 25	-0.02181 0.9106 29	0.08162 0.6738 29	0.37022 0.0481 29	-0.21866 0.2545 29	0.21806 0.2558 29
CSHIFT	-0.08373 0.6659 29	-0.15307 0.4651 25	0.30334 0.1097 29	-0.10071 0.6032 29	-0.07975 0.6809 29	0.15946 0.4087 29	-0.05996 0.7574 29
KONTAND	-0.30676 0.1055 29	0.31800 0.1213 25	0.14571 0.4507 29	0.09794 0.6132 29	0.13764 0.4764 29	-0.32567 0.0847 29	-0.00686 0.9718 29
PERCREMA	-0.08848 0.6481 29	0.00408 0.9846 25	0.22590 0.2387 29	0.07618 0.6945 29	0.19271 0.3166 29	-0.13685 0.4790 29	-0.07594 0.6954 29

CORRELATION ANALYSIS

Pearson Correlation Coefficients / Prob > |R| under Ho: Rho=0
/ Number of Observations

	CEO	TEAMREC	IQVREC	HETER	IQVADO	IQVEDU	IQVSEI
CR	0.10584 0.5848 29	0.15765 0.4141 29	-0.53963 0.0025 29	0.06743 0.7282 29	-0.06780 0.7267 29	0.05616 0.7723 29	0.05585 0.7735 29
CART	0.24734 0.2333 25	-0.01031 0.9610 25	-0.31494 0.1252 25	0.05456 0.7956 25	0.09694 0.6448 25	0.11466 0.5852 25	-0.00296 0.9888 25
ART	0.11949 0.5370 29	-0.19174 0.3190 29	0.05721 0.7682 29	-0.12878 0.5056 29	0.01287 0.9472 29	-0.16943 0.3796 29	-0.19144 0.3198 29
EMPLOY	0.24046 0.2089 29	0.06060 0.7548 29	-0.03586 0.8535 29	0.12884 0.5053 29	0.03564 0.8544 29	0.09320 0.6306 29	0.07729 0.6903 29
MV	0.38488 0.0392 29	-0.25295 0.1855 29	0.06077 0.7542 29	0.13277 0.4923 29	0.11285 0.5600 29	0.08306 0.6684 29	0.12307 0.5248 29
TEAM	-0.19135 0.3200 29	0.40846 0.0278 29	-0.17948 0.3515 29	0.65526 0.0001 29	0.55859 0.0016 29	0.46312 0.0114 29	0.50720 0.0050 29
NOCEO	-0.26543 0.1640 29	-0.66536 0.0001 29	0.30869 0.1033 29	-0.44602 0.0153 29	-0.22827 0.2337 29	-0.31019 0.1015 29	-0.41652 0.0246 29
CEO	1.00000 0.0 29	-0.20536 0.2852 29	-0.30272 0.1104 29	0.12670 0.5125 29	-0.02965 0.8786 29	0.16382 0.3958 29	0.19528 0.3100 29
TEAMREC	-0.20536 0.2852 29	1.00000 0.0 29	-0.11462 0.5538 29	0.27754 0.1449 29	0.01418 0.9418 29	0.37421 0.0455 29	0.18996 0.3237 29
IQVREC	-0.30272 0.1104 29	-0.11462 0.5538 29	1.00000 0.0 29	-0.04346 0.8229 29	0.17755 0.3568 29	-0.18894 0.3263 29	-0.00335 0.9862 29
HETER	0.12670 0.5125 29	0.27754 0.1449 29	-0.04346 0.8229 29	1.00000 0.0 29	0.82358 0.0001 29	0.64113 0.0002 29	0.90377 0.0001 29
IQVADO	-0.02965 0.8786 29	0.01418 0.9418 29	0.17755 0.3568 29	0.82358 0.0001 29	1.00000 0.0 29	0.23834 0.2131 29	0.73381 0.0001 29
IQVEDU	0.16382 0.3958 29	0.37421 0.0455 29	-0.18894 0.3263 29	0.64113 0.0002 29	0.23834 0.2131 29	1.00000 0.0 29	0.41771 0.0242 29

CORRELATION ANALYSIS

Pearson Correlation Coefficients / Prob > |R| under Ho: Rho=0
/ Number of Observations

	CEO	TEAMREC	IQVREC	HETER	IQVADO	IQVEDU	IQVSEI
QVSEI	0.19528 0.3100 29	0.18996 0.3237 29	-0.00335 0.9862 29	0.90377 0.0001 29	0.73381 0.0001 29	0.41771 0.0242 29	1.00000 0.0 29
GESD	0.09050 0.6406 29	0.35682 0.0574 29	-0.16113 0.4037 29	0.87842 0.0001 29	0.66576 0.0001 29	0.43975 0.0170 29	0.77945 0.0001 29
NTEGR	-0.02459 0.8992 29	0.22799 0.2342 29	-0.12614 0.5144 29	-0.58796 0.0008 29	-0.58518 0.0009 29	-0.27546 0.1481 29	-0.58436 0.0009 29
NTEGR2	0.01410 0.9421 29	0.09083 0.6394 29	-0.13170 0.4959 29	-0.64788 0.0001 29	-0.61400 0.0004 29	-0.34141 0.0699 29	-0.61363 0.0004 29
IV	-0.09399 0.6277 29	0.43488 0.0184 29	-0.08018 0.6793 29	-0.30671 0.1056 29	-0.36594 0.0509 29	-0.06907 0.7218 29	-0.36446 0.0519 29
IS	-0.01284 0.9473 29	0.07611 0.6947 29	-0.13462 0.4863 29	-0.61784 0.0004 29	-0.62481 0.0003 29	-0.18611 0.3337 29	-0.65504 0.0001 29
IP	0.03425 0.8600 29	0.08882 0.6468 29	-0.10866 0.5748 29	-0.57137 0.0012 29	-0.50890 0.0048 29	-0.41678 0.0245 29	-0.48322 0.0079 29
NRT	-0.03961 0.8383 29	0.35759 0.0568 29	-0.18874 0.3268 29	0.59459 0.0007 29	0.41062 0.0269 29	0.47182 0.0098 29	0.50106 0.0056 29
OVERLAP	0.06424 0.7406 29	0.13924 0.4713 29	-0.28424 0.1351 29	-0.24246 0.2051 29	-0.26218 0.1695 29	-0.04799 0.8047 29	-0.24616 0.1980 29
WEAK	-0.02891 0.8817 29	0.29568 0.1194 29	-0.09855 0.6110 29	0.46704 0.0106 29	0.30866 0.1033 29	0.38995 0.0365 29	0.44625 0.0152 29
KONTAND	0.14010 0.4685 29	-0.13717 0.4780 29	0.10314 0.5945 29	-0.46111 0.0118 29	-0.30018 0.1136 29	-0.20299 0.2909 29	-0.48770 0.0073 29
TOTEXT	-0.02462 0.8991 29	0.40560 0.0290 29	-0.25361 0.1844 29	0.55181 0.0019 29	0.35644 0.0577 29	0.48727 0.0073 29	0.45098 0.0141 29
STANDEX	0.22551 0.2395 29	-0.18865 0.3271 29	0.03184 0.8698 29	-0.30278 0.1104 29	-0.39982 0.0316 29	0.02572 0.8947 29	-0.23231 0.2252 29

CORRELATION ANALYSIS

Pearson Correlation Coefficients / Prob > |R| under Ho: Rho=0
/ Number of Observations

