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Board of directors and its effect on performance: the case of Gnosjö region in Sweden

Abstract

In focus of this paper are selected characteristics of enterprise boards and their influences on performance in companies located in Gnosjö, one of Sweden's best known industrial districts. The aim and contribution of this paper are to propose and test a model that reflects how the relationship between board characteristics, administration and company age can have an effect on company performance. Our results show that number of commitments among board members as well as company age are significant for company performance measured with sales and sales per employee. The support of the model proposed is strong and we believe the results have practical as well as theoretical implications.

Keywords: board of directors, social capital, firm age, performance, Gnosjö region.

Introduction

When managers of innovative companies typically talk about strategies, they first consider what products to make and second, where to locate the business (Pesämaa & Hair, 2007, 2008). Some innovative companies are located in rural areas because they wish to maintain a certain lifestyle, or because they can combine a resource available there with certain knowledge or interest they have (Getz & Nilsson, 2004). In addition, many managers of innovative companies are confident in locating in rural areas, because of supporting economic and social structures. The most central part of corporate governance is the board of directors. In rural areas the members of the boards in innovative companies are most likely individuals in dominant positions being influential in local economy.

A board is thus an important forum for innovative companies to conceive, discuss in order to establish competitive strategies (Randøy & Goel, 2003). Most boards reflect different combinations of ownership (Chuanrommanee & Swierczek, 2007). Some small innovative companies have a "paper board", which consists of the entrepreneur and his/her spouse as well as an auditor. Others use the group dynamics of a board more fully, by including special expertise in combination with a required auditor and minority ownership (Bedard, Chtourou, & Courteau, 2004). Finally, there are other constellations where local friendships reflect the board structure (Ingram and Roberts, 2000).

We know that social capital in a local setting can be a beneficial force for local companies (Piore & Sabel, 1984). Gnosjö region is a rural area, known for its entrepreneurial "spirit", and probably one of the most well known regional clusters in Sweden (Karlsson, Larsson, & Wiklund, 1992; Karlsson & Larsson, 1993; Johansson, 1996). It is known for its continuous innovativeness. The region is situated in

South Sweden. The local population is known for strong religious traditions and high church attendance, low level of education, strong focus on manufacturing industry, strong local cohesiveness, high level of small family companies and domination of men in the industry (Wigren, 2003). Moreover, the industrial traditions go back to the early industrial revolution in Sweden. On the basis of this the Gnosjö region has created many legends and myths that circulate in both academia and practice. Their closeness to each other has created a view that there is an in-group, which makes it difficult for outsiders to become accepted by the locals. One of the arguments heavily highlighted is that membership to any of the local churches will give people entrance to the local structure. This would thus make it rather difficult for individuals in the out-group to enter.

Recall that this region is also reporting very high performing small manufacturing companies. For instance, Gnosjö, the small municipality, has less than 10,000 residents and approximately 250 small companies, which makes the density of companies one of the highest in Sweden. In this town the companies have a total sales of approximately 6 billion SEK (approx. \$1 billion). This success has also created a heightened awareness in Gnosjö. In their website this is indicated by "the Gnosjö spirituality", which reflects the professional skills, hard work, economic practice, humbleness, respect, network, cooperation, entrepreneurship, no hierarchy with powerful people, short distances geographically and mentally, flexibility, artfulness and thinking holistically (see www.gnosjo.se).

Lately Gnosjö people have become more aware of opportunities in the stimulation of new emerging service industries such as tourism. This stimulation of new service industries in the region is focused on cooperation between its four municipalities – Gnosjö, Gislaved, Vaggeryd and Värnamo. The cooperation is an effort to develop destination management practices for coordinated strategic man-

agement of tourism and design of tourism experiences. The cooperation aims at enchanted awareness for destination preference building in national and international markets. Their initiatives are to cooperate in marketing for strong presence e.g., in travel expos and exhibitions, in different events, and in developing a common web portal (www.gnosjoregionen.se) for promotion of the whole region as a tourism destination.

Considering what is publicly stated and the stories created, and told about this region, one may expect that this networking also would be reflected in the existing structures in the region, such as enterprise boards. On the basis of the Gnosjö regional spirit, we would expect high level of cohesiveness among entrepreneurial families and their friends. Therefore, it may be expected that this also should be reflected in the board structures developed in the public limited companies (PLC) in tourism.

