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DOES THE PERCENTAGE OF WOMEN ON A FIRM'S
BOARD OF DIRECTORS MATTER?
EFFECTS ON RELATIVE BOARD POWER, COMMITTEE COMPOSITION,
AND STRATEGIC CHANGE

A Dissertation

Presented to

The Faculty of the C.T. Bauer College of Business

University of Houston

In Partial Fulfillment

Of the Requirements for the Degree

Doctor of Philosophy

By

Cory Angert

May, 2012

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ABSTRACT

This study examines how the percentage of women on a company's board of directors (PWOB) affects board governance, and in turn, how board governance impacts the extent of firm strategic change. Scant research exists that investigates the connection between PWOB and relative board power, and prior research has not tested for a direct relationship between relative board power and firm strategic change. Through the application of agency theory and upper echelons theory lenses, I attempt to fill this gap in management research. The moderating effects of nominating, compensation, executive, and audit committee composition are investigated, with the findings' offering important implications that should help both researchers and practitioners better understand how the demographic composition of a board committee can affect processes at both the board level and the firm level.

The relationship between PWOB and strategic change is tested with partial least squares (PLS) analysis using PLS-Graph on a three-year sample (2006-2008) of the 2006 top two hundred-fifty *Fortune* 500 companies. Evidence is found that supports the theory that, under certain circumstances, there exists a positive relationship between PWOB and relative board power. Support is also found for the moderating effects of the percentage of women on each of a board's major committees on the relationship between PWOB and relative board power. While these effects are significant, they are found to attenuate the PWOB / relative board power relationship. Possible justification for these

moderators' acting opposite the direction initially hypothesized is provided. Limited evidence supporting the moderating effects of committee chairperson gender on the PWOB / relative board power relationship is discovered, and no support is found for PWOB's exhibiting a connection, either directly or as mediated by relative board power, with firm strategic change.

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Chapter 1

INTRODUCTION

In the modern business landscape, a group of people embodying a corporation's "penultimate control center" (Olson and Adams 2004; Vance 1978), assemble to perform, individuals united in their responsibility to preserve and maintain their firm's integrity and solvency. The roots of the corporate board system became firmly entrenched in colonial America, wherein emergent companies established governing councils as vehicles for oversight control. Today, the corporate board of directors forms the gateway through which stockholders can influence the direction that a company takes, and board members work to ensure that the interests of stockholders and stakeholders are addressed and served. The corporate board in the United States possesses attributes both of constancy and flux, in that its membership frequently shifts, especially with staggered board terms or annual elections continually altering board size and composition. Charged with the legal and ethical responsibility of transparency, companies annually disseminate proxy statements and schedule annual meetings intended to alert stockholders to the condition of the firm and the pending strategic plans, and to nominate the directors who will serve until the next general election. Clearly, the importance of corporate boards of directors as integral control mechanisms cannot be understated. The inherent importance of the corporate board has led researchers to examine a multitude of board-related topics.

However, despite extensive investigation into the corporate board of directors as a critical component of business, much still remains undiscovered; I strive to fill this gap.

With corporate boards of directors seeking ever-increasingly diverse representation (Goodstein, Gautam, and Boeker 1994; Hillman, Shropshire, and Cannella 2007; Milliken and Martins 1996; Westphal and Milton 2000), as a reflection of the American society, it is vital that empirical research be conducted to study the effects of board gender diversity on corporate governance processes. The purpose of this study is to determine whether the percentage of women on a firm's board of directors (PWOB) increases board power, and also to ascertain whether PWOB impacts firm strategic change, either directly or through the mediating effect of board power. Additionally, since board committee composition affects numerous aspects of board dynamics, I hypothesize that the gender composition of the nominating, compensation, executive, and audit committees will affect the strength of the relationship between PWOB and relative board power (RBP). I focus on these four committees in particular because a preponderance of research deems these committees the most important (Chhaochharia and Grinstein 2007; Joy 2008; Luoma and Goodstein 1999; Peterson and Philpot 2007). This study contributes to the literature in that it will not only enlighten researchers but will also provide practitioners, since boards are organic entities, with pragmatic information that can be dynamically and effectively implemented.

There exists a delicate balance of a board of directors' power relative to that of the firm's CEO. While some boards wield virtually all of the strategic decision making power of their companies (Nadler, Behan, and Nadler 2006), other boards feel compelled to capitulate to the dictates of the CEO, finding themselves less able to influence the

course of the organization. Prior research that addresses the question of what affects a board's relative power and the likelihood of strategic change has confronted the issue from a number of perspectives and has, as a result, shed light on many of the variables that mold the CEO/board power dynamic and strategic change; however, while researchers have certainly made considerable progress toward identifying many factors that predict these key constructs, I maintain that several key antecedents still remain obscure.

In particular, a major gap in the literature exists in the discussion of gender issues. Given that businesswomen continually progress toward parity with their male counterparts at upper levels of organizations, and that several countries have passed laws aimed at increasing board gender diversity (Barnard 2007; Erma and Hyvärinen 2009; Izraeli 2000; Ruigrok, Peck, and Tacheva 2007), understanding the actual roles that women play in top levels of corporate governance is extremely important now and will prove even more essential in the future as nations, worldwide, adopt gender diversity-promoting measures. While previous research has investigated the contributions of businesswomen in various aspects of industry (Kanter 1977, 1993; Yoder 1991), little research has been conducted to specifically assess how female directors influence the CEO/board power dynamic. I hypothesize that a board's relative power positively varies with the percentage of women on the company's board as a result of women's impact on group heterogeneity that can lead to greater creativity and active engagement (Bell et al. 2011; Hillman et al. 2007), their conflict management skills (Appelbaum, Audet, and Miller 2003; Stanford, Oates, and Flores 1995), and several other characteristics unique to female directors (Bass, Avolio, and Atwater 1996; Eagly and Johnson 1990; Hillman,

Cannella, and Harris 2002; Nielsen and Huse 2010; Singh, Terjesen, and Vinnicombe 2008), all of which will be discussed later in this study.

Practitioners and researchers would likely benefit from a greater understanding of the CEO/board power dynamic because myriad consequences hinge on this balance of power. One such potential consequence is the incidence of strategic change. Some strategic management research implies that high relative board power may precipitate strategic change (Golden and Zajac 2001), based on studies that have investigated a selection of specific incidences of strategic change, including CEO succession decisions (Zajac and Westphal 1996), CEO compensation (Boyd 1994), and new director selection (Westphal and Zajac 1995). Strategic change continues to be a highly-researched topic in management research, likely because research has shown that strategic change can create competitive advantage and play a pivotal role in firm survival (Carpenter 2000). Regardless of the amount of planning and forethought put into change decisions, no one can ever fully predict the effects of firm strategic change; the results may just as likely prove momentous as disastrous. The unpredictability and risks inherent in strategic change indicate that firms that do enact change usually do so only after much considered deliberation. The combination of high risks, uncertainty, gravity of decision making, and potential implications for firm performance make strategic change a fascinating topic that captivates and demands further attention.

Recognizing the importance of strategic change, Golden and Zajac (2001) conducted research that led them to posit that a board's ability to influence strategic change may derive from the interaction between a board's inclination to initiate strategic change and the board's power relative to that of its CEO. Since CEOs tend to be change

averse, due in part to the fact that change can potentially negatively affect company performance, the main factor on which CEO compensation is based (Henderson, Miller, and Hambrick, 2006; McClelland, Liang, and Barker 2010; Simsek 2007). Whereas CEOs focus their total time and effort on the wellbeing of one company, shareholders can diversify their portfolios in order to minimize potential risk. Thus, in contrast to CEOs, shareholders may be more receptive to change efforts and board members, as their proxies, would likely mirror this sentiment. The present research differentiates itself from Golden and Zajac's (2001) study by testing the relationship between PWOB and change, with relative board power as a potential mediating variable. It remains vitally important to determine the nature of this relationship in order to ascertain whether PWOB affects the incidence of strategic change regardless, or because, of relative board power.

To assess a firm's degree of strategic change, I adopt Haynes and Hillman's (2010) operationalization of the strategic change construct as a combination of *strategic variation* – the difference between a company's past and present resource allocation configurations – and *strategic deviation* – the difference between a company's resource allocation configuration and those of the industry leaders (Haynes and Hillman 2010). This division of strategic change into two discrete mechanisms enables me to more precisely measure the type and degree of change than would other measures, thereby affording me greater accuracy and descriptiveness in the assessment.

While financial performance falls outside the scope of this paper, it is worth noting that, in addition to relative board power's effect on strategic change, research has also shown a link between board power relative to the CEO and corporate financial performance, such that firms operating with powerful boards of directors tend to

experience greater financial performance than do firms with weak boards of directors (Pearce and Zahra 1991). Few would argue that the issues of CEO succession decisions, CEO compensation, new director selection and other forms of strategic change, as well as corporate financial performance, are of great import to both theory and practice.

Determining the factors that influence the CEO/board power relationship, therefore, clearly stands as an important contribution to the strategic management literature since this dynamic proves vital for predicting not only the strategic change investigated herein but also for forecasting many other important firm-level outcomes, including the vital concern of corporate financial performance.

Agency theory provides a suitable context for research investigating corporate boards of directors, as agency theory has proven itself a most capable lens through which to examine the interplay between a firm's board of directors and the company's management (Golden and Zajac 2001). Since agency theory focuses on a board of directors' role as a proxy for the principals in the agency relationship, this theory best informs the current discussion as it sheds light on the board's role of overseeing management and maintaining the integrity of the principal/agent contract. Agency theory offers a most compelling incentive for identifying the antecedents of relative board power, since, according to agency theory, managerial opportunism – defined as self-interest with guile (Williamson 1996) – if left unchecked, may potentially harm shareholders, other stakeholders, and firm performance. Agency theory research generally posits that managerial opportunism poses a threat to maintaining shareholder fiscal well-being, and this perspective helps to explain the reasons that practitioners and researchers must strive to understand the factors that assist in keeping CEO power in

check. In studying the corporate board, therefore, it is important to learn how best to increase a board of directors' power so that the board can exercise checks and balances in relation to the CEO's power.