	CEO	TEAMREC	IQVREC	HETER	IQVADO	IQVEDU	IQVSEI
IQVSEI	0.19528 0.3100 29	0.18996 0.3237 29	-0.00335 0.9862 29	0.90377 0.0001 29	0.73381 0.0001 29	0.41771 0.0242 29	1.00000 0.0 29
AGESD	0.09050 0.6406 29	0.35682 0.0574 29	-0.16113 0.4037 29	0.87842 0.0001 29	0.66576 0.0001 29	0.43975 0.0170 29	0.77945 0.0001 29
INTEGR	-0.02459 0.8992 29	0.22799 0.2342 29	-0.12614 0.5144 29	-0.58796 0.0008 29	-0.58518 0.0009 29	-0.27546 0.1481 29	-0.58436 0.0009 29
INTEGR2	0.01410 0.9421 29	0.09083 0.6394 29	-0.13170 0.4959 29	-0.64788 0.0001 29	-0.61400 0.0004 29	-0.34141 0.0699 29	-0.61363 0.0004 29
GV	-0.09399 0.6277 29	0.43488 0.0184 29	-0.08018 0.6793 29	-0.30671 0.1056 29	-0.36594 0.0509 29	-0.06907 0.7218 29	-0.36446 0.0519 29
GS	-0.01284 0.9473 29	0.07611 0.6947 29	-0.13462 0.4863 29	-0.61784 0.0004 29	-0.62481 0.0003 29	-0.18611 0.3337 29	-0.65504 0.0001 29
GP	0.03425 0.8600 29	0.08882 0.6468 29	-0.10866 0.5748 29	-0.57137 0.0012 29	-0.50890 0.0048 29	-0.41678 0.0245 29	-0.48322 0.0079 29
NRT	-0.03961 0.8383 29	0.35759 0.0568 29	-0.18874 0.3268 29	0.59459 0.0007 29	0.41062 0.0269 29	0.47182 0.0098 29	0.50106 0.0056 29
OVERLAP	0.06424 0.7406 29	0.13924 0.4713 29	-0.28424 0.1351 29	-0.24246 0.2051 29	-0.26218 0.1695 29	-0.04799 0.8047 29	-0.24616 0.1980 29
WEAK	-0.02891 0.8817 29	0.29568 0.1194 29	-0.09855 0.6110 29	0.46704 0.0106 29	0.30866 0.1033 29	0.38995 0.0365 29	0.44625 0.0152 29
KONTAND	0.14010 0.4685 29	-0.13717 0.4780 29	0.10314 0.5945 29	-0.46111 0.0118 29	-0.30018 0.1136 29	-0.20299 0.2909 29	-0.48770 0.0073 29
TOTEXT	-0.02462 0.8991 29	0.40560 0.0290 29	-0.25361 0.1844 29	0.55181 0.0019 29	0.35644 0.0577 29	0.48727 0.0073 29	0.45098 0.0141 29
STANDEX	0.22551 0.2395 29	-0.18865 0.3271 29	0.03184 0.8698 29	-0.30278 0.1104 29	-0.39982 0.0316 29	0.02572 0.8947 29	-0.23231 0.2252 29

CORRELATION ANALYSIS

Pearson Correlation Coefficients / Prob > |R| under Ho: Rho=0
/ Number of Observations

	CEO	TEAMREC	IQVREC	HETER	IQVADO	IQVEDU	IQVSEI
STANNRT	0.18128 0.3466 29	-0.20908 0.2764 29	0.07783 0.6882 29	-0.20374 0.2891 29	-0.27638 0.1467 29	0.02871 0.8825 29	-0.13641 0.4805 29
STANWEAK	0.19905 0.3006 29	-0.11063 0.5678 29	0.08153 0.6742 29	-0.10998 0.5701 29	-0.19955 0.2994 29	0.08184 0.6730 29	0.00849 0.9651 29
CSHIFT	-0.02525 0.8965 29	-0.04599 0.8128 29	0.15915 0.4096 29	0.17569 0.3620 29	0.28452 0.1347 29	-0.19236 0.3175 29	0.25370 0.1842 29
KONTAND	0.14010 0.4685 29	-0.13717 0.4780 29	0.10314 0.5945 29	-0.46111 0.0118 29	-0.30018 0.1136 29	-0.20299 0.2909 29	-0.48770 0.0073 29
PERCREMA	0.38196 0.0409 29	-0.36072 0.0546 29	0.09840 0.6116 29	0.00920 0.9622 29	0.06748 0.7280 29	-0.33815 0.0728 29	0.18700 0.3314 29

CORRELATION ANALYSIS

Pearson Correlation Coefficients / Prob > |R| under Ho: Rho=0
/ Number of Observations

	AGESD	INTEGR	INTEGR2	GV	GS	GP	NRT
CR	0.20332 0.2901 29	-0.02109 0.9135 29	0.05548 0.7750 29	-0.16607 0.3893 29	0.10356 0.5929 29	0.00690 0.9717 29	0.14472 0.4538 29
CART	-0.03551 0.8662 25	-0.02502 0.9055 25	0.04920 0.8153 25	-0.14993 0.4744 25	0.03481 0.8688 25	0.04942 0.8145 25	-0.24858 0.2308 25
ART	-0.07540 0.6975 29	0.12449 0.5200 29	0.12242 0.5270 29	0.09400 0.6277 29	0.11925 0.5378 29	0.10588 0.5846 29	0.10028 0.6047 29
EMPLOY	0.23366 0.2225 29	-0.03877 0.8417 29	-0.03745 0.8471 29	-0.03063 0.8747 29	0.02210 0.9094 29	-0.08098 0.6763 29	0.17828 0.3548 29
MV	0.11110 0.5661 29	-0.14287 0.4597 29	-0.12072 0.5328 29	-0.14682 0.4472 29	-0.02237 0.9083 29	-0.18341 0.3409 29	0.04788 0.8052 29
TEAM	0.60126 0.0006 29	-0.24759 0.1953 29	-0.36264 0.0532 29	0.04778 0.8056 29	-0.35996 0.0551 29	-0.30809 0.1040 29	0.72574 0.0001 29
NOCEO	-0.52119 0.0037 29	-0.15916 0.4096 29	-0.08168 0.6736 29	-0.26760 0.1605 29	-0.06679 0.7307 29	-0.08124 0.6752 29	-0.29818 0.1162 29
CEO	0.09050 0.6406 29	-0.02459 0.8992 29	0.01410 0.9421 29	-0.09399 0.6277 29	-0.01284 0.9473 29	0.03425 0.8600 29	-0.03961 0.8383 29
TEAMREC	0.35682 0.0574 29	0.22799 0.2342 29	0.09083 0.6394 29	0.43488 0.0184 29	0.07611 0.6947 29	0.08882 0.6468 29	0.35759 0.0568 29
IQVREC	-0.16113 0.4037 29	-0.12614 0.5144 29	-0.13170 0.4959 29	-0.08018 0.6793 29	-0.13462 0.4863 29	-0.10866 0.5748 29	-0.18874 0.3268 29
HETER	0.87842 0.0001 29	-0.58796 0.0008 29	-0.64788 0.0001 29	-0.30671 0.1056 29	-0.61784 0.0004 29	-0.57137 0.0012 29	0.59459 0.0007 29
IQVADO	0.66576 0.0001 29	-0.58518 0.0009 29	-0.61400 0.0004 29	-0.36594 0.0509 29	-0.62481 0.0003 29	-0.50890 0.0048 29	0.41062 0.0269 29
IQVEDU	0.43975 0.0170 29	-0.27546 0.1481 29	-0.34141 0.0699 29	-0.06907 0.7218 29	-0.18611 0.3337 29	-0.41678 0.0245 29	0.47182 0.0098 29

CORRELATION ANALYSIS

Pearson Correlation Coefficients / Prob > |R| under Ho: Rho=0
/ Number of Observations