To explore, elaborate and test these propositions we designed a model and collected data from the boards of public companies. We collected information about all companies with publicly reported financial information operating in the tourism industry. We found a total of 95 companies having together 379 board members. These companies were examined closely with focus on selected independent variables with possible influence on the company performance variations.

The research objective was based on the following question: Do higher social capital, as indicated by number and efficiency of relations, in combination with company continuity, build and influence performance of the company? In order to propose an answer to this question we depicted a model based on earlier theory on board characteristics (e.g., Kim, 2005).

1. The function of a board

First of all, Swedish limited companies are required to have a board, an independent auditor and at least two ordinary members in the board. With the audit included the typical Swedish company board consists of at least three members, two ordinary members and one auditor. The auditor can be selected by the company even though he/she has the function to control that all financial statements reflect a standardized way to report financial information and that the numbers give a *true and fair view* of the company (Choi, 1997). The auditor is typically a very important individual for a small company (Bushong, 1995). His/her authority involves control (Bushong, 1995), so that the stakeholders, i.e., the bank, the suppliers, the customers, the employees, the state, the employee organizations, and other organizations (Frooman, 1999) may have confi-

dence in agreements. The auditor is also allowed to work proactively to prepare for new emerging situations and, to use his or her competence to navigate the small company with advice and recommendation out of a situation that may otherwise cause troubles. Companies therefore generally select auditors that operate proactively. It is even likely that companies select an auditor that uses her/his expertise to touch the margins of what is allowed, and may also evaluate the audit and renew his contract based on his performance. The auditors can be very expensive. They can often verify their value because of the expertise they have on tax and experience working with other companies. They have therefore typically gained a very respectful position as the main advisor. The auditor, together with the rest of the board, is a crucial part of the small companies strategic corporate governance (see Appendix).

2. A board, administration and continuance performance model

A literature study on strategies that link entrepreneurship to corporate governance, board characteristics and its relationship with performance was conducted. Our literature search in social citation index from 1945-2008 on "corporate governance" generated 2208 studies in peer reviewed journals. One of the most cited in this area (560 times cited) and relevant to our study was Shleifer & Vishny (1997) offering different directions to conduct studies in this field. Our next search performed on "board characteristics" yielded 1,690 studies and the most cited (111 times cited) work relevant for this study was Johnson, Hoskisson & Hitt (1993). Their work included an empirical demonstration of a classical regression on performance including ten independent variables reflecting different strategic dimensions as well as seven control variables. Even though this is a rather subjective literature overview, it captures the cutting edge of the literature that is published so far on the relevant topics of interest in this study. Table 1 demonstrates how directions of these studies also come out in extant research.

Kim suggests that social capital and its effect on performance could be captured by the extent "board members have outside contacts within an institutional environment" (2005, p. 802). Lefort and Urzúa (2008) explicitly recommend independency of directors, whereas Black, Jang & Kim (2006) demonstrate that the structure is an effect of financing and then what position the company holds today. Yet, Randøy & Goel (2003) point out the important role of founder in corporate governance, while Zahra, Neubaum & Huse (2000) demonstrate the need to differentiate responsibilities so that the chief executive and chairman are not the same individuals. Finally, Wan & Ong (2005) claim that

structure does not matter, but that process does impact performance. Table 1 also shows a glimpse of the traditions of research design in this area and how different regressions are typically designed.

This paper depicts a model that reflects how board characteristics in combination with proper administration and company age can have an effect on performance.

This model depicts that social capital measured by number of ties, efficient ties or strong ties, can make companies perform better (Granovetter, 1973; Krachhardt, 1992). Our second assumption is that companies typically use their board of directors to issue different strategic situations. The two first assumptions together form the first *postulate* for this theory, namely that if a board and social capital are of significant importance for a company, then the board is also reflected by board members with strong relationships to each other. Our next assumption is that companies select the board members exclusively among those who also pursue a strong influence over the operations of the business. Some, of those that know the business most are the ones that are close to the business either in their products or in local economic sense. These latter arguments are important to interlock boards (Westphal, Seidel & Stewart, 2001). Our next argument is that rural entrepreneurial companies develop their contacts from local friendships, which also reflect their performance (Piore & Sabel, 1984; Saxenian, 1994), especially in industrial districts such as Gnosjö region (Johanisson, 1996). Finally, we believe that the board (structure) is also sometimes administrative groups which work closely to keep the books clean. Next argument for the model is that the board reflects continuance of working together for a long time, which is reflected by the companies number of years in business (company age) and the average age of the board members.

