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A MULTILEVEL MODEL OF MINORITY DIRECTOR PARTICIPATION LINKING BOARD DIVERSITY AND FIRM PERFORMANCE

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INTRODUCTION

A board's work is largely dependent on the collective contributions of individual directors (Forbes & Milliken, 1999). In this vein, significant research has explored how boards' gender and ethnic composition influence firm performance with the expectation that greater board diversity will provide complementary knowledge sets that enhance board effectiveness (Rindova, 1999) and ultimately firm performance. However, empirical evidence on a board diversity/firm performance relationship has been inconsistent (Carter, D'Souza, Simkins, & Simpson, 2010).

In this study, we built upon theory from the teams diversity literature (e.g., Jackson & Joshi, 2011; Prahalad & Bettis, 1986) to motivate and support a multi-level model that examines the antecedents and consequences of minority directors' participation. Building upon the categorization-elaboration model (Buchanan, 1974), we argue that one consequence of individual female or ethnic director participation is the enhancement of the board's elaboration of opportunities and from this greater opportunity elaboration board diversity positively affects firm performance. We theorize and test how individual- and board-level factors affect individual minority directors' participation, which in turn affects the board's elaboration of opportunities. The board's elaboration of opportunities ultimately affects firm performance.

This study offers several contributions. We extend the board's literature by showing increased minority participation improves the board's elaboration of opportunities, which in turn improves firm performance. Additionally, minority directors form a non-majority categorization on boards in which gender and ethnic differences are perceived to be much less salient than differences between minority and majority members. Finally, we offer a richer understanding of how a team's historical context affects categorization (Prahalad & Bettis, 1986) and how the transacting of group membership affects the surfacing of negative intergroup biases.

THEORY AND HYPOTHESES

Antecedents of Individual Minority Director's Participation: Individual-level Factors

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Gender and Ethnic Minority Characteristics. A frequent assumption in the boards' literature is that directors, including minority directors, actively participate in board meetings (e.g., Kor & Sundaramurthy, 2009). The participation of minority directors is an important concern for effective governance as these directors offer unique knowledge and experience as compared to traditional directors. Gender and ethnic minorities differ from traditional directors in occupational experience and education (Hillman et al., 2002). Specifically, female and ethnic minority directors are more educated and have far greater experience in non-business backgrounds. Thus, the failure of a minority director to participate is arguably more debilitating than the failure of a majority director. Thus, we expect minority characteristics (i.e., gender and ethnicity) will negatively affect a director's participation in board meetings.

Hypothesis 1. Minority characteristics negatively affect a director's participation.

Prestige. As status is often associated with expertise (Prahalad & Bettis, 1986), prestigious work experiences also differentiate the status of directors. Prestigious experiences change a director's knowledge base, and also affect individual behavior (Berger et al., 1972). Greater prestige allows a team member "more influence over decisions than those with relatively lower social status" (Oldmeadow, Collett, & Little, 2008: 200-201). Thus, we expect that prestigious experiences will be useful in determining a minority director's participation. Prestige may mitigate minority characteristics, thereby raising the minority director's status among team members. Therefore, we argue that prestige positively moderates the negative effect of gender and ethnic minority characteristics on director participation.

Hypothesis 2. Prestige moderates the negative relationship between minority characteristics and a director's participation, such that the relationship is less strongly negative when prestige is greater.

Antecedents of Individual Minority Director's Participation: Board-level Factors

Subgroup Membership. In addition to individual characteristics, research shows that team-level factors also affect an individual's participation (LePine & Van Dyne, 1998). The diversity literature suggests that the composition of group diversity is especially important. Growth in the minority subgroup promotes individual participation by removing the stigma of being a "token" as well as providing support from a "coalition" (Jackson, Thoits, & Taylor, 1995: 545). A growing minority subgroup provides support for an individual minority member to participate. Likewise, drawing on the minority subgroup for support, a minority director might introduce new issues that are systematically unrecognized or under-appreciated by traditional majority directors. We argue that non-similar other minorities increase the participation of individual minority directors:

Hypothesis 3. The increased presence of other minority directors on (U.S.) boards positively affects a minority director's participation, such that:

a. *A minority's participation is positively affected by similar-other minorities.*
b. *A minority's participation is positively affected by non-similar-other minorities.*

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Prestigious Others. Beyond a non-majority subgroup, the prestige of another minority director will likely also affect the participation of a non-prestigious minority director. When a non-prestigious minority is in the presence of a prestigious minority several positive effects will likely occur. The prestigious minority director is likely to serve as an exemplar for the non-prestigious minority director(s). Individuals are more likely to mimic behavior if their model or exemplar is similar to them and is admired (Bandura, 1977). Prestigious minority directors provide a benchmark that may exert pressure on non-prestigious minority directors, creating additional motivation for their active participation, while also providing the non-prestigious director with increased psychological safety. Based on our prior arguments, we expect:

Hypothesis 4. The prestige of other minorities positively affect a minority director's participation, such that:

a. A non-prestigious minority director's participation is positively affected by the presence of prestigious similar-other minorities.

b. A non-prestigious minority director's participation is positively affected by the presence of prestigious non-similar-other minorities.

