How job-related diversity affects boards’ strategic tasks performance: the role of chairperson

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How Job-related Diversity Affects Boards’ Strategic Tasks Performance: The Role of Chairperson

Abstract

Purpose – Board diversity has been a hotly debated topic in the field of corporate governance. The paper examines the role of board chairperson and its moderating effect on the relationship between job-related diversity and boards’ strategic tasks performance. The purpose is to add on our body of knowledge about the impact of job-related diversity on boards’ strategic tasks performance.

Design/methodology/approach – The paper applies the Structure Equation Modeling (SEM) technique to examine survey responses from CEOs. Both the measurement model and structural model have obtained good results, supporting the appropriateness of using the SEM approach.

Findings – The findings suggest that there is a positive association between job-related diversity and boards’ strategic tasks performance, which is moderated by a chairperson’s leadership efficacy and the option of a former-CEO as board chair.

Practical implications – To achieve the intended effect of job-related diversity in boards, policy makers need to be mindful about the importance of the board chairperson. Board chairperson’s characteristics such as leadership efficacy and a former-CEO experience would amplify the positive effect of diversity.

Originality/value – This research paper contributes to the literature on board diversity, board leadership, and strategic management of firms. Findings validated researchers’ concern about the negligence of examining moderating factors in board diversity research. Moreover, results echo the concern that board leadership research should shift the attention from structural aspects to the behavioral issues. Finally, this study is the first to show the positive influence of a board chairperson in disseminating benefits of a diverse board.

Keywords: Corporate governance, Board diversity, Strategic tasks performance, Board chairperson, Behavioral theory of the firm.

Paper type: Research paper
**Introduction**

To enable the board to effectively deal with increased business complexities and to fulfil stakeholders’ expectations, corporate leaders have been restructuring their boardrooms for a greater job-related diversity – variety in knowledge, skills, and experience (Forbes and Milliken, 1999; Milliken and Martins, 1996). Despite its practical importance and scholars’ call for more research (Harjoto *et al*., 2018; Hillman, 2015; Ingley and Van Der Walt, 2003), our understanding of how job-related diversity enables the board to perform strategic tasks has remained limited.

The rational of establishing job-related diversity in boards could be traced to the behavioral theory of the firm (Cyert and March, 1963). Behavioral theory posits that board decision-making is under the threat of decision makers’ cognitive limitations, hindering the quality as well as creativity of board decisions (Van Ees *et al*., 2009). Pertinent perspectives related to board strategic tasks are likely to be overlooked in board discussions, leading to unchallenged views and unsatisfactory results (Brodbeck *et al*., 2007). Job-related diversity is regarded as the remedy to overcome the above problems (Kakabadse *et al*., 2018; Brodbeck *et al*., 2007).

One drawback of the application of the behavioral theory is the assumption that the existence of diversity equates to the use of it, where board decision-making involves the diverse knowledge and information (Van Ees *et al*., 2009). It is, though, not always the case (e.g., Haynes and Hillman, 2010; Zhu, 2014). Relaxing this assumption, we consider an essential contingency factor – the chairperson and argue to investigate the moderating effect of board chairperson. For example, a board chairperson with strong leadership efficacy is quick at observing and making use of each director’s skills and talents, gracefully guiding discussions toward goals and objectives, and adequately summarizing conclusions after heated debates.
(Gabrielsson et al., 2007; Kanadlı et al., 2018a; Machold et al., 2011). Such board chairperson is likely to safeguard the use of board diversity. Other researchers have shown that a former chief executive officer (CEO) as board chairperson may also protect the use of diverse knowledge and information when dealing with strategic issues (Krause and Semadeni, 2013).

The contribution of the paper is two-fold. First, we apply the behavioral theory to highlight the critical role job-related diversity plays, contingent on the characteristics of the board chairperson, thus contributing to board diversity literature and enriching the behavioral research in boards (Torchia et al., 2018; Van Ees et al., 2009). Second, the paper contributes to the literature on strategic management and board leadership that has so far neglected to investigate the chairperson’s moderating effect on firm strategy (Krause et al., 2014; Withers and Fitza, 2017).

**Theoretical Framework and Hypotheses Formulation**

*Relationship between job-related diversity and boards’ strategic tasks performance*

As a key function in shaping the firm strategy, analysis of boards’ strategic tasks performance has drawn considerable research attention (Bailey and Peck, 2013, Pugliese et al., 2009; Stiles, 2001). In this study, boards’ strategic tasks are a set of tasks that involves controlling and evaluating strategic decisions, ratification of these decisions through advice and counsel, as well as initiating strategic decision proposals (Stiles, 2001; Zhang, 2010). We argue that job-related diversity – commonly measured by the variety in directors’ educational background, functional background, and industry experience (Kanadlı et al., 2018b) – would benefit board strategic decision-making for reasons below.

According to the behavior theory (Cyert and March, 1963; Van Ees et al., 2009), decision makers are limited in their ability to process information and solve problems. They are
primarily concerned with immediate problems and short-run solutions, which are characterized as “good enough” rather than “optimum” (Van Ees et al., 2009), reflecting a limited and selective information-processing biases (Brodbeck et al., 2007; Van Ees et al., 2009). Another often-mentioned limitation is groupthink, which also leads to an inferior decision-making quality (Brodbeck et al. 2007). Groupthink describes a dysfunctional pattern of interaction and thought, which occurs during group decision-making and is characterized by pressures toward uniformity, closed-mindedness, overestimation of the group, and defective information processing, and can lead to group decision fiasco (Janis, 1991). We argue that job-related diversity is likely to improve board decision-making quality when facing complex strategic issues.

Board decision-making in handling complex tasks can be divided into three phases: scanning, interpretation, and decision choice (Rindova, 1999). In the scanning phase, it is most likely that directors will notice issues and collect information in which they have expertise. For example, a director with a marketing background may effectively recognize issues related to the marketing field, affecting the type and the nature of information collected. Having directors with different backgrounds will thus enrich the varieties of information assembled at the board level. Job-related diversity will compensate for the limitation caused by subject familiarity (Brodbeck et al., 2007).