All of these inputs are considered important to compose a board when it faces different strategic tasks of a company. That said, they select every individual carefully to meet occasionally to discuss sales strategies, market strategies, employment strategies, strategies that concern new administrative control systems, new strategies for location or strategies that concern totally new products. Each strategy may need a new individual with specific competence.

Except the strategic role many boards are formed to serve institutional interests, a disciplinary role, a figurehead role, an auditing role or ethical roles (Gabrielsson and Huse, 2005). The roles of mem-

bers as well as the way the members are selected differ. The typical member is part of the owner family, a friend, or a network of specialists who listen to the advice of an auditor. Therefore, we depict a model the core of which is to not neglect the experience of an auditor, but that social capital of the auditor is critical for company performance. Similarly, we argue that ordinary board members with many contacts are also important for company performance. In addition we argue that less problems issued by the auditor (i.e., no remarks in the public statement from audit), continuity (company age) and average age of board members will affect the performance of the company. Performance is reflected by two indicators: sales and sales per employee.

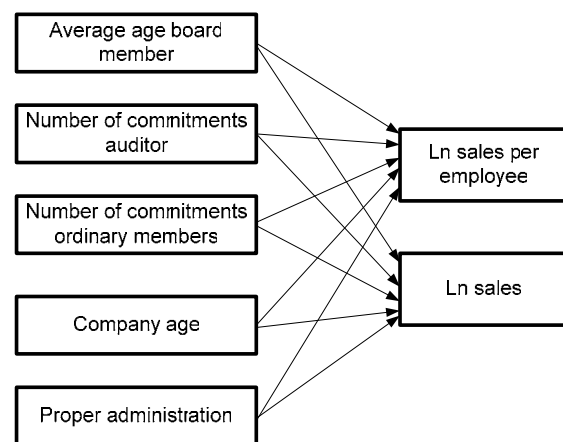


Fig. 1. Two indicators of performance

2.1. Hypotheses.

- H1: There is a positive relationship between the board members average age and sales per employee.*
- H2: There is a positive relationship between the board members average age and sales.*
- H3: There is a positive relationship between number of relationships an auditor has and sales per employee.*
- H4: There is a positive relationship between number of relationships an auditor has and sales.*
- H5: There is a positive relationship between number of relationships an ordinary board member has and sales per employee.*
- H6: There is a positive relationship between number of relationships an ordinary board member has and sales.*
- H7: There is a positive relationship between company age (continuance) and sales per employee.*
- H8: There is a positive relationship between company age (continuance) and sales.*
- H9: There is a positive relationship between proper administration (number of accepted audit statements) and sales per employee.*
- H10: There is a positive relationship between proper administration (number of accepted audit statements) and sales.*

3. Dependent variable

3.1. Performance. Performance is one of the more traditional measures in company related studies. Ittner and Larcker (1998) examined many different performance measures and their implications for innovation. Yet, others have focused on market share (Greve, 1998), profit share of sales (Audia, Locke and Smith, 2000), assets (Miller and Chen, 2004) and investments (Luo, 1997). In corporate governance many have focused on market value, Q-value (Randøy & Goel, 2003; Lefort & Urzúa, 2008), value indexes (Wan & Ong, 2005; Black, Jang, & Kim, 2006) or return on assets (Kim, 2005; Black, Jang, & Kim, 2006).

This paper reflects performance by examining sales and sales per employee. All sales data were accessible from public sources in Sweden and represented four year mean which we calculated from the years 2003-2006.

4. Independent variables

4.1. Average age. Next we examined average age of the board members. The assumption here is that either seniority or newness would have impact on performance. This assumption is also consistent with earlier theory (Kim, 2005).

4.2. Number of auditors – clients relationships. We downloaded the number of clients an auditor have. This indicator is based on the assumption that more clients would form a basis for creation of stronger social capital formation, which we assume to have a direct influence on performance.

