WOMEN DIRECTORS AND BOARD TASK PERFORMANCE:

MEDIATING AND MODERATING EFFECTS OF BOARD WORKING STYLE

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ABSTRACT

This paper investigates the mediating and moderating effects of board working style on the relationship between women board members and board task performance. Based on a survey of the CEOs of 249 Norwegian firms, we explore the proposition that women directors have influence on board dynamics and effectiveness. Drawing upon resource-dependence and agency theories, we hypothesize that the number of women directors will have differential impacts on the three main board tasks: service, financial control and qualitative control roles and that these effects will be influenced by intervening board working style variables such as trust, maintenance activities and length of board meetings. Our results suggest that the number of women directors has a direct negative impact on the performance of two of the board tasks, namely, financial control and service task. In addition, the interaction effect of women directors and length of board meetings seems to have a negative impact on the performance of qualitative control. At the same time, there is marginal support for a positive moderating effect of board trust on the link between women directors and qualitative control performance. Furthermore, our results clearly indicate that the effects of women board members on team effectiveness differ by the nature of the task performed. The results of this study confirm that in-depth exploration of board working styles and board role performance help to further advance the current understanding about the influence of board members in general and women directors in particular on board effectiveness.

Keywords: women directors, board dynamics, board task performance

I. INTRODUCTION

In recent years, there has been increasing pressure from both society and investors to appoint women directors on corporate boards of directors. As a result, the number of women in top management and board positions has increased significantly over the last decade (Burke and Mattis, 2005; Daily, Certo and Dalton, 1999). At the same time, management scholars argue the business case for diversity (Bilimoria, 1997, Daily and Dalton, 2003; Robinson and Dechant, 1997). However, no empirical evidence exists whether boards with female members are better in performing their board tasks than boards composed entirely with male directors. In addition, only few empirical works investigate whether and if yes how boards with female directors differ from board composed entirely of male directors (e.g. Pearce and Zahra, 1991).

The few existing studies that investigate performance effects of women directors test for a direct relationship between the number of women on boards and corporate performance (Carter, Simkins and Simpson, 2003; Erhard, Werbel and Shrader, 2003; Fields and Keys 2003; Hillman, Canella and Harris, 2002b; Shrader, Blackburn and Iles, 1997; van der Walt et al., 2004). Yet, over the last few years the research of board of directors has advanced beyond testing for direct relationships between board composition and firm performance. A number of scholars have addressed the need to open the "black box" of how top management team and board members influence firm-level outcomes (Lawrence, 1997) and explore board processes that intervene in the relationship between board composition and firm performance (Forbes and Milliken, 1997; Huse, 1998; Huse, 2005; Pettigrew, 1992). In a recent review of top management team research Carpenter, Sanders and Geletcanycz (2004) concluded that no longer is research that omits the mediating effects of team processes acceptable and publishable. The same statement is also valid for the development of board research over the past few years. A number of board researchers call for investigating the mediating and moderating effects of board processes on board role performance (Finkelstein & Mooney, 2003; Lettendre, 2004; Pye & Pettigrew, 2005).

This paper attempts to address the existing gap in board research and answer the question of how women directors influence board processes, working styles and decisions. Drawing upon agency and resource-dependence theories, this work strives to shed some light on the crucial question of whether and how women make a difference to the performance of corporate boards. In particular, we investigate the mediating and moderating effects of board working style on the relationship between women representation on board and board task performance. Based on a comprehensive survey of board processes and working styles conducted among 256 Norwegian companies in 2003, evidence was found that women directors are in a position to influence board dynamics and working style. Given the increasing pressure to raise the number of women directors as well as the changing demographics of the workplace in general, the results of this study may have important implications for both corporate boards as well as for policy-makers.

Norway is a particularly interesting case to study the effects of women directors on board dynamics and effectiveness due to the newly enforced law that requires that in the next two years 40 percent of the board members of the nation's large, publicly listed companies be women (Bernstein, 2005). Yet, the survey on which this paper is based was conducted two years before the law came into force (2003) and gives the opportunity to explore the "not enforced" effects of women directors on board task performance when women were still a minority on corporate boards.