Regarding the interpretation phase, directors apply their existing knowledge to identify problems and develop solutions (Rindova, 1999). In this phase, decision makers’ experience will shape their domain of knowledge and skills in problem-solving. Having directors with different educational backgrounds as well as industry experience will generate different approaches to problems at hand, reducing the occurrence of groupthink (Van Ees et al., 2009).
In the final phase, choice, alternative perspectives are evaluated and when there is no objectively identified solution, board decision-making turns into a group negotiation (Rindova, 1999). In this stage, job-related diversity can reduce the incidence of information processing biases and groupthink in order to reach the best solution.

To sum up, boards which have a diversity of directors’ knowledge, skills, and experience could benefit from a broader range of individually collected information (scanning phase) and evaluate an increased number of perspectives (interpretation phase). Accordingly, during board discussions (choice) job-related diversity could help boards battle against decision-making biases (Kakabadse et al., 2018), and look for innovative solutions rather than preserving inertia/decision-making routines (Haynes and Hillman, 2010). All in all, boards empowered by a variety of directors’ knowledge, skills, and professional experience can be expected to be more active in participating and contributing to the strategy process (Gabaldon et al., 2018), enhance the quality of decision-making, and ultimately improve board strategic tasks performance.

**Hypothesis 1.** Job-related diversity is positively related to boards’ strategic task performance.

*The role of board chairperson*

The application of the behavior theory in job-related diversity, however, is challenged by the assumption where the existence of diversity equates to the use of diversity (Haynes and Hillman, 2010; Khanna et al., 2014; Zhu, 2014). We relax the assumption. Although diversity is necessary ingredient for a quality decision-making (Mitchell et al, 2009), it is not sufficient. For example, prior research has shown that social categorization processes and power asymmetries can thwart the potential of job-related diversity on board decisions (Zhu, 2014) as well as on strategic issues (Haynes and Hillman, 2010). The result suggests that incidents can happen that a diverse board neglects to consider unique information and alternative
perspectives, leading to a biased decision-making, closed mindedness, and pressure toward uniformity, which are symptoms of groupthink. It is recommended that certain mechanisms are in place of a diverse board that would enable directors to share unique information and communicate different perspectives openly and freely (Kakabadse et al., 2018).

Applying a behavioral perspective, Brodbeck and colleagues (2007) theoretically argue that enhancing information processing in a diverse group may require information management, which is usually performed by a group leader. Information management involves continual encouragement of decision-relevant contributions and keeping them alive throughout group discussion by increasingly asking questions about factual information and deliberately repeating unshared information (Brodbeck et al., 2007). Such a collaborative and inclusive leadership orientation can lead to high-quality decision-making by reducing or avoiding groupthink, while, conversely, an autocratic leadership might foster groupthink (Brodbeck et al., 2007). In the subsequent sections, we shall examine the board chairperson’s leadership efficacy and the feature of a former-CEO board chair configuration, two moderating factors that may influence the way directors use their diverse talent during board discussions.

Chairperson leadership efficacy

The board chairperson is officially the head of a board, and the most crucial person in facilitating or limiting directors’ use of their knowledge and skills during board discussions (Kakabadse et al., 2015). Researchers like Gabrielsson and colleagues (2007), Leblanc (2005), Gabrielsson et al. (2007), Zhang (2010), Kandali et al. (2018a) and Machold et al. (2011) have identified certain leadership behaviors and characteristics of a chairperson who might directly impact boardroom interactions and board effectiveness. After examining the identified attributes, we argue that leading discussions, motivating and connecting each board member to best utilize their competencies, formulating proposals for decisions, and summarizing
conclusions after board negotiation could signal how board chairperson safeguards benefits from its job-related diversity, which we term as “chairperson leadership efficacy”.

Machold and colleagues (2011) and Zhang (2010) show that chairperson leadership efficacy is an essential determinant of directors’ active participation and contribution to strategic decision-making. Others have also shown that chair leadership efficacy can facilitate the representation of minorities’ perspectives (Kanadli et al., 2018a), which are often constrained in board meetings due to social categorization processes (Westphal and Milton, 2000; Zhu, 2014). The fact that minority directors can, and are encouraged to, express their concerns and opinions freely, as majority directors do, is viewed as a critical mechanism that limits cognitive bias such as groupthink and protects the value of a diverse talent pool (Kakabadse et al., 2018; Kakabadse et al, 2015). Prior research also shows that a board atmosphere of openness and safety, where directors’ active participation is facilitated, is instilled by the leadership efficacy of the board chairperson (Gabrielsson et al., 2007).

Some researchers show that chairperson leadership efficacy is an essential determinant of directors’ active participation and contribution to strategic decision-making in board discussions (Machold et al., 2011; Zhang, 2010). Others have found out that chairperson leadership efficacy can facilitate the representation of minorities’ perspectives (Kanadlı et al., 2018a), which are often constrained in board meetings due to social categorization processes (Zhu, 2014). The fact that minority directors can, and are encouraged to, express their concerns and opinions freely, as majority directors do, is viewed as a critical mechanism that limits cognitive bias due to groupthink and protects the value of a diverse talent pool (Kakabadse et al., 2018; Kakabadse et al, 2015). It is not surprise then that board chairperson is instrumental
in building an ideal board culture represented by open discussion and active participation without fear (Gabrielsson et al., 2007).

To sum up, a chairperson with strong leadership efficacy generates an open and safe boardroom atmosphere and facilitates board discussions in a manner that encourages directors to share decision-relevant contributions in the three phases of board decision-making. Such a collaborative and inclusive leadership orientation might better utilize directors’ diverse talents, which could be expected to further limit information searching and processing biases and the groupthink problem (Brodbeck et al., 2007; Kakabadse et al., 2018). Therefore, we offer the following hypothesis:

**Hypothesis 2.** Chairperson leadership efficacy positively moderates the relationship between job-related diversity and boards’ strategic tasks performance.