The dyadic relationship between a firm's CEO and its board of directors is easily observable when viewed through an agency theory lens. I aver that adopting an agency theory lens alone, however, fails to equip one with the ability to convey a complete story of the factors that influence a board's relative power and its potential to effect strategic change. A thorough investigation necessitates also viewing the phenomenon through an upper echelons theory lens. With its emphasis on the effects of directors' unique backgrounds and characteristics (Hambrick and Mason 1984), upper echelons theory affords greater latitude to look beyond the agency problem and examine individual board members' attributes – in this case, their gender. The group dynamics and heterogeneity perspectives prevalent in upper echelons literature (Carpenter, Geletkanycz, and Sanders 2004; Hambrick and Mason 1984; Hambrick 2007) additionally allow for even deeper inquiry into the board processes that help shape the board/CEO dynamic.

While this study investigates the effects of the four major (Bowen 2008; Dalton and Dalton 2010; Demb and Neubauer 1992; Joy 2008; Kesner 1988; Nadler et al. 2006) corporate board committees – nominating, compensation, executive, and audit – I pay particular attention to the nominating committee. Since the nominating committee proves instrumental in determining the future direction of both the board and of the corporation, it is important to address the moderating effects of the nominating committee composition and member characteristics in order to determine their direct effect on the board gender diversity / relative board power relationship. My committee-based

hypotheses examine both the gender composition of each committee and the gender of each committee's chairperson.

My attempt is to shed light on how the presence of women on a board of directors is associated with the relative power of a company's board and strategic change. In addition, I look at board committee composition and chairperson gender (Joy 2008; Nielsen and Huse 2010) on the relationship between PWOB and relative board power. Having delineated the reasons that necessitate the study of the relationships among the percent of women on a corporate board, board power, and strategic change, especially since a company's relative board power has been shown to play a pivotal role in CEO succession and compensation, new director selection decisions, and corporate financial performance, I believe that the topic warrants further study for its profound potential impact on managerial studies of corporate America. It is my hope that this investigation, and the results garnered, will initiate dialogue within the strategic management research stream concerning influential board power factors, the discussion of which will augment, and bring up to date, information pertinent to the study of modern trends in gender corporate governance.

Chapter 2

LITERATURE REVIEW

The board of directors has always played a central role within the U.S. business world (Allen 1995), and in recent years, governance responsibilities have increased the board's monitoring role (Perry and Shivdasani 2005), in part because of past agency relationship breaches such as those that infamously led to the collapses of several major business institutions at the beginning of the twenty-first century. Charged with the responsibility to avert such violations, boards of directors must ensure that stakeholders' interests are protected. In order to uphold this responsibility, boards of directors must adapt to changing conditions and adopt new cognitive models, many of which spawn from management research and are then implemented into practice. The malleability of boards, by nature of their ability to make changes in composition, structure, and strategy relatively fluidly, enables practitioners to incorporate advances in governance research into board operations with minimum delay. Their capacity for more immediate change makes the scholarly study of corporate boards relevant not only for its descriptive merit but also for its prescriptive value. Formerly, board members derived from a tight-knit, homogeneous group; however, the trend toward the diminishing of Caucasian-male-dominated networks (Bradshaw and Wicks 2000; Davidson and Cooper 1992; Dennis et al. 2008) has generated new interest in gender research, especially in the domain of

governance. Governance research has previously addressed the manner in which director demographics tend to influence policy, but further research should begin focusing on the effects of increasing the presence of female directors as it relates to various board level variables. The present study specifically looks at the role that women play in shaping the relationship between a company's board of directors' power and its CEO's power and in influencing a firm's corporate strategy.

Board Composition

An examination of the composition of the board itself can provide an abundance of knowledge about the complex nature of the CEO/board dynamic (Charan 2005; Dalton et al. 1998; Finkelstein, Hambrick, and Cannella 2009). As agents committed to the company and to its mission, directors represent the human capital that enriches the corporation through unique and individual knowledge, skills, experience, and talents (Carter and Lorsch 2004; Carver 1990; Conger et al. 2001; Erhardt, Werbel, and Shrader 2003; Terjesen, Sealy, and Singh 2009; Walt and Ingley 2003). All companies strive for competitive advantage, meaning that, ideally, the composition of a firm's board should reflect the resources and competencies necessary to meet the demands imposed by its environment. As a company's requirements and obligations change, so too must its board of directors in order to remain current and to perform efficiently (Charan 2005). The makeup of boards is slowly changing, with modern-day boards' increasingly encompassing a greater diversity of directors than have boards in the past. Formerly, the prevailing makeup of corporate boards was dominated by white, well-to-do males; however, in recent years, the number of insiders has fallen, with these directors' being

replaced by a more diverse and less affiliated population (Branson 2007; Vafeas 2003). A number of factors have led to this trend of increasing board diversity.

Board diversity. Businesses, in general, increasingly strive to maintain diversity within their lower ranks (Kanter 1993; Morrison et al. 1992; Snyder 1994; Thomas 2006). In the United States, as well as in other countries, the government intervenes, when necessary, to remedy instances of adverse impact (inequities). For example, the Family Medical Leave Act helped rectify gender inequality and the Civil Rights Act placed sanctions on employment discriminations. Thus far, however, US firms have been slow to apply similar diversity-promoting practices at upper levels, and the American government has yet to pass legislation specifically aimed at concretely enhancing board diversity. Calls from advocacy groups for increased diversity of demographics and backgrounds serve to exert pressure on companies to reform their recruitment methods, changes that may be bolstered by governmental regulations, as global diversity-increasing legislation (Erma and Hyvärinen 2009; Izraeli 2000; Vinnicombe, Singh, and Sturges 2000) encourages the United States to enact similar laws.

Although no such absolute requirements presently exist in the US, several laws currently in operation do affect board composition. Directors today, governed by Sarbanes-Oxley and other such legislation and a greater understanding of their accountability to the corporation, must devote more of their time and attention to their responsibilities as board members (Campbell, 2007; Lorsch and MacIver 1989). The greater scrutiny toward board characteristics and actions, brought about by recent regulation, means that directors are now less able to serve on as many boards as they once did. This consequence has, in turn, forced boards to expand their pools of potential

candidates. Whereas, formerly, boards customarily invited CEOs and already seated chairmen to join their ranks, thereby maintaining a limited and select group of candidates who were quickly overextended and overworked (Demb and Neubauer 1992; Lorsch and MacIver 1989) the more modern board has broadened its search for talent in pursuit of individuals whose business acumen, life experiences, training, or abilities can address and enhance the organization's goals (Conger et al. 2001).

While boards are becoming increasingly inclusive of underrepresented individuals, the best formula for deciding the most advantageous composition of a board remains difficult to equate, especially as it relates to determining the optimum balance of inside and outside directors (Bhagat and Black 1999; Branson 2001; Branson 2007), although current government mandates and practices indicate a trend toward reduced insider representation. Some studies have suggested that the proportion of outside directors on a company's board may be positively associated with the company's financial performance (Duchin, Matsusaka, and Ozbas 2010; Hill and Snell 1988; Jackling and Johl 2009; Johnson, Daily, and Ellstrand 1996; Leforte and Urzúa 2008; Luan and Tang 2007; Nicholson and Kiel 2007; Pearce and Zahra 1992; Pombo and Gutiérrez 2011; Schellenger, Wood, and Tashakori 1989). Outside directors seem to specifically strengthen corporate boards by providing valuable skills, attributes, and access to a wider set of network resources that can help the board evaluate more alternatives and, potentially, make better decisions (Dahya and McConnell 2005; Klein 1998; Peterson and Philpot 2007; Petra 2005). The business case for greater outsider representation on boards of directors has resulted in increases in diversity similar to those brought about by legislation.

Compelled to recruit nominees with qualifications divergent from the customary norm, boards of directors now search in areas and among individuals they may never have before considered (Carter and Lorsch 2004). Broadening the search for new directors not only satisfies the normative concerns of diversity-advocating stakeholders, but also may lead to positive outcomes for the firm. Diversity allows for the interconnection of disparate opinions, mindsets, observations, and experiences, a merging that enhances experience by addressing a situation from many different points of view (Bilimoria 2000; Bilimoria and Piderit 1994; Filley, House, and Kerr 1976; Fondas 2000; Nemeth 1986; Shaw 1976). Diversity permits the merging of knowledge, practice, and skill, providing value that can greatly enhance the decision making process (Bell et al. 2011; Carter and Lorsch 2004; Hillman et al. 2007; Lorsch and MacIver 1989; Thomson, Graham, and Lloyd 2005) and potentially decrease the tendency to engage in groupthink (Adams and Ferreira 2009; Branson 2007; Peterson et al. 1998). Some research suggests that heterogeneous boards meet more frequently, a consequence of diversity that could lead to greater board involvement (Fields and Keys 2003).

Agency theory posits that one of the primary duties of a corporate board is to keep in check managerial opportunism. In this respect, research purports that diversity can help ensure that the board's most essential role – that of monitoring – is fulfilled, because diversity discourages 'groupthink' and encourages a wider range of discussion perspectives (Adams and Ferreira 2009; Branson 2007; Campbell and Mínguez-Vera 2008; Peterson et al. 1998). Although the board may closely monitor the CEO, this relationship actually improves CEO/board interaction as the CEO expresses satisfaction

within this relationship (Bradshaw, Murray, and Wolpin 1996; Cox and Munsinger 1985).