Consequences of Minority Participation: Opportunity Elaboration and Firm Performance

Prior research suggests that boards are well positioned at the firm-environment boundary atop their respective firms to support opportunity recognition. Tuggle, Schnatterly and Johnson (2010a) show that boards are influential in identifying new opportunities for the firm to pursue. We argue that the board's discussion of potential opportunities requires individual directors to provide the initial information needed for recognition and analysis. With these key bits of information shared and the opportunity identified, other directors can then join the discussion about the opportunity. Because minority directors differ from traditional directors in their education, experiences and knowledge (Hillman et al., 2002), it is expected that greater participation on their part will enhance the recognition and elaboration of opportunities. We argue that increased participation of minorities provides exposure and access to information and skills that are not available to a traditional board.

Hypothesis 5. Participation of minority directors positively affects the board's opportunity elaboration.

Opportunity elaboration by the board may be one of the most effective approaches to identifying opportunities the firm can exploit due to the wealth of knowledge and experience contained by the board. Greater opportunity elaboration can quickly differentiate promising from poor opportunities and importantly, support mechanisms, (e.g., staffing) can also be quickly assessed. Moreover, the board's elaboration of opportunity creates encouragement for corporate entrepreneurship, which has been shown to be important for organizational survival, profitability, growth, and renewal (Zahra, 1996). With the explicit support of the board, the identified opportunities can be effectively pursued. Greater opportunity elaboration by a board creates well vetted, actionable opportunities for the firm to pursue, and a climate that supports entrepreneurial endeavors. These conditions help drive positive firm performance (Zahra, 1996).

Hypothesis 6. The board's opportunity elaboration positively affects firm performance.

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METHODS

Sample and Data Collection

This study's sample consists of U.S., publicly traded, firms from 1994 to 2006. However, the core data source, detailed board meeting transcripts, is not publicly available. To gain access to these sensitive documents, we asked approximately 2,200 firms to allow access to their historic board meeting transcripts, which detail directors' board meeting discussion. Of those requested, 431 agreed to participate. However, only 54 of these firms had board *transcripts* that allowed coding of individual-level director participation. In total, our total board-level sample comprises an unbalanced panel dataset of 634 firm-years, while the director-level sample consists of an unbalanced panel of 6,139 director-years. Firm representatives were reluctant to allow board-meeting transcripts outside the firm. To overcome this problem, we requested that each firm's auditors, who had already read the documents as part of the firm's required annual audit, code the board meeting transcripts. To complement these data, we also obtained director information from annual proxy statements and firm information from COMPUSTAT.

Dependent Measures

The first dependent variable, director participation, is at the individual-level of analysis, while the second, firm performance, is at the firm-level. *Firm performance,* which is utilized in hypothesis 6, is measured with the firm's lagged return on equity (ROE). We calculated lagged ROE as a two-year average for the first two fiscal years after each observation year. The multiyear average mitigates concerns over potential variability in single year returns. To measure *director participation,* the outcome for hypotheses 1-4, we followed the procedures of Tuggle, Schnatterly and Johnson (2010a). Our coders (CPA auditors) first measured, in minutes, the amount each director participated in board discussions during the year. The coders then summed the minutes that each director spoke and calculated a percentage of total annual meeting discussion per director on each board, thereby producing a precise, individual-level participation measure for each director. In cases in which the transcripts did not have timestamps, our coders estimated the individual director discussion by dividing each director's number of words spoken by the total number of words spoken to yield a relative level of discussion outcome.

Independent Measures

At the individual-level (hypotheses 1 & 2), we identified each director's gender, ethnicity, and prestige. Using dummy codes, the coders assigned a one to each *female director.* For ethnicity, coders assigned a one to the primary ethnicity of the director (Caucasian, Hispanic, African American, Asian, or Native American). We focused specifically on *African American directors* as they are the largest non-Caucasian ethnicity represented on U.S. publicly traded corporate boards (Executive Leadership Council, 2006).

Next, *director prestige* reflects achievements that are valuable and rare, even among corporate directors. We relied on public disclosures of biographical information in annual proxy statements to code for prestigious factors. Following prior work by D'Aveni (1990) and Hillman et al. (2000), we used a dummy variable to indicate if a director has or has had any of following four

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types of prestigious work experiences: (1) high academic prestige via a deanship of a college or presidency of a university; (2) high business prestige via a position as the CEO of a public firm; (3) high military prestige via a position as a general or admiral in the military; or (4) high political prestige via holding either a state- or national-level political office. Two coders examined each director's biographical information per year for evidence of such prestige. Coders achieved an inter-coder agreement of 97.6 percent for all director-years.

For the cross-level effects on individual's participation (hypotheses 3 & 4), we measured characteristics of minority subgroups. First, we computed the proportion of the *female director subgroup* and the *African-American director subgroup* as a proportion to the total number of directors. Next, using the approach to address prestige discussed earlier, we used dummy variables (1) to indicate when a focal minority enjoyed a *prestigious female director presence* or a *prestigious African American director presence* on their board.