**Former-CEO board chair configuration**

The former-CEO board chair configuration describes the situation when an outgoing CEO becomes the incoming board chairperson in the same firm. Such design has gained researchers’ attention (Krause and Semadeni, 2013). The former-CEO board chair configuration addresses the reality that a CEO can stay on as board chairperson without fully departing the firm (Quigley and Hambrick, 2012). The situation that complicates board independence (Krause et al., 2016), which is further examined in the study of CEO duality (Krause and Semadeni, 2013) and CEO succession (Quigley and Hambrick, 2012). The trend of a former-CEO board chair configuration seems to rise, by 2011, 29 percent of the departing CEOs from the world’s 2,500 largest Fortunes public companies became or remained as chairpersons in their companies (Favaro et al., 2012). The practice was most common in Japan where 69 percent of CEOs became chair, less common in North America with 35 percent, and least common in Europe, where just 15 percent became chair (Favaro et al., 2012). Recent reports also confirm former-
CEO board configuration to be still an important corporate practice. For example, “CEO Transitions Report” conducted on S&P 500 companies by Spencer Stuart (2018) indicates that 35% of outgoing CEOs continued with the company when considered in the role of the chairperson.

Compared to an independent chairperson, a former-CEO board chairperson can possess unique bundles of firm-related human and social capital. Human capital refers to the knowledge and expertise of a chairperson, and social capital refers to the means by which the chairperson obtains and manages valuable information from both outside the firm (Westphal and Milton, 2000), as well as inside the firm and board (Fischer and Pollock, 2004). Studies on strategic management emphasize that by combining the CEO and board chairperson position into one when an outgoing CEO continued with the company in the role of the chairperson, he/she generateds a higher level of human and social capital; and, hence, emphasizing that the chairperson becomes valuable to board performance (Krause and Semadeni, 2013; Krause et al., 2016; Krause, 2017; Whithers and Fitza, 2017).

Studies on board leadership share a similar view, where effective chairpersons are those who possess a high degree of knowledge of the company’s business and industry, and rich network of resources (Leblane, 2005). As such, it is beneficial to attract a board chairperson who has considerable experience in the same industry as the company because such design could activate the board's engagement in providing advice and counsel to the management (Knockaert, et al., 2015). It is thus possible that a former-CEO board chairperson could improve board work because of his/her earlier experience and knowledge of the firm as a CEO.

The importance of the collaborative relationship with the CEO due to its structural design is also recognized in a CEO transition period (Krause and Semadeni, 2013). During this period, the former-CEO chair functions as a mentor assisting the new CEO in getting ready to take the
helm of the firm. Therefore, in addition to providing rich bundles of human and social capital to board discussions, a former-CEO board chairperson may also be motivated to engage directors’ diverse talent, for example, to support the strategic initiatives a new CEO would be willing to undertake.

From a behavioral lens, a critical value of the collaborative relationship resides in its mechanisms against groupthink (Brodbeck et al., 2007), which, as discussed earlier, harms decision-making quality and board effectiveness in a diverse group setting (Kakabadse et al., 2018). Indeed, a concerted effort of board work involving other directors is desirable, and the structural design of a former-CEO board chair configuration seems to provide an environment to grow such effort. A former-CEO chairperson might initiate a collaborative relationship with the management team and other board members, tying to fully benefit from diverse talent pool, mostly with the motivation to act as an successful transitional medium.7

**Hypothesis 3a.** The former-CEO board chair configuration positively moderates the relationship between job-related diversity on boards’ strategic tasks performance.

It is noted that the aforementioned studies on board chairpersons, taken from the strategic management and board leadership literatures, are built upon an assumption of consider mainly the scenario of collaborative relationships between the CEO and board (Krause and Semadeni, 2013; Krause, et al., 2016; Krause, 2017; Whithers and Fitza, 2017). However, it is possible that the former-CEO board chair might not be as open-minded about strategic changes as an independent board chairperson. Researchers show that an outgoing CEO can stay on without relinquishing the decision-making power by becoming the board chairperson and still yields more power preserving the status quo under the old leadership than serving a new CEO (Quigley and Hambrick, 2012). In such circumstance, an outgoing CEO can be cognitively committed to prior courses of action, especially when these actions have led to firm success.
and any alteration of the prior actions would raise the fear of appearing unsure or capricious (Datta et al., 2003), fostering organizational inertia, and inhibiting continuous adaptation to the environment.

Under the above condition, a former-CEO board chairperson might have the incentive to impose his/her interest in maintaining the status quo through dominating the board and the new CEO and thus hindering the board strategic performance as a result. A former-CEO board chairperson can use his/her asymmetric power (Krause and Semadeni, 2013) in a diverse board explicitly and implicitly to silence any different voices in the board. Explicitly, the former-CEO board chairperson may set the agenda to manipulate the direction of discussions before the board meetings. During meetings, the former-CEO board chairperson may defeat any proposals for change that he/she finds disagreeable. Implicitly, the former-CEO board chair may bring about indifference from the board directors when the proposals are not in the chairperson's favor. Such an autocratic leadership orientation may trigger groupthink (Brodbeck et al., 2007), where different perspectives may be ignored or lightly evaluated (Haynes and Hillman, 2010; Triana et al., 2013). Unlike a former-CEO board chairperson who acts as a transitional medium, a former-CEO board chairperson who acts as the guardian of the status quo might hinder board participation and contribution to strategy process (Quigley and Hambrick, 2012). Therefore, we hypothesize that:

**Hypothesis 3b.** The former-CEO board chair configuration negatively moderates the relationship between job-related diversity and boards’ strategic tasks performance.

We summarize all four propositions in the following research model (Figure 1).
Methods

Data

We have obtained data from the survey database of the Value Creating Board from Norway, collected in 2005 (Sellevoll et al., 2007). The database includes responses from CEOs addressing questions covering board structure, board processes, and board task performance. The detail of the database could be obtained through Value Creating Board reports (Sellevoll et al., 2007). The database thus is relevant to an international audience as the Norwegian corporate governance system has been influenced by other major economic players such as the U.K. and U.S. (Huse, 2007; Oxelheim and Randøy, 2003). Nevertheless, we acknowledge the drawback of using this database in the discussion.

Measurement

We have used 363 CEO responses for construct measurement for this study. The survey items have applied a seven-point Likert scale, measuring the CEOs’ perceptions of their boards from “highly disagree” to “highly agree” (Sellevoll et al., 2007). We have applied Structural Equation Modeling (SEM) to examine the constructs and hypotheses. SEM is a powerful tool for social and behavioral data, and we have used the Maximum Likelihood estimation technique in the SEM approach (Jöreskog and Sörbom, 1993). There are three main constructs. Among them, the dependent variable is the boards’ strategic tasks performance, and the independent variable is job-related board diversity. The third construct is board chairperson leadership, which is the moderator. The former-CEO board chairperson is also a moderator, but with a dichotomous value. The three main constructs are briefly illustrated below with the items presented in Table 1.