Board gender diversity. As stated previously, casting a wider net results in the appointment of more minorities to the board, which means that women and other underrepresented groups are more likely to secure board membership. It is worth noting that, although women comprise more than fifty percent of the population and just under fifty percent of the United States of America work force, female directorships remain under fifteen percent (Branson 2010; Thomson et al. 2005). Despite the boardroom's steadily becoming less of a male-dominated realm, a female director often remains the sole woman on the board (Branson 2007; Davidson and Burke 2000; Konrad and Kramer 2006; Ward 2000). For this study, I have chosen to focus on gender diversity, because current world trends suggest that gender gap-reducing reforms could eventually prove an important factor in US business. Beyond the benefits associated with increased diversity, gender diversity, specifically, has been shown to provide a multitude of advantages. Companies deemed as high performers have women on their boards of directors, although the direction of causality remains unknown (Farrell and Hersch 2005; Joy 2008). Konrad, Kramer, and Erkut (2008) list many benefits derived from appointing female directors, especially because women view issues from a perception different from the male point of view; women significantly contribute to board debate and deliberations by expressing opinions applicable to the company's many stakeholders; women prove quite circumspect in dealing with demanding concerns; and women adeptly apply behaviors that positively impact practices (Fernandez 1993; Mattis 1993; Morrison 1992; Morrison et al. 1992; Schwartz 1980, 1992; Wittenberg-Cox and Maitland 2008). Agency

theorists have also found that gender diverse boards are more effective in their monitoring roles, because women tend to question management practices and challenge conventional wisdom (Adams and Ferreira 2009; Carter, Simkins, and Simpson 2003). In addition, women's unique experience, expertise, specialized knowledge, and distinctive social and business ties, which can provide access to additional resources and market insight, render female directors invaluable to the board (Konek 1994; Thomson et al. 2005; Wittenberg-Cox and Maitland 2008). The presence of female directors has also been shown to increase firm value (Carter et al. 2003; Cohen and Kornfeld 2006), board effectiveness (Adams and Ferreira 2004; Thomson et al. 2005), stock return consistency (Adams and Ferreira 2004), director pay-performance incentives (Adams and Ferreira 2004), and equity-based compensation (Adams and Ferreira 2009). By augmenting boards of directors with a female presence, corporate boards find that these women serve as role models who, in turn, encourage personnel diversification (Huffman, Cohen, and Pearlman 2010; Thomson et al. 2005).

Gender research pays special attention to women's distinct management and interaction styles; these points of departure from the traditional male perspective lend a novel, effective, and valuable dimension to the perspective of the formerly all-male board of directors. In a meta-analysis conducted by Eagly and Johnson (1990), the researchers found that male and female leaders demonstrated discrete styles; although the effect sizes in studies of gender differences often prove small, the differences remain significant. Women tend to exhibit keen interpersonal skills and a tendency toward collaboration (Burgess and Tharenou 2002; Cohen and Kornfeld 2006; Oakley 2000; Rosenthal 2000; Thomson et al. 2005). In a sample of first-level supervisors from multiple firms, Bass et

al. (1996) found that women were scored higher by their subordinates on two subscales: Charisma and Individual Consideration. Other researchers (Cohen and Kornfeld 2006; Eagly and Johnson 1990; Gibson 1995) share the sentiment that women are more relationship-oriented than are their task-oriented male counterparts.

Not only has research shown women to be more amenable than men to discussion, but studies also suggest that women are perhaps somewhat more open-minded than their male counterparts and tend to exhibit a more democratic style (Eagly and Johnson 1990; Thomson et al. 2005). While skill- and background-based diversity may attenuate the effects of groupthink, the gender diversity afforded by female directors may further relieve their boards of the tendency toward groupthink (Branson 2007; Burgess and Tharenou 2002) while encouraging independent thinking rather than assimilation (Loden and Rosener 1991). Recognizing the potential gains derived from the appointment of female directors, formerly all-male boards must now work at including a greater number of women, thereby cultivating a more distinct “culture of shared norms, values, and assumptions” (Schein 1996). The recognition of both individual differences and shared values works toward establishing systems which bolster and promote attributes such as creativity, inventiveness, and resourcefulness (Campbell and Mínguez-Vera 2008), all talents vital for board success.

Board diversity polemic and research gap. While Leighton (2000) avers that “There is considerable evidence to suggest that diversity on boards is a matter of sound corporate strategy, not a bow to political correctness,” a sentiment echoed by many other researchers (e.g. Campbell and Mínguez-Vera 2008; Eagly and Carli 2007; Francoeur, Labelle, and Sinclair-Desgagné 2008), some research has painted a less positive picture

(p. 259). Bradshaw et al. (1996) find that there is no direct relationship between the presence of female directors and organizational effectiveness; in fact, they aver that increased percentages of female directors actually lower board prestige. Studies have also pointed toward the postulate that strategic change may be more difficult when board diversity, in general, is high (Goodstein et al. 1994), most likely as a result of increased cognitive conflict associated with group diversity (Jehn, Northcraft, and Neale 1999). With such disparate views, it is obvious that more up-to-date investigation concerning diversity and board composition must be conducted, a pursuit that I herein undertake.

Governance research can be enhanced by an in-depth analysis of the increased presence of women in the boardroom, as boards move from corporate monoculture (Milliken and Martins 1996; Walt and Ingley 2003) to multiplicity. Whereas women were once solicited to become board members in response to environmental, societal, and market pressures, they are now sought for their distinctive points of view and business acuity (Braiotta and Sommer 1987; Daily and Dalton 2003; Tuggle, Schnatterly, and Johnson 2010) and for the unique resources and environmental linkages that they bring to the board (Thomson et al. 2005; Wittenberg-Cox and Maitland 2008).

Relative Board Power

Discussion of the actual role played by the corporate board of directors has long been debated. Fama and Jensen (1983) place great stock in the board's ability to set a company's agenda, map out action plans, and affect the operation of the firm over which the board governs. Other researchers, such as Pfeffer (1972), conversely, build a case for the board's merely serving as a weak oversight committee (Carey and Ogden 2000;

Murray 2007) – a “rubber stamp,” as Herman (1981) calls it – to the virtually omnipotent CEO (Demb and Neubauer 1992). The present study seeks to address a possible reason for this controversy in the literature.

Power is a relational construct, meaning that it cannot be assessed without measuring it in contrast to a comparison other. Traditionally, board power has been examined using the CEO as the referent, since there exists no other party over which the board would more likely need to leverage its power than the chief executive officer. Therefore, a discussion of board power necessitates an examination of the CEO’s role in a business enterprise. Zajac and Westphal (1996) argue that the CEO/board power relationship can best be evaluated through the examination of four distinct indicators: (1) *CEO duality*, (2) *board tenure relative to CEO*, (3) *independent outside directors*, and (4) *outsider stock ownership*. The researchers assert that relative board power is highest when (1) the CEO is not also the chairperson of the board, (2) the average board tenure is longer than that of the CEO, (3) the proportion of outside directors is greater than the percentage of inside directors, and (4) outsiders own a large percentage of company stock.

Previous research has shown that relative board power is a critical consideration because it significantly affects the selection of new directors (Westphal and Zajac 1995), both CEO succession (Zajac and Westphal 1996) and compensation (Boyd 1994), and corporate financial performance (Pearce and Zahra 1991). Based on the magnitude of consequences that stem from a board’s relative power, research must unearth the antecedents that can increase and reduce a company’s relative board power. It is important to assess what factors enhance the relative power of a firm’s board of directors,

because the degree to which boards are permitted to intervene in corporate affairs can have a significant effect both on firm performance and on strategic change and decision making.

Almost two decades ago, Pearce and Zahra (1991), in their examination of CEO and board power, reported several interesting results, which deserve further empirical investigation. Their study of board structure in relation to relative board power concentrated on categorizing four types of corporate boards; in passing, these researchers mention, yet do not delineate with data or discussion, their assertion that powerful boards have higher numbers of female directors. Whether the unique resources women bring to the board of directors equates to an increase in relative board power remains to be definitively determined. I reach beyond the somewhat exploratory nature of Pearce and Zahra's (1991) study, focusing my inquiry on board power as a consequence of the percentage of women at a specific level of the organization (the board level) and its role in strategic change. My integration of Zajac and Westphal's (1996) framework for measuring board power relative to CEO power bolsters the field's understanding of the effects of female director representation on corporate boards, since the CEO holds the highest position, is charged with the most responsibility, and is held to the uppermost accountability within the firm (Carver 1990).

It has, primarily, been the CEO who sets the tone and who profoundly influences company culture (Brountas 2004; Eisenberg 1975). Since a company's culture often takes shape based on top executives' preferences and actions, perhaps the gender imbalance begins with the CEO, who is almost invariably male (Branson 2007, 2009; Carter 2007; Hellriegel and Slocum 2011). Traditionally, in many companies, the CEO holds the dual

roles of chief executive officer and chairman of the board. The CEO, fully occupied with the daily workings and long-term planning for his company, can only be considered a part-time board member because of his many responsibilities, meaning that he does not have an excess of time to devote to his boardroom duties. In attempting to accommodate for a CEO's inability to allocate sufficient time to board responsibilities, many companies have reduced their CEOs' board functions, most notably by separating the roles of CEO and board chair (Desai, Kroll, and Wright 2003; Horner 2010; Jensen and Meckling 1976; Zajac and Westphal 1994). The discontinuation of CEO duality systems has been gaining momentum in recent times, and this trend may serve to help bring imbalanced CEO/board power relationships closer to equilibrium.

