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OWNERSHIP STRUCTURE AND RECRUITMENT PROCEDURES

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Ownership structure and recruitment procedures

by

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Abstract

The present study reports that contrary to what is often assumed dominant shareholders give their incumbent CEO more discretion than do owners with small shareholdings. In the former case the most important control function of owners, the recruitment of the CEO, tended to be more frequently delegated to the incumbent CEO. Furthermore, the onwership structure is reported to affect the recruitment procedure of not only CEOs but also the rest of the executive suite. The results imply that dominant owners restrict the labor market for managers by their organization of the recruitment procedures. The statistical analysis is based on data from 29 Swedish public companies. Information about recruitment procedures of the executive team members and firm data was collected.

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OWNERSHIP STRUCTURE AND RECRUITMENT PROCEDURES

Introduction

The appointment of members to an 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 procedures and the characteristics of the owner 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 fields such as psychology and sociology.

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

[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).

the recruitment procedure as a whole through the method of collecting information about potential members and the use of external or internal recruitment.

Organization of the paper

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 partner in the 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 to it 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 information[3] 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

[2] According to Mizruchi (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 Mizruchi 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 chairmen 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 others characteristics, and hence cannot foresee each others future behavior, the concept of incomplete information is applied.

owner 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 not the parties have fulfilled the contract is a difficult 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

[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 owner type.

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. An ex ante 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. Certain 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 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

[6] The concept of the entrepreneur is given a variation of meanings in the research literature of economics or 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.

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 to 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 entrepreneurs who stand by the firm.[8]

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

[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).

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 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 institutional owners' monitoring activity 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 part 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 with 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

[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).

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 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 gaining in influence is materialized through their 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

[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.

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 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 or 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

[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).

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, i.e., when people recruit 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 1986, informal channels were more likely 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

[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.

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

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 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 satisfactory too, I try them out in a completely different setting and at different tasks. If that works out I consider*

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

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 a potential colleague's or partner's characteristics and prior actions 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 both parties believe that when offered the chance, each party is not likely to behave in a way that is damaging the other, yet at least one party is free to disappoint the other, 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 tend 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 (March 1988).

The second argument is drawn from the personnel literature and 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 he knows what is to be expected of him, he can set his 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 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 little 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 of the owner's most important control device, namely that of the recruitment and dismissal of managers, to the CEO 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 to recruit 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' 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 for CEO and for 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 CEO to the retiring CEO, while investors are likely to take on the responsibility of recruiting the 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 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 a 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 run 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 partnerships 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 1987b). 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 of internal and external recruitment of CEOs and its causes are discussed (Vancil 1987b; Fama and Jensen 1983; Morck, Shleifer and Vishny 1988). 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 1988). 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 the investors) recruit, they are likely to recruit external to their firms. Internally recruited CEOs are likely to recruit internal to the firm. Externally recruited CEOs are likely to recruit external to the firm.

Results from the empirical investigation

The empirical data contains a sample of 29 firms drawn from a population of public companies on the Swedish Stock Market both in January 1980 and in December 1985. The 32 firms that experienced the strongest negative crisis signal during 1985 were selected.[15] The crisis signal was measured by abnormal return, i.e., the difference between expected return and realized return (adjusted for risk), for each firm during 1985. (See Appendix 2.) 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

[15] No information is available on the crisis history for each firm prior to 1985.

[16] The criterion for the sample selection originated from a study of the effects of team composition and social capital (social networks) on firms performance in which the present study is part of. 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).

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 hypothesis 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 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 a simpler measure to compute than is the Herfindhal index. 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

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

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 constellation [19], 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 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

[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.

the property rights literature, hence the line has to be drawn, given the context.

No institutional owner has a percentage of votes larger than 44.25% (see Appendix 1). 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 Appendix 4).

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 CEO to the retiring CEO, while investors are likely to take on the responsibility of recruiting the CEO? Table 1 presents the data on who selects the CEO in each firm for each category of ownership.