II. THEORIES AND CONCEPTUAL FRAMEWORK

Existing research on women directors

Most previous research on women directors is of a descriptive nature and focuses primarily on counting the number of women on corporate boards and following the development of women representation on boards over the years (e.g. Brancatto and Patterson, 1999; Burke and Mattis, 2000; Conyon and Malin, 1997; Daily, Certo and Dalton, 1999). More analytically oriented studies can be found in the organizational theory literature and organizational behavior research. These studies are mostly concerned with the questions of why are there so few women on corporate boards (Burke, 1997; Singh and Vinicombe, 2004), what are the predictors (both organizational and outside forces) for women representation on boards (Burke, 2000), is there a discrimination taking place and what are possible intervention strategies at firm and national level (Arfken, Bellar and Helms, 2004; Bernardi, Bean and Weippert 2005). Other studies, primarily qualitative in nature, focus on women directors' experiences and perceptions of their role as board members (e.g. Burke and Mattis, 2000; Huse and Bilimoria, 1997; Huse and Solberg, 2006). Few quantitative studies explored in details the characteristics of women directors compared to their male counterparts (e.g. Hillman, Cannella and Haris, 2002; Ruigrok, Peck and Tacheva, 2005). The only two studies looking at womens' actual role in corporate boards investigated women' board committee membership patterns compared to male directors (Bilimoria and Pederit, 1994; Kessner, 1988). Yet, the contribution that women make in the boardroom and their influence on board decisions and processes remains under researched.

At the same time finance and accounting researchers have explored the effects of women directors on financial performance (Carter, Simkins and Simpson, 2003; Fields and Keys 2003; Shrader, Blackburn and Iles, 1997) and have found some weak evidence for a positive relationship. However, such inferences are very difficult to make, as there are a number of other organizational and environmental factors that influence firm performance. After more than ten years of process research in the context of corporate boards it can be without any doubt concluded that processes intervene (and account for a large amount of variance) in the relationship between board composition and firm outcomes and performance. Furthermore, processes influence board task performance and thereby have an indirect impact on corporate performance (Forbes and Milliken, 1999). Hence, an in-depth investigation of intervening board working style is necessary to deepen the current understanding about the relationship between women on boards and board effectiveness.

Board role theories

The progress of board research has been marked by shifts in the underlying theoretical perspectives. Early board research was based on resource-dependence perspective (Pfeffer, 1972; Pfeffer and Salancik, 1978) and emphasized the institutional role of boards in linking firms to their external environments and thus securing crucial resources. Later, agency theory (Fama, 1980; Fama and Jensen, 1983; Jensen and Meckling, 1976) became the primary theoretical lens for studying corporate boards and the emphasis shifted towards the control/monitoring role of boards. In the context of agency theory, boards are considered a crucial governance mechanism to align the interests of management and shareholders. Researchers have also introduced a third board role, namely, strategic role (Andrews, 1980; Baysinger and Hoskisson, 1990; Judge and Zeithaml, 1992; Pearce and Zahra, 1991; Zahra and Pearce, 1989). Corporate directors are regarded as a valuable source of knowledge and expertise for the process of formulating and assessing firm strategic decisions. Especially at high levels of environmental uncertainty, directors are expected to make a valuable contribution to different phases of a firm's strategic decision-making (Rindova, 1999; Zahra, 1990). Board strategic involvement was found to contribute positively to firm performance (Judge & Zeithaml, 1992; Goodstein, Gautam and Boeker, 1994).

A number of additional, more fine-grained board roles have been formulated based on existing theories (see for example Hung, 1998; Huse, 2005). It is important to note that the distinction between different board roles grounded in different theoretical perspectives (Zahra and Pearce, 1989) is crucial for understanding of how board characteristics influence firm level outcomes. It is trough the intervening effects of board effectiveness (board task performance) that board characteristics and processes influence corporate behavior and performance. In a pioneer theoretical piece of work Forbes & Milliken (1999) called for opening the “black box” of board work and by bridging board and group psychology theories developed a model explaining how board composition influence board effectiveness though the intervening effects of board processes. Such an approach is highly valuable in understanding the effects of corporate boards and is applied in the present paper.

Based on the insights from board theories, a conceptual framework was developed to serve as a basis for an exploration of the impact of women directors on board performance. This model (see Figure 1) considers contextual (organizational level) variables such as firm size and board equity ownership as important determinants of board effectiveness. Furthermore, it includes team level contextual factors such as CEO tenure, board size and percentage of outside directors. The importance of these factors for the work of corporate boards has long been established in board research (for review see Dalton, Daily, Ellstrand and Johnson, 1998). The emphasis in the input variables of the model is placed on women directors, who are the focus of this paper. Board structure and board maintenance functions are included as additional mediating/moderating board process variables. Finally, in accordance with existing literature the model defines three types of board tasks, namely, qualitative control, financial control and service tasks. These distinct board tasks are the dependent (output) variables of the model. Whereas a large number of board tasks have been identified in the literature, most authors agree on a distinction between service and control roles (Forbes and Milliken, 1998; Huse, 2005). This paper applies a distinction between financial and qualitative control tasks, previously introduced and tested empirically (Baysinger and Hoskinsson, 1990).