	AGESD	INTEGR	INTEGR2	GV	GS	GP	NRT
IQVSEI	0.77945 0.0001 29	-0.58436 0.0009 29	-0.61363 0.0004 29	-0.36446 0.0519 29	-0.65504 0.0001 29	-0.48322 0.0079 29	0.50106 0.0056 29
AGESD	1.00000 0.0 29	-0.44557 0.0154 29	-0.52104 0.0038 29	-0.17321 0.3689 29	-0.52608 0.0034 29	-0.43528 0.0183 29	0.55926 0.0016 29
INTEGR	-0.44557 0.0154 29	1.00000 0.0 29	0.95492 0.0001 29	0.81118 0.0001 29	0.85018 0.0001 29	0.89232 0.0001 29	-0.25303 0.1854 29
INTEGR2	-0.52104 0.0038 29	0.95492 0.0001 29	1.00000 0.0 29	0.60101 0.0006 29	0.89603 0.0001 29	0.92970 0.0001 29	-0.39376 0.0346 29
GV	-0.17321 0.3689 29	0.81118 0.0001 29	0.60101 0.0006 29	1.00000 0.0 29	0.52382 0.0035 29	0.57096 0.0012 29	0.09445 0.6260 29
GS	-0.52608 0.0034 29	0.85018 0.0001 29	0.89603 0.0001 29	0.52382 0.0035 29	1.00000 0.0 29	0.66951 0.0001 29	-0.42623 0.0211 29
GP	-0.43528 0.0183 29	0.89232 0.0001 29	0.92970 0.0001 29	0.57096 0.0012 29	0.66951 0.0001 29	1.00000 0.0 29	-0.30519 0.1074 29
NRT	0.55926 0.0016 29	-0.25303 0.1854 29	-0.39376 0.0346 29	0.09445 0.6260 29	-0.42623 0.0211 29	-0.30519 0.1074 29	1.00000 0.0 29
OVERLAP	-0.22639 0.2376 29	0.43743 0.0176 29	0.41091 0.0268 29	0.36824 0.0494 29	0.40946 0.0274 29	0.34779 0.0645 29	-0.25652 0.1792 29
WEAK	0.37381 0.0458 29	-0.30989 0.1018 29	-0.45335 0.0135 29	0.05874 0.7621 29	-0.47580 0.0091 29	-0.36376 0.0524 29	0.72927 0.0001 29
KONTAND	-0.52716 0.0033 29	0.46274 0.0115 29	0.49482 0.0064 29	0.27108 0.1549 29	0.58669 0.0008 29	0.34115 0.0701 29	-0.42015 0.0233 29
TOTEXT	0.50962 0.0047 29	-0.15198 0.4313 29	-0.30956 0.1022 29	0.20063 0.2967 29	-0.34058 0.0706 29	-0.23536 0.2190 29	0.92945 0.0001 29
STANDEX	-0.37681 0.0439 29	0.02833 0.8840 29	-0.00969 0.9602 29	0.09538 0.6226 29	-0.03498 0.8570 29	0.01280 0.9474 29	0.15094 0.4344 29

CORRELATION ANALYSIS

Pearson Correlation Coefficients / Prob > |R| under Ho: Rho=0
/ Number of Observations

	AGESD	INTEGR	INTEGR2	GV	GS	GP	NRT
STANNRT	-0.28035 0.1407 29	-0.09950 0.6076 29	-0.13429 0.4873 29	-0.00334 0.9863 29	-0.15963 0.4081 29	-0.09225 0.6341 29	0.20071 0.2965 29
STANWEAK	-0.25893 0.1750 29	-0.20867 0.2773 29	-0.25417 0.1833 29	-0.06111 0.7529 29	-0.26432 0.1659 29	-0.20597 0.2838 29	0.16256 0.3995 29
CSHIFT	0.21803 0.2559 29	-0.03509 0.8566 29	-0.04464 0.8182 29	-0.00654 0.9731 29	-0.14866 0.4415 29	0.04864 0.8022 29	0.16129 0.4032 29
KONTAND	-0.52716 0.0033 29	0.46274 0.0115 29	0.49482 0.0064 29	0.27108 0.1549 29	0.58669 0.0008 29	0.34115 0.0701 29	-0.42015 0.0233 29
PERCREMA	0.11866 0.5398 29	0.02651 0.8914 29	0.06949 0.7202 29	-0.06553 0.7356 29	-0.12358 0.5230 29	0.21877 0.2542 29	-0.04853 0.8026 29

CORRELATION ANALYSIS

Pearson Correlation Coefficients / Prob > |R| under Ho: Rho=0
/ Number of Observations

	OVERLAP	WEAK	KONTAND	TOTEXT	STANDEX	STANNRT	STANWEAK
CR	0.16353 0.3966 29	-0.09585 0.6209 29	-0.30676 0.1055 29	0.16888 0.3812 29	-0.34606 0.0659 29	-0.37328 0.0461 29	-0.41045 0.0270 29
CART	0.17291 0.4085 25	-0.17158 0.4122 25	0.31800 0.1213 25	-0.21309 0.3064 25	-0.14396 0.4924 25	-0.14166 0.4994 25	-0.10886 0.6045 25
ART	0.03096 0.8733 29	0.05644 0.7712 29	0.14571 0.4507 29	0.10654 0.5823 29	0.03071 0.8743 29	0.00737 0.9697 29	-0.02181 0.9106 29
EMPLOY	0.10134 0.6009 29	0.23713 0.2155 29	0.09794 0.6132 29	0.22724 0.2358 29	-0.00550 0.9774 29	-0.03438 0.8595 29	0.08162 0.6738 29
MV	-0.01610 0.9339 29	0.24633 0.1977 29	0.13764 0.4764 29	0.06376 0.7425 29	0.16197 0.4012 29	0.15385 0.4255 29	0.37022 0.0481 29
TEAM	0.20554 0.2848 29	0.65962 0.0001 29	-0.32567 0.0847 29	0.83613 0.0001 29	-0.48841 0.0072 29	-0.45988 0.0121 29	-0.21866 0.2545 29
NOCEO	-0.26793 0.1600 29	-0.28612 0.1324 29	-0.00686 0.9718 29	-0.37956 0.0423 29	0.43541 0.0182 29	0.44040 0.0168 29	0.21806 0.2558 29
CEO	0.06424 0.7406 29	-0.02891 0.8817 29	0.14010 0.4685 29	-0.02462 0.8991 29	0.22551 0.2395 29	0.18128 0.3466 29	0.19905 0.3006 29
TEAMREC	0.13924 0.4713 29	0.29568 0.1194 29	-0.13717 0.4780 29	0.40560 0.0290 29	-0.18865 0.3271 29	-0.20908 0.2764 29	-0.11063 0.5678 29
IQVREC	-0.28424 0.1351 29	-0.09855 0.6110 29	0.10314 0.5945 29	-0.25361 0.1844 29	0.03184 0.8698 29	0.07783 0.6882 29	0.08153 0.6742 29
HETER	-0.24246 0.2051 29	0.46704 0.0106 29	-0.46111 0.0118 29	0.55181 0.0019 29	-0.30278 0.1104 29	-0.20374 0.2891 29	-0.10998 0.5701 29
IQVADO	-0.26218 0.1695 29	0.30866 0.1033 29	-0.30018 0.1136 29	0.35644 0.0577 29	-0.39982 0.0316 29	-0.27638 0.1467 29	-0.19955 0.2994 29
IQVEDU	-0.04799 0.8047 29	0.38995 0.0365 29	-0.20299 0.2909 29	0.48727 0.0073 29	0.02572 0.8947 29	0.02871 0.8825 29	0.08184 0.6730 29

CORRELATION ANALYSIS

Pearson Correlation Coefficients / Prob > |R| under Ho: Rho=0
/ Number of Observations

	OVERLAP	WEAK	KONTAND	TOTEXT	STANDEX	STANNRT	STANWEAK
IQVSEI	-0.24616 0.1980 29	0.44625 0.0152 29	-0.48770 0.0073 29	0.45098 0.0141 29	-0.23231 0.2252 29	-0.13641 0.4805 29	0.00849 0.9651 29
AGESD	-0.22639 0.2376 29	0.37381 0.0458 29	-0.52716 0.0033 29	0.50962 0.0047 29	-0.37681 0.0439 29	-0.28035 0.1407 29	-0.25893 0.1750 29
INTEGR	0.43743 0.0176 29	-0.30989 0.1018 29	0.46274 0.0115 29	-0.15198 0.4313 29	0.02833 0.8840 29	-0.09950 0.6076 29	-0.20867 0.2773 29
INTEGR2	0.41091 0.0268 29	-0.45335 0.0135 29	0.49482 0.0064 29	-0.30956 0.1022 29	-0.00969 0.9602 29	-0.13429 0.4873 29	-0.25417 0.1833 29
GV	0.36824 0.0494 29	0.05874 0.7621 29	0.27108 0.1549 29	0.20063 0.2967 29	0.09538 0.6226 29	-0.00334 0.9863 29	-0.06111 0.7529 29
GS	0.40946 0.0274 29	-0.47580 0.0091 29	0.58669 0.0008 29	-0.34058 0.0706 29	-0.03498 0.8570 29	-0.15963 0.4081 29	-0.26432 0.1659 29
GP	0.34779 0.0645 29	-0.36376 0.0524 29	0.34115 0.0701 29	-0.23536 0.2190 29	0.01280 0.9474 29	-0.09225 0.6341 29	-0.20597 0.2838 29
NRT	-0.25652 0.1792 29	0.72927 0.0001 29	-0.42015 0.0233 29	0.92945 0.0001 29	0.15094 0.4344 29	0.20071 0.2965 29	0.16256 0.3995 29
OVERLAP	1.00000 0.0 29	0.08227 0.6714 29	0.37660 0.0440 29	0.10480 0.5885 29	-0.40070 0.0312 29	-0.56087 0.0016 29	-0.17437 0.3656 29
WEAK	0.08227 0.6714 29	1.00000 0.0 29	-0.19899 0.3007 29	0.80038 0.0001 29	0.04778 0.8056 29	0.04874 0.8018 29	0.54011 0.0025 29
KONTAND	0.37660 0.0440 29	-0.19899 0.3007 29	1.00000 0.0 29	-0.31969 0.0909 29	-0.02136 0.9124 29	-0.11360 0.5574 29	0.00246 0.9899 29
TOTEXT	0.10480 0.5885 29	0.80038 0.0001 29	-0.31969 0.0909 29	1.00000 0.0 29	0.00677 0.9722 29	0.00123 0.9949 29	0.12291 0.5253 29
STANDEX	-0.40070 0.0312 29	0.04778 0.8056 29	-0.02136 0.9124 29	0.00677 0.9722 29	1.00000 0.0 29	0.97814 0.0001 29	0.68222 0.0001 29

