ISOLATED ISLANDS IN THE UPPER APEX OF ORGANISATIONS: IN SEARCH OF INTERACTION BETWEEN THE BOARD OF DIRECTORS AND THE TOP MANAGEMENT TEAM

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Abstract

This paper reports on the interaction of compositional effects of boards of directors (BoD) and top management teams (TMTs) on firms' financial performance. Composition of both groups is investigated for cultural, age, tenure and gender diversity. We explore effects of demographic diversity in the two power groups on performance in interaction with each other by bringing in the similarity-attraction paradigm to argue for the relationship. Study data are from consolidated financial statements in annual reports of listed Swedish corporations. Our findings suggest that while differences in gender, age and tenure diversities have no effect on firm performance, close alignment of cultural diversities of the BoD and TMT does have a positive effect of firm performance.

Keywords: Board of Directors, Demographic Diversity, Top Management Team, Interaction, Sweden

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1 Introduction

Boards of directors (BoDs) and top management teams (TMTs) have received substantial attention in the management literature, since it is these power groups that, according to Finkelstein and Hambrick's leadership theory (1996), influence firm performance. However, assuming that these power groups influence performance in different ways, researchers have studied their performance effects in isolation from each other (Forbes and Milliken 1999). Certain positive effects when the two groups interrelate have been detected, but the topic has not been sufficiently explored (Brunninge et al., Nordqvist, and Wiklund, 2007; Monks and Minow 2004; Barroso Castro et al. 2009; Kim et al. 2009; Kor 2006). When one looks at the corporate governance research related to the BoD, one can observe that the role of the BoD is almost always discussed in relationship to the CEO (e.g. Westphal 1999) and less often to the TMT (e.g. Barroso Castro et al. 2009), presumably because the common BoD roles, i.e. monitoring, service and strategy formulation, always assume a counterpart that performs the actions. In TMT research, which lies between the field of corporate governance and management, the role of the TMT is usually discussed in terms of management of the firm and thus one assumes its counterpart to be the subordinates. Even though BoD research tries to illuminate the connection, TMT research tends to ignore the connection up the hierarchy and instead concentrates on the connection down the hierarchy. Thus, the discussion in the upper apex tends to present a hierarchical downstream relationship even though the supervisor–supervisee relationship between the BoD and TMT is an established idea and indicates an interaction between the BoD and TMT. This paper therefore aims to bridge the gap between TMT and BoD research and to divert the attention to the interaction between these two important power groups in the upper apex of firms and its performance effects.

The interaction is approached from a demographic compositional angle. Directors as well as executives base strategic choices on their values, cognitions and perspectives (Hambrick and Manson 1984; Finkelstein and Hambrick 1990, 1996), and an organisation's performance is highly dependent on the demographic characteristics (used as proxies for values, cognitions and perspectives) of its leaders (Child 1972; Kotter 1995). This has led authors to theorise that executive demographic characteristics, such as age, gender, tenure, and culture, serves as proxies for values, cognitions and perspectives, which will be reflected in a firm's performance (Carson et al. 2004; De Andres and Lopez 2005; Dulewicz and Herbert 2004; Forbes and Milliken 1999; Hambrick and D'Aveni 1992; Haleblian and Finkelstein 1993). In other words, a combination of demographic characteristics has been investigated with regards to the effects of demographic composition on firm performance (Milliken and Martins 1996). Moreover, the

interaction of BoD and TMT is based on the similarity–attraction paradigm, through which we argue that similarity of different demographic characteristics between groups would be reflected in increasing firm performance. With regards to the interaction we need to clarify that interaction in this paper does not refer here to the formal interaction that could have been observed in the contexts where duality of membership on BoD and TMT is allowed by law (e.g the US context). Instead we observe the interaction of informal nature, since duality of membership is not allowed by law in the Swedish context, investigated in this paper, which appears to exist between the TMT and BoD memebers in a Nordic context (e.g Huse, 2007). Since only anecdotal evidence exists of this informal interaction in the Nordic context we develop theoretical arguments for this interaction by discussing commonality of goals, expressed in terms of control, strategy and performance that the two groups share and interact over.

The aim of this paper is therefore to investigate the interaction, where the interaction is based on similarity of demographic characteristics of BoDs and TMTs, and its effect on firm performance. The focus lies on cultural, age, tenure and gender demographic characteristics. The paper continues with arguments for BoD and TMT interaction. Then follows a presentation of how this interaction can be considered through taking notice of similarity of demographic characteristics, which in turn is argued to be influential on firm performance. The theoretical part concludes with the hypothesis of this study. The paper then proceeds with the method and analysis section, and concludes with a discussion on the findings.

2 Theoretical framework

2.1 BoD and TMT interaction

The supervisee–supervisor relationship between the BoD and TMT is discussed in previous research (Westphal 1999), however, the process of interaction between two, and how they create organisational outcomes in that interrelation, has not been sufficiently explored (Brunninge et al. 2007; Monks and Minow 2004; Barroso Castro et al. 2009; Kim et al. 2009; Kor 2006).