Whether or not a firm advocates CEO duality, the CEO still wields a great deal of power within his company; and, therefore, his potential hegemony must be tempered by good governance through sound board jurisdiction. Ward (2000) found that the degree to which boards actually temper a CEOs' power greatly varies by company. I contend that this variance in relative power can best be explained by PWOB. For this reason, my study investigates the boardroom philosophical shift that addresses the previously underutilized female board member resource (Charan 2005). I seek to determine the relationship between the percentage of women on a company's board of directors and the board's power relative to that of the firm's CEO and to assess the impact that this relationship has on strategic change.

Strategic Change

Strategy primarily deals with surveying the environment in which a firm is embedded and, thereby, determining how best to capitalize on opportunities and to counteract threats (Andrews 1971; Wiersema and Bantel 1992). Since the board of directors serves as the primary interface between a firm and its environment (Pfeffer 1972), this governance mechanism possesses the authority to directly shape a firm's strategy. Nadkarni and Barr (2008) contend that strategic actions can best be explained through a synthesis of economic and cognitive perspectives. While some research has focused on the predictive value of industry structure on influencing strategic change (Bain 1956; Caves, Fortunato, and Ghemawat 1984; Ghemawat 1991; Mason 1957; Porter 1985), I examine the antecedents of strategic change from the managerial cognition point of view.

Several studies of strategic change have investigated the construct through the perspective of the upper echelons theoretical lens (Hambrick and Mason 1984). Upper echelons research has helped inform strategic change literature by illuminating how individuals' unique differences shape cognition – the way that a person perceives situations, especially circumstances that are ambiguous, complicated, or lacking in structure (Carpenter et al. 2004; Dutton and Duncan 1987; Simsek 2007). This emphasis on perceptions forms the basis for numerous group dynamics studies resulting in assertions that top-level business teams base their strategic decision making, in part, on idiosyncrasies derived from their unique backgrounds and characteristics (Dutton and Duncan 1987; Tushman and Romanelli 1985).

In their examination of the relationship between top management team (TMT) characteristics and firm strategy, Finkelstein and Hambrick (1990) expanded on the upper echelons premise by introducing the moderator of executive team tenure. Although Finkelstein and Hambrick (1990) theorized that strategic change negatively relates to top management team tenure, Geletkanycz and Hambrick (1997) found that the relationship may, instead be curvilinear. Geletkanycz (1997) later discovered that TMT tenure may, in actuality, have little or no effect on strategic change and that differences in national culture may better account for top executives' degree of commitment to the status quo.

Further research has revealed that strategic deviation is negatively related to intra-industry network ties and positively related to extra-industry linkages (Geletkanycz and Hambrick 1997). In addition, it has been argued that strategic actions are likely based on a combination of managerial cognitions and organizational context rather than on just one of these factors (Nadkarni and Barr 2008). Although studies attempting to link executive demography to firm performance have been largely unsuccessful (e.g., Smith et al. 1994), upper echelons studies have consistently found clear support for the hypothesis that TMT characteristics affect strategic change (Carpenter et al. 2004; Finkelstein and Hambrick 1990; Hambrick 2007; Hambrick and Mason 1984; Nadkarni and Barr 2008; Wiersema and Bantel 1992). While these upper echelons theory-based studies do not directly examine boards of directors, Carpenter, Geletkanycz, and Sanders (2004) suggest that many of the same principles could translate to the discussion of director characteristics, citing evidence that points toward necessitating a broader outlook on what constitutes a company's upper echelons (e.g. Carpenter and Westphal 2001; Westphal and Fredrickson 2001). This reasoning is bolstered by Geletkanycz and Hambrick's (1997) assertion that

directors, especially outsiders, play a substantial role in affecting firm strategy and performance.

Since the present study focuses on determining whether certain aspects of board demography can, indeed, affect strategic change, Goodstein, Gautam, and Boeker's (1994) and Wiersema and Bantel's (1992) studies prove particularly relevant to the present research. Goodstein et al. (1994) found a positive relationship between board diversity and strategic change; however, their study concentrated only on diversity in occupational/professional backgrounds. Wiersema and Bantel (1992) investigated specific demographic factors – team tenure, educational level, educational specialization heterogeneity, and academic training in the sciences – in order to determine how each relates to strategic change. They discovered that TMT average age and organizational tenure are negatively related to strategic change while educational level, educational specialization heterogeneity, and academic training in the sciences are all positively related to strategic change (Wiersema and Bantel 1992).

While these researchers identified and tested the effects on strategic change of several board demography variables, a gap in the literature assessing the effects of board gender composition on strategic change persists. For this reason, I concentrate on determining the effects of PWOB on strategic change. In addition, I investigate strategic change using a method somewhat different from those applied in several past studies of strategic change. Boeker (1989) initially used measures of variation and functional influence to gauge strategic change. Golden and Zajac (2001) utilized a weighted measure approach, while Wiersema and Bantel (1992) and Boeker (1997) measured strategic change by calculating the absolute change in percentage for a company's

diversification strategy. I find that Haynes and Hillman's (2010) adaptation of Finkelstein and Hambrick's (1990) and Carpenter's (2000) measures of strategic change may more accurately assess the degree to which a company changes. By parsing out the separate components of firm strategic change – strategic variation and strategic deviation – I am able to more accurately assess changes in an organization's resource allocation configurations and its departures from mimicking the resource strategies of the market leaders.

Board Committees

A thorough study of the corporate board requires an investigation into the evolution of the committee construct, both in committee structure and composition. Boards of directors demonstrate differing committee structures, i.e. the number and type of committees designated by a board's bylaws, and the composition of these committees, i.e. the characteristics and number of committee members, typically deviates significantly from the composition of the board at large (Horner 2010; Kesner 1988). Since these subcommittees carry out many of the vital functions of the board (Bilimoria and Piderit 1994; Daily and Dalton 1994; Daily and Schwenk 1996; Dalton et al. 1998; Kesner 1988; Klein 1998; Lorsch and MacIver 1989), committee structure and composition can often explain much of the variance in firm performance measures. Although intervening factors may account for these variations in firm performance, I predict that committee composition has a profound effect on board-level processes, especially in regard to the presence and makeup of the nominating, compensation, executive, and audit committees, four major committees considered key governance components (Bilimoria and Piderit

1994; Braiotta and Sommer 1987; Kesner 1988; Peterson and Philpot 2007; Walt and Ingley 2003), with the nominating committee considered the youngest and the executive, historically the oldest, of the governance committees.

No longer viewed as formalized accessories in the functioning of corporate governance (Nadler et al. 2006), especially with the increase in size of boards involved in mergers and acquisitions, board committee membership warrants closer scrutiny and analysis. Previous research has found that women are often excluded from major strategic committees, typically relegated to service on less vital committees, such as public affairs committees (Bilimoria and Piderit 1994; Kesner 1988; Peterson and Philpot 2007; Walt and Ingley 2003). I seek to determine whether this exclusion affects the potential for female directors to influence the CEO/board power relationship. In addition, I examine not only the percent of women on the major committees but also the gender of each committee's chairperson, a position that vests substantial power (Carter and Lorsch 2004; Joy 2008; Nadler et al. 2006).

Although committee composition may not directly affect a firm's financial performance (Dalton et al. 1998), numerous studies have shown that committee composition plays an integral role in the functioning of both the board itself and of the company for which the board of directors serves (Braiotta and Sommer 1987; Carver 2007; Conger et al. 2001; Conyon and Mallin 1997; Li and Wearing 2004). A likely explanation for the instrumentality ascribed to board subcommittees lies in the fact that their primary intended purpose is to expedite the board's decision making process by satisfying specific responsibilities (Singh and Harianto 1989). The board's reliance on each semiautonomous committee's specialized expertise empowers the committees and

their members, which, in turn, allows for increased efficiency (Anderson and Anthony 1986; Bilimoria and Piderit 1994; Braiotta and Sommer 1987; Kesner 1988; Lorsch and MacIver 1989).

Nominating committee. The nominating committee proves vital to the operation of any board of directors, because it sets the agenda as it relates to who is considered for directorships. The committee members are charged with ensuring that the candidates they select possess the traits and experience best suited to the firm's needs. The nominating committee functions slightly differently from other committees, as its purpose remains discrete from policy making. Because of the crucial role played by the nominating committee, a group charged with maintaining the integrity and accountability of both the committee and of all of the board members, stipulations and guidelines concerning this committee are, in contrast to the more flexible formation of other board committees, often included within the corporation's actual bylaws (Braiotta and Sommer 1987; Conger et al. 2001; Zhang 2008).

Further setting it apart from other standing board committees, the nominating committee [whose name and purpose in recent years has, in many companies, been expanded to *Governance Committee* or *Governance and Nominating Committee* (Branson 2007; EDGAR 2010)], functions as not only a supportive but also as a decision-making entity, with its main function aimed at the search for, and interview and recruitment of individuals well-suited to the company's culture and vision (Carver 1990). The fact that the nominating committee largely determines the candidates for board membership renders this subcommittee extremely powerful (Demb and Neubauer 1992). This garnered power can be leveraged to beget more power, should nominating

committee members choose to exercise, by targeting those candidates who can potentially strengthen the board's relative power, their ability to elect new directors.

While the importance of other board committees should not be overlooked, the nominating committee's responsibilities prove most relevant to the present research, because the nominating committee identifies and presents only those candidates whom the committee members deem eligible to serve on the board of directors. Since this study is centrally concerned with the effects of PWOB, a board composition variable, it is vital to investigate factors related to the governance mechanism most directly responsible for determining board composition. Agency theory research indicates that the existence of a nominating committee is positively associated with increased outsider representation (Ruigrok et al. 2006), which often equates to greater board power (Zajac and Westphal 1996). Moreover, the nominating committees of many modern boards now have even greater control over the strategic direction of their firms, as they extend their domain to higher-order governance decisions and to the dissemination of information (Braiotta and Sommer 1987; Dalton et al. 1998; Salmon 2000).