CORRELATION ANALYSIS

Pearson Correlation Coefficients / Prob > |R| under Ho: Rho=0
/ Number of Observations

	OVERLAP	WEAK	KONTAND	TOTEXT	STANDEX	STANNRT	STANWEAK
STANNRT	-0.56087 0.0016 29	0.04874 0.8018 29	-0.11360 0.5574 29	0.00123 0.9949 29	0.97814 0.0001 29	1.00000 0.0 29	0.65420 0.0001 29
STANWEAK	-0.17437 0.3656 29	0.54011 0.0025 29	0.00246 0.9899 29	0.12291 0.5253 29	0.68222 0.0001 29	0.65420 0.0001 29	1.00000 0.0 29
CSHIFT	-0.27375 0.1507 29	0.10572 0.5852 29	0.04011 0.8363 29	0.06520 0.7369 29	-0.18428 0.3386 29	-0.10973 0.5710 29	-0.10460 0.5892 29
KONTAND	0.37660 0.0440 29	-0.19899 0.3007 29	1.00000 0.0 29	-0.31969 0.0909 29	-0.02136 0.9124 29	-0.11360 0.5574 29	0.00246 0.9899 29
PERCREMA	-0.02075 0.9149 29	-0.06793 0.7262 29	0.00106 0.9956 29	-0.06132 0.7520 29	0.03888 0.8413 29	0.03624 0.8519 29	0.01012 0.9584 29

CORRELATION ANALYSIS

Pearson Correlation Coefficients / Prob > |R| under Ho: Rho=0
/ Number of Observations

	CSHIFT	KONTAND	PERCREMA
CR	-0.08373 0.6659 29	-0.30676 0.1055 29	-0.08848 0.6481 29
CART	-0.15307 0.4651 25	0.31800 0.1213 25	0.00408 0.9846 25
ART	0.30334 0.1097 29	0.14571 0.4507 29	0.22590 0.2387 29
EMPLOY	-0.10071 0.6032 29	0.09794 0.6132 29	0.07618 0.6945 29
MV	-0.07975 0.6809 29	0.13764 0.4764 29	0.19271 0.3166 29
TEAM	0.15946 0.4087 29	-0.32567 0.0847 29	-0.13685 0.4790 29
NOCEO	-0.05996 0.7574 29	-0.00686 0.9718 29	-0.07594 0.6954 29
CEO	-0.02525 0.8965 29	0.14010 0.4685 29	0.38196 0.0409 29
TEAMREC	-0.04599 0.8128 29	-0.13717 0.4780 29	-0.36072 0.0546 29
IQVREC	0.15915 0.4096 29	0.10314 0.5945 29	0.09840 0.6116 29
HETER	0.17569 0.3620 29	-0.46111 0.0118 29	0.00920 0.9622 29
IQVADO	0.28452 0.1347 29	-0.30018 0.1136 29	0.06748 0.7280 29
IQVEDU	-0.19236 0.3175 29	-0.20299 0.2909 29	-0.33815 0.0728 29

CORRELATION ANALYSIS

Pearson Correlation Coefficients / Prob > |R| under Ho: Rho=0
/ Number of Observations

	CSHIFT	KONTAND	PERCREMA
IQVSEI	0.25370 0.1842 29	-0.48770 0.0073 29	0.18700 0.3314 29
AGESD	0.21803 0.2559 29	-0.52716 0.0033 29	0.11866 0.5398 29
INTEGR	-0.03509 0.8566 29	0.46274 0.0115 29	0.02651 0.8914 29
INTEGR2	-0.04464 0.8182 29	0.49482 0.0064 29	0.06949 0.7202 29
GV	-0.00654 0.9731 29	0.27108 0.1549 29	-0.06553 0.7356 29
GS	-0.14866 0.4415 29	0.58669 0.0008 29	-0.12358 0.5230 29
GP	0.04864 0.8022 29	0.34115 0.0701 29	0.21877 0.2542 29
NRT	0.16129 0.4032 29	-0.42015 0.0233 29	-0.04853 0.8026 29
OVERLAP	-0.27375 0.1507 29	0.37660 0.0440 29	-0.02075 0.9149 29
WEAK	0.10572 0.5852 29	-0.19899 0.3007 29	-0.06793 0.7262 29
KONTAND	0.04011 0.8363 29	1.00000 0.0 29	0.00106 0.9956 29
TOTEXT	0.06520 0.7369 29	-0.31969 0.0909 29	-0.06132 0.7520 29
STANDEX	-0.18428 0.3386 29	-0.02136 0.9124 29	0.03888 0.8413 29

CORRELATION ANALYSIS

Pearson Correlation Coefficients / Prob > |R| under Ho: Rho=0
/ Number of Observations

	CSHIFT	KONTAND	PERCREMA
STANNRT	-0.10973 0.5710 29	-0.11360 0.5574 29	0.03624 0.8519 29
STANWEAK	-0.10460 0.5892 29	0.00246 0.9899 29	0.01012 0.9584 29
CSHIFT	1.00000 0.0 29	0.04011 0.8363 29	0.16447 0.3939 29
KONTAND	0.04011 0.8363 29	1.00000 0.0 29	0.00106 0.9956 29
PERCREMA	0.16447 0.3939 29	0.00106 0.9956 29	1.00000 0.0 29

Correlation matrix dichotomized variables

Pearson Correlation Coefficients/Prob> IRI under Ho:/N=23

	KONTAND	AR _t	CR	CSHIFT	PERCREMA
KONTAND	1.00000 0.0	0.28022 0.1953	-0.37053 0.0818	-0.08807 0.6895	-0.12298 0.5762
AR _t	0.28022 0.1953	1.00000 0.0	-0.18361 0.4017	0.46923 0.0239	0.28964 0.1801
CR	-0.37053 0.0818	-0.18361 0.4017	1.00000 0.0	-0.01444 0.9479	0.06670 0.7624
CSHIFT	-0.08807 0.6895	0.46923 0.0239	-0.01444 0.9479	1.00000 0.0	0.06796 0.7580
PERCREMA	-0.12298 0.5762	0.28964 0.1801	0.06670 0.7624	0.06796 0.7580	1.00000 0.0

Supplement: Questionnaire

RESPONDENTS NAME:

FIRM:

(D) DEMOGRAPHIC DATA

- D1. YEAR OF BIRTH
- D2. PLACE OF ADOLESCENCE
- D3. FATHER'S PROFESSION AT THE TIME OF RESPONDENT'S UP-BRINGING
- D4. MARITAL STATUS
- D5. EDUCATION
- D6. YEAR OF EXAM
- D7. PLACE OF EDUCATION/EXAM

(R) RECRUITMENT DATA

- R1. IN THE SYSTEM OF CO-ORDINATES BELOW PLEASE FILL IN ON THE X CO-ORDINATE THE YEAR OF A JOB CHANGE AND THE JOB'S LOCATION FROM THE PERIOD WHEN YOU STARTED WORKING AFTER YOUR EDUCATION UP UNTIL NOW (1989).
- R2. ON THE Y CO-ORDINATE FILL IN THE NAME OF THE PERSON OR INSTITUTION THAT MEDIATED THE NEW JOB.
- R3. FILL IN AT THE SAME PLACE YOUR RELATION TO THE RECRUITMENT SOURCE.