In the case of TMT vs. BoD interaction, Barroso Castro et al. (2009) have empirically shown that the dynamics and nature of the relationship between these two groups could influence the outcomes of one or another group, or as this paper posits, could have a combined influence on organisational outcomes. For example, Daily and Schwenk (1996) propose a configurational framework in which BoD structures in combination with TMT demographic homogeneity/heterogeneity could result in dominant or balanced organisational configuration with subsequent organisational efficiency effects. Building on this research and assuming the existence of partnership in strategy formulation between BoD and TMT, Kim et al. (2009) extend Daily and Schwenk's (1996) conceptual model by arguing that BoD demographic composition will have an influence on TMT capabilities under specific environmental conditions. Thus, papers conceptual in nature (e.g. Daily and Schwenk 1996; Kim et al. 2009) tend to see the BoD composition as a driver in BoD vs. TMT interactions, presumably assuming that in strategy creation, the BoD has the upper hand by formulating strategies, whereas the TMT serves the strategy implementation function. However, empirical papers have discovered that interactions between BoD and TMT are based on the equal input towards organisational goals by both groups. Kor (2006), for example, investigates the interaction of TMT diversity in terms of tenure, experience and functional background in relation to the ratio of outsiders on the BoD and these interaction effects on the investment into research and development (R&D). The findings of Kor's study suggest that increasing TMT tenure and years of experience, as well as increasing functional heterogeneity in combination with increasing the ratio of outside directors on the BoD will result in lower R&D investment intensity. Barroso Castro et al. (2009) consider another aspect of the power groups' interaction by empirically proving that TMT composition (expressed as the ratio of BoD members belonging to TMT) will leverage the relationship between the BoD composition and the firm's strategic change. Thus, interaction between BoD and TMT has not only been conceptually but also empirically found, albeit with diverse measures of TMT and BoD composition as well as different organisational outcomes.

In some contexts the interaction between the BoD and TMT is formal in nature, for example, when the laws of the country allow the CEO duality or the presence of TMT members on the BoD in stock-listed corporation – as in the United States – in other countries these arrangements are forbidden by law, and the independence of BoD members is mandatory – as in Scandinavian countries. Thus, the discussion in this paper reviews the literature on the BoD and TMT interaction (used as a connotation for relation), and provides targeted arguments for the interaction of BoD and TMT in the specific Swedish context of this study.

The arguments for interaction between the BoD and TMT in this paper are based on a theoretical approach that synthesizes the theories of agency theory, resource dependency theory and stewardship theory. Commonly, in corporate governance research, these theories are used separately, but lately the advantages of using them

jointly have been pointed out (Hillman and Dalziel, 2003). This is especially considered as beneficial in this paper where the aim is to provide theoretical arguments for BoD and TMT interaction. The arguments for such an interaction rest on the three pillars of: rapport over control, rapport over strategy, and rapport over performance.

Based on the agency perspective, the underlying role of BoDs is to monitor/control managers (Daily 1996; Eisenhardt 1989; Fama and Jensen 1980). The function of control is mainly exercised through the BoD's direct power, expressed for example in Company Act legislation implying that the BoD appoints and has the power to dismiss the CEO. The control function is necessarily not only a one-way directed road. Despite the BoD's direct power to control the organisation, the TMT is also a controlling group. This capacity rests not on the group's direct and formal power, but more on the indirect power that is based on the expertise, knowledge and information the TMT possesses due to its engagement in the day-to-day operations of the firm. This pool of resources makes the TMT an influential actor controlling activities related to daily operations, and the BoD may be dependent on the TMT when it comes to decisions relating to firm-specific issues. In other words, while the BoD has control over the strategy of the firm, the TMT has control of information about operations. The acknowledgment by both groups of each other's sphere of control also leads to the realisation of their combined control over the firm, which in turn results in interaction between the BoD and TMT based on the rapport over control.

The second argument for interaction is based on the assumption that BoDs and TMTs have a direct and shared responsibility over the decision-making process in the firm (Pearce and Zahra 1992; Zahra and Pearce 1989). This assumption is termed an 'active school' and is based on the synthesis of the stewardship, agency and resource dependence theories (Barroso Castro et al. 2009). This stream of research argues that strategy and its formulation is an interaction-creating mechanism between the TMT and the BoD, irrespective of any presence of formal interaction. Thus, this view assumes that the BoD has a monitoring and supervisory function vis-à-vis managers and their formulation and implementation of strategy (Baysinger and Butler 1985), while the TMT is engaged in strategy implementation as well as emergent strategy formulation (van Gils 2005). The line of argument here is that interaction is a product of rapport over strategy, where BoD and TMT relate to each other over the partnership based on strategy formulation (Hendry and Kiel 2004) and work on strategy in general, albeit from their different power positions in the organisation. This view on BoD and TMT roles regarding strategy formulation and implementation is a development of previous views where US-based researchers tend to consider strategy formulation and implementation to be a task designed for the CEO/TMT, whereas European researchers consider strategy formulation to rest with the BoD (Collin 2008; Huse 2007), whereas strategy implementation rests with the TMT/CEO (Ingley and van der Walt 2001). However, with an interaction approach to strategy, it is here suggested that there is a shared responsibility of how the strategy is being formulated as well as implemented.