III. HYPOTHESES

The conceptual model presented above is developed in accordance with influential work in the field of boards and governance (Forbes and Milliken, 1999; Huse, 2005; Zahra and Pearce, 1989) and is based on three main assumptions. First, the model assumes that board task performance mediates the relationship between board demographics and firm level outcome. Second, board working style mediates the relationship between board demographics and board task performance. Third, there are different types of board tasks, and the involvement in the different tasks requires differences in board demographics and board working style. This model serves as a basis for explaining women director contribution to board task performance and ultimately to corporate behavior and performance. The present paper is based on an implicit assumption that is not directly tested that a positive relationship exists between board task performance and firm level outcomes. Instead, this paper focuses on testing the second and third assumptions of the model.

As noted above a number of typologies of board roles exist in the literature, yet the most common distinction is between service and control role. The monitoring/control role refers to the board's role as guardian of the interest of the firm shareholders. Since the ownership and control of modern corporations are often separated (Fama, 1980; Fama and Jensen, 1983), firm owners face agency problems resulting from the self-interested behavior of managers who are likely to act in their own interest instead of acting in the interest of the company equity holders. In order to prevent managerial opportunism a board of directors is established to protect shareholder interests. Early research on corporate boards found that board of directors are in-effective in monitoring firm management (Lorsch and McIver, 1969; Mace, 1981) and suggested directors independence and the separation of the Chairman and CEO positions as important board structural features to increase the board control effectiveness. Yet, research failed to establish clear cut findings as to the effect of such measures on firm performance and a closer examination of board role performance and board working practices was suggested (Daily, Dalton, Elstrand and Johnson, 1998). Accordingly, the theoretical discussion of board roles and empirical testing of their relevance has been increasing over the past years.

Control role is a broad term that encompasses numerous board tasks. One possible distinction is between financial and qualitative control tasks (Baysinger and Hoskinsson, 1990). Board financial control task refers to the board's responsibility to supervise managerial decisions regarding investments, cash flow, dividends, financial statements etc., i.e. decisions concerning firm financial and accounting situation. Qualitative control, on the other hand, refers to monitoring managerial decisions regarding firm organizational practices and polices regarding safety, health, environment etc. Previous research suggests that women directors differ from their male counterparts in terms of their background characteristics. A number of studies found that female directors are more likely to have non-business backgrounds (Hillman, Cannella and Harris, 2002; Ruigrok, Peck and Tacheva, 2005). Furthermore, women directors rarely hold executive positions and those who does are rarely in a financial or an accounting function. Rather, women executives hold positions related to the "soft" managerial issues such as human resources, corporate social responsibility, marketing, advertisement etc (Zelekowsi and Bilimoria, 2005). Accordingly, women directors may be expected to be better able to contribute to the board control function for issues of qualitative character and less so for issues of financial character. Hence, boards with female board members are more likely to be effective in performing their qualitative control function and less likely to be effective in financial monitoring.

Hypothesis 1a: The number of women directors is positively associated to the board performance of qualitative control tasks.

Hypothesis 1b: The number of women directors is negatively associated to the board performance of financial control tasks.

According to the resource-dependence perspective (Pfeffer and Salancik, 1978), firms are dependent on their environments and a firm's ability to secure critical resources is vital to firm survival. The emphasis of resource-dependence theory is not on how resources are used within the firm but rather on how such resources are accessed and acquired. From such perspective, the board of directors plays a crucial role as a link between the firm and its environment. Corporate directors are viewed as boundary spanners who through their existing contacts and networks have access to important information and resources. For example, bankers are considered valuable board members for their contacts and ability to secure loans. Similarly, lawyers and politicians have valuable inside information about changes in the legal or political environment that can be crucial for firm survival. Board interlocks (when a director serves on the board of two or more companies) are another important mechanism for transferring relevant information and insights. Furthermore, interlocks lead to diffusion of managerial practices (Boyd, 1990; Mizruchi, 1996; Pennings, 1980) and as such are considered important mechanism for linking a firm to its environment.

Female directors, however, are less likely to be part of close business networks and to hold interlocking directorships (Ruigrok, Peck and Tacheva, 2005). Previous research also suggests that minority directors are less likely to be well connected in the managerial world and need to engage in an ingratiation behavior in order to be appointed to corporate boards (Bednar and Westphal, 2005). Women directors are often appointed not for their existing contacts and membership in close business networks but rather for their acquaintance with the CEO of the firm (Burke, 1997). Hence, women directors are less likely to effectively perform their service task and boards with female members are less linked to the firm external environment, have less access to critical external resources and are therefore less efficient in their service task than homogenous board composed of only male directors.

Hypothesis 1c: The number of women directors is negatively associated to the board performance of resource dependence tasks.