The constructs are briefly illustrated below with the items of constructs presented in Table 1.
*Job-related board diversity.* The construct measures the CEO’s understanding of the knowledge-based diversity of board members. In line with earlier studies, the selection of items aim to capture the diversity across different areas (Milliken and Martins, 1996), including 1) functional knowledge, 2) industry knowledge, and 3) educational background.

*Boards’ strategic tasks performance.* The selection of the items reflects a strategic process that affects the long-term strategies and primary goals of the firm for a given period (Pugliese et al., 2009; Zhang, 2010). Specifically, there are four items measuring the CEO’s perception of the degree of the board involvement in the process of initiating, deciding, implementing, and controlling the long-term strategies and goals.

*Board chairperson leadership.* Board chairperson leadership captures the chairperson’s role in activating the directors in discussions and identifying solutions to strategic issues (Gabrielsson et al., 2007; Machold et al., 2011; Zhang, 2010). Three items are selected to measure how good the chairperson’s performance is in 1) motivating and connecting each board member to best utilize their competences, 2) articulating board decisions and summarizing board conclusions, and 3) leading board discussions.

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*Insert Table 1 here*

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We have applied the measurement reliability to test the consistency of items of a construct (Bollen and Long, 1993). A good construct reliability is achieved when Cronbach’s Alpha value is higher than 0.6 and the Composite Reliability (CR) value is greater than 0.5 (Hair et al., 2010). All three constructs have met the criteria (see Table 1). The loadings of the factors are also high, further suggesting that the reliability of the constructs is strong.
When checking the measurement validity (see Table 2), which describes the degree of the measurement quality, we have used the Average Variance Extracted (AVE). AVE higher than 0.5 suggests a strong construct validity (Hair et al., 2010). Except job-related board diversity, the other constructs have achieved good validity. The construct of job-related board diversity has an AVE at 0.47, slightly lower than 0.5. Nevertheless, we do not think this less desirable value would present a problem in our following structural equation modeling (SEM) test because other validity measures have met the requirement. For example, when measuring the discriminant validity, the Maximally Shared Variance (MSV) of job-related board diversity is lower than AVE (Hair et al., 2010). At the same time, the construct has shown a strong reliability value as well. The validity of job-related board diversity is not optimal but acceptable. There is no validity concern for the other two constructs.

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Insert Table 2 here

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We have also checked the measurement model fit (see Table 1). The measurement model fit is evaluated using indexes, among them, CMIN/DF (Minimum Discrepancy \( \hat{C} \), divided by the degree of freedom, DF) is 1.95, Comparative Fit Index (CFI) is 0.98, and Root Mean Square Error of Approximation (RMSEA) is 0.05. The recommended baseline for CMIN/DF is between 1 and 3 (Hair et al., 2010), and at or above 0.95 for CFI (Jöreskog and Sörbom, 1993). As for RMSEA, some researchers suggest that a value below the baseline of 0.05 indicates a good model fit (MacCallum et al., 1996), others indicate below 0.08 (Awang, 2012). Overall, we have obtained a good measurement model fit.

As part of the SEM technique, error correlation is allowed to augment the model fit (Jöreskog and Sörbom, 1993), and sometimes such correlation is systematically recommended.
by SEM software (Byrne, 2016). We have correlated two error terms of item three and item four of the construct of boards’ strategic tasks performance, producing the model fit identified earlier in the paper. Nevertheless, we recognize that the error correlation suggests a common method biases generated by respondents, which is a potential problem in behavioral research using the survey method (Podsakoff et al., 2003). As a result, we need to check the potential impact of common method biases. In our case, CEOs who scored high on the item of implementing long-term strategies and goals may also score high on controlling the long-term strategies and goals due to the consistency motif (Johns, 1994). We evaluated the potential impact of common method biases by comparing the model fit with and without the error correlation. Without the error correlation, the model fit is close to the threshold, where CFI is 0.95 and RMSEA is 0.08. The indexes are within the acceptable range. We thus conclude that the potential impact of common method bias in our model is limited.

Control variables and descriptive statistics

Three control variables are used (Table 3). They are the firm size, board size, and the orientation of product innovation in a firm. Study shows that board members will engage in more meaningful discussions when the board size is large, which is tantamount to a large firm (Minichilli et al., 2009). Consequently, the boards’ strategic tasks performance may change. We measure the firm size through the logarithm of employee number, which varies between 40 and 25,000 with the mean at 556. The third control variable is innovation orientation. Researchers have shown that there is a close relationship between board effective strategic task performance and organizational innovation performance (Gonzales-Bustos and Hernández-Lara, 2016; Zahra et al., 2000). It is reasonable to suggest that a clear goal on firm innovation is likely to guide boards’ strategic orientation through strategic tasks performance.
The descriptive statistics about variables, factor scores for constructs, and control variables are presented in Table 3. In Table 3, the former-CEO board chair configuration is a dichotomous variable, with 0 standing for the lack of former-CEO board chair design (66 cases), and 1 for the presence of such configuration (297 cases). Factor scores of the construct job-related board diversity, boards’ strategic task performance, and board chairperson leadership are used in the descriptive statistics. We have also presented the corresponding correlation matrix in Table 4.

Analysis and Results

The SEM analysis results are presented in Tables 5 and 6. The first hypothesis states a positive relationship between the job-related board diversity and boards’ strategic task performance. In Table 5, all three models have shown a significant and positive relationship between the job-related board diversity and boards’ strategic task performance. Table 6 also shows how we have obtained similar results across all four models regarding the above relationship. The first hypothesis receives support. This is in line with prior board research that indicated positive effects of board diversity on board strategic tasks (Gabaldon et al., 2018; Kakabadse et al., 2018; Minichilli et al., 2009; Nielsen and Huse, 2010) as well as strategic decisions (Haynes and Hillman, 2010; Miller and Triana, 2009; Torchia et al., 2018). Taken together these results
show the importance of diversity as a variety in directors’ skills, knowledge, and professional experience, for creating boards that positively contribute to the strategy process.