This brings us to the third argument for interaction between the BoD and TMT, comprising the common goals that the two power groups share. Apart from their work on a coherent and appropriate strategy, both groups aim to improve firm performance, on which they work in a collective sense (Anderson et al. 2007). A large number of studies show how the BoD contributes to firm performance (see Collin 2008 for a review). According to Rindova (1999) it is the BoD's control role as well as its experiences and cognitive resources that would be reflected in firm functioning and performance. While the compensation for a firm's BoD members is usually a fixed sum of money with no performance-related bonus system involved, performance of the firm itself is reflected in the BoD members' attractiveness in the labour market for directors, which in turn makes financial performance an important incentive. Similarly, the TMT's relationship to firm performance has also been reflected many articles (see Umans 2009 and Nielsen 2010 for a review): the managerial labour market and managers' attractiveness on this market is an incentive for the TMT to navigate the firm towards superior firm performance (Murphy 1985). Managerial compensation systems that are dependent on the level of firm performance are yet further incentives for the TMT (Jensen and Zimmerman 1985, Carpenter and Sanders 2002) to put firm performance in their focus and interest (Jensen and Murphy 1990). Apart from these labour market incentives for the BoD and TMT, and managerial compensation for TMT, it is the very aim of the firms' financial performance orientation that aligns the interest of the BoD and TMT. Thus, interaction between the BoD and TMT is also a product of rapport over performance.

2.2 BoD and TMT interaction based on similarity of demographic characteristics

While interaction between the two power groups is an important assumption of this paper, it is the nature of that interaction that is in the spotlight here. In their study, Barroso Castro et al. (2009) argue that it is the demographic composition of

both the BoD and TMT that influences the nature of that interaction and in turn influences organisational outcomes. The demographic composition can include different parameters; common in corporate governance research has been that of age, tenure, gender, nationality (Nielsen, 2010). These studies of diversity in the upper apex of the organisation and its influence on organisational outcomes have their roots in the behavioural theory of the firm (Cyert and March, 1963). The theory assumes that decision makers in firms are constrained in their decisions by bounded rationality, and multiple and conflicting goals. It is the decisions of the upper apex that are theorised to be reflected in the strategic choices made and, as a consequence, in firm performance. While the values, beliefs, attitudes and cognitions explain the behaviour of individuals, they are hard to measure and conceptually validate (Pfeffer, 1983). Hambrick and Mason (1984) have suggested that, instead, the observable demographic characteristics could be used as proxies for these behavioural aspects. A large number of articles have adopted this assumption and investigated the influences of demographic diversity on organisational outcomes (for a review, see Carpenter et al. 2004; McMahon, 2010; Nielsen, 2010) and team related outcomes (Bell, Villado, Lukasik, Belau and Briggs, 2010) where firm performance has been by far the most popular outcome to investigate.

This paper follows this line of research and uses demographics characteristics as proxies for individual behaviour. Moreover, by borrowing from social psychology literature, we make the addition that it is the compositional differences and similarities that exist between the two interacting groups that drive firm performance. According to social identity theory, group membership provides people with a sense of identity (Tajfel and Turner 1986), which in turn leads to social categorisation into 'us' and 'them' (Brown and Hewstone 2005). While social categorisation can instigate positive bias in favour of one's own group, it also brings about negative stereotypes of other groups (Tajfel et al. 1971). While the work of Tajfel and colleagues on social categorisation has become an axiom in the field, it is the similarity or dissimilarity of the groups in the intergroup relationship that has gained considerable attention in social psychology literature (e.g. Jetten et al. 2001; van Knippenberg and Ellemers 1990). On the one hand, researchers operating with a social identity theory focus on intergroup similarity as a source of intergroup tensions – tensions that are incited by readily available comparison of the similarity, which leads to rivalry and a drive to differentiate one's own group from the other group deemed to be similar. On the other hand, self-categorisation theorists focus on the intergroup differences as a source of tensions brought about by intergroups trying to differentiate themselves from one another (Jetten et al. 1998). We acknowledge both perspectives while keeping in mind that social identity theory has primarily been used to motivate rivalry and tension between large groups such as ethnic groups within a given society, or in political and religious movements (Jetten et al. 2001) so its applicability on BoD and TMT relations is questionable. Moreover, it has been claimed that intergroup similarity could become a threat to the social identity of each group. In this study, both the BoD and TMT are guaranteed their identity by legislation and the internal policies of the firm – which is why we feel that the suppositions of social identity theory about the threat of similarity between the two power groups is not relevant here. Instead, we base our 'group diversity interaction' hypothesis on the self-categorisation theory, especially the similarity–attraction paradigm (Byrne 1971) which has been successfully applied in small group and organisation research (e.g. Sanders and Schyns 2006; Tsui and O'Reilly 1989).

Simlarity–attraction assumes that high-order attraction is based on individuals' need to evaluate themselves for similarity of features such as values, opinions, attitudes, experiences and abilities. The possession of similar characteristics encourages attraction where they are observable and/or valued by those within the interaction (Newcomb 1956), as behaviour becomes more predictable, validating an individual's beliefs and attitudes. On the contrary, divergent attributes will lower this attraction (Thibaut and Kelley 1959). This in turn suggests that individuals and groups are more likely to direct their cooperating efforts to those sharing similar attributes (Galaskiewicz and Shatin 1981). Supported by numerous studies in business administration that theorise and empirically show demographic differences to be proxies for the features described by the similarity–attraction paradigm (Umans 2009), this paper argues that it is the similarity of demographic diversity between two power groups – the BoD and TMT – that would have a positive effect on firm performance. We assume that being similar on different demographic diversity dimensions as a group, the BoD for its part would feel that whatever decisions it makes, being reflective of its composition, will find understanding and support in a TMT with similar composition, and vice versa.

Thus, proceeding from this discussion, we hypothesise the following:

Hypothesis 1: Interaction based on similarity of demographic composition of the BoD and of the TMT is positively associated with the firm's financial performance.