4.3. Number of board member contacts. We also downloaded number of contacts each ordinary member has. The same assumed logic should be valid in this case, too; i.e., a higher number of contacts in active relationships should enrich the content of stronger ties influencing social capital formation. This should be beneficial for the company, and thus be reflected in the company performance.

4.4. Company age. One way to get a picture of continuance, and some indication of resiliency for that matter, is to look at the age of the company. We share the view as introduced in the model by Kim (2005). The argument in using age of the company as predictor for performance is that long-term orientation and resiliency are also beneficial for sustained performance. We, therefore, examined the number of years the company has been in business as an indicator of continuance.

4.5. Administration. To develop a surrogate of the quality of administration we downloaded number of

remarks stated by auditors in their published audits during the 2003-2006 period. The assumption here was that “clean” books would also breed performance. The less remarks, the more proper administration.

5. Method

This paper uses linear regression to estimate the effects each proposed predictor has on performance (Hair et al., 2006). Linear regression typically estimates what independent variables best predict the value of the dependent variable.

5.1. Sample. The sample consists of totally 95 companies selected from a number of national industrial classification (NIC) codes within Gnosjö region (www.gnosjoregionen.se) which totally include four municipalities, that is Gnosjö, Gislaved, Vaggeryd and Värnamo (GGVV). Our data were collected from a Swedish public source of economic information (www.affarsdata.se). The NIC codes used in this study are assumed to reflect tourism and are selected from following main categories: transportation sector (passenger); housing (e.g., hotels, camps, cottages, etc.); food (e.g., restaurant businesses); tourist equipment (e.g., rental of sports equipment); tourism sales bureaus (e.g., travel agents), tourism attractions (e.g., museum, cultural attractions, historical places, man made attractions – entertainment parks); event and activity providers (e.g., sport and leisure attractions/facilities); peripheral attractions (e.g., shopping business with high likelihood of souvenir business). Details can be provided upon request.

All of the selected municipalities GGVV belong to a functional region, which is also considered as a typical countryside area. According to national encyclopedia (www.ne.se), Gislaved has 29,327 residents distributed on 1,143 km², Gnosjö has 9,598 distributed on 423 km², Vaggeryd has 12,816 distributed on 831 km², finally, Värnamo has 32 841 distributed on 1,224 km². Following guidelines about Swedish geographical classification they typically consider areas with less than 3,000 residents and with a distance of more than 45 minutes in a car as rural. But those are classified as countryside that have 5-45 minutes to a larger city including more than 3,000 inhabitants. Remote countryside areas are characterized by distances between households located at least 200 meters from each other, and with fewer than five inhabitants per square kilometer. We therefore consider these as companies inside a remote countryside area. Our example, the GGVV region, has an estimated of 10 households per square kilometer. This would mean that it is approximately more than 100 meters between the households (see Table 2).

Table 2. Descriptive statistics of Gnosjö region

	Resi- dents	Area, km ²	House- holds	Resi- dents/km ²	House- holds/km ²
Gislaved	29327	1143	11843	25,7	10,4
Gnosjö	9598	423	3631	22,7	8,6
Vaggeryd	12816	831	5087	15,4	6,1
Värnamo	32841	1224	13755	26,8	11,2
GGVV region	84582	3621	34316	23,4	9,5

Source: www.ne.se; www.dagspress.se

The sample consists of 95 Swedish limited companies, which means the owner has stocks in the company but the company is in itself authorized to complete agreements and contracts. These companies are also obligated to report about their financial status and to select an auditor which controls that the financial information, leadership and other control systems reflect a true and fair view of the company (Choi, 1997). In addition, the auditor declares whether or not the principles used to report follow standard principles and practices to report financial information. If these are not followed the auditor will have to declare this as a remark in a public statement. Finally, these companies also have a board in which they can select any member. Typically the board reflects a structure of ownership, the executor (CEO), the audit and his/her assistance.

When looking closely to all members we could say there is totally 379 members. Out of these members 129 are auditors, 31% are female and the average age is 49.45 years. 12 out of the 95 boards were fully dominated by men with no women and one board was dominated by women with no males. Most of the boards were, however, mixed with men and women. The auditors had on average 214 commitments to other boards, the regular board member had 2.95 commitments to other boards outside tourism including other regions (www.affarsdata.se). There was no difference between the characteristics of boards between the four municipalities.