(C). TEAM MEMBER RELATIONSHIPS

CHARACTERIZE YOUR RELATIONSHIP TO ALL THE OTHER TEAM MEMBERS

- C1. DO YOU SOCIALIZE, WITH X, Y, Z?
- C2. DO YOU DISCUSS PRIVATE AND PERSONAL MATTERS WITH X, Y, Z?
- C3. DO YOU SHARE VALUES WITH X, Y, Z?
- C4. DO YOU SPEND YOUR SPARE TIME TOGETHER WITH X, Y, Z, PARTICIPATING IN A HOBBY OR A SPORT OF SOME SORT?

(E) TEAM MEMBER'S EXTERNAL NETWORK

- E1. CONSTRUCT A MATRIX OF YOUR EXTERNAL CONTACTS. NAME UP TO 15 IMPORTANT RESOURCE PERSONS OUTSIDE THE FIRM WHOM YOU CONTACT REGARDING STRATEGICALLY IMPORTANT ISSUES (EXAMPLES: LAWYERS, INVESTMENT BANKERS, OTHER FINANCIAL ADVISERS, POLITICIANS, JOURNALISTS, SPEAKING PARTNERS, HEAD-HUNTERS OR OTHERS).
- E2. FOR EACH OF THESE PERSONS SPECIFY HIS/HER AGE, HOW LONG YOU HAVE KNOWN HIM/HER, WHERE HE/SHE WORKED IN 1985, AND
- E3. FOR EACH OF THESE EXTERNAL CONTACTS NAMED, DO YOU SOCIALIZE WITH HIM/HER, YES OR NO?
- E4. FOR EACH OF THESE EXTERNAL CONTACTS NAMED, DO YOU CONFIDE IN EACH OTHER, YES OR NO?
- E5. TO YOUR KNOWLEDGE, WHICH OF THESE EXTERNAL CONTACTS KNOW EACH OTHER?

References

- Affärsvärlden*, March 3, 1988, Börsbolagschefen har växt upp i företaget, No. 13/14, pp. 26–29.
- Aktiebolagslagen, del 1, tredje upplagan, Norstedt 1988.
- Aldrich, H. and C. Zimmer, 1985, "Entrepreneurship through Social Networks", in Smilor and Sexton (eds.), *Entrepreneurship*, New York: Ballinger.
- Allison, P.D., 1978, "Measures Of Inequality", *American Sociological Review*, 43(December):865–880.
- Anderson, B., 1979, "Cognitive Balance Theory and Social Network Analysis: Remarks on Some Fundamental Theoretical Matters", pp. 453–469 in Holland P.W. and S. Leinhardt (eds.), *Perspectives on Social Networks Research*.
- Anderson, B. and M.L. Carlos, 1979, "A Political Brokerage and Network Politics in Mexico", pp. 1–32, in Anderson, B. and D. Willer, (eds.), *Social Exchange Networks: The Elementary Theory and its Applications*, New York: Elsevier Press.
- Arrow, K.J., 1973, "Higher Education as a Filter", *Journal of Political Economy* 2:193–216.
- , 1974, *The Limits of Organization*, New York: W. Norton & Company.
- Auerbach A.J., 1988, *Corporate Takeovers: Causes and Consequences*, Chicago: The University of Chicago Press.
- Beatty, R. P. and E.J. Zajac, 1987, "CEO Change and Firm Performance in Large Corporations: Succession Effects and Manager Effects", *Strategic Management Journal*, 8:305–317.
- Berglund, T., E. Liljebloom and A. Löflund, 1989, "Estimating Betas on Daily Data for a Small Stock Market", *Journal of Banking and Finance* 13: 41–64.
- Berglöf, E., 1990, "Capital Structure as a Mechanism of Control: A Comparison of Financial Systems", in Aoki, M., B. Gustafsson and O. Williamson (eds.), *The Firm as a Nexus of Treaties*, European Sage.
- Bergström, C. and K. Rydqvist, 1990, "The Determinants of Corporate Ownership: An Empirical Study on Swedish Data", *Journal of Banking and Finance*, 14:237–253.
- Berkman, L. F. and S.L. Syme, 1979, "Social Networks, Host Resistance and Mortality: A Nine-year Follow-up Study of Alameda County Residents", *American Journal of Epidemiology*, 109:186–204.
- Berle Jr, A.A. and G.C. Means, 1932, *The Modern Corporation and Private Property*, New York:MacMillan.

- Berscheid, E. and E.H. Walster, 1969, *Interpersonal Attraction*, Massachusetts: Maddison-Wesley Publishing Company.
- Bertmar, L., I. Engshagen and E. Widhem, 1983, *Finansiella Nyckeltal, Tre mätmetodologiska studier med tillämpning på svensk tillverkningsindustri*. EFI, Handelshögskolan i Stockholm.
- Bohrnstedt, G. and D. Knoke, 1982, *Statistics for Social Data Analysis*. Itusca: Peacock Publishers.
- Brealey, R. and S. Myers, 1984, *Principals of Corporate Finance*, McGraw-Hill International Book Company, second international student edition.
- Burt, R.S., 1987, "Social Contagion and Innovation: Cohesion versus Structural Equivalence", *American Journal of Sociology*, 92 (May): 1287–1335.
- , 1990, "Tertius Gaudens. A Study of Structural Holes as Social Capital", paper presented at the Interdisciplinary Perspectives on Organization Studies held at NIAS, May–June, in Wassenaar.
- , 1991, "Structural Holes", in Swedberg, R. (ed.), *Explorations in Economic Sociology. The Social Structure of Competition*, forthcoming.
- Calder, B. J., 1977, An Attribution Theory of Leadership, pp. 179–204, in Staw, B.M., and G.R. Salancik (eds.), *New directions in Organizational Behavior*, Chicago: St. Clair Press.
- Casson M., 1987, Entrepreneur, in *Palgrave Dictionary, A Dictionary of Economics*, No. 2.
- Claesson, K., 1989, "Anomalier på aktiemarknaden", *Skandinaviska Enskilda Banken Kvartalsskrift 1*.
- Cohen, J.M., 1977, "Sources of Peer Group Homogeneity", *Sociology of Education* 50 (4) (October): 227–241.
- Colbjørnsen, T., G. Hernes and K. Knudsen, 1984, "Samfunnsvitenskapelig årsaksanalyse: En introduksjon til LISREL-systemet", *Tidsskrift for samfunnsforskning* 25:5–34.
- Coleman, J.S., 1988, "Social Capital in the Creation of Human Capital", *American Journal of Sociology*, 94 Supplement: S95–S120.
- Coleman, J.S., D. Katz and R.L. Mentzel, 1966, *Medical Innovation: A Diffusion Study*. New York: Bobbs-Merrill.
- Copeland, T.E. and J.F. Weston, 1983, *Financial Theory and Corporate Policy*, Massachusetts: Maddison-Wesley Publishing Company, second edition.
- Dasgupta, P., 1990, "Trust as a Commodity", in Gambetta D. (ed.), *Trust-Making and Breaking Cooperative Relations*, Oxford: Basil Blackwell.
- Demsetz, H. and K. Lehn, 1985, "The Structure of Corporate Ownership: Causes and Consequences", *Journal of Political Economy*, 93(6):1155–1177.