3 Research design

The hypotheses were tested on Swedish listed corporations listed on the Stockholm Stock Exchange A list and O list. The population of Swedish-listed corporations in the year 2004 was 239 Out of these; it was possible to get a full data set from 195 corporations, i.e., a loss of 18%. An analysis of drop-outs indicated that there was no systematic difference in size or ROA. There was a weak significant difference in Debt-to-equity ratio, with those included in the data set having higher ratios. Our conclusion is that our sample fairly well represents the population, but conclusions on debt-to-equity have to be treated with caution since there is a risk of overestimating its value.

Swedish corporations have one account for the parent company and one for the group of companies. We have used the group accounts since they contain relevant information used by the market actors. In a few cases, the corporations do not have the same calendar year as the reporting period. In such cases, 2003/2004 is coded as 2004. We have controlled for the differences between the firms reporting period and found no significant differences between the firms reporting 2003/2004 and 2004.

The model includes one dependent variable, four independent variables, eight diversity control variables and four traditional control variables. The operationalisation of these variables is presented below.

The dependent variable of performance was measured as '*return on assets'* and calculated as (profit after financial items + financial costs) / total assets. We use the definition of return before subtracting financial costs in order to have a return unbiased by the financial structure.

Independent variables were operationalised as follows:

- Interaction based on similarity of demographic composition was measured as the distance between *cultural, gender, age and tenure diversity* of the BoD and of the TMT. Firstly four demographic dimensions have been chosen to capture the similarity of demographic composition in the BoD and TMT, namely: cultural, gender, age and tenure diversity. Pelled (1996) has identified these four diversity dimensions as the ones being of high visibility. It is argued that the visibility of these dimensions triggers the categorization of individuals within groups (Pelled, 1996). According to Newcomb (1956) it is the observable (visible) nature of demographic characteristics that is of importance in the interaction between the individuals within groups. We extend Newcomb (1956) and Pelled's (1996) logic by arguing that cultural, gender, age and tenure diversities will serve as a trigger of categorization between the groups (BoD and TMT) in their interaction with each other. To calculate the distance between four diversity dimensions, each diversity measure of the BoD was divided by the same diversity measure of the TMT, and vice versa; then the distance that was equal or below 1 was taken as a measure of the similarity between isolated diversity dimensions (1 has been added to each diversity measure prior to division in order to avoid division by 0). Thus, the measure of similarity between BOD and TMT diversity dimensions varied on the scale from 0 to 1, where 1 represented highest possible similarity on each diversity dimension and a measure approaching 0 signalled the highest possible dissimilarity on each diversity dimension. In other words we have used a ratio to represent similarity/dissimilarity of the TMT and BOD on four isolated demographic diversity dimensions.

3.1 Diversity control variables

The traditional approach of considering the diversity of TMT and BoD in isolation from each other shows mixed performance effects (Elron 1997; Watson et al. 1993; West and Schwenk 1996). This paper proposes instead the importance of considering the interaction effect between the two groups. However, in order to control for isolated diversity influence, we controlled for the four diversity measures of culture, gender, age and tenure in BoD and the same diversity measures in TMT separately.

- Cultural diversity of the BoD was measured as diversity of nationality. The coding was based on the members' names, photographs and descriptions provided in the annual report, as well as on resources accessed on the Internet. A BoD including only foreign or only Swedish members was represented by 0, and a BoD composed of 50% Swedish and 50% non-Swedish members was represented by 1. Thus, cultural diversity in each BoD/TMT was placed on the continuum between 0 and 1.
- Cultural diversity of the TMT has been measured in the same way as cultural diversity of the BoD.
    - Gender diversity of the BoD was measured as a proportion of male versus female directors. A BoD including only women represented by 0, and a BoD composed of only men was represented by 1. Thus, gender diversity in each BoD was placed on the continuum between 0 and 1.
    - Gender diversity of the TMT was measures in the same way as gender diversity of the BoD.

- Age diversity of the BoDs was measured as the standard deviation of the directors' ages, as stated in the annual report.
- Age diversity of TMT was measured in the same way as age diversity of the BoD.
- Tenure diversity of the BoDs was measured as the standard deviation of the directors' tenure in their current positions, as stated in the annual report.
- Tenure diversity of TMT was measured in the same way as tenure diversity of the BoD.

3.2 Traditional control variables

Traditional control variables were defined as follows:

- Firm size was based on the assumption that higher revenues is related to increased performance (e.g. Fama and French 1992; Prevost et al. 2002). Size was measured as the logarithm of revenues.
- Industry was used as a control variable to control for direct industry effects on performance (cf. Hoskisson 1987). It was coded according to SIX (Scandinavian Information Exchange), which is also used by the largest newspaper in Sweden, Dagens Nyheter, and represented by dummy variables. These industries were identified: finance, health care, manufacturing, information technology, consumer, media, primary products, telecom and service.
- Debt-to-Equity ratio was added as a control variable since, according to agency theory, debt burden can stimulate managers to increase performance (Jensen 1993). The variable is continuous and defined as (Debt + Provisions) / (Equity + Minority interest).
- Past performance (logarithm of ROA from 2003) was used as a control variable since previous research has indicated that the most reliable predictor of firm performance is firm's performance in the previous year (Dow and McGuire, 2008)

4 Analysis

The analysis of the data was conducted via Pearson correlation tests and linear regressions.