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Insert Table 5 here

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Insert Table 6 here

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The second hypothesis claims a positive moderating effect of board chairperson leadership on the relationship between job-related board diversity and boards’ strategic task performance.

In Table 5, the relationship between board chairperson leadership and boards’ strategic task performance is significantly positive at 0.25 in model 2. The relationship is also significantly positive at 0.27 in model 3. The moderation is represented by the product of board chairperson leadership and job-related board diversity, with the result presented in model 3, where the coefficient of this product is 0.12 with p value at 0.011. The second hypothesis of a positive moderating effect of board chairperson leadership also receives support. The positive influence of the chairperson on the utilization of diversity on board tasks is consistent with the findings of Knockaert et al. (2015), Machold et al. (2011), Zhang (2010). Additionally, this result supports prior research that states the important role of the chairperson in enhancing directors’ participation to board decision-making (Kakabadse et al., 2015; Kanadlı et al., 2018a). This result indicates that the separation of CEO and chairperson positions appears to be a viable leadership structure if diverse boards are expected to actively participate and contribute to the strategy process.
Hypotheses 3a and 3b examine the moderating effect of the former-CEO board chair configuration on the relationship between job-related diversity and boards’ strategic task performance. H3a supports a positive moderating effect, while H3b supports a negative moderating effect. We divided the total samples into two: one sample consists of 297 cases where the board chairperson never served as a CEO of the same firm; the second sample has 66 cases with board chairpersons having previously served as a firm CEO. We then run SEM analysis using the two sub-samples. It is noted that in this second sample of 66 cases, we have excluded CEO duality where the board chairperson continues serving as the CEO of the firm. We present the SEM analysis result in Table 6.

In Table 6, the coefficient between job-related board diversity and boards’ strategic task performance is 0.40 for the sample without the former-CEO board chair configuration in model 1, and 0.61 for the second sample with the configuration in model 2. Both coefficients are significant. The difference between these two coefficients is also significant with P=0.037, confirming the hypothesis 3a that a former-CEO board chairperson strengthens the effect of job-related board diversity on boards’ strategic task performance. In models 3 and 4 of Table 6, we have included the effect of board chairperson leadership on task performance. The coefficient of the former-CEO board chair configuration for the first sample is 0.27 in model 3, and 0.47 in model 4. The difference between the two coefficients is also significant with P=0.078. Hypothesis 3a receives support, and hypothesis 3b is rejected.

To the best of knowledge, our study is the first to hypothesize and demonstrate the effects of former-CEO–board chair configuration on board behavior. The positive impact of former-CEO board chair on the relationship between job-related diversity and board strategic tasks performance is in line with prior research which suggests that the former-CEO board chairs as a valuable resources for their firms (Krause et al., 2016; Krause, 2017; Whithers and Fitza, 2018).
This result indicates that a former-CEO board chair, who most likely has unique bundles of human capital and social capital, might act as a transitional medium and target leveraging the utilization of directors’ diverse talent to benefit strategy process. However, it should be noted that this finding also contradicts the results of Nakauchi and Wiersema, (2015) and Quigley and Hambrick, (2012). These studies show that a former-CEO board chairperson might be committed to preserve the status quo and, thus, have negative effects on strategic change (Nakauchi and Wiersema, 2015; Quigley and Hambrick, 2012).

Considering the orientation of the chairperson (in our case former-CEO) might provide one explanation to these counter intuitive results (Krause, 2017). If the former-CEO forms a positive working relationship with the CEO through collaboration, he/she might be committed to leverage the board’s participation and contribution to the strategy process, which is most likely initiated by the new CEO (Quigley and Hambrick, 2012). This reflects a collaboration orientation (Krause, 207). On the contrary, if the former-CEO is more willing to maintain inertia, he/she might use their leadership position in the boardroom to limit the boards’ involvement in the strategy process to that of a monitoring mechanism. In order. This reflects a control orientation where former-CEO board chair is committed to keep the status quo (Krause, 2017).

The model fit for the SEM analysis is presented at the end of Tables 5 and 6. All three fit indexes (CMIN/DF, CFI, and RMSEA) indicate a good model fit for the whole sample as well as two sub-samples. We, therefore, conclude job-related board diversity is positively associated with boards’ strategic task performance (H1), and board chairperson leadership (H2) and a former-CEO board chair configuration (H3) positively moderates the relationship described in H1.

Discussion and Conclusion
We apply behavioral theory, a process-oriented theoretical perspective, to propose the favorable effects of directors’ different skills, knowledge, and professional experience in coping with cognitive biases and, accordingly, enhancing boards’ influence on the strategy process. Additionally, we highlight the influence of the chairperson on directors’ use of their diverse talent during board discussions and, thus, propose the moderation effects of chairperson leadership efficacy and former-CEO board chair configuration on the relationship between job-related diversity and boards’ strategic tasks performance. The results confirm the positive association between job-related diversity and boards’ strategic task performance. Furthermore, strong leadership and a former-CEO board chair configuration can strengthen this relationship.

In the light of these findings, our study contributes to the literature on board diversity, board leadership and strategic management. Research on board diversity has been characterized with an ongoing focus on gender diversity and structural factors (e.g. CEO duality, board size) (Benkraiem et al., 2017; Groening, 2019; Ujunwa, 2012; Zhang, 2012) leading calls for more research on other types of board diversity with a process-oriented approach (Hillman, 2015; McIntyre et al., 2007). Answering these calls, we introduce behavioral theory as a novel perspective to investigate effects job-related diversity may have on boards’ participation to strategy process. Behavioral theory recognizes the importance of board diversity in coping with directors’ information searching and processing biases that would otherwise hinder quality, as well as creativity of board decisions (Brodbeck et al., 2007; Van Ees et al., 2009).