Compensation committee. The compensation committee serves as a major control mechanism (Braiotta and Sommer 1987) by assuming the vital governance role of ensuring that officers of the company are appropriately compensated for their service and performance (Anderson and Anthony 1986). Reporting directly to the board, this committee's recommendations prove crucial in the attracting, grooming, and retaining of qualified personnel. While the board of directors sets the parameters for executive compensation, the board at large cannot as easily identify and address compensation problems as can this small, focused committee.

Of prime concern to the members of the compensation committee, and to the board that monitors the compensation committee function, is the assurance that rewards, penalties, and sanctions remain commensurate with the firm's strategic direction, expectations, and goals (Conyon and Peck 1998). Human capital, represented by those scrutinized through compensation committee supervision, such as officers and employees, remain a most valuable asset to the corporation, talent that must be appropriately recompensed in order to be retained. Increasingly, companies are struggling with the decision to differentiate between board performance and individual performance when considering stock-based compensation for their directors (Anderson and Anthony 1986; Conger et al. 2001; MacAvoy and Millstein 2003), thereby demanding greater accountability from each director.

Since the compensation committee must make recommendations to the board concerning the remuneration for the company's officers (especially the CEO), directors, and employees (Anderson and Anthony 1986; Broutas 2004; Lorsch and MacIver 1989), they must ensure that the information and counsel that they provide proves appropriate for both that particular time frame and for future precedents. The fact that this committee holds final recommendation and judgment ascribes the committee a certain degree of independence and authority (Daily et al. 1998). Wielding control of the company's purse vests the compensation committee with great influence, license which can easily translate into greater board power.

Executive committee. The executive committee, considered the corporate board of directors' prototype committee (Braiotta and Sommer 1987), remains the only committee in which is vested absolute power. Typically composed of six directors, of

whom several serve as executives of the company (Braiotta and Sommer 1987; Dalton and Dalton 2006), this small group of individuals possesses absolute power equal to that of the entire board, sanctioned to act with full authority, whether in response to an emergency situation or simply when the entire board cannot be convened. In addition, when considered necessary, the executive committee can choose to review and rule on all board decisions, should the executive committee members deem specific determinations in need of additional oversight and administration.

Originally, the executive committee served as the sole board subcommittee. Initially composed exclusively of inside directors, the camaraderie and like-mindedness among the committee members facilitated the decision-making, especially when the members of the executive committee faced a challenging and pressing situation (Braiotta and Sommer 1987; Kesner 1988). The executive committee's far-reaching realm originally encompassed the firm's internal and external audit function, now under the auspices of the audit committee; new director selection, now a matter that falls to the nominating committee; and decisions concerning all forms of executive compensation, issues now the function of the board's compensation committee. Further inroads into the executive committee's power derive from the manner in which the world now carries out business. Modern telephonic conferencing technology and the legalization and validation of electronic data in the form of e-mail, facsimile transfers, and telegraphic signatures now allow for extensive virtual discussions and even full board meetings, practices that may continue to appropriate much of the committee's authority.

The executive committee remains one of the most prevalent of board committees (Braiotta and Sommer 1987), despite the diminishment of some of its responsibilities.

Even in the twenty-first century, the executive committee continues to serve its primary and crucial role of supreme authority in the event of an emergency (Kenny 2004).

Currently, women continue to be less represented on the executive committee (Dalton and Dalton 2010; Kesner 1988), and the committee continues to be dominated by inside directors; however, with the executive committee's adapting to the ever-changing needs of the corporation, continued research must be conducted to predict what form this singular committee will ultimately assume.

The executive committee, often populated by the firm's most powerful inside directors, by virtue of its ability to independently act on behalf of the entire board of directors, exercises expansive influence and control. I hypothesize that the representation of women on the executive committee moderates the PWOB / relative board power relationship. Since executive committees are comprised primarily of inside directors, and because 84.07% of female directors are outsiders (Adams and Ferreira 2009), the presence of women on the executive committee often means the greater presence of outsiders, which can then translate into greater board power. Although most female directors are outsiders, some female insiders do exist and may serve on the executive committee; by virtue of their diverse backgrounds these insider women can provide alternative perspectives that serve to question and contest established practices (Hillman et al. 2002; Singh et al. 2008).

Audit committee. Boards of directors have never taken their fiduciary responsibilities lightly; however the 1970's demand for greater transparency and more judicious governance and the staggering devastation of more recent financial debacles (Gordon 2002; Murray 2007) have given rise to a dramatic and steady increase in the

number of audit committees (Boulton 1978). Almost every company now maintains a permanent committee with a legally-mandated and circumscribed director membership. The main function of the audit committee is that of monitor of a firm's accounting and reporting practices (Bradbury 1990). The Securities and Exchange Commission, in light of the fact that the board of directors acts as representatives for their stockholders, includes audit committee directives that committee members must be solely independent directors who have financial expertise (Bradbury 1990; Murray 2007; Olson and Adams 2004; Xie, Davidson, and DaDalt 2003) so that the board can better monitor the management's actions to ensure ethical, legal, and financial probity (Boulton 1978; Brontas 2004).

Government legislation mandates that a company's audit committee must include at least one director deemed a financial expert and that the sitting directors have sufficient financial proficiency, i.e. the ability to understand and interpret financial statements (Brontas 2004), so that the members can competently assess and oversee the work of the certified public accountants and the outside auditor. Charged with safeguarding the company's financial health, the members of the audit committee must be sufficiently informed and skilled so as to, subsequently, act upon any recommendations put forth by the firm's outside experts (Anderson and Anthony 1986).

One of the most gender-diverse of the board governance committees, the audit committee usually boasts membership consistent with the varied composition of the board in general. Kesner (1988) found that women served on the audit committee in almost equal proportions as did men; however, Bilimoria and Piderit (1994) discovered that male outside directors were favored over female outside directors. The audit

committee, as direct representatives of the stockholders, holds expert information and resource-based power. At least one member of any audit committee holds expert power by virtue of his/her financial background. The remaining members of the committee hold informational and resource-based power, garnered through their unique network ties and interaction with financial resource personnel engaged to work with the firm. The power that members of the audit committee command, coupled with their high standard of accountability and ethicality, ensures that their advice is heeded, especially in the post-SOX world.

Summary

Upper echelons and group dynamics research has shown that directors' individual characteristics, such as gender, can play a most important role in the strategic direction of a firm (Carpenter et al. 2004; Dutton and Duncan 1987; Simsek 2007; Tushman and Romanelli 1985; Wiersema and Bantel 1992). Almost forty years ago, the inclusion of women on boards of directors was largely limited to appointments stemming from familial relationships (Peterson and Philpot 2007; Ward 2000). Statistics note that, in 1973, just eleven percent of major boards included female directors (Ward 2000). Since then, the number of female directors has increased (Angert and Pathak 2010), but the percentage of women on corporate boards of directors remains markedly lower than that of male directors. In 1995, the percentage of *Fortune 500* companies with at least two women board members was 28.2% (Dalton and Dalton 2010). While that percentage of female representation on *Fortune 500* boards had increased to 37.8% by 2005 (Dalton and Dalton 2010), generally, the total number of women on corporate boards currently

still hovers just below 15% (Branson 2010). These statistics that demonstrate potential for increased female board membership on both the boards of large, prominent corporations as well as on smaller company boards highlight the need for research examining the effect of the shifting board gender makeup.

I undertake this study because, as the demographic composition of corporate boards becomes increasingly heterogeneous, it is vital that the field of strategic management research gains an understanding of how board diversity affects board processes and, in turn, influences the probability of firm strategic change. Based on a study of the legislative developments occurring in several nations (Erma and Hyvärinen 2009; Izraeli 2000; Vinnicombe et al. 2000), it is evident that a major shift in U.S. board gender composition is also underway and gaining momentum (Westphal and Milton 2000), which increases the utility of my research. I intend to contribute to the field by investigating the relationships among the constructs of PWOB, relative board power, and firm strategic change. Additionally, as past research has shown (Braiotta and Sommer 1987; Carver 2007; Conger et al. 2001; Conyon and Mallin 1997; Li and Wearing 2004), board subcommittees are of notable importance to the board as a whole; based on this finding, I also test the moderating effects of committee composition and chairperson gender, as delineated in the following section.

Chapter 3

THEORY AND HYPOTHESES

PWOB and Relative Board Power

A central component of agency theory research is the concept of power. Agency theorists advise that managerial opportunism, self-interest with guile (Williamson 1996), must be kept in check to ensure that management is not permitted to act solely in its own interests, at the expense of the company's owners. As representatives of a firm's shareholders, the board of directors stands responsible for limiting executive opportunism (Olson and Adams 2004). Of most immediate concern is the ability of the CEO to employ his/her power in a way that promotes personal goals over those of the principals whom he/she has been hired to serve. However, to restrict the CEO's power and to maintain order, the board of directors must possess its own countervailing power. The present research explains why the election of female directors to corporate boards may represent a key source of power and may bolster a board of directors' relative power.

Figure 1 displays the theoretical model graphically. As mentioned previously, the committees included in the model – nominating, compensation, executive, and audit – represent the four most prominent board committees (Luoma and Goodstein 1999). I focus on firm strategic change as the dependent variable in this model because of its considerable ramifications for organizations. Firm strategic change is an important topic

of study not only because companies must strive to remain current by adapting to changing environments but also because strategic change serves to overcome structural inertia that could potentially hamper a firm's growth and progress. Change additionally proves an integral predictor of firm survival, especially since it is most often undertaken in the hope of increasing performance (Boeker 1997). I specifically separate strategic change into two components – strategic variation and strategic deviation – because this distinction allows for both more finely-grained examination and more rigorous statistical analysis of the strategic change construct (Haynes and Hillman 2010). Additionally, I recognize that several antecedents may relate to relative board power, but I offer seven theoretical explanations for why I contend that PWOB is associated with relative board power.