A number of highly significant correlations are evident in the correlation matrix. After checking the tolerance values presented below as well as observing that bivariate correlations that do not exceed the recommended cut-off value of 0.7 (Pallant 2007), we conducted a regression analysis.

The regression models were checked for multi-collinearity, and the tolerance values in the data vary between 0.534 and 0.863. This indicates that all models pass the test for multi-collinearity.

Inspecting the model, we can observe that the majority of the diversity interaction variables are not significant, except for the interaction of the cultural diversities of the BoD and TMT. This significant interaction implies that with the diminishing (i.e. closing) difference between cultural diversity of the BoD and TMT there will be an increase in performance. This indicates partial support for our hypothesis (interaction based on similarity of demographic composition of the BoD and of the TMT is positively associated with the firm's financial performance)

Inspecting diversity of the BoD and TMT variables, we can observe that only BoD tenure diversity has a significant positive influence on firm performance (TMT gender diversity could be observed to have weak ($p<.1$) significant negative influence on firm performance). The traditional control variables are all shown to be significant in their influence on firm performance

5 Discussion

The aim of this study was to investigate the interaction between the BoD and TMT through the study of both groups' demographic composition and its influence on firm performance. We explored a specific empirical (Swedish) context where formal interaction between the TMT and BoD is almost non-existent since neither CEO duality role is allowed in Sweden nor are the TMT members by corporate law allowed to be members of the BoD. We argued that BoD and TMT have an informal interaction in Swedish context, and we base the arguments for that interaction in rapport over control, rapport over strategy, and rapport over performance. We then based our empirical investigation of the interaction on similarity–attraction between these two groups based on their demographic characteristics – namely, cultural, gender, age, and tenure diversities. We argued that similarity between the BoD and TMT with respect to each and one of the four demographic characteristics would increase firm performance.

Table 1. The descriptive data of the variables used in the analysis

Variables	Mean	Std.Dev	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Revenues (log)	6.07	1.00															
2. Debt/Equity ratio	2.05	3.87	.337**														
3. Return on Assets (past/log)	4.55	.47	.388***	.061													
4. Cultural diversity of the BoD	.25	.33	.179*	.082	-.071												
5. Gender diversity of the BoD	.86	.11	-.136†	-.216**	-.035	-.033											
6. Age diversity of the BoD	7.82	3.11	-.013	-.096	.041	-.073	-.047										
7. Tenure diversity of the BoD	4.33	3.43	.083	-.064	.169*	-.103	-.01	.145*									
8. Cultural diversity of the TMT	.29	.32	.125	.078	-.042	.348***	.017	-.119†	-.075								
9. Gender diversity of the TMT	.89	.13	.14†	-.024	.095	-.014	.162*	.024	.128†	-.044							
10. Age diversity of the TMT	6.44	2.86	-.103	-.062	-.011	.117	-.012	-.006	.097	.099	-.091						
11. Tenure diversity of the TMT	5.87	4.04	.419***	.114	.195**	.02	-.006	-.009	.234***	.036	.13†	.211**					
12. Cultural diversity interaction	.84	.15	-.170*	.004	.027	-.153*	-.047	.09	.065	-.426***	-.085	.068	-.005				
13. Gender diversity interaction	.87	.10	.049	.013	.115	.092	.456***	-.066	.103	-.026	.431***	.135†	.118	-.045			
14. Age diversity interaction	.67	.23	.206**	.016	.116	.001	-.094	-.234***	.14†	.04	-.015	.251***	.220**	.009	.066		
15. Tenure diversity interaction	.62	.25	-.238***	-.053	-.114	-.017	-.165*	.141*	.179*	-.005	-.09	.045	-.330***	.131†	-.072	.006	
16. Return of Assets	3.30	20.32	.449**	-.008	.378***	-.054	-.018	.061	.196**	.004	-.077	.041	.160*	.083	-.055	.151*	-.071

† $p < .10$
* $p < .05$
** $p < .01$
*** $p < .001$

Table 2. Results of Regression Analysis for Performance*

		Model	
Variables		Std. β	Std. Error
Traditional Control	1. Revenues (log)	.539***	1.657
	2. Debt/Equity ratio	-.152*	.350
	3. Return on Assets (past/log)	.190**	2.904
Diversity Control	4. Cultural diversity of the BoD	-.105	4.166
	5. Gender diversity of the BoD	.091	13.085
	6. Age diversity of the BoD	.020	.419
	7. Tenure diversity of the BoD	.139*	.392
	8. Cultural diversity of the TMT	.055	4.477
	9. Gender diversity of the TMT	-.136†	10.996
	10. Age diversity of the TMT	.094	.480
	11. Tenure diversity of the TMT	-.121	.377
Diversity interaction	12. Cultural diversity interaction	.152*	9.244
	13. Gender diversity interaction	-.081	15.578
	14. Age diversity interaction	.017	5.974
	15. Tenure diversity interaction	-.026	5.556
	Constant	-101.252***	21.328
	F-value	6.830***	
	Adj. R^2	.311	

† $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$

* The regression model was controlled for industry, although it did not affect the result. It was thus excluded from the presentation of the analysis.