Prior behavioral research has demonstrated that board diversity might contribute to innovativeness of firms (Miller and Triana, 2009; Torchia et al., 2018). In line with previous studies (Miller and Triana, 2009; Torchia et al., 2018), we validate this the behavioral perspective through arguing for positive effects of board diversity on boards (Van Ees et al., 2009). Moreover, we enrich behavioral research, which has only considered the effects of
Recognizing the important role chairpersons can play in boardrooms (e.g. Kakabadse et al., 2015; Kanadlı et al., 2018; Machold et al., 2011); we have investigated the moderating role of a board chairperson. Our result related to the positive moderating effect of chairperson leadership efficacy supports the argument that a capable chairperson may play an important role in generating value-creating boards (Bailey and Peck, 2013; Gabrielsson et al., 2007; Huse et al., 2011). In particular, board chairperson’s leadership efficacy can function as an instrumental force safeguarding the utilization of board diversity during strategy process (Kanadlı et al., 2018a; Zhang, 2010). Therefore, our approach goes beyond the under-socialized view of the board, which downplays the importance of behavioral aspects of leadership and focuses mainly on leadership structure (CEO-duality) (Haynes and Hillman, 2010; Ujunwa, 2012; Zhang, 2012). Our finding approach moves closer to the view that conceptualizes board leadership as a behavioral and process-based phenomenon (Huse et al., 2011; Machold et al., 2011). It contributes to the understanding that behavioral aspects of board chairperson is beyond the leadership structure (Haynes and Hillman, 2010; Ujunwa, 2012; Zhang, 2012) and the gender issue (Torchia et al., 2018), supporting the view that a good policy on selecting a capable board chairperson is the key to building value-creating boards (Bailey and Peck, 2013; Kakabadse and Kakabadse, 2007). In particular, board chairperson’s leadership efficacy can function as an instrumental force safeguarding the use of board diversity. Accordingly, The positive role of a chairperson’s leadership efficacy perhaps hold the key to studies where the use of diversity is overpowered by social obstacles (e.g., Westphal and Bednar, 2005; Westphal and Khanna, 2003; Zhu, 2014), power struggles (e.g., Haynes and Hillman, 2010; Triana et al., 2013), and cognitive barriers (e.g., Khanna et al., 2014). Therefore, future studies that apply the chairperson’s leadership efficacy are likely to generate promising results.
Lastly, this paper also contributes to the strategic management literature in which whether and how upper echelons’ characteristics impact corporate practices has become a central question (Finkelstein et al., 2009; Hambrick and Mason, 1984). While boards’ role has been included in this inquiry (Hambrick, 2007) more research is required (Finkelstein et al., 2009). Withers and Fitza (2017, p.1344) note, “we are just beginning to build theory and collect empirical evidence regarding the influence of board chairs.”. Our finding of a positive moderation effect of former-CEO-board chair configuration may enrich the discussion of the role of board chairperson independence (Krause, 2017) in the strategic management literature (e.g. Krause and Semadeni, 2013; Krause, 2017; Nakauchi and Wiersema, 2015; Quigley and Hambrick, 2012). Our findings support the arguments that former-CEO board chair configuration can be a value-creating governance structure for firms (Krause et al., 2016; Krause, 2017; Whithers and Fitza, 2017). We also acknowledge the counter arguments that if board members seek the benefit of the former-CEO’s wisdom and experience, the suitable compromise is to retain the former-CEO strictly in a consulting capacity for a limited period of time (Quigley and Hambrick, 2012). In the light of these results, healthy progress in the field may require investigation of certain conditions under which former-CEO board chairs may have positive or negative effects on boards/strategic decisions. For example, research on CEO-chairperson separation argues that a chairperson possesses valuable human and social capital (Krause et al., 2016), who advises and guides the CEO and reduces the demands on the CEO. It is reasonable that a board chairperson can form a positive working relationship with the CEO through collaboration, which improves corporate practices (Krause et al., 2016; Krause, 2017; Whithers and Fitza, 2017). Our study has found support for this logic. Nevertheless, other researchers disagree. They have found that a former-CEO board chairperson negatively affects strategic change in the case of CEO succession (Quigley and Hambrick, 2012), where the former-CEO board chairperson is willing to maintain inertia, or use his/her power over the
board to keep the status quo. Our paper fails to support this view. Additionally, to better understand the harmful or helpful effect of a former-CEO board chair on board strategic behavior, person in a diverse board, we may need more studies to examine what board chairperson independence means (Krause et al. 2014; Krause, 2017), as well as identifying other structural features beyond the current research scope. For example, it would be interesting to investigate the CEO-chairperson relationships (Kakabadse et al., 2010) by considering whether the new CEO is an insider or an outsider (Krause and Semadeni, 2013), how the source of a new CEO, external vs. internal, affects the relationship between the board and CEO.

This study has implications also for practice and policy. Recent reports on boards show that corporate leaders are putting more emphasis on boards’ active participation and contribution to the strategy process rather than fulfilling other important tasks (McKinsey, 2016). Board diversity, leading to a variety of unique information and perspectives, is an important step for generating value-creating boards in the strategy process. However, we suggest corporate leaders be rigorous not only in the selection of directors but also chairpersons. A chairperson, who is capable of leading discussions, motivating and connecting each board member to best utilize their competencies, and formulating proposals for decisions after board debates, can be key to the utilization of the board’s diversity potential on strategic decisions. In addition to their ongoing efforts in increasing diversity in boardrooms, policy makers also need to pay more attention to the question of how to make board diversity work for firms. Chairperson selection and attributes, which have already been subject to regulations and best practices around the world (Kakabadse and Kakabadse, 2007), might be the answer.

Our findings should be interpreted within the possible limitations of the study. First, we acknowledge the cross-sectional nature of the data set used in this study. Our analysis cannot
prove causation but merely supports a set of hypothesized paths. Thus, longitudinal designs in future studies would help to confirm the study results. Still, the significant findings of the moderator may suggest some value in our argument (Withers and Fitza, 2017). Second, this study supports a collaborative working style between the CEO and the board chairperson, and future studies could investigate the nuances of the collaboration. For example, the gender of board chairperson may influence the degree of collaboration (Eagly, 2016). Third, this study has found support for a former-CEO board chair configuration; however, we have not investigated the cause of such configuration. For future studies, it would be rewarding to examine causes of this unique structure. Fourth, although the Norwegian governance context has many similarities to other countries (Zhang, 2010; Nielsen and Huse, 2010), it also has specific differences; most notably the regulatory framework, support for gender equality, the prevalence of active boards, and concentrated ownership (Randøy and Goel, 2003). It would be interesting to explore the country and cultural influence on the use of board diversity, an area that is still limited in research.