Board process has a tremendous impact on board task performance and effective meetings are essential for the successful performance of board tasks (Zahra and Pearce, 1989). Effective meetings require that a thoroughly developed agenda is distributed well in advance together with information that is essential for board decisions; that meetings are held promptly and issues are discussed in sufficient depth and that minutes of the boars meetings are kept for documentation and accessible for board members' reference. Letendre (2004) further suggests that not only sufficient time to discuss issues at hand in depth but also regular review of the performance of the board is crucial for the effective work of boards and provides evidence that corporations whose boards follow certain principles and practices had a higher return on investments than those whose boards did not. Similarly, Sonnenfeld (2002) suggests that boards need to create climate of trust, foster a culture of open dissent, challenge their own roles and assumptions and regularly evaluate individual board task performance in order to be successful in fulfilling their tasks. Finkelstein and Mooney (2003) who conducted a large number of interviews with corporate directors similarly conclude that board processes are the key to board performance. Finegold, Benson, Lawler and Conger (1998) examined the link between board practices, effective governance and firm effectiveness and similarly concluded that board practices are positively related to firm performance both directly and indirectly through the mediating effect of effective governance.

Furthermore, Finkelstein and Mooney (2003) argue that the "usual suspects" such as board size, director shareholdings, separation of the role of the CEO and the Chairman and the number of outside board directors do not ensure directors independence. Letendre (2004) brings up the idea of "value in diversity" and suggests that female board members will bring diverse viewpoints to the boardroom and will provoke lively boardroom discussions. Women may have different views, values and ways to express and communicate their opinions. As a result, women are more likely to question the conventional wisdom and to speak up when concerned or in doubt about an issue or a particular managerial decision (Bilimoria and Huse, 1997; Huse and Solberg, 2006). Hence, boards with female board members may experience different board processes and dynamics compared to boards composed of only male members. In support of this argument, Pearce and Zahra (1991) found that boards with higher ratios of female members characterized as participative boards were more likely to engage in debates and disagreement and were associated with higher perceived and objective firm performance. Furthermore, women board members may contribute to board development and board evaluation programs. Hence, boards with women directors are likely to contribute positively to board working style and thereby improve board performance.

Hypotheses 2: Women directors contribute to the board maintenance activities and thereby to the performance of board tasks.

Group effectiveness literature suggests that whereas certain group processes mediate the effects of group composition to performance, other variables, most notably group psychological traits, moderate this relationship (Cohen and Bailey, 1997). Group psychological traits or emergent states are shared group characteristics that influence board processes and are in turn influenced by board dynamics (Marks, Mathieu and Zacharo, 2001). Shared beliefs and group norms about the performance of group tasks are crucial factors that can influence group performance in either direction. Strong group norms will contribute to the positive effects of group composition on group effectiveness, whereas the lack of shared board with group norms can be deteriorating to the performance group tasks. Similarly, trust is a critical group psychological trait that can increase or decrease board effectiveness. The CEO – board dynamics are an often researched issue in the governance literature. Research has established that the relationship between the board and the CEO, and in particular the board's trust in the CEO are essential for board task performance (Huse, 1993).   The board's trust in the CEO's ability to make sound and independent decisions is influencing the board working style and board task performance. Furthermore, the board trust in the CEO may have a moderating effect on the link between board composition and effectiveness. Previous empirical research suggests that boards characterized with a trustful relationship with the CEO (high board power and high CEO Power) are associated with higher number of female directors (Pearce and Zahra, 1991). On the other hand, a recent study found that minority directors are rarely able to exert influence on board dynamics (Westphal and Milton, 2005). However, if a certain degree of trust in the CEO exists, directors in general and women directors in particular will be more likely to influence board working styles and task performance. If the power relationship between the CEO and the board is an unhealthy one, based on distrust, political factions and manipulations, the dynamics of the board will suffer and the composition of the board will be negatively related to the performance of board tasks.

H3a Women directors' contribution to board task performance is moderated by the board's trust in the CEO.

As women and men do not always share the same worldviews and opinions, it can be expected that boards with women members will have longer discussions and arguments regarding the decisions to be made. This on the one hand will lead to longer and less efficient board meetings. On the other hand, such communication patterns may lead to a higher comprehensiveness of the board decision-making. The different, opposing views may lead to discussing more profoundly and addressing simultaneously different aspects of the issues in hand and may result in higher decision comprehensiveness. However, if the board meetings become too lengthy this may have a negative influence on board task performance. Hence:

H3b Women directors' contribution to board task performance is moderated by the length of board meetings.