Our findings only partly support the idea of informal interaction between BoD and TMT indicating that while similarity of demographic composition represented by gender, age and tenure diversities has no effect on performance, it is the similarity on the cultural diversity dimension of the BoD and TMT that has a positive effect on performance. On the one hand, the emergence of only one significant interaction based on culture is surprising since, according to the similarity–attraction paradigm, it is the similarity of values, beliefs and meaning embedded in different demographic characteristics between the groups that stimulates positive interaction outcomes. On the other hand, demographic diversity research claims that different demographic characteristics could produce different outcomes in their interaction with each other within groups and between groups (Mannix and Neale, 2005). Moreover, one cannot disregard the environment, which could have a moderating role on the interaction between the BoD and TMT (Finkelstein and Hambrick, 1996). As a result, this allows us to speculate on the emergence of the significant relationship between cultural diversity interaction and performance. One explanation of the importance of cultural diversity interaction could be that at the top of Swedish organisations it is a relatively new phenomenon. While gender, age and tenure diversities are considered to be given in the upper echelons of Swedish corporations and are not paid much attention, cultural diversity is an emergent phenomenon, and it can only be utilised by the BoD or TMT for the advantage of the firm by the mirroring act of cultural diversity in both groups. It could be that translating female opinions into strategy (at the BoD) or action (in the TMT) does not require a female counterpart on the other 'group', due to increasing understanding of the female way of thinking through communication with other female executives, or possibly due to the high femininity values of Swedish nationals (Hofstede, 1984; Lewis, 2008) as well as their egalitarian orientation (Schwartz, 2006). It is also possible that tenure and age are not considered to be signs of complicity that need translation from the demographically similar on the other group. However, it appears from our study that culture is something that needs explanation and understanding from within each group and alignment between the groups in order to gain in performance.

Our paper offers both theoretical and empirical contributions. The theoretical contribution of this paper is this expressed in combining the social perspective to the governance relationship between the BoD and TMT as well as its impact on firm performance. Through the combination of self-categorisation theory – the similarity–attraction paradigm in particular – we have established that the increasing similarity in cultural make-up of BoD and TMT has a positive

effect on firm performance. In showing that, we have also established that in contexts where the BoD and TMT do not have formal interaction with each other, their interaction can be based on their demographic similarities and embedded in their rapport over control, strategy and performance of the firm. The empirical contribution of this paper is expressed in terms of uncovering the existence of the relationship between the BoD and TMT in the Swedish environment, based on role of cultural diversity similarities between the BoD and TMT.

6 Future research

Future studies could investigate the interaction effect between TMT and BoD diversities further, by exploring other demographic characteristics and their interaction. One possible topic of inquiry could be the alignment of personality or leadership style diversities, which have gained considerable attention in recent studies of TMT (e.g. Kauer et al. 2009) Moreover one could look into the diversity interaction effects on the other samples from countries where duality of the CEO role as well as management team representation on the BoD is allowed. One could expect that the influences of the BoD and TMT interaction expressed in terms of demographic diversity alignment could show more significant results in these samples, due to the formal nature of interaction taking place. Moreover, it could be interesting to investigate how the different processes within both the BoD and TMT could interact with each other and simultaneously mediate between demographic diversity of the two groups and performance. Yet another potentially interesting topic would be to assess the weight of different demographic dimension of BOD and TMT in its influence on organisational performance. Potentially the demographic categories that are more detectible than others might potentially trigger stronger feeling of us versus them and in doing so might have stronger performance effects. Finally, further inquiries could be directed towards the interaction of diversity of other work groups present in organisations that are striving towards the same goals or sharing similar responsibilities.

References

1. Anderson, D. W., Melanson, S. J. and Maly, J. (2007). The evolution of corporate governance: Power redistribution brings board to life. *Corporate Governance: An International Review*, *15*, 780–797.
2. Barroso Castro, C., de la Concha, V. Dominguez, Vecino Gravel, J. and Villegas Periñan, M. (2009). Does the team leverage the board's decisions? *Corporate Governance: An International Review*, *17(*6), 744–761.
3. Baysinger, B. and Butler, H. (1985). Corporate governance and boards of directors: Performance effects of changes in boards' composition. *Journal of Law, Economics and Organization*, *1*, 101–124.
4. Bell, S.T., Villado, A.J., Lukasik, M.A., Belau, L. and Briggs, A.L. (2011). Getting specific about demographic diversity variable and team performance relationships: A meta-analysis. *Journal of Management*, 37(3): 709-743
5. Brown, R., and Hewstone, M. (2005). An integrative theory of intergroup contact, in Zanna, M. P. (Ed.), *Advances in experimental social psychology* 37, 255–343. San Diego, CA: Elsevier Academic Press.
6. Brown, W.A., Hillman, A.J., and Okun, M. A.(2011). Factors that influence monitoring and resource provision among nonprofit board members. *Nonprofit and Voluntary Sector Quarterly*, 1-12.
7. Brunninge, O., Nordqvist, M. and Wiklund, J. (2007). Corporate governance and strategic change in SMEs: The effects of ownership, board composition and top management teams. *Small Business Economics*, *92*, 295–308.
8. Byrne, D. 1971. The attraction paradigm. Academic Press: New York.
9. Carpenter, M. and Sanders, W.G. (2002). Top management team compensation: The missing link between CEO pay and firm performance? *Strategic Management Journal*, *23*, 367–375.
10. Carson, C. M., Mosley, D.C. and Boyar, S.L. (2004). Performance gains through diverse top management teams. *Team Performance Management*, *10*: 121–126.
11. Child, J. (1972). Organizational structure, environment and performance: The role of strategic choice. *Sociology* 6, 1–22.
12. Collin, S-O. (2008). The Mastering of the Corporation. An Integrated View of Corporate Governance. Department of Business Studies, Kristianstad University College, Kristianstad.
13. Daily C. and Schwenk, C. (1996). Chief executive officers, top management teams, and boards of directors: Congruent or countervailing forces? *Journal of Management*, *22*(2), 185–208.
14. Dalziel, T., Gentry, R. J., and Bowerman, M. (2011). An integrated agency–resource dependence view of the influence of directors' human and relational capital on firms' R&D spending. *Journal of Management Studies*, *48*(6), 1217–1242.
15. De Andres, A.P. and Lopez, F. (2005). Corporate boards in OECD countries: Size, composition, functioning and effectiveness. *Corporate Governance: An International Review*, *13*, 197–210.
16. Dow, S and McGuire J, (2008). Corporate governance and interlisted stocks: The persistence of country-specific traits, in Choi, J. J and Dow, S. (Eds.), *Institutional approach to global governance: Business systems and beyond*, *9*, 207–238
17. Dulewicz, V. and Herbert, P. (2004). Does the composition and practice of boards of directors bear any relationship to the performance of their companies? *Corporate Governance: An International Review*, *12*, 263–280.
18. Eisenhardt, K. M. (1989). Making fast strategic decisions in high-velocity environments. *Academy of Management Journal*, *32*, 543–577.
19. Elron, E. (1997). Top management teams within multinational corporations: Effects of cultural heterogeneity. *Leadership Quarterly*, *8*(4), 393–412.
20. Fama, E. and French, K. (1992). The cross-section of expected stock returns. *Journal of Finance*, *47*, 427–467.