Conclusion

The present study builds on the research contending that variety in directors’ functional background, educational background, and industry experience (job-related diversity) is a critical resource influencing the strategic actions of firms. Through the lens of behavioral theory of the firm, the present empirical study supports this argument. Additionally, we have relaxed the assumption that board members will apply unique talents in a diversified board by highlighting the enabling factor of board chairperson, who can influence the use of diverse talents, and thus, influence boards’ ability to shape strategy. We anticipate that future research on board diversity as well as strategic management will pay increasing attention to the role of chairpersons. Despite the limitations of our study, our assessment of the importance of job-
related diversity, the instrumental role of chairperson, is a fruitful contribution to the literatures of board diversity, board leadership, and particularly strategic role board chairpersons play.
References


Figure 1: Research model

Board Leadership Efficacy

H2

H1

Job-Related Board Diversity

H3

Board Strategic Task Performance

Former-CEO Board Chairperson
Table 1: Construct measurement

<table>
<thead>
<tr>
<th>Job-related board diversity (JRBD)</th>
<th>α = 0.72, CR = 0.73</th>
<th>λ</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Our board members represent diversity with regards to functional background (e.g., sales, finance, accounting, market)</td>
<td></td>
<td>0.73</td>
</tr>
<tr>
<td>2. Our board members represent diversity with regards to industrial background (e.g., manufacturing, telecommunication, finance)</td>
<td></td>
<td>0.65</td>
</tr>
<tr>
<td>3. Our board members represent diversity with regards to educational background (i.e., educational disciplines and degrees)</td>
<td></td>
<td>0.68</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Boards’ strategic task performance (BSTP)</th>
<th>α = 0.90, CR = 0.89</th>
<th>λ</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Our board has great authority in initiating the long-term strategies and overall goal of the firm.</td>
<td></td>
<td>0.87</td>
</tr>
<tr>
<td>2. Our board has great authority in deciding the long-term strategies and overall goal of the firm.</td>
<td></td>
<td>0.93</td>
</tr>
<tr>
<td>3. Our board has great authority in implementing the long-term strategies and overall goal of the firm.</td>
<td></td>
<td>0.71</td>
</tr>
<tr>
<td>4. Our board has great authority in controlling the long-term strategies and overall goal of the firm.</td>
<td></td>
<td>0.78</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Board chairperson leadership (BCL)</th>
<th>α = 0.83, CR = 0.84</th>
<th>λ</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Our board chairperson is excellent in motivating and connecting each board member to best utilize their competences.</td>
<td></td>
<td>0.69</td>
</tr>
<tr>
<td>2. Our board chairperson is excellent in articulating board decisions and summarizing board conclusions.</td>
<td></td>
<td>0.85</td>
</tr>
<tr>
<td>3. Our board chairperson is excellent in organ leading board discussions</td>
<td></td>
<td>0.83</td>
</tr>
</tbody>
</table>

Model fit indexes
CMIN/DF=1.95, CFI = 0.98, RMSEA=0.05

Table 2: Validity test

<table>
<thead>
<tr>
<th></th>
<th>AVE</th>
<th>MSV</th>
<th>MaxR(H)</th>
<th>JRBD</th>
<th>BSTP</th>
<th>BCL</th>
</tr>
</thead>
<tbody>
<tr>
<td>JRBD</td>
<td>0.47</td>
<td>0.17</td>
<td>0.73</td>
<td>0.69</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BSTP</td>
<td>0.68</td>
<td>0.14</td>
<td>0.92</td>
<td>0.37</td>
<td>0.83</td>
<td></td>
</tr>
<tr>
<td>BCL</td>
<td>0.64</td>
<td>0.16</td>
<td>0.86</td>
<td>0.41</td>
<td>0.37</td>
<td>0.80</td>
</tr>
</tbody>
</table>
Table 3: Descriptive statistics

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. deviation</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Former-CEO board chair (0, 1)</td>
<td>363</td>
<td>0.00</td>
<td>1.00</td>
<td>0.18</td>
<td>0.38</td>
<td>0.74</td>
</tr>
<tr>
<td>Firm size in Ln (natural log) value</td>
<td>363</td>
<td>3.69</td>
<td>10.13</td>
<td>5.04</td>
<td>1.19</td>
<td>2.64</td>
</tr>
<tr>
<td>Board size</td>
<td>363</td>
<td>3.00</td>
<td>12.00</td>
<td>5.83</td>
<td>1.86</td>
<td>0.13</td>
</tr>
<tr>
<td>Product innovation orientation</td>
<td>363</td>
<td>1.00</td>
<td>7.00</td>
<td>4.63</td>
<td>1.66</td>
<td>-0.78</td>
</tr>
<tr>
<td>Job-related board diversity</td>
<td>363</td>
<td>1.05</td>
<td>5.18</td>
<td>3.59</td>
<td>0.81</td>
<td>0.07</td>
</tr>
<tr>
<td>Boards’ strategic task performance</td>
<td>363</td>
<td>0.84</td>
<td>5.55</td>
<td>4.09</td>
<td>1.16</td>
<td>-0.04</td>
</tr>
<tr>
<td>Board chair leadership</td>
<td>363</td>
<td>1.04</td>
<td>6.13</td>
<td>4.44</td>
<td>1.00</td>
<td>0.65</td>
</tr>
</tbody>
</table>

Table 4: Correlations matrix

<table>
<thead>
<tr>
<th></th>
<th>FCBC</th>
<th>Firm size</th>
<th>Board size</th>
<th>PIO</th>
<th>JRBD</th>
<th>BSTP</th>
<th>BCL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Former-CEO board chair (FCBC)</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firm size</td>
<td>-0.051</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Board size</td>
<td>-0.200**</td>
<td>.511**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Product innovation orientation (PIO)</td>
<td>-0.078</td>
<td>0.063</td>
<td>0.053</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job-related board diversity</td>
<td>-0.134*</td>
<td>.112*</td>
<td>0.061</td>
<td>.180**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boards’ strategic task performance</td>
<td>-0.145**</td>
<td>.146**</td>
<td>.134*</td>
<td>0.042</td>
<td>.442**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Board chair leadership</td>
<td>-0.104*</td>
<td>0.073</td>
<td>0.102</td>
<td>0.090</td>
<td>.497**</td>
<td>.413**</td>
<td>1</td>
</tr>
</tbody>
</table>