IV. METHODS

Data Collection and Sample

This study is based on a survey conducted among Norwegian medium sized companies in 2003. The initial sample consisted of firms with between 50 and 5000 employees. The survey sample was drawn from the innovation-survey in the Value Creating Board database (Haalien and Huse, 2005). A total of 762 survey questionnaires were distributed to the CEOs of the sample firms, and 249 questionnaires were returned, leading to a 33% response rate. Only minor differences were found between responding and non-responding firms in terms of ownership and firm size (Haalien and Huse, 2005). The response rate of firms with foreign ownership was 25% and for firms listed on Oslo Stock Exchange was 35%.

Variables

Independent and intervening variables. *Number of women directors* is a count variable for the number of female board members, which was transformed using a natural logarithmic function ln (1+number of women directors) in order to meet statistical requirements for normal distribution. *Board trust in the CEO* is based on a multi-item measure consisting of seven different questions assessing the degree to which the board accepts various CEO judgments and decisions and mandates him/her the authority to act independently in important situations. A confirmatory factor analysis showed that all seven measures load to one factor with an eigenvalue of 3.70 and factor loadings greater than 0.5 (see Table 1). The reliability analysis indicated that the seven items are appropriate measures of the construct and build one factor (Cronbach's alpha of 0.85). The trust measure was subsequently transformed into its quadratic function. *Board maintenance activities* is similarly based on a multi-item measure consisting of four survey questions pertaining to the use of instructions and board development programs as well as regular board evaluation activities. The four items loaded clearly onto one factor with an eigenvalue of 2.45 and Cronbach's alpha of 0.80. *Board structure* was measured as the duration in hours of an ordinary board meeting in 2002. This count variable was then transformed in its natural logarithmic function.

Control variables. *Company size* was measured as the number of company employees in year 2002, transformed into its natural logarithmic function*. Board size* was measured as the number of directors serving on the company board. *Outsider ratio,* a variable expressing the ratio of the outside directors to the total number of directors, was transformed for its quadratic function in order to meet the assumption for normal distribution needed for statistical analysis. *CEO tenure* was measured in years and transformed into a natural logarithmic function. *Board ownership* was measured as the percentage of firm equity owned by board members in year 2002.

Dependent variables. *Board service task performance* was operationalised with a four-item measure using questions about the board's contribution in terms of network contacts and providing advice on legal, financial and technical issues. The four items loaded onto a factor with an eigenvalue of 3.32 and Cronbach's Alpha of 0.62. *Board financial control performance* was assessed through three survey questions addressing the extent to which the board is involved in following up and re-assessing managerial decisions concerning firm liquidity, investments and return to shareholders. The three items loaded onto one factor with an eigenvaule of 1.58 and a low yet acceptable level of Cronbach's alpha (0.65). The third aspect of board tasks, *board qualitative control task performance,* was measures by three different items regarding the board's involvement in decisions concerning human resources, product quality and health, environment and safety. The three items loaded onto the same factor with an eigenvalue of 1.11 and Cronbach's alpha of 0.75. Further details on the multi-item measures of board processes and board task performance as well as the results of the confirmatory factor analysis can be found in Table 1 in the Appendix.

Method of analysis

Multiple linear regression was used to test the first four hypotheses (H 1a -1c; H2) regarding the direct and indirect (mediated) effects of women directors on the performance of the three distinct board tasks. First, the control variables at firm and board level were entered. Second, the explanatory variable number of women directors was added and the significance of the change in R^2 was assessed. To test for mediating effects, the intervening variables were subsequently entered together and the overall R^2 as well as the individual coefficients were compared to those from the previous equations. To test for moderating effects of board processes (H3a and H3b), the product terms of the explanatory variable with each of the moderating variables were entered next to the main effects in a final set of regression equation models.

V. RESULTS

The descriptive statistics and correlations of all variables are reported in Table 2. The average number of firm employees in this sample in the year 2002 was 879. The sample companies had an average board size of 5.99 members. 67.4 per cent of the non-employee board members were outside directors. On average corporate directors owned 28.2 per cent of the company equity. The CEOs who completed the survey had been serving in their position for 7.06 years on average. 52.6 per cent of all companies had at least one female director on their boards. However, only 9.9 per cent of the firms had more than 40 per cent women directors. The average ratio of female board members was 13.2 per cent and 60.9 percent of the women directors were outside directors. In terms of board working practices and board task performance, the CEOs assessed the board's trust in their work relatively high, 4.03 on a five-point Likert scale. The average length of a board meeting for the companies in 2002 was 3.79 hours and the average maintenance activities score amounted to 3.11 on a five-point Likert scale. The CEOs' evaluation of the boards' performance of financial control tasks (3.96 average score) were higher than the evaluation of performance of resource-dependence tasks (3.12 average score) and qualitative control tasks (3.00).