6. Results

6.1. Hypotheses testing results. We used AMOS software, because we wanted to run two dependent variables simultaneously. This means we also received an extensive report for the overall model. Following indexes CFI, TLI an IFI exceeded the recommended cut off point of .9 according to Hair, Black, Babin, Anderson & Tatham (2006). The model had in total 10 degrees of freedom and a chi square of 12.801 (Chi square/DF = 1.280), which also indicated the theoretical model and the sample fit. Typically, AMOS software is used for path analysis or structural equation models, but we used this software in order to run two dv:s. Our test reports that hypotheses 1-5 and 9-10 received no sup-

port. The remaining hypotheses 6-8 received strong support. Social capital and proper administration have thus no support for sales per employee. Social capital is also of limited importance for sales with the exception of number of commitments from ordinary members which received strong support (H6) on sales ($r = .292, p < .005$). The most part of the explanatory power in the model instead seems to emerge from company age which exhibits support for both (H7) sales per employee ($r = .301, p < .005$) and (H8) sales ($r = .246, p < .05$).

Discussion

This paper asked if social capital, as indicated by number and efficiency of relations, in combination with company age, builds and influences performance of a company. Our question was approached by proposing, depicting and testing a model based on earlier theory on board characteristics (e.g., Kim, 2005). The model receives strong support, which indicates that this theory poses a significant status for further testing and purification. Our model included 10 hypotheses. Three hypotheses were significant and supported. Based on our findings, company age seems to strongly predict performance (sales and sales per employees). This message might be of considerable importance since many entrepreneurship and innovation programs focus more on business start-ups than durable effects companies have on performance. Further studies should be focused on programs in established companies. Our model also strongly considers characteristics in board of directors. Among these characteristics we expected first that average age as a measurement of diversity would have an effect on performance, which was not true in our case. Next, we expected that the social capital (i.e., auditors' number of commitments as an indicator of social capital) affected performance. But, this influence was not significant. Moreover, we expected network characteristics as another type of social capital indicator (i.e., of ordinary members number of commitments as an indicator of social capital) to influence performance (i.e., sales). This latter path gave us some support for the significance of social capital on performance. At the same time the complexity of social capital will request from future studies a broader coverage of social capital aspects.

Recall that our results were tested in the context of Gnosjö region, known for its strong social capital. It is, therefore, somewhat surprising that tourism companies did not have strong social overlaps as we expected to find on the basis of earlier studies. One implication could thus be that companies may consider hiring external expertise to their boards' in order to enhance the linkages within the community, and thus increase their social

capital. We may consider this finding an interesting proposition for further study. There is a need to elaborate the concept of social capital in such

research settings, and to further test for possible contextual and methodological influences that may limit us to only a partial view.

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Table 1. Literature overview of three selected studies recently published and targeting boards with regression analysis