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[21]
Institutional investors	1	6	7
Individual investors	0	7	7
Sum	9	18	27

The results in Table 1 suggest that when CEOs recruit their 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, eight times out of 13, the former CEO recruited his successor. With the institutional investor case in one instance out of seven the former CEO recruit his successor. In the individual investors case, seven out of seven owners recruited the CEO. In the investor case the control function is clearly administered by the investors, irrespective of whether the investors are 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.

[21] 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.

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

Ownership structure	Number of cases of owner involved	Cases where CEO are involved	Total number of firms
Individual entrepreneurs	3	10	13[22]
Institutional investors	0	7	7
Individual investors	3	4	7
Sum	6	21	27

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

The 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, three firms have owners or his representative recruiting team members not the CEO. In the institutional investor cases none of the seven firms' owner(s) had any involvement in the recruitment of executive team members, with the exception of the CEO. Three out of seven 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

[22] See note 21.

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 not 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).[23]

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 owned firms	25
Investors:	
Institutional minority owned firms	34
Individual minority owned firms	30

Table 3 shows that the dominance of the CEO in the recruitment procedure for the executive team is more pronounced in the entrepreneurial-owned firms than in the investor-owned firms. Compared to the sample mean of 30%, the dominance of others not CEO in entrepreneurial-owned 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 for each firm. 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:

[23] 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.

mergers of firms[24], the owner or his representative, 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.[25] A correlation matrix is depicted in Appendix 4. To test hypothesis 2 a path analysis is performed.

Pathmodel 2:1. The differences in individuals involved in recruitment explained by ownership structure

IQV_{rec} = -.045*TEAM -.62*CR -.29*MV + .16*EMPLOY + .82 *Z1

STAND. ERRORS .18 .20 .32 .31

T-values -.25 -3.13 -.91 .54

[24] 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.

[25] 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).

The explained variation (R^2) of the dissimilarity of categories of recruiters by the explanatory variables is .32. The indicator ownership concentration (CR) has a significant negative effect on the variation of categories for recruitment (IQV_{rec}) of ($T > 2$ hence the regression coefficient is parted from zero at a 5% significant 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 social, work or business person. A referral is the one who responds of judgement 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 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 is 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 nine 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 propotion of CEO using referrals < 50%	Not in accordance with hypothesis: The proportion of CEO using referrals > 50%	Total
Sum	22	3	25

Note: 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 gives a 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 owner recruit external respectively internal to the firm

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

Table 6 shows that out of 22 firms where owners recruit members for an executive team, 15 firms have owners that recruit externally to the firm while seven 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 five 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 internal respectively external

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

The data in Table 7 support hypothesis 4. Out of 13 firms with internally recruited CEOs, eleven 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 CEOs' 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 external recruitment > 50%	Not in accordance with hypothesis: External recruitment < 50%	Total number
Sum	10	2	12

Thus hypothesis 4 is supported by data. Table 8 shows that out of twelve firms with externally recruited CEOs, ten have CEOs who act in accordance with the hypothesis, i.e., recruit from outside the firm, while two CEOs do not act in accordance, having mainly recruited within 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-owned firm than in an investor-owned firm.

Typically CEOs are more likely to use direct observation when recruiting team members. If a CEO in an entrepreneurial owned firm recruits his successor he tends to recruit someone from within the firm since that is where he has the opportunity to directly observe him. 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 external 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 external to the firm and the team members are likely to be externally recruited as well.

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 data. However, it should be noted that there exist cases where entrepreneurs do appoint their CEO themselves.

Hypothesis 1b is also supported by 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 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 the investors), they are likely to recruit externally to their firms: Internally recruited CEOs are likely to recruit internal to the firm, and externally recruited CEOs recruit external to the firm.

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

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-owned 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 externally to the firm. Hence, in a bank-oriented financial system that fosters the dominance of entrepreneurs a market for managers will remain underdeveloped.