In support of hypotheses H1b and H1c, the results of the multiple regressions suggest that the number of women directors is negatively related to the performance of board financial control (β=-0.32, $p<0.01$) and service tasks (β =-0.23, $p<0.05$). No evidence was found for hypothesis 1a predicting a positive relationship between the number of women directors and the board effectiveness in performing qualitative control function. From our control variables only the ratio of outside directors was significantly related to board task performance, more specifically the outside directors were positively associated with the board service tasks. These results are not surprising given the primarily resource-dependence function of outside directors (Hillman and Dalziel, 2003; Huse, 2005).

In support of the mediation hypotheses (H2) the board maintenance activities were found to be positively significantly ($p<0.01$) related to the performance of all three board tasks. Furthermore, the inclusion of the board working style variables in the regression equation led to an increase in the negative association between women directors on the board and the performance of board financial control task (β =-0.40, $p<0.001$) and service task (β =-0.31, $p<0.05$). Including the mediating process variables has lead to a significant increase in the R^2 all three regressions. The board trust in the CEO and the length of board meetings were not found to mediate the relationship between board composition and board task performance. The positive effect of the outside director ratio on the service task performance remained consistent with the previous results in the tests for mediation effects of board working style models.

To test for moderating effects of board process variables on board task performance, we included the interaction terms of these variables with the main explanatory variable (number of women directors) in a final step of the hierarchical regression. Length of board meeting was found to have a positive main effect (β = β 1.02, $p<0.01$) and a negative interaction effect (β =-1.27, $p<0.05$) on the board performance of the qualitative control function. These results suggest that whereas the length of board meetings in general contribute to the performance of tasks related to the assessment of firm human resources, product and safety decisions, in the presence of women directors the length of board meetings may have negative impact on the performance of these same tasks. Furthermore, whereas no significant main effects were found for board trust in the CEO on the effectiveness in performing a qualitative control function, a slight indication for a statistically significant positive interaction effect of CEO trust and women directors (0.04, $p<0.10$) on qualitative control tasks was found. The number of women directors was further found to be positively related to the boars trust in the CEO at the 1 percent significance level. These results are consistent with previous findings (Pearce and Zahra, 1991). The remaining models testing for interaction effects of board working style on the relationship between women on boards and the performance of board quantitative control and service tasks found no empirical support. Based on the analysis it can be concluded that whereas women board members have direct and indirect (mediated through maintenance activities) effects on the performance of board financial control and service tasks, their impact on board qualitative control task is only discernable through the moderating effects with board structure (length of board meetings) and board trust in the CEO.

VI. DISCUSSION

In time of vivid debates about the role of women on corporate boards, this paper aimed at contributing to both theory and practice by delving onto the dynamics of corporate boards and shedding some light on how women influence board working style and effectiveness in performing different board tasks. Our results suggest that the question whether women make a valuable contribution to their boards has no yes or no answer. It is rather a question of *how* women can make such a contribution (Huse and Solberg, 2006). Furthermore, whereas women can have some positive impact on tasks of more qualitative nature, such as the board qualitative control they are less so equipped with abilities to contribute to the board financial control task and service task. Hence, our findings do not support the proposition that women are always a valuable asset to corporate boards. Rather, our findings suggest that board need to be aware of both the positive and negative effects of women directors and accordingly steer the board working style and select women who have the necessary backgrounds.

The findings of this study reinforce the importance of combining different disciplines in understanding and explaining organizational phenomena. By blending board theories with insights from the social psychology literature, we were able to conduct an in-depth exploration of the influence of women on board dynamics and working styles as well as to interpret these results in light of existing board research. The findings support the notion that exploring board dynamics is difficult yet worthwhile endeavor. Furthermore, we found empirical support for the distinction between the three board tasks and that board composition and processes have different effects on each of these board tasks.

An important aspect of women contributions to boards that needs to be addressed in future research is the critical mass of women. Is there a certain ratio that needs to be reached in order for women to make a meaningful difference in board dynamics and task performance? Whereas the recently introduced law in Norway is based on such assumption, researchers may directly investigate the presence of a threshold or a certain ration of women that may have positive influence on board effectiveness. In addition, future research about the effects of women on board effectiveness needs to further explore the backgrounds of women directors and directly assess the characteristics of women directors that are valuable for the performance of each of the board roles. Women directors apart from being female board members bring a number of different characteristics with them. It is somewhat superficial to argue that all women will have the same impact on board working style and task performance. Instead, future research should look at what type of women are valuable board members.