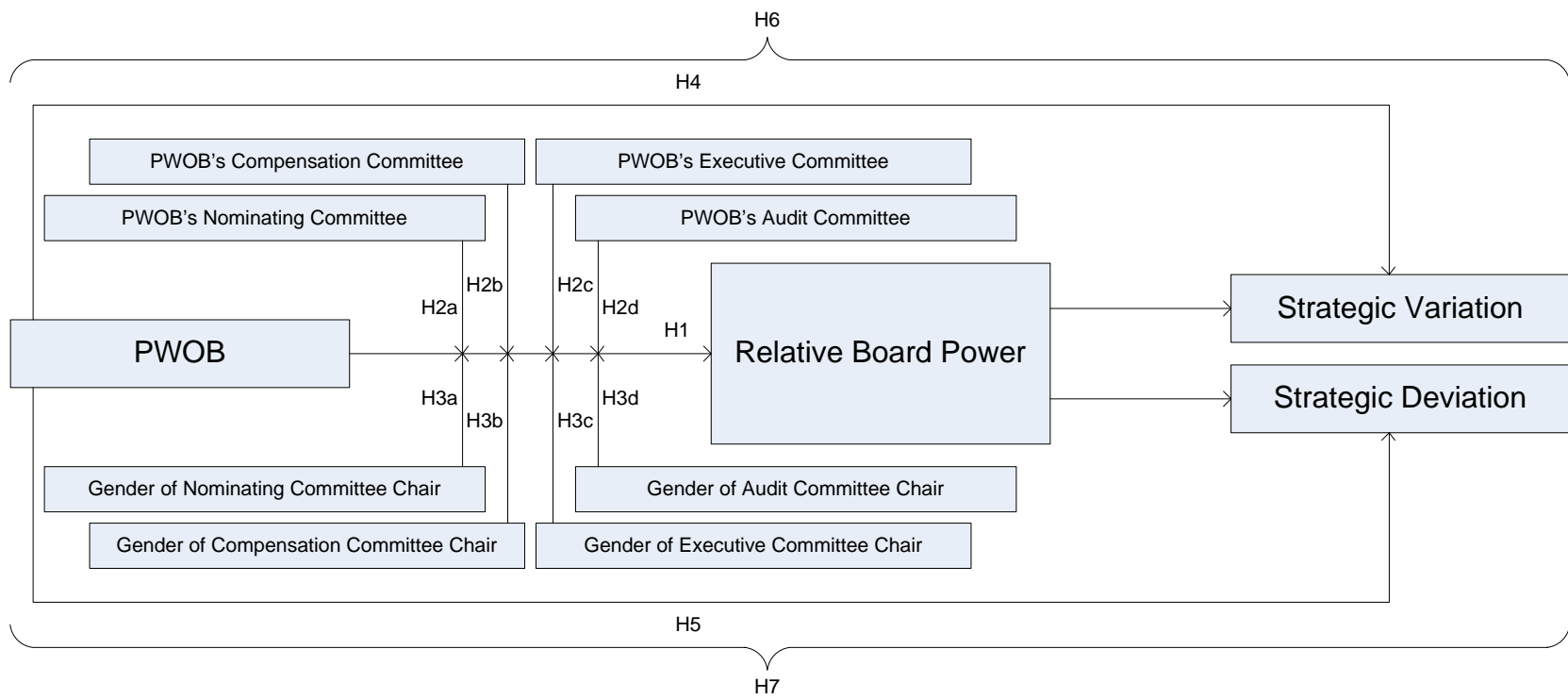


FIGURE 1. Theoretical model

First, research has shown that greater group diversity usually leads to more creativity and active engagement (Bilimoria 2000; Burke 1997; Cox and Blake 1991; Dutton and Duncan 1987; Hillman et al. 2007; Thomson et al. 2005; Watson, Kumar, and Michaelson 1993), and an engaged board usually commands more relative power (Lorsch and MacIver 1989). Upper echelons research findings regarding group heterogeneity corroborate this conclusion and further add that the effects of group diversity would be felt equally, regardless of the group's size (Hambrick and Mason 1984). What is not clear, however, is how group size affects the definition of what is considered a diverse group. The results of my study should prove useful for informing this question at the board level.

Second, research has shown that women are better able to manage conflict, as a result of their superior interpersonal skills and desire for relationship building (Branson 2007; Eagly and Johnson 1990; Thomson et al. 2005). Women's ability to minimize group conflict allows the board to forge cohesive bonds, create an integrated harmony, and, thereby, increase board power. This trait can help unify a board, and a cohesive board would likely command greater power.

Third, female directors, known for their cooperative bent, generally approach the director/CEO relationship in a collaborative manner (Burgess and Tharenou 2002; Burke 1993; Sethi, Swanson, and Harrigan 1981). Therefore, this may make the CEO more likely to share power with the board. At the same time, women would be less prone to the "management friendliness hypothesis" (Schnake, Williams, and Fredenberger 2006; Vafeas 2003), which argues that longer board tenures result in boards' relinquishing their impartiality and siding with the CEO (i.e. becoming an instrument of the CEO), as a

result of serving alongside management for an extended period of time. Women, because of their lack of access to many of the already established, mostly male-dominated social networks, are forced by circumstance to remain somewhat detached. This situation, ironically, can provide the board with a more measured perspective (Schnake et al. 2006), a fortuitous situation that may actually afford the board a greater degree of independence.

Fourth, women bring unique perspectives to the boardroom as a result of their distinct backgrounds (Hillman et al. 2002; Nielsen and Huse 2010; Singh et al. 2008). These alternate cognitive models allow female directors to contribute expert intellectual capital to the board in the form of varied and novel perspectives (Daily and Dalton 2003; Nielsen and Huse 2010; Thomson et al. 2005). The CEO relies on the board's knowledge and experience to inform his or her decision-making process, and the valued insight that female directors bring to the table intensifies the CEO's dependency on the board of directors (i.e. increases the board's relative power).

Fifth, CEOs need the resources that boards bring, and women provide unique knowledge, skills, proficiency, and distinctive societal and corporate linkages, which means access to additional valuable resources and knowledge (Bilimoria 2000; Burke 1994; Peterson and Philpot 2007; Rosenberg 2008; Thomson et al. 2005; Wittenberg-Cox and Maitland 2008). The unique board capital that female directors bring to boards of directors increases the board's power base, because the CEO may otherwise not be able to secure these resources (Zald 1969). The inability to access these key resources could prove problematic for a firm, a truth that board members fully understand and may tend to use as leverage to forward their agendas.

Finally, since boards serve as both a reflection and a cross-section of a company's stakeholder base, a company whose board boasts several female representatives can be assumed to hold, in high regard, the interests of its female stakeholders. Thus, CEOs – especially male CEOs – of such firms would likely be less hesitant to willingly defer control to the board in an effort to gain unique perspective from individuals who more closely identify with and understand the preferences of some of the organization's key constituents. Of course, this effect would likely prove greater in female-oriented industries; however, most firms have at least some proportion of female stakeholders whose concerns should be addressed. Few businesses have female CEOs; but, in those that do, the power balance should theoretically also shift in favor of the board, perhaps even more strongly, because women tend to favor collaboration over individualism (Burke 1993; Shrader, Blackburn, and Iles 1997).

For the reasons stated above, I hypothesize that:

Hypothesis 1 (H1). An increase in the percentage of women on a firm's board will predict an increase in the relative power of that board of directors.

The Moderating Effects of PWOB's Committee on the PWOB / Relative Board Power Relationship

Some researchers contend that, while boards of directors often influence firm strategy and operation, the real source of policy creation is vested in the board's subcommittees (Bowen 2008; Braiotta and Sommer 1987; Brountas 2004). With the presence of women on board committees increasing (Dalton and Dalton 2010), it is

important to assess more fully the role of women on board committees. For this reason, I examine whether a greater ratio of female directors on each of the major committees – nominating, compensation, executive, and audit – can strengthen the relationship between the percentage of women on a firm’s board of directors and the board’s relative power.

A high percentage of women on a firm’s nominating committee may promote the appointment of new female directors, which should, in turn, increase board power. Similarly, appointing a female as the committee’s chairperson could also have a similar effect. I hypothesize that this is the case, and I offer two theoretical arguments for why this would be so. First, as stated above, it is thought that, when choosing new directors, individuals will likely select candidates demographically similar to themselves (Westphal and Zajac 1995). For this reason, the greater the percentage of women on a firm’s nominating committee the greater the likelihood that the board will nominate more female directors. Second, women, by virtue of their possessing cognitive schema that differ from those of men (Daily and Dalton 2003; Nielsen and Huse 2010; Thomson et al. 2005), will lessen the effects of groupthink by their tending to search beyond the typical nomination channels, often turning to less conventional sources (Branson 2007; Davidson and Burke 2000; Hillman et al. 2002; Kroll, Walters, and Wright 2008). For the reasons stated, I predict that:

Hypothesis 2a (H2a). The greater the percentage of women on a firm’s nominating committee, the stronger the positive relationship between the percentage of women on a firm’s board and relative board power.

In a like manner, I propose, based on the upper echelons research stream, that the greater gender heterogeneity among the company's directors – and especially within the committee structure – the greater will be the board's relative board power. I predict that:

Hypothesis 2b (H2b). The greater the percentage of women on a firm's compensation committee, the stronger the positive relationship between the percentage of women on a firm's board and relative board power.