Author	Data access	Sample	Unit/level of analysis	Dependent variable	Independent variables	Controls – interaction variables	Findings
Zahra, Neubaum & Huse, 2000	Secondary data and survey	239 medium sized firms and responses from 94 executives	U.S. manufacturing firms and second senior executives in each firm	Four dependent variables of corporate entrepreneurship: <ul style="list-style-type: none"> ◆ product innovation; ◆ process innovation; ◆ organizational motivation; ◆ domestic venturing; ◆ international venturing. 	<ul style="list-style-type: none"> ◆ Executive ownership; ◆ ownership by pension funds; ◆ ownership by insurance companies; ◆ ownership private companies; ◆ board size; ◆ board size squared; ◆ outsiders ratio; ◆ outsider director stock; ◆ CEO and chair separated; ◆ technological opportunities; ◆ past ROA; ◆ company size; ◆ company age. 		<p>“Corporate entrepreneurship is high when: (1) executives own stock in their own company; (2) the board and chief executive are different individuals; (3) the board is medium sized; (4) outside directors own stock in the company” (Zahra, Neubaum & Huse, 2000: 947).</p>
Randøy & Goel, 2003	Archival sources (annual reports)	204 Norwegian firms	Founder leadership in large public firms in Norway	Two dependent variables: Q-value (ratio of market value equity to book value of liabilities)	<ul style="list-style-type: none"> ◆ Four independent variables: founder leadership; ◆ board inside ownership; ◆ blockholder ownership; ◆ foreign ownership. 	<p>Three controls tested:</p> <ul style="list-style-type: none"> ◆ firm size; ◆ firm age; ◆ depth of total assets. <p>Interaction variables tested:</p> <ul style="list-style-type: none"> ◆ founder leadership x board inside ownership; ◆ founder leadership x blockholder leadership; ◆ (3) founder leadership x foreign leadership. 	<p>“Founder led firms can exploit their low agency cost status to use their board and insiders for strategic purposes” (Randøy & Goel, 2003: 634).</p>
Kim, 2005	Archival sources	4000 different board members during 10 years	Large publicly traded firms in Korea	One dependent variable: Return on assets.	<ul style="list-style-type: none"> ◆ Four independent variables: density (proportion of links relative to possible ties); ◆ square of network density; ◆ degrees from elite institution (graduated from top schools); ◆ (4) membership in economic association. 	<p>Nine controls tested:</p> <ul style="list-style-type: none"> ◆ lagged ROA; ◆ age of firm; ◆ log assets; ◆ depth to equity ratio; ◆ board age; ◆ affiliation dummy; ◆ board education level; ◆ board average age; ◆ board size. 	<p>“Dense and cohesive networks at boards can add value to corporations” (Kim, 2005: 06). In addition, external capital has an effect on performance.</p>

Wan & Ong, 2005	Survey (sample 424 firms).	212 firms and 299 directors. Self reported responses on board structure (controls), board process (summed scales) and board performance (self reported data).	Large firms in Singapore	Two dependent variables: <ul style="list-style-type: none"> ◆ monitoring scale, which seeks their ability to fully pursue their professional role (10 items); ◆ an index, which seeks transparency of company to public. 	Four independent variables: <ul style="list-style-type: none"> ◆ effort norms (five item scale); ◆ cognitive conflict (five items); ◆ affective process conflict; ◆ knowledge and skills. 	Two groups of controls A and B: (A1) board size; (A2) industry; (A3) market; (A4) revenue; (B1) chairman duality; (B2) number of non executive directors (NED); (B3) proportion of NED; (B4) number of independent directors; (B5) proportion of independent directors.	"Board structure does not matter, while board process does. Board structure does not influence board process or board performance" (Wan & Ong, 2005: 285).
Black, Jang, & Kim, 2006	Survey with 39 different governance elements	453 large firms	Large firms in Korea	Company value index (KCGI)	Assets; <ul style="list-style-type: none"> ◆ sales growth; ◆ profitability; ◆ equity finance need; ◆ sole ownership; ◆ chaebol, which is part of a fair business association in Korea; ◆ leverage, which is a ratio of depth to market value; ◆ firm age; ◆ market share; ◆ ratio of exports to sales; ◆ ratio of capital expenditure to sales; ◆ ratio of advertising to sales; ◆ ratio of property, plant and equipment to sales; ◆ asset size; ◆ bank dummy. 	Three control variables: <ul style="list-style-type: none"> ◆ firm size; ◆ no/yes association to fair trade association; ◆ financial variable. 	The conclusions section presents are as follows that "larger firms are better governed" ... "riskier firms are better governed" ... "more profitable firms are worse governed" ... "firms with higher equity finance need are better governed" (Black, Jang, & Kim, 2006: 690).
Lefort & Urzúa, 2008	National database	Four year 160 company panel data in Chile.	Large firms in Chile	Two dependents tested: Tobin's Q (ratio of market value equity to book value of liabilities) and Return on assets.	Five independent variables: <ul style="list-style-type: none"> ◆ proportion of independent directors; ◆ proportion of professional directors; ◆ proportion of outside directors; ◆ board size; ◆ external financial needs. 	Two groups of controls, A and B: (A1) ownership concentration; (A2) degree of coincidence; (A3) group affiliation; incentive program; (B1) firm size; leverage; weekly returns; industry; time dummies.	"Proportion of independent directors affects companies' value" (Lefort & Urzúa, 2008: 621).