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.[26]

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

	Mean	Sd	Md	Skew	Kurtos	MIN	MAX
Negative abnormal return (population of 106 firms)	-.124	.091	-.112	-2.605	12.607	-.684	.0.12
Negative abnormal return (Sample of 32 firms)	-.222	.103	-.187	-3.164	12.509	-.684	-.148

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

[26] 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 more flat 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.

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 (SYS) 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[27] 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

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

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

the size of the team is more often large than small.

Recruitment indicators

The purpose of the present investigation is in Allison words "... *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 recruitment of team members.

Allison suggests using the scale of invariance as the basic criterion for measuring inequality (income). 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., has 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. (ref)

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

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

and where p_i is the proportion of the ith 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 categories of recruiter for team members, increases. When IQV approaches zero, the diversity of categories of recruiters decreases, when controlling for the number of categories of the variable. Hence, an executive team with members recruited by the same categories of recruiter the IQV approaches zero. However, if the members are recruited by different categories of recruiters, the IQV approaches one, i.e., diversity increases.

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	Kurto	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 dominate 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	Kurto	Max	Min
NOCEO	30.226	19.946	25	1.438	4.167	100	0
CEO	.379	0.493	0	0.525	-1.857	1	0
TEAMREC	74.040	31.000	80	-1.424	1.356	100	0

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 Högfeldt 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 Högfeldt (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:

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

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 $\hat{\beta}_i$ is 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

$$\beta_i = \mathrm{Cov}\ (R_i,R_m)\ /\ \mathrm{var}(R_m)$$

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, which 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. Frequency tables for the analyzed variables

Table A3:6. Recruitment to the firm

	Frequency	%
Headhunter	8	5.2
Advertisement	22	14.3
Other mediator	14	9.0
Mergers/Aquisitions	13	8.4
Work mate	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 A3:7. Recruitment to the executive team

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

Table A3:8. Team member's years in firm

Number of years	Frequency	%
0 - 10	74	48.1
11 - 20	51	33.1
21 -	29	18.7
SUM	154	100.0

APPENDIX 4. A correlation matrix

	CR	MV	EMPLOY	TEAM	IQVREC	CEO	NOCEO	TEAMREC
CR	1.00000 0.0	-0.35598 0.0581	-0.06239 0.7478	0.27430 0.1499	-0.53963 0.0025	0.10584 0.5848	-0.18770 0.3295	0.15765 0.4141
MV	-0.35598 0.0581	1.00000 0.0	0.79200 0.0001	-0.04737 0.8072	0.06077 0.7542	0.38488 0.0392	-0.06769 0.7272	-0.25295 0.1855
EMPLOY	-0.06239 0.7478	0.79200 0.0001	1.00000 0.0	0.13989 0.4692	-0.03586 0.8535	0.24046 0.2089	-0.18023 0.3495	0.06060 0.7548
TEAM	0.27430 0.1499	-0.04737 0.8072	0.13989 0.4692	1.00000 0.0	-0.17948 0.3515	-0.19135 0.3200	-0.47690 0.0089	0.40846 0.0278
IQVREC	-0.53963 0.0025	0.06077 0.7542	-0.03586 0.8535	-0.17948 0.3515	1.00000 0.0	-0.30272 0.1104	0.30869 0.1033	-0.11462 0.5538
CEO	0.10584 0.5848	0.38488 0.0392	0.24046 0.2089	-0.19135 0.3200	-0.30272 0.1104	1.00000 0.0	-0.26543 0.1640	-0.20536 0.2852
NOCEO	-0.18770 0.3295	-0.06769 0.7272	-0.18023 0.3495	-0.47690 0.0089	0.30869 0.1033	-0.26543 0.1640	1.00000 0.0	-0.66536 0.0001
TEAMREC	0.15765 0.4141	-0.25295 0.1855	0.06060 0.7548	0.40846 0.0278	-0.11462 0.5538	-0.20536 0.2852	-0.66536 0.0001	1.00000 0.0

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