For the consequences model (hypotheses 5 & 6), several additional independent variables were required. First, we conceptualized board-level opportunity elaboration as the percentage of annual board meeting time directors allocate to entrepreneurial issues. We utilized the content analysis procedures and resulting list of entrepreneurial issue "indicator" words and phrases developed by Tuggle, Schnatterly and Johnson (2010a) to quantify each director's contribution to discussions related to new products or new markets for the firm. We aggregated these contributions and assessed them in proportion to total board meeting time to arrive at the board's *opportunity elaboration*. Opportunity elaboration is the key independent variable in the model testing hypothesis 6 and the dependent variable in the model testing hypothesis 5. The key independent variables in hypothesis 5 are the aggregation of *female directors' discussion* and the aggregation of *African-American directors' discussion* in board meetings.

Controls

We modeled several control variables. At the individual-level, we control *director's independence, director's tenure,* and *director's other boards.* We also control for *director's ownership,* which we calculated as the number of shares owned divided by the total number of outstanding shares. At the board-level, we control for *board size*. For the consequences of individual director participation, we control for the *board outsider percentage* and *other boards served average* by the directors on each board. We also control for *board tenure variance,* operationalized with the standard deviation of the board's director tenure (Hambrick, Cho, & Chen, 1996), *board output function*, operationalized as the percentage of directors with functional backgrounds related to marketing and sales, and research and development and engineering (Li & Hambrick, 2005), *board inter-industry experience,* calculated as the number of directors whose recent experience was outside the firm's industry divided by the total number of directors on the board, and b*oard background heterogeneity*. Finally, we control for three factors that often affect firm performance and could affect opportunity elaboration by the board (Johnson, Hoskisson, & Hitt, 1993): *firm size*, *prior performance*, and *leverage*.

Analyses

We conducted two distinct analyses with the first exploring the antecedents of director participation. We first utilized random coefficient modeling (RCM) (Raudenbush, Bryk, Cheong, Cangdon, & du Toit, 2011) to explicitly account for the lack of independence in our measures

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(Hoffman, 1997). The second analysis examined the consequences of minority director participation. The data (and dependent variable) are at the board-level. However, the longitudinal nature remains, so we test hypotheses 5 and 6 with STATA's panelized fixed-effects regression procedure (xtreg, fe).

RESULTS

Hypotheses 1 argued that minority characteristics would negatively affect a director's participation. The coefficients of both female and African-Americans are negative and statistically significant (Est. = -0.04, $p < 0.001$, Est. = -0.07, $p < 0.001$, respectively). These results strongly support hypothesis 1. Hypothesis 2 argued that prestige would positively moderate the relationship between minority characteristics and a director's participation. The coefficients of the interactions between prestige and females and prestige and African-Americans are positive and statistically significant (Est. = 0.07, $p < 0.001$, Est. = 0.06, $p < 0.001$, respectively). These results strongly support hypothesis 2. The results provide support of both hypotheses 3A and 3B. A female director's participation increases when the female and/or African-American director subgroup increases (Est. = 0.05, $p < 0.10$, Est. = 0.11, $p < 0.01$, respectively). Likewise, we see that an African-American director's participation increases when the female and/or African-American director subgroup increases (Est. = 0.07, $p < 0.10$, Est. = 0.10, $p < 0.01$, respectively). The results provide support of both hypotheses 4A and 4B. We see that a non-prestigious female director's participation increases with the presence of either a prestigious African-American and/or female director (Est. = 0.04, $p < 0.001$, Est. = 0.03, $p < 0.01$, respectively). Likewise, we see that a non-prestigious African-American director's participation increases with the presence of either a prestigious African-American and/or female director (Est. = 0.06, $p < 0.001$, Est. = 0.04, $p < 0.05$, respectively). Hypotheses 5 argued that the participation of minority directors would positively affect the board's opportunity elaboration. The coefficient for female directors' discussion and African-American directors' discussion are positive and statistically significant (Est. = 0.14, $p < 0.01$, Est = 0.17, $p < 0.05$, respectively). Thus, hypothesis 5 is supported. Hypothesis 6 argued that a board's opportunity elaboration positively affects firm performance. The coefficient for opportunity elaboration is positive and statistically significant (Est. = 2.31, $p < 0.001$). Thus, hypothesis 6 is supported.

DISCUSSION

Our multi-level model offers a better understanding of how the composition of the board affects the internal dynamics of board meetings and also extends the team diversity literature. As minority directors join the board, they see such an overwhelming contrast between themselves and the majority members that the difference between themselves and other minorities may seem less severe. With increased diversity, new minority members realize that their presence is not merely token in nature and thus threats to minority identity are diminished. We also show that instead of affecting firm performance directly, it is the minority directors' participation that affects the board's elaboration of opportunities, which positively affects firm performance.

REFERENCES AVAILABLE FROM THE AUTHORS