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VIII. APPENDIX

Figure 1. A conceptual model of women directors' influence on board processes and board task performance

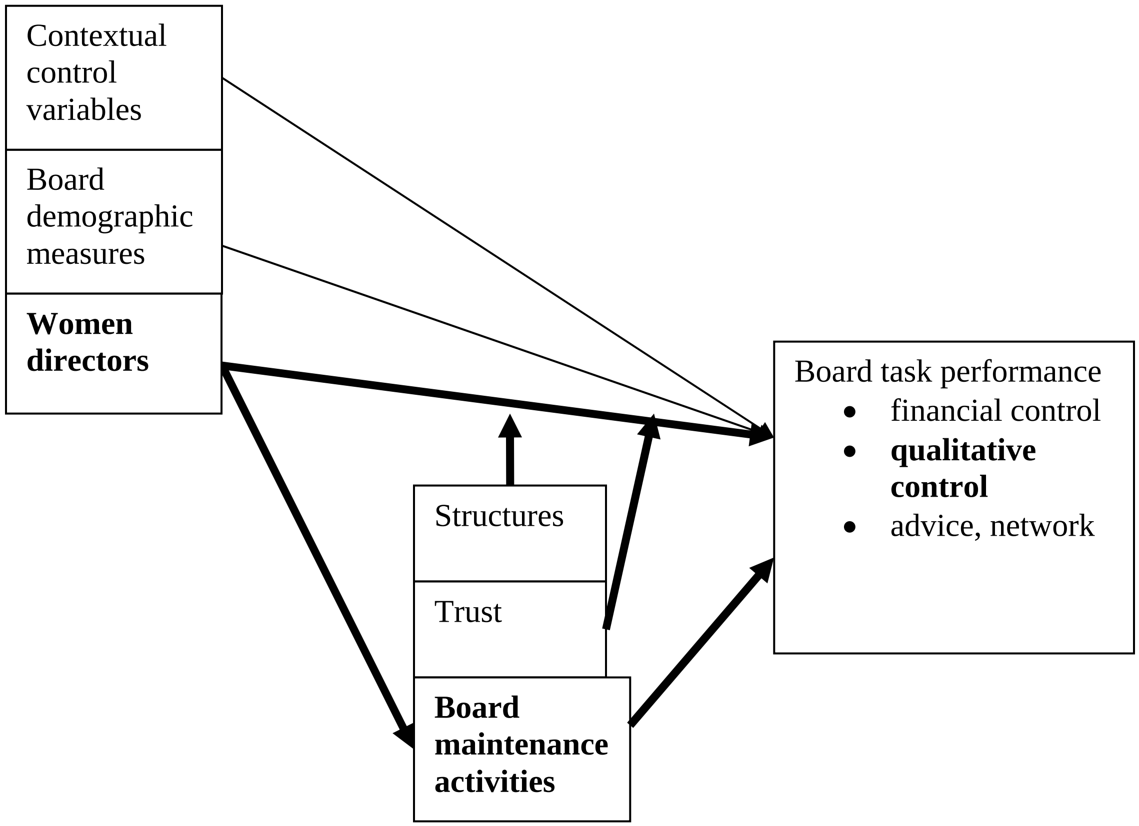

TABLE 1
Factors of Board Working Style and Board Task Performance[a]

Factors	Factor loads	Alpha	Eigenvalue	% Variance explained	Cumulative per cent	Interpretation
Board working style						
Factor 1: Board trust		0.085	3.699	28.480	28.480	The board of directors trusts the CEO knowledge base and ability to make independent strategy decisions, and thus mandates him to act as a spokesman of the firm in important situations.
Accept CEO's strategy formulation	0.727					
Trust CEO's knowledge and insights	0.748					
Believe CEO's ability to consult the board	0.524					
Mandate CEO as a board spokesman	0.657					
Accept CEO's strategic decisions	0.805					
Give CEO mandate to act for the firm	0.660					
CEO makes strategic decisions alone	0.496					
Factor 2: Board maintenance		0.080	2.448	18.234	46.715	The board has established working, development and evaluation procedures.
Existence of a board instruction	0.676					
Regular board evaluation	0.806					
Regular board development process	0.680					
Thorough introduction of new directors	0.632					
Bard task performance						
Factor 3: Board service task		0.062	3.315	17.915	17.915	The board provides advice and network contacts with important stakeholders.
Board advise on legal issues	0.406					
Board advise on financial issues	0.537					
Board advise on technical issues	0.657					
Board provides network contacts	0.362					
Factor 4: Board financial control task		0.065	1.590	14.444	32.359	The board is involved in following up and reassessing firm liquidity, investment and return to shareholders decisions.
Board is assessing firm liquidity	0.732					
Board is assessing firm investments	0.789					
	0.289					
Board is assessing return to shareholders						
Factor 5: Board qualitative control task		0.075	1.107	12.408	44.767	The board is reassessing firm decisions regarding product quality, human resources and health, environment and safety.
Board is assessing product quality	0.739					
Board is assessing human resources	0.753					
	0.617					
Board is assessing health & environment						

a Extraction method: Principal component factor analysis with normalized varimax rotation.