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).
Table 5: SEM result on boards’ strategic task performance moderated by chairperson leadership

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job-related board diversity (JRBD)</td>
<td>0.44***</td>
<td>0.32***</td>
<td>0.32***</td>
</tr>
<tr>
<td></td>
<td>P&lt;0.001</td>
<td>P&lt;0.001</td>
<td>P&lt;0.001</td>
</tr>
<tr>
<td>Board chairperson leadership (BCL)</td>
<td></td>
<td>0.25***</td>
<td>0.27***</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P&lt;0.001</td>
<td>P&lt;0.001</td>
</tr>
<tr>
<td>JRBD x BCL</td>
<td></td>
<td></td>
<td>0.12**</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>P=0.011</td>
</tr>
<tr>
<td>Firm size</td>
<td>-0.01</td>
<td>-0.01</td>
<td>-0.01</td>
</tr>
<tr>
<td></td>
<td>P=0.792</td>
<td>P=0.789</td>
<td>P=0.819</td>
</tr>
<tr>
<td>Board size</td>
<td>0.11*</td>
<td>0.10*</td>
<td>0.10*</td>
</tr>
<tr>
<td></td>
<td>P=0.022</td>
<td>P=0.047</td>
<td>P=0.040</td>
</tr>
<tr>
<td>Product innovation orientation</td>
<td>-0.04</td>
<td>-0.04</td>
<td>0.05</td>
</tr>
<tr>
<td></td>
<td>P=0.363</td>
<td>P=0.354</td>
<td>P=0.262</td>
</tr>
<tr>
<td>Correlate JRBD and product innovation intention</td>
<td>0.18***</td>
<td>0.14***</td>
<td>0.14***</td>
</tr>
<tr>
<td></td>
<td>P&lt;0.001</td>
<td>P=0.003</td>
<td>P=0.004</td>
</tr>
<tr>
<td>Correlate firm size and board size</td>
<td>0.32***</td>
<td>0.32***</td>
<td>0.32***</td>
</tr>
<tr>
<td></td>
<td>P&lt;0.001</td>
<td>P&lt;0.001</td>
<td>P&lt;0.001</td>
</tr>
<tr>
<td>Correlate JRBD and BCL</td>
<td></td>
<td>0.48***</td>
<td>0.47***</td>
</tr>
<tr>
<td></td>
<td></td>
<td>P&lt;0.001</td>
<td>P&lt;0.001</td>
</tr>
<tr>
<td>Correlate BCL and JRBD x BCL</td>
<td></td>
<td></td>
<td>-0.14***</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>P=0.004</td>
</tr>
<tr>
<td>R^2</td>
<td>0.20</td>
<td>0.25</td>
<td>0.27</td>
</tr>
<tr>
<td>CMIN/DF</td>
<td>1.10</td>
<td>1.40</td>
<td>1.87</td>
</tr>
<tr>
<td>CFI</td>
<td>0.99</td>
<td>0.98</td>
<td>0.96</td>
</tr>
<tr>
<td>RMSEA</td>
<td>0.02</td>
<td>0.03</td>
<td>0.05</td>
</tr>
<tr>
<td>Size of sample</td>
<td>363</td>
<td>363</td>
<td>363</td>
</tr>
</tbody>
</table>

*** significant at 0.001, ** significant at 0.01, * significant at 0.1
Table 6: SEM result on boards’ strategic task performance moderated by former-CEO board chairperson

<table>
<thead>
<tr>
<th></th>
<th>Model 1 former-CEO chair</th>
<th>Model 2 without former-CEO chair</th>
<th>Model 3 former-CEO chair</th>
<th>Model 4 without former-CEO chair</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job-related board diversity (JRBD)</td>
<td>0.40*** P&lt;0.001</td>
<td>0.61*** P&lt;0.001</td>
<td>0.27*** P&lt;0.001</td>
<td>0.47*** P&lt;0.001</td>
</tr>
<tr>
<td>Board chairperson leadership (BCL)</td>
<td></td>
<td>0.23*** P=0.001</td>
<td></td>
<td>0.31*** P=0.002</td>
</tr>
<tr>
<td>Firm size</td>
<td>-0.02 P=0.689</td>
<td>0.15 P=0.153</td>
<td>-0.02 P=0.683</td>
<td>0.138 P=0.150</td>
</tr>
<tr>
<td>Board size</td>
<td>0.12* P=0.034</td>
<td>-0.07 P=0.505</td>
<td>0.11* P=0.052</td>
<td>-0.11 P=0.261</td>
</tr>
<tr>
<td>Product innovation orientation</td>
<td>-0.04 P=0.405</td>
<td>-0.10 P=0.289</td>
<td>-0.05 P=0.376</td>
<td>-0.09 P=0.318</td>
</tr>
<tr>
<td>Correlate firm size and board size</td>
<td>0.32*** P&lt;0.001</td>
<td>0.35*** P&lt;0.007</td>
<td>0.32*** P&lt;0.001</td>
<td>0.35*** P&lt;0.007</td>
</tr>
<tr>
<td>Correlate JRBD and BCL</td>
<td></td>
<td>0.50*** P&lt;0.001</td>
<td></td>
<td>0.45*** P&lt;0.001</td>
</tr>
<tr>
<td>R²</td>
<td>0.18</td>
<td>0.40</td>
<td>0.21</td>
<td>0.47</td>
</tr>
<tr>
<td>Group difference for JRBD to BSTP</td>
<td></td>
<td></td>
<td>P=0.037</td>
<td></td>
</tr>
<tr>
<td>Group difference for BCL to BSTP</td>
<td></td>
<td></td>
<td>P=0.078</td>
<td></td>
</tr>
<tr>
<td>CMIN/DF</td>
<td>1.89</td>
<td>1.36</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CFI</td>
<td>0.93</td>
<td>0.98</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RMSEA</td>
<td>0.05</td>
<td>0.03</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size of sample</td>
<td>297</td>
<td>66</td>
<td>297</td>
<td>66</td>
</tr>
</tbody>
</table>

*** significant at 0.001, ** significant at 0.01, * significant at 0.1