21. Fama, E. F. and Jensen, M. C. (1983). Separation of ownership and control. *Journal of Law and Economics*, *26*, 301–325.
22. Finkelstein, S., and Hambrick, D. C. (1990). Top management team tenure and organizational outcomes. *Administrative Science Quarterly*, *35*, 484–503.
23. Finkelstein, S. and Hambrick, D. C. (1996). *Strategic Leadership: Top Executives and*
24. *Their Effects on Organizations*. St. Paul, MN: West Publishing Company.
25. Finkelstein, S., Hambrick, D.C., and Cannella. A.A (2009). *Strategic leadership: Theory and research on executives, top management teams and board*. Oxford University Press.
26. Forbes, D. P. and Milliken, F. J. (1999). Cognition and corporate governance: Understanding boards of directors as strategic decision-making groups. *Academy of Management Review*, 24, 489–505.
27. Galaskiewicz, J., and Shatin, D. (1981). Leadership and networking among neighbourhood human service organisations. *Administrative Science Quarterly*, 26(3), 343–448.
28. Haleblian, J., and Finkelstein, S. (1993). Top management team size, CEO dominance, and firm performance: The moderating roles of environmental turbulence and discretion. *Academy of Management Journal*, 36, 844–863.
29. Hambrick, D. C. 1987. The top management team: Key to strategic success. *California Management Review, 30*, 88–108.
30. Hambrick, D. C. and D'Aveni, R. (1992). Top team deterioration as part of the downward spiral of large corporate bankruptcies. *Management Science*, 38, 1445–1466.
31. Hambrick, D. C. and Mason, P. A. 1984. Upper echelons: The organization as a reflection of its top managers. *Academy of Management Review*, 9(2), 193–206.
32. Hendry, K. and Kiel, G.. (2004). The role of the board in firm strategy: integrating agency and organizational control perspectives. *Corporate Governance: An International Review*, 12, 500–520.
33. Hillman, A. J and Dalziel, T. (2003). Boards of directors and firm performance: Integrating agency and resource dependence perspectives. *Academy of Management Review*, 28(3), 383–396
34. Hofstede, G. 1984. C*ulture's Consequences: International Differences in Work-Related Values*. Beverly Hills, CA: Sage.
35. Hoskisson, R. E. 1987. Multidivisional structure and performance: The contingency of diversification strategy. *Academy of Management Journal*, 30 (4), 625–644.
36. Huse, M. (2007). Boards, Governance and Value Creation. Cambridge University Press.
37. Ingley, C. B and van der Walt, N. T. (2001). The strategic board: The changing role of directors in developing and maintaining corporate capability. *Corporate Governance: An International Review*, Vol. 9, No. *3*, 174–185.
38. Jensen, M. C. (1993). The modern industrial revolution, exit, and the failure of internal control systems. Journal of Finance, *48*, 831–80.
39. Jensen, M., Murphy, K.J. (1990). Performance pay and top-management incentives. *Journal of Political Economy 98*, 225–262.
40. Jensen, M. C. and J. L. Zimmerman. (1985) Management compensation and the managerial labor market. *Journal of Accounting and Economics*, 7(1–3), 3–9.
41. Jetten, J., Spears, R. and Manstead, A. S. R. (1998). Defining dimensions of distinctiveness: group variability makes a difference to differentiation. *Journal of Personality and Social Psychology*, 74, 1481–1492.
42. Jetten, J., Spears, R. and Manstead, A. S. R. (2001) Similarity as a source of differentiation: the role of group identification. *European Journal of Social Psychology*, 31, 621–640.
43. Johnson, J., Daily, C., and Ellstrand, A. (1996). Boards of directors: A review and research agenda. *Journal of Management*, 22, 409–438.
44. Judge, W., and Zeithaml, C. (1992). Institutional and strategic choice perspectives on board involvement in the strategic decision process. *Academy of Management Journal*, 35, 755–794.
45. Kauer, D., Waldeck, T. C. and Schäffer, U. (2009). Effects of top management team characteristics on strategic decision making: Shifting attention to team member personalities and mediating processes. *Management Decisions*,45(6), 942–968.
46. Kim, B., Burns, M. L. and Prescott, J. E. (2009). The strategic role of the board: The impact of board structure on top management team strategic action capability. *Corporate Governance: An International Review*, 17(6), 728–743
47. Kor, Y. (2006). Direct and interaction effects of top management team and board compositions on R&D investment strategy. *Strategic Management Journal*, 27, 1081–1099.
48. Kotter, J. P. (1995). Leading change: Why transformation efforts fail. *Harvard Business Review*, 73(2), 59–67.
49. Lewis, R. D. (2008). *When cultures collide.* 3rd ed.Nicholas Brealey Publishing. London, UK
50. Mannix, E., and Neale, M. A. 2005. What Differences Make a Difference? *Psychological Science in the Public Interest*, *6*, 31–55
51. McMahon, A. M. (2010). Does workplace diversity matter? A survey of empirical studies on diversity and firm performance, 2000-09. *Journal of Diversity Management*, 5(2): 37-48.
52. Milliken, F. J., and Martins, M. L. (1996). Searching for common threads: Understanding the multiple effects of diversity in organizational groups. *Academy of Management Review*, 21, 402–433.
53. Mizruchi, M., and Stearns, L. (1988). A longitudinal study of the formation of interlocking directorates. *Administrative Science Quarterly*, 33, 194–210.
54. Monks, R. A. G. and Minow, N. (2004). *Corporate Governance* (3rd edition). Oxford: Blackwell Business.
55. Murphy, Kevin, (1985). Compensation, performance and managerial remuneration. *Journal*
56. *of Accounting and Economics*, 7, 11–42.
57. Newcomb, T. M. (1956). The predication of interpersonal attraction. *American Psychologist, 11*(4), 575–586.
58. Nielsen, S. (2010). Top Management Team Diversity: A Review of Theories and
59. Methodologies. *International Journal of Management Reviews*, 12(3) :301-316