- DeRidder, A., 1988, *Börsstopp och kursutveckling på Stockholmsbörsen*, Stockholms Fondbörs, Industriförbundet skriftserie nr 5.
- Fama, E.F. and M.C. Jensen, 1983, "Separation of Ownership and Control", *Journal of Law and Economics*, Vol. XXVI (June):301–326, Chicago: University of Chicago Press.
- Feld, S. L., 1981, "The Focused Organization of Social Ties" *American Journal of Sociology*, 86:1015–1035
- , 1982, "Social Structural Determinants of Similarity Among Associates", Research Notes, *American Sociological Review*, 47(Dec):797–801.
- Festinger, L. A., 1957, *A Theory of Cognitive Dissonance*, Paolo Alto: Stanford University Press.
- Fischer, C. S., R. M. Jackson, C. A. Srueve, K. Gerson and L.M. Jones, 1977, *Networks and Places*, New York: Free Press.
- Flap, D. H., 1988, *Conflict, Loyalty, and Violence. The Effects of Social Network on Behavior*, Verlag Peter Lang, Band 4.
- Fortune*, 1983, The Tricky Task Of Picking An Heir Apparent by Roy Rowan, May 2, pp. 56–64.
- Fortune*, 1988, How Companies Pick New CEOs, January 4, pp. 58–63.
- Freidkin, N., 1980, "A Test of Structural Features of Granovetter's Strength of Weak Ties Theory", *Social Networks*, 2:411–422.
- Frey, D., 1982, "Different Levels of Cognitive Dissonance, Information Seeking, and Information Avoidance", *Journal of Personality and Social Psychology*, 43 (6):1175–1183.
- Gambetta, D., 1990, *Trust – Making and Breaking Cooperative Relations*, Oxford: Basil Blackwell.
- Gilad, B., S. Kaish and P.D. Loeb, 1987 "Cognitive Dissonance and Utility Maximization, A General Framework", *Journal of Economic and Organization*, 8:61–73.
- Glete, J., 1987, *Ägande och Industriell omvandling*, SNS Förlag, Stockholm.
- , 1989, Long-Term Firm Growth and Ownership Organization—A Study of Business Histories, Working Paper No. 212, Uppsala.
- Granovetter, M. S., 1973, "The Strength of Weak Ties", *American Journal of Sociology*, 78(6):1360–1380.
- , 1974, *Getting a Job: A Study of Contacts and Careers*, Cambridge: Harvard University Press.
- , 1982, "The Strength of Weak Ties Revisited." in Marsden, P.V. and N. Lin (eds.), *Social structure and Networks Analysis*, pp. 131–145. Beverly Hills: Sage.

- Grusky, O., 1960, "Administrative Succession in Formal Organizations" *Social Forces*, 39:105–115.
- Hansson, B. and P. Högfeldt, 1988, "Finansiell ekonomi: Tre grundläggande principer", *Ekonomisk Debatt*, 8:635–647.
- Hart, O., 1988, "The Nature and Extent of the Firm", Introduction to the Fisher-Schultz lecture given in Bologna, Italy.
- Hedlund, G., I Hägg, E. Hörnell and B. Ryden, 1985, *Institutioner som aktieägare: Förvaltare? Industrialister? Klippare?* SNS Förlag, Stockholm.
- Heider, F., 1958, *The Psychology of Interpersonal Relations*, New York: Wiley.
- Hirschman, A.O., 1970, *Exit, Voice and Loyalty*, Cambridge: Harvard University Press.
- Hoffman, E., 1985, "The Effect of Race-ratio Composition on the Frequency of Organizational Communication", *Social Psychology Quarterly*, 48:17–26.
- Holderness, C.G. and D.P. Sheehan, 1988, "The Role of Majority Shareholders in Publicly Held Corporations: An Exploratory Analysis", *Journal of Financial Economics*, 317–346.
- Holmstrom, B.R., 1979, "Moral Hazard and Observability", *Bell Journal of Economics*, 10:74–91.
- , 1982, "Moral hazard in teams", *Bell Journal*, 13:324–342.
- Homans, G.C., 1961, *Social Behavior: Its Elementary Forms*, New York: Harcourt and Brace.
- , 1965, *The Human Group*, London: Routledge & Kegan Paul Ltd.
- Jarymiszyn, P., K.B. Clark and L.H. Summers, 1985, "Chief Executive Background and Firm Performance", in Clark, K.B., H.I. Hayes and C. Lorenz (eds.), *The Uneasy Alliance*, pp. 115–156, Cambridge: Harvard University Press.
- Jensen, M.C., 1986, "Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers", *American Economic Review*, Papers and Proceedings, 76(May):323–329.
- Jensen, M.C. and W.H. Meckling, 1976, "Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure", *Journal of Financial Economics*, 3:305–360.
- Jensen, M.C. and K.J. Murphy, 1990, "Performance Pay and Top-Management Incentives", *Journal of Political Economy*, 98(2):225–263.
- Jensen, M.C. and R.S. Ruback, 1983, "The Market for Corporate Control: The Scientific Evidence" *Journal of Financial Economics*, 11:5–50.
- Jöreskog, K.G. and D. Sörbom, 1981, LISREL 7, "Measurement Errors in

- Regression Models", Chapter 5.2 in *A Guide to the Program and Applications*, SPSS Inc.,
- , 1984, LISREL VI, *Analysis of Linear Structural Relationships by Maximum Likelihood, Instrumental Variables, and Least Squares Methods*, ISSN 0348-2987, University of Uppsala Department of Statistics.
- , 1986, *SIMPLIS, A Fast and Simple Version of LISREL*, mimeo, University of Uppsala.
- , April, 1987, "New Developments in LISREL", from *Data Analyst*, Vol. 4, No. 1.
- Kandel, D.B., 1978, "Homophily, Selection, and Socialization in Adolescent Friendships", *American Journal of Sociology*, 84(2):427-36.
- Katz, D., and R. L. Kahn, 1978, *The Social Psychology of Organizations*, New York:Wiley.
- Kerr, J. and R.A. Bettis, 1987, "Board of Directors, Top Management Compensation, and Share Holder Return", *Academy of Management Journal*, 30(4):645-664.
- Kesner, I.F., 1987, "Directors' Stock Ownership and Organizational Performance: An Investigation of Fortune 500 Companies", *Journal of Management*, 13(3):499-507.
- Knoke, D. and J.H. Kuklinski, 1983, *Network Analysis*, Series Quantitative Applications in the Social Sciences, Sage University Paper, No. 28, second printing.
- Laumann, E.O. and F.U. Pappi, 1976, *Networks of Collective Action: A Perspective on Community Influence Systems*, New York: Academic Press.
- Lazarsfeld, P.F., B. Berelson and H. Gaudet, 1944, *The People's Choice*, New York: Columbia University Press.
- Lazarsfeld, P.F. and R.K. Merton, 1954, "Friendship as Social Process: A Substantive and Methodological Analysis" pp. 18-66 in Berger, M., T. Abel and C.H. Page (eds.), *Freedom and Control in Modern Society*, New York: Octagon Books.
- Ledarskap*, 1986, "Mannen som leder nytt folk in i maktens korridor", November, p. 16.
- Lieberson, S. and J.F. O'Conner, 1972, "Leadership and Organizational Performance: A Study of Large Corporations", *American Sociological Review*, 37(2) (April):117-130.
- Lin, N., 1982, "Social Resources and Instrumental Action" pp. 131-145, in Marsden, P.V. and N. Lin, *Social Structure and Networks Analysis*, Beverly Hills: Sage.
- Lin, N. and M. Dumin, 1986, "Access to Occupations Through Social Ties," *Social Networks*, 8:365-385.

- Loehlin, J.C., 1987, *Latent Variable Models. An Introduction to Factor, Path and Structural Analysis*, LEA, London.
- March, J. G., 1988, *Decisions and Organizations*, Oxford: Basil Blackwell Ltd.
- Marschak, J. and R. Radner, 1972, *Economic Theory of Teams*, New Haven and London: Yale University Press.
- Marsden, P.V. and K.E. Campbell, 1984, "Measuring Tie Strength", *Social Forces*, 63(2) (December):482–501.
- McCain, B.E., C.A. O'Reilly III and J. Pfeffer, 1983, "The Effects of Departmental Demography on Turnover: The Case of a University", *Academy of Management Journal*, 26:626–641.
- McPherson, J. M. and L. Smith-Lovin, 1987, "Homophily in Voluntary Organizations: Status Distance and the Composition of Face-to-Face Groups", *American Sociological Review*, 52 (June):370–379.
- Merril, W.C. and K.A. Fox, 1970, *Introduction to Economic Statistics*, New York: John Wiley & Sons, Inc.
- Merton, R.K., 1968, *Social Theory and Social Structure*, second edition, New York Free Press.
- Meyerson, E. M., 1987, Recruitment for Government – The Swedish Social Democratic Government 1982–1985, mimeo, Department of Sociology, Stockholm University.
- Mitchell, J. C., 1969, *Social Networks in Urban Situations*, Manchester: University Press.
- Mizruchi, M.S., 1983, "Who Controls Whom? An Examination of the Relation Between Management and Boards of Directors in Large American Corporations", *Academy of Management Review*, 8(3):426–435.
- Molz, R., 1988, "Managerial Domination of Boards of Directors and Financial Performance", *Journal of Business Research*, 16:235–249.
- Montgomery, J., 1988, "Social Networks and Labor Market Outcomes: Toward and Economic Analysis", Ph.D. mimeo, MIT, Cambridge.
- , 1989, Reinterpreting Models of Statistical Discrimination: Employee Referrals and the Role of Social Structure, Ph.D. mimeo, MIT, Cambridge.
- Morck, R., A. Shleifer and R.W. Vishny, 1988a, "Management Ownership and Market Valuation: An Empirical Analysis", *Journal of Financial Economics*, 20: 293–315
- , 1988b, "Alternative Mechanisms for Corporate Control, mimeo, University of Alberta.
- , 1988c, "Characteristics of Targets of Hostile and Friendly Takeovers",