TABLE 2

Descriptive Statistics: Means, Standard Deviations and Correlations [a]

Variable	Mean	S.D.	1	2	3	4	5	6	7	8	9	10	11	12
1. Company size	5.303	1.106	1.00											
2. CEO tenure	1.787	0.787	-0.084	1.00										
3. Board size	5.987	1.871	0.393**	-0.029	1.00									
4. Outsider ratio	0.499	0.272	-0.034	-0.097	-0.064	1.00								
5. Board ownership	28.230	34.087	-0.052	-0.138*	-0.386**	0.043	1.00							
6. Number of women directors	0.472	0.504	0.031	0.113	0.409**	-0.045	-0.329**	1.00						
7. Length of board meetings	1.735	0.223	0.266**	-0.003	0.169**	0.064	-0.116	-0.040	1.00					
8. Trust	16.479	4.639	-0.070	0.135*	-0.013	0.054	-0.127	0.148*	0.032	1.00				
9. Maintenance	3.100	0.902	0.107	0.167*	0.173**	-0.115	-0.140*	0.199*	0.175*	0.161*	1.00			
10. Qualitative control	2.999	0.870	-0.021	0.089	-0.010	-0.092	0.010	0.093	0.115	0.150*	0.406*	1.00		
11. Financial control	3.951	0.786	0.108	-0.043	-0.038	-0.122	0.118	-0.213**	0.140*	0.071	0.301*	0.276**	1.00	
12. Resource-dependence task	3.144	0.750	0.001	0.025	-0.203**	0.152*	0.175**	-0.230	0.064	0.081	0.228**	0.369**	0.432**	1.00

[a] *p<0.05, two-tailed test; **p<0.01, two tailed test

[b] the following variables were transformed to meet normality requirements: outsider ratio and trust were squared, number of women directors and length of board meetings were transformed using the ln of (1+X) and CEO tenure and company size was transformed into ln.

TABLE 3
Multiple Regressions for Effects of Women Directors and Board Working Style on Board Task Performance[a]

Independent Variables	Dependent Variables								
	Qualitative Control Task			Financial Control Task			Service Task		
1. Company size	-0.002	-0.041	-0.048	0.073	0.043	0.036	0.047	0.028	0.024
	(0.057)	(0.053)	(0.053)	(0.033)	(0.048)	(0.048)	(0.047)	(0.046)	(0.046)
2. CEO tenure	0.081	0.006	-0.009	-0.014	-0.073	-0.068	0.067	0.017	0.017
	(0.074)	(0.069)	(0.068)	(0.065)	(0.062)	(0.062)	(0.061)	(0.059)	(0.060)
3. Board size	-0.019	-0.031	-0.032	0.010	0.001	0.006	-0.049	-0.056^{+}	-0.055^{+}
	(0.039)	(0.036)	(0.035)	(0.034)	(0.032)	(0.032)	(0.032)	(0.031)	(0.031)
4. Outsider ratio	-0.270	-0.204	-0.229	-0.377	-0.328^{+}	-0.325^{+}	0.393*	0.450**	0.444**
	(0.210)	(0.195)	(0.192)	(0.184)	(0.174)	(0.175)	(0.174)	(0.168)	(0.168)
5. Board ownership	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.001)	(0.001)
6. Number of women directors	0.194	0.101	1.174	-0.324**	-0.400***	-1.128	-0.232*	-0.305**	-0.363
	(0.128)	(0.120)	(0.942)	(0.112)	(0.107)	(0.843)	(0.106)	(0.103)	(0.809)
7. Length of board meetings		0.333	1.022**		0.250	0.156		0.049	0.098
		(0.249)	(0.381)		(0.223)	(0.348)		(0.215)	(0.334)
8. Trust		0.016	-0.005		0.015	0.008		0.011	0.015
		(0.012)	(0.016)		(0.010)	(0.014)		(0.010)	(0.014)
9. Maintenance		0.372***	0.358***		0.289***	0.252**		0.255***	0.194**
		(0.062)	(0.079)		(0.055)	(0.072)		(0.053)	(0.069)
10. Women directors * trust			0.040^{+}			0.014			-0.007
			(0.022)			(0.020)			(0.019)
11. Women directors * length of meetings			-1.277 *			0.114			-0.172
			(0.504)			(0.460)			(0.442)
12. Women directors * maintenance			0.108			0.087			0.148
			(0.119)			(0.109)			(0.105)
R^2	0.026	0.193	0.161	0.079	0.206	0.211	0.099	0.195	0.202
F	1.008	6.024***	5.430***	3.272**	6.500***	4.980***	4.181**	6.074***	4.707***

a standard errors are in parentheses.
b +p < 0.10, *p < 0.05, **p < 0.01, ***p < 0.001
c n=239