60. Pallant, J. (2007). *SPSS Survival Manual* (3rd edition). London, UK: Open Univ. Press.
61. Pearce, J. A., II and Zahra, S. A. (1992). Board composition from a strategic contingency perspective. *Journal of Management Studies*, 29, 411–438.
62. Pelled, L.H. (1996). Demographic Diversity, Conflict, and Work Group Outcomes: An Intervening Process Theory. *Organization Science*, 7(6): 615-631
63. Prevost, A. K., Rao, R. P. and Hossain, M. (2002). Determinants of board composition in New Zealand: A simultaneous equation approach. *Journal of Empirical Finance*, 9, 373–397.
64. Rindova, V. P. (1999). What corporate boards have to do with strategy: A cognitive perspective. *Journal of Management Studies*, 36, 953–975.
65. Sanders, K. and Schyns, B. (2006). Leadership and solidarity behaviour: Conception of perception of employees within teams. *Personnel Review*, 35(5), 538–556.
66. Selznick, P. (1949). *TVA and the grass roots: A study of the sociology of formal organizations*. New York: Harper & Row.
67. Schwartz, S. H. (2006). A theory of cultural value orientations: Explication and applications. *Comparative Sociology*, 5, 137-182.
68. Tajfel, H., Billig, M., Bundy, R. and Flament, C. (1971). Social categorisation and intergroup behaviour. *European Journal of Social Psychology*, 1, 149–178.
69. Tajfel, H., and Turner, J. C. (1986). The social identity theory of intergroup behaviour, in Worchel, S. and Austin, G. (Eds.), *Psychology of intergroup relations*. Chicago Nelson-Hall.
70. Thibaut, J. W. and Kelley, H. H. (1959). *The Social Psychology of Groups*. New York:Wiley.
71. Tsui, A.S. and C. A. O'Reilly III (1989). Beyond simple demographic effects: the importance of relational demography in superior-subordinate dyads. *Academy of Management Journal*, 32, 402–423.
72. Umans, T. (2009). Research angles on cultural diversity in top management teams. *Problems and Perspectives in Management*, 7(1), 208–223.
73. van Gils, A. (2005). Management and governance in Dutch SMEs. *European Management Journal*, 23(5), 583–589.
74. van Knippenberg, A. and Ellemers, N. (1990). Social identity and intergroup differentiation Process, in Stroebe, W. and Hewstone, M. (Eds.) *European Review of Social Psychology*, 1. Chichester, UK: Wiley.
75. Watson, W. E., Kumar, K. and Michaelsen, L. K. (1993). Cultural diversity's impact on interaction process and performance: Comparing homogeneous and diverse task groups. *Academy of Management Journal*, 36, 590–602.
76. Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic Management Journal*, 5, 171–180.
77. West, C. T. and Schwenk, C.R. (1996). Top management team strategic consensus, demographic homogeneity and firm performance: A report of resounding nonfindings. *Strategic Management Journal*, 17, 571–576.
78. Westphal, J. (1999). Collaboration in the boardroom: Behavioral and performance consequences of CEO-board social ties. *Academy of Management Journal*, 42, 7–25.
79. Zahra, S. A. and Pearce, J.A. (1989). Boards of directors and corporate financial performance: A review and integrative model. *Journal of Management*, 15, 291–334.