- pp. 126–140, in Auerbach, A. J. (ed.), *Corporate Takeovers: Causes and Consequences*, Chicago: University of Chicago Press.
- Moreno, J.L., 1934, *Who Shall Survive?* Washington D.C., Nervous and Mental Disease Publishing.
- Newcomb, T.M., 1961, *The Acquaintance Process*, New York: Holt, Rinehart and Winston.
- O'Reilly III, C. A., D.F. Caldwell and W.P. Barnett, 1989, "Work Group Demography, Social Integration, and Turnover", *Administrative Science Quarterly*, 34:21–37.
- Pearce, J. A. and S.A. Zahra, 1991, "The Relative Power of CEOs and Board of Directors: Associations with Corporate Performance", *Strategic Management Journal*, 12:135–153.
- Pelikan, P., 1988, "Economic Competence as a Scarce Resource", Working Paper No. 191, The Industrial Institute for Economic and Social Research, Stockholm.
- Pfeffer, J., 1972, "Size and Composition of Corporate Boards of Directors: The Organization and Its Environment", *Administrative Science Quarterly*, 17:218–228.
- , 1973, "Size, Composition, and Functions of Hospital Boards of Directors: Study of Organization-Environment Linkage", *Administrative Science Quarterly*, 18:349–364.
- , 1977, "The Ambiguity of Leadership", *Academy of Management Review*, 2:104–112.
- Pfeffer, J. and A. Davis-Blake, 1986, "Administrative Succession and Organizational Performance: How Administrator Experience Mediates the Succession Effect", *Academy of Management Journal*, 29:72–83.
- Pfeffer, J. and G.R. Salancik, 1977, "Organizational Context and the Characteristics and Tenure of Hospital Administrators", *Academy of Management Journal*, 20(1):74--88.
- Pinard, M., 1968, "Mass Society and Political Movements: A New Formulation", *American Journal of Sociology*, 73(6)(May):683–690.
- Puffer, S.M. and J.B. Weintrop, 1991, "Corporate Performance and CEO Turnover: The Role of Performance Expectations", *Administrative Science Quarterly*, 36:1–19.
- Rogers, E., 1962, *Diffusion of Innovations*, New York: Free Press.
- Rogers, E.M. and D.K. Bhowmik, 1969, Homophily–Heterophily: Relational Concepts for Communication Research, paper presented at the Association for Education in Journalism, Berkeley, California, August.
- Roll, R., 1988, "Empirical Evidence on Takeover Activity and Shareholder Wealth", pp. 241–252, in Coffee, J.C., L. Lowenstein and S. Rose-

- Ackerman (eds.), *Knights, Raiders, and Targets—The Impact of the Hostile Takeover*, Oxford: Oxford University Press.
- Salancik, G.S. and J. Pfeffer, 1977, "Constraints On Administrator Discretion, The Limited Influence of Mayors on City Budgets", *Urban Affairs Quarterly*, 12(4):475–497.
- Saloner, G., 1985, "Old Boy Networks as Screening Mechanisms", *Journal of Labor Economics*, 3(3):255–267.
- SAS, Procedures Guide, 6.03 edition.
- SCB, Socioekonomisk indelning (SEI), MIS 1982:4, Nytryck 1984.
- SCB, Reports on Statistical Co-ordination, 1982:4, Nytryck 1984.
- SCB, Reports on Statistical Co-ordination, 1989:5.
- SCB, Årsbok för Sveriges Kommuner, (The Yearbook for Swedish Administrative Communities, Trettiotredje Årgången, 1950, utgiven av Statistiska Centralbyrån.
- Schumpeter, J. A., 1934, *The Theory of Economic Development*, Cambridge: Harvard University Press.
- , 1976, *Capitalism, Socialism and Democracy*, UNWIN University Books.
- Sharpe, W.F., 1964, "Capital Asset Prices: A Theory of Market Equilibrium under Conditions of Risk", *Journal of Finance*, 19:425–442.
- Shaw, M. E., 1981, *Group Dynamics: The Psychology of Small Group Behavior*, New York: McGraw-Hill.
- Shleifer, A. and R.W. Vishny, 1989, "Management Entrenchment. The Case of Manager-Specific Investment", *Journal of Financial Economics*, 25:123–139.
- Simon, H. A., 1976, *Administrative Behavior*. Third edition. New York: The Free Press.
- Sorensen, R.L., 1974, "The Separation of Ownership and Control and Firms Performance—an Empirical Analysis", *Southern Economic Journal*, 41:145–148.
- SOU 1988:38, *Ägande och Inflytande i Svenskt Näringsliv*.
- , 1988:38, Supplement 2–3, *Ägarkonkurrens och effektivitet, tjugofem-procentsregelns betydelse för det ökade institutionella ägandet*.
- , 1988:38, Supplement 8, *Ägarna i styrelsen—en fråga om kontroll eller service*.
- , 1988:38, Supplement 12, *Ägarna och kontrollen över företaget—en jämförande studie av sex länders finansiella system*.
- Spence, A. M., 1973, "Job Market Signaling", *Quarterly Journal of Economics*, 87(348):355–374.
- Stigler, G., 1961, "The Economics of Information", *Journal of Political Economy*, 69 (3)(June):213–225.

- Stiglitz, J.E., 1975, "The Theory of Screening, Education, and the Distribution of Income", *American Economic Review*, 61:283–300.
- , 1985, "Information and Economic Analysis: A Perspective", in supplement to Conference Papers, *The Economic Journal*, Cambridge Press, 95:21–41.
- , 1987, Principal and Agent, *The New Palgrave, A Dictionary of Economics*, 3:966–972.
- Sundqvist, S-I., 1984, *Sveriges Största Börsföretag*, AB Marieberg.
- , S-I., 1985, *Ägarna och Makten*, AB Marieberg.
- , S-I., 1986, *Ägarna och Makten*, AB Marieberg.
- , S-I., 1987, *Ägarna och Makten*, AB Marieberg.
- , S-I., 1988, *Ägarna och Makten*, AB Marieberg.
- Sveriges Största Företag, Ekonomisk information om Sveriges 4000 största företag (Financial information on the 4 000 largest companies in Sweden), 1985, Liber.
- Terborg, J.R., C. Castore and J.A. DeNinno, 1976, "A Longitudinal Field Investigation of the Impact of Group Composition on Group Performance and Cohesion", *Journal of Personality and Social Psychology*, 34(5):782–790.
- The Economist*, 1988 (February), Insider Versus Outsider Managers.
- Thomas, E.J. and C.F. Fink, 1963, "Effects of Group Size", *Psychological Bulletin*, 60(4):371–384.
- Tirole, J., 1988, *The Theory of Industrial Organization*, Cambridge: MIT Press.
- Tolligerdt-Andersson, I. 1989, Ledarskapsteorier, företagsklimat och bedömningsmetoder, Ph.D. thesis, Stockholm School of Economics.
- Tsui, A. and C.A. O'Reilly, 1989, "Beyond Simple Demographic Effects: The Importance of Relational Demography in Superior-subordinate Dyads", *Academy of Management Journal*, 32(2):402–423.
- Wagner, W.G., J. Pfeffer and S.A. O'Reilly III, 1984, "Organizational Demography and Turnover in Top-Management Groups", *Administrative Science Quarterly*, 29(March):74–92.
- Vancil, R.F., 1987a, "A Look at CEO Succession", *Harvard Business Review*, pp. 107–117.
- , 1987b, *Passing the Baton, Managing the Process of CEO Succession*, Boston: Harvard Business School Press.
- Ward, R. A., M. La Gory and S.R. Sherman, 1985, "Neighborhood and Network Age Concentration: Does Age Homogeneity Matter?" *Social Psychology Quarterly*, 48:138–149.
- Weiner, N. and T.A. Mahoney, 1981, "A Model of Corporate Performance