Hypothesis 2c (H2c). The greater the percentage of women on a firm's executive committee, the stronger the positive relationship between the percentage of women on a firm's board and relative board power.

Hypothesis 2d (H2d). The greater the percentage of women on a firm's audit committee, the stronger the positive relationship between the percentage of women on a firm's board and relative board power.

The Moderating Effects of Committee Chairperson Gender on the PWOB / Relative Board Power Relationship

A major part of the corporate board's modern structure lies in the division of responsibility. The corporate committee structure allows for multiple leaders and divergent leadership styles as enacted through the contrasting and complementary talents of the committee chairs, individuals key to maintaining a constant flow of information among outside advisors, individual members, consultants, and the complete board

membership. For this reason, I particularly identify and scrutinize the demographics of the committee chairs of the nominating, executive, compensation, and audit committees.

While all members of a board's subcommittee may opine concerning the group's assigned task, the chairperson may sometimes hold sway during deliberations, wielding final authority over decision-making almost equal to that of the rest of the committee by virtue of his/her legitimate power as chairperson (Demb and Neubauer 1992; Joy 2008; Nadler et al. 2006). For this reason, the individual designated as chair of any board subcommittee can certainly hold considerable bearing on policymaking. In regard to the present line of inquiry, the gender of the committee chairperson is expected to moderate the PWOB / relative board power relationship, because the formal and social authority and leadership power of the committee chair can affect relative board power.

Additionally, women's unique leadership styles that favor collaboration, encourage increased interpersonal communication, and promote relationship building (Burgess and Tharenou 2002; Cohen and Kornfeld 2006; Eagly and Johnson 1990; Galbreath 2011; Gibson 1995; Oakley 2000; Rosenthal 2000; Thomson et al. 2005) could make a significant difference should a female director serve as the chair of a committee.

Furthermore, since female board members tend to monitor executive behavior more intensely than do male board members (Adams and Ferreira 2009), a female committee chair could enhance a board's power by strengthening its oversight function. I expect that the authority, hierarchical and otherwise, afforded by the committee chair position means that the gender of the individual filling this role will have a significant effect on the PWOB / relative board power relationship proposed in the current study, such that:

Hypothesis 3a (H3a). A woman's serving as chair of a company's nominating committee will be associated with a stronger positive relationship between the percentage of women on a firm's board and relative board power.

Hypothesis 3b (H3b). A woman's serving as chair of a company's compensation committee will be associated with a stronger positive relationship between the percentage of women on a firm's board and relative board power.

Hypothesis 3c (H3c). A woman's serving as chair of a company's executive committee will be associated with a stronger positive relationship between the percentage of women on a firm's board and relative board power.

Hypothesis 3d (H3d). A woman's serving as chair of a company's audit committee will be associated with a stronger positive relationship between the percentage of women on a firm's board and relative board power.

PWOB and Firm Strategic Change

Prior studies have found evidence that substantiates the conclusion that increases in group heterogeneity are positively associated with increases in group creativity and improved decision making quality (King and Anderson 1990; Milliken and Martins 1996; Thornburg 1991; Woodman, Sawyer, and Griffin 1993). Consistent with upper echelons research, this suggests that a more diverse board would be more likely to consider a wider range of opportunities than would a more homogeneous board. Far-reaching, thorough

evaluation increases the probability that a company will carry out strategic change because the board will be both better educated on the many alternatives available and more open-minded toward novel solutions. As stated previously, the modern boardroom still remains largely male-dominated (Eagly and Carli 2007; Thomson et al. 2005; Wittenberg-Cox and Maitland 2008), so the introduction of women should help foster the creativity, engagement, and other benefits associated with group heterogeneity. Additionally, the unique knowledge, skills, abilities, and community ties that women bring to the table can help ensure decision quality, group support, and the involved parties' commitment to board resolutions – all of which could sway the board's receptiveness to strategic change.

Williams and O'Reilly (1998) have shown that the more embedded an individual is in a given industry, the more strongly industry-adopted mental models are ingrained as a byproduct of interacting daily with other people who hold in common the same set of heuristics. Conversely, working alongside employees from outside the industry may diminish groupthink effects and promote thinking that does not necessarily conform unquestioningly to the dominant industry zeitgeist (Geletkanycz and Hambrick 1997). While the tide seems to be changing (Dalton and Dalton 2010), a preponderance of researchers still contend that female board members are more likely than male directors to hail from non-business backgrounds (Branson 2007; Davidson and Burke 2000; Dobbin and Jung 2011; Hillman et al. 2002; Ruigrok et al. 2007; Zelechowski and Bilimoria 2004), which means that they are less likely to have developed strongly-ingrained mental heuristics regarding best business practices. This means that women on boards are often less constrained by the self- or industry-imposed boundaries that may

hamper male directors' inventiveness. Data that imply that female directors, in general, tend to boast higher academic credentials (Eagly and Carli 2007; Wittenberg-Cox and Maitland 2008) also point to the idea that women board members may be more open to alternatives, since intelligence and creativity have been shown to correlate (Glynn 1996).

Hypothesis 4 (H4). The percentage of women on a firm's board will be positively associated with a firm's strategic variation.

Hypothesis 5 (H5). The percentage of women on a firm's board will be positively associated with a firm's strategic deviation.

PWOB, Relative Board Power, and Firm Strategic Change

While I speculate that a direct positive relationship exists between PWOB and firm strategic change, I deem that this relationship may also be mediated by a board's relative power. I base this postulate on a number of prior findings that provide theoretical support for this argument.

Previous research suggests that CEOs tend to be risk-averse (Carpenter 2000; Henderson and Fredrickson 1996). In other words, CEOs typically shun novel courses of action when setting strategic agendas, instead preferring to follow in the footsteps of others and fall back on decision heuristics that rely heavily on past experience (Hambrick and Fukutomi 1991). One likely reason for the aversion to strategic variation among chief executive officers is the restrictions imposed by sunk costs (Henderson and Fredrickson 1996); investment in resources thought vital for doing business may render change

unfeasible. Another possible explanation for a CEO's determination to maintain the status quo stems from the risk factor inherent in strategic change (Eisenhardt 1989). Change can be both extremely difficult and dangerous (Amburgey, Kelly, and Barnett 1993; Hannan and Freeman 1977, 1984; Schwarz 2010).

Since the CEO of a firm vests his or her entire human capital into that company, making diversification of his/her interests impossible, the CEO would be reluctant to follow any course that threatens the firm's survival. Therefore, CEOs may choose to avoid change in the interests both of the company (to reduce workforce strain and protect the firm's well-being) and of themselves (to make their lives easier and to secure their jobs) (Henderson et al. 2006; McClelland et al. 2010; Simsek 2007). In light of a CEO's pursuit of his/her own self-interests, a company's chief executive may choose to not rock the boat, as evidenced by statistics stating that, in companies that practice CEO duality, CEOs who stick to the status quo, on average, earn greater remuneration than do CEOs who carry out change efforts (Grossman and Cannella 2006).

As previously stated, I suggest that the effectiveness of a CEO's efforts to resist change may be determined, at least in part, by the relative power of the firm's board of directors. Some scholars believe that boards of directors act as gatekeepers, in that the board's primary responsibility is to limit the CEO's ability to unilaterally determine the actions that the firm will take, by vetoing actions deemed counterproductive to the company's well-being and promoting those believed worthwhile (Brontas 2004; Carey and Ogden 2000; Demb and Neubauer 1992). In this scenario, a board's ability to filter out deleterious CEO policies and endorse worthwhile CEO proposals would hinge on its power vis-à-vis the CEO. The weaker the board relative to the CEO, the less opportunity

the board will have to impact firm strategy. The CEO would, in a sense, have the board “in his/her pocket” with the board’s role essentially reduced to that of a rubber stamp of the CEO’s mandates. Paired with a CEO’s penchant for preserving the status quo, a company led by a powerful CEO would likely shun strategic change; by the same token, a relatively strong board would be afforded a greater ability to influence organizational strategy. Acting in the interests of the shareholders, the board would suppress attempts by the CEO to cling to outdated methods based simply on complacency, ease, and/or the pursuit of personal gain.

Other researchers place greater emphasis on the potential ability of corporate boards to actually conceptualize, formulate, and develop policy (Charan 1998; MacAvoy and Millstein 2003). This view sees boards as policymakers and vital components in the decision making process. Those who subscribe to this school of thought most often assess a board’s instrumentality in terms of its freedom of thought and ability to contest or contradict the CEO’s positions on strategic issues. Boards that must kowtow to the judgment of a dominant chief executive officer have little incentive to discuss various options and to think critically when making policy, because their efforts may prove to have been in vain should the CEO overrule their recommendations. CEOs may also limit a board’s ability to shape firm strategy when board members feel compelled to side with the CEO as a result of a perceived obligation or debt of gratitude toward the chief executive of the organization (Daily and Dalton 1995; Westphal and Stern 2006, 2007). Such circumstances can arise, for example, when directors feel as though they owe their positions on the board to the sitting CEO or when officers of the company sit on the board and fear negative repercussions should they appear to undermine the boss

(Westphal and Zajac 1995). A swing in the power relationship in the board's favor fosters more open discussion and allows for less biased and inhibited judgment. In terms of strategic change, a relatively powerful and free-thinking board would likely be better equipped to enact strategic change, while a relatively weak and restricted board would probably be less able to effect strategic change.

Thus, I posit that the balance of power between a firm's board of directors and its CEO is associated with the firm's degree of strategic change, such that:

Hypothesis 6 (H6). Relative board power will mediate the positive relationship between the percentage of women on a firm's board and a firm's strategic variation.