- as a Function of Environmental, Organizational, and Leadership Influences”, *Academy of Management Journal*, 24(3):453–470.
- Verbrugge, L.M., 1977, The Structure of Adult Friendship Choices, *Social Forces*, 56:576–597.
- Weston, J.F., K.S. Chung and S.E. Hoag, 1990, *Mergers, Restructuring, and Corporate Control*, Englewood Cliffs, N.J.: Prentice Hall.
- Williamson, O.E., 1964, *The Economics of Discretionary Behavior*, Englewood Cliffs, N.J.: Prentice Hall.
- Worell, D. L. and W.N. Davidson III, 1987, ”The Effect of CEO Succession on Stockholder Wealth in Large Firms Following the Death of the Predecessor”, *Journal of Management*, 13(3):509–515.

Previous IUI dissertations

Researchers who have worked on their degree at IUI and the title of their dissertation. (Doctor's degree in economics unless otherwise stated.)

1944–1954

Folke Kristensson (business administration). *Studier i svenska textila industriers struktur* (Studies in the Structure of Swedish Textile Industries). 1946.

Jan Wallander. *Flykten från skogsbygden* (The Exodus from the Forest Regions). 1948.

Erik Dahmén. *Svensk industriell företagarverksamhet* (Entrepreneurial Activity in Swedish Industry). 1950.

Roland Artle. *Svenskt distributionsväsende* (Swedish Distributive Trades). 1952.

Ragnar Bentzel. *Inkomstfördelningen i Sverige* (The Distribution of Income in Sweden). 1952.

1955–1965

Odd Gulbrandsen. *Strukturömvandlingen i jordbruket* (The Structural Transformation in Agriculture). 1957.

John Ekström (licentiate). *Den textila konsumtionen* (The Consumption of Textiles). 1958.

Göran Albinsson-Bruhner (licentiate). *Svensk verkstadsindustri. Struktur och utvecklingstendenser* (The Engineering Industries in Sweden. Structure and Tendencies of Development). 1961.

Lars Nabseth. *Löneökningars verkningar inom industrin. En studie av anpassningsprocessen inom företaget* (The Effects of Wage Increases in Industry. A Study of the Process of Adaptation within the Firm). 1961.

Erik Höök. *Den offentliga sektorns expansion. En studie av de offentliga civila utgifternas utveckling åren 1913–58* (The Expansion of the Public Sector – A Study of the Development of Public Civilian Expenditures in Sweden 1913–58). 1962.

Bengt G. Rundblad (sociology). *Arbetskraftens rörlighet. En studie av en lokal arbetsmarknad* (The Mobility of Labour. A Study of a Local Labour Market). 1964.

1966–1976

- Karl G. Jungenfelt. *Löneandelen och den ekonomiska utvecklingen. En empirisk-teoretisk studie* (Labour's Share and Economic Development). 1966.
- Bengt Höglund (written at Lund University). *Modell och observationer. En studie av empirisk anknytning och aggregation för en linjär produktionsmodell* (A Study of Empirical Implementation and Aggregation for a Linear Model). 1966.
- Gunnar Eliasson. *Kreditmarknaden och industrins investeringar* (Manufacturing Industry Finance and Short-Run Investment Behaviour). 1967.
- Lars Kritz (licentiate, ethnogeography). *Godstransporternas utveckling i Sverige 1950–66 med utblick mot 1980* (Freight Transportation Trends in Sweden 1950–66 and the Outlook for the Seventies). 1968.
- Lennart Ohlsson (licentiate). *Utrikeshandeln och den ekonomiska tillväxten i Sverige 1871–1966* (Foreign Trade and Economic Growth in Sweden 1871–1966). 1969.
- Villy Bergström (licentiate, written at Uppsala University). *Den ekonomiska politiken i Sverige och dess verkningar* (Economic Policies in Sweden and their Results). 1969.
- Lars Lundberg (licentiate, written at Umeå University). *Kapitalbildningen i Sverige 1861–1965* (Capital Formation in Sweden 1861–1965). 1969.
- Lars Wohlin. *Skogsindustrins strukturomvandling och expansionsmöjligheter* (Forest-Based Industries: Structural Change and Growth Potentials). 1970.
- John Skår. *Produksjon og produktivitet i detaljhandelen* (Production and Productivity in the Retail Sector). 1971.
- Bengt Rydén. *Fusioner i svensk industri* (Mergers in Swedish Industry). 1971.
- Anders Klevmarken (statistics). *Statistical Methods for the Analysis of Earnings Data with Special Application to Salaries in Swedish Industry*. 1972.
- Rolf Rundfelt (business administration). *Reklamens kostnader och bestämningsfaktorer* (Advertising Costs in Sweden – Structure and Determinants). 1973.

- Ulf Jakobsson och Göran Normann (partly written at Lund University). *Inkomstbeskattningen i den ekonomiska politiken* (Personal Income Taxation and Economic Policy). 1974.
- Göran Eriksson. *Företagens tillväxt och finansiering* (Growth and Financing of the Firm). 1975.
- Lennart Ohlsson. *Svensk verkstadsindustris internationella specialisering* (Patterns of Engineering Trade Specialization in Sweden). 1976.
- Lars Kritz (ethnogeografi). *Transportpolitiken och lastbilarna* (Transport Policy and the Lorries – A Study of the Effects of Regulation and Deregulation). 1976.
- Lars Lundberg (written at Umeå University). *Handelshinder och handelspolitik* (Barriers to Trade and Trade Policy – Studies of the Effects on the Swedish Economy). 1976.
- Siv Gustafsson. *Lönebildning och lönestruktur inom den statliga sektorn* (Determination and Structure of Salaries in the Government Sector of Sweden). 1976.
- Johan Facht (lic). *Emission Control Costs in Swedish Industry*. 1976.
- 1977–
- Hans-Fredrik Samuelsson (business administration). *Utländska direkta investeringar i Sverige* (Foreign Direct Investments in Sweden – An Econometric Analysis). 1977.
- Birgitta Swedenborg. *The Multinational Operations of Swedish Firms*. 1979.
- Tomas Pousette (licentiate). *Efterfrågan på telefontjänster och telefoner* (Demand for Telephone Services and Telephones). 1976; *Teletjänster – priser och investeringar* (Telephone Services – Prices and Investments). 1979.
- Gunnar Du Rietz. *Företagsetableringarna i Sverige under efterkrigstiden* (The Firm Establishments in Sweden in the Post-War Period). 1981.
- Richard Murray. *Kommunernas roll i den offentliga sektorn* (The Role of the Local Governments in the Public Sector). 1981.
- Jonas Agell (written at Uppsala University). *Tax Reforms and Asset Markets*. 1985.

- Kenneth A. Hanson. *Adaptive Economics in Disequilibrium: Essays on Economic Dynamics*. 1986.
- Nils Henrik Schager. *Unemployment, Vacancy Durations and Wage Increases: Applications of Markov Processes to Labour Market Dynamics*. 1987.
- Joyce Dargay. *Factor Demand in Swedish Manufacturing: Econometric Analyses*. 1988.
- Eva Christina Horwitz (licentiate, written partly at the Board of Commerce). *Analys av exportutvecklingen: Metoder och tillämpningar* (Analysis of Export Development: Methods and Applications). 1988.
- Christina Hartler (licentiate). *Hushållens fastighetskapital och reala sparande*. (coauthor Jan Södersten.) 1989. *Agricultural Pricing and Growth*. 1991.
- Thomas Lindh. *Essays on Expectations in Economic Theory*. 1992.

Dissertations from IUI

The Impact of Ownership Structure and Executive Team Composition on Firm Performance – The Resolution of a Leadership Paradox. Eva M. Meyerson. 1992.

ISBN 91-7204-395-4
ISSN 1102-6057