Hypothesis 7 (H7). Relative board power will mediate the positive relationship between the percentage of women on a firm's board and a firm's strategic deviation.

Chapter 4

METHODS

Sample and Data Collection

The sample for this study consists of data for the top two hundred fifty (250) companies on the 2006 *Fortune* 500 list for the years 2006 to 2008. This time span allows collection of resource allocation data for the four years preceding the studied years, the first four years following the mandated implementation of the Sarbanes Oxley Act. It also enables me to lag the independent and control variable data by up to four years in order to check for robustness and to determine the time displacement of the observed effects. Not all firms file proxy statements at the same time and some may file late; this time frame helped guarantee that the sample was not affected by such issues. The sample size was chosen based on power analyses that indicated that an N of at least 114 would allow me to test the hypotheses at an 80 percent power level and ensured that missing data would not skew the results. Shareholder proxy statements for each firm were accessed through the U.S. Securities and Exchange Commission's (SEC) Electronic Data Gathering, Analysis, and Retrieval (EDGAR) system. Standard and Poor's Compustat Resource Center served as the source of the data used to calculate the two corporate performance-based control variables. Data could not be collected for fifteen private companies. Accounting for missing data, the total number of observations (i.e. company-years) was 659.

Measures

Dependent variables. According to the research stream investigating relative board power, different corporate boards are afforded different degrees of power at different times. Zajac and Westphal (1996: 74-75) aver that relative board power can be assessed using the four independent measures of (1) *CEO duality*, (2) *board tenure relative to CEO*, (3) *independent outside directors*, and (4) *outsider stock ownership*. Data for each of these measures are contained in proxy statements on the SEC's EDGAR Web site.

CEO duality exists in firms in which the positions of Chairperson of the Board and Chief Executive Officer are not held by two separate individuals. Since a CEO's legitimate and informal power increase when he or she holds both positions (Crystal 1991; Harrison, Torres, and Kukalis 1988; Rechner and Dalton 1991; Vance 1983), circumstances in which CEO duality does not exist provide the board of directors with more power and greater latitude to perform its monitoring duties than is afforded those firms in which these two positions are held by a single individual (Carey and Ogden 2000; MacAvoy and Millstein 2003; Nadler et al. 2006; Rechner and Dalton 1991). The CEO duality variable was coded as 0 if the CEO was not also the chairperson of the board and 1 if the CEO was also the chairperson of the board.

Since more powerful boards tend to exhibit longer average board tenure relative to the CEO's tenure, it is important to ascertain *board tenure relative to CEO*. The reasons for this are that (1) longer tenures may indicate a greater amount of expert power by virtue of familiarity with firm processes (Alderfer 1986; Finkelstein 1992; Singh and Harianto 1989; Vafeas 2003; Zald 1969), (2) CEOs who have been with a company for a

long time may confer an aura of superiority that could stifle board members' perceived ability to contradict the CEO (Finkelstein and Hambrick 1989), and (3) directors who have been with the board for only a short time may tend to defer to the CEO because they feel as though they owe their position to him/her (Finkelstein and Hambrick 1989; Wade, O'Reilly, and Chandratat 1990). Based on Zajac and Westphal's (1996) precedent, this measure was computed by dividing the average tenure of a firm's directors by the tenure of its CEO.

Zajac and Westphal (1996) contend that *independent outside directors* serves as a third indicator of a board's relative power since outsiders do not face potential career-impacting repercussions should they express disagreement with the CEO's decisions (Beatty and Zajac 1994; Lorsch and MacIver 1989). Recent events necessitate, however, that Zajac and Westphal's (1996) definition be updated. As a result of increased attention to director independence, especially in the wake of the Sarbanes-Oxley Act of 2002, the researchers' classification of *independent outside directors* as those outside directors appointed prior to the appointment of the CEO, no longer sufficiently encapsulates current SEC guidelines regarding director independence. For this reason, the present study updates the measure of *independent outside directors*, as those directors less tethered to the top management team (Branson 2007), to more accurately reflect recent SEC-endorsed stipulations. A widely accepted conceptualization of director independence is adopted for this study – one in which directors are considered independent only if they have never served as an officer of the company, their occupation does not place them in a position in which they are likely to transact with or offer services to the company, and they do not possess familial ties to management (Bhagat

and Black 1999; Bowen 2008). I ascertained the number of *independent outside directors* by scanning each board member's biographical profile to determine whether the director was both an outsider appointed prior to the CEO's taking office and independent of the firm, as defined by current SEC regulations. Particular attention was paid to evaluating familial relationships and financial ties to the company, in order to fully gauge director independence, as higher numbers of independent outside directors indicate a more powerful board. I then divided the number of *independent outside directors* by the total number of directors to obtain the necessary ratio.

According to Zajac and Westphal's (1996) final indicator of relative board power, boards accrue more power as outside directors secure greater *outsider stock ownership*, because additional stock ownership equates to an increase in votes (Finkelstein 1992; Zald 1969). From an agency theory perspective, increased stock ownership can also help align directors' interests more closely with those of shareholders than with those of management by virtue of the directors' having a vested interest in the company's success and, hence, greater motivation to voice their concern over and exercise their power against actions to which they object. This final indicator of relative board power was assessed by calculating the percentage of total common stock owned by outside directors.

I employ Haynes and Hillman's (2010) relatively nascent operationalization of strategic change, which is a modified version of Finkelstein and Hambrick's (1990) conceptualization. This measure divides strategic change into two discrete components: *strategic variation*, which represents divergence from previously-employed company strategies, and *strategic deviation*, or digressions in strategy away from industry norms. Six resource allocation ratios, derived from COMPUSTAT data, compose these two

strategic change dimensions: “advertising intensity (advertising/sales); R&D intensity (R&D/sales); plant and equipment upgrades (new plant and equipment/gross plant and equipment); nonproduction overhead (SG&A expenses/sales); inventory levels (inventory/sales); and financial leverage (debt/equity)” (Haynes and Hillman 2010: 1152).

Determining strategic variation over time requires first establishing a baseline strategic variation reading. In accordance with Haynes and Hillman’s (2010) prescription, I apply exponential smoothing to the six resource allocation ratios for each firm’s 2002 to 2006 records, using a damping factor of 0.25, and then add up the smoothed results to derive strategic variation estimates for 2006. The procedure is repeated for 2007 and 2008, with smoothing estimates for each calculated based on data collected for the focal year and the four years preceding it. Finally, the absolute differences between the estimated and actual values are calculated and converted to their natural logarithms.

Since strategic deviation represents divergence from industry norms, the first step in computing this dimension is to find the industry norms for each four-digit SIC code. This process entails merging the sample firms into French’s forty-nine industry categories (French 2007), consulting the C4 index of industry concentration to determine the top four companies in each industry (Dobrev, Kim, and Carroll 2002; U. S. Census Bureau 2005), and summing the six resource allocation ratios. Strategic deviation is regarded as the natural logarithm of the absolute difference between these industry norms and a firm’s resource allocation ratios.

Independent variable. The PWOB measure was computed by dividing the number of female directors by the total number of board members, using data derived

from EDGAR proxy statements for each studied company. Gender was determined based either on information provided in each proxy (e.g. pictures, written biographies, etc.) or through Internet investigation of a company or an individual. These data were collected for the studied period (2006-2008) as well as for four years prior to allow for a lag of up to four years.

Moderators. In addition to studying the proposed direct relationship between the gender diversity of a corporate board of directors and relative board power, the present research also investigates the moderating effects of the percentage of women on a board's committees and committee chairperson gender. Using EDGAR data, I compute the percentage of women on a board's committee as the number of women on a committee divided by the total number of members on that committee, and committee chairperson gender is a binary variable that is coded as 1 if the chairperson is female. Each of these variables was recorded for the years 2002 to 2008 so that time-lagged robustness checks could be run.

Control variables. I include four (4) firm- and board-level variables commonly associated with women's serving on a company's board of directors to shed light on whether these factors better account for variability in relative board power and/or strategic change. These variables are: (1) *board size*, (2) *board age*, (3) *firm size*, and (4) *firm age*. All of these variables are calculated using EDGAR data except for *firm size*, which is derived using statistics from COMPUSTAT.

Board size represents the total number of directors on a firm's board. Brammer, Millington, and Pavelin (2007) report a potential consequence resulting from board size. The researchers found that, for UK firms, larger boards are associated with increased

demographic diversity (Huffman et al. 2010); I include board size in the analyses in order to control for this factor.

Board age is the average age of directors on a board of directors. Wiersema and Bantel (1992) found average board age to be negatively related to the probability of strategic change. Other studies have found that younger individuals are better able to synthesize new concepts (Taylor 1975) and are more likely to take risks (Carlsson and Karlsson 1970; Vroom and Pahl 1971). In the past, cronyism rendered the age make up of the board almost homogeneous, especially as, traditionally, nominees to boards of directors had predominantly been retired CEOs and entrepreneurs; but, with the increase in the number of women's being invited into board service, and because women are more often younger than their fellow board members, it is possible that the variance introduced with the appointment of female board members may better be explained by differences in the average ages of directors.

Firm size, calculated as the natural logarithm of total firm assets, has been shown to affect board size, board gender diversity, and the ability to alter board size. Evidence suggests that firm size has an effect on several firm performance and organizational health-related measures. Prior research indicates that firm size relates positively to board size, rate of expansion, organizational inertia, ability to change, and absolute performance (Gooding and Wagner 1985; Haveman 1993). Firm size also moderately affects R&D intensity (Cohen, Levin, and Mowery 1987), one of the ratios used to determine strategic change. Additionally, firm size may play a part in determining director appointment, in terms of whether a company will elect an inside or an outside director (Dalton and Kesner 1983). Some prior research has linked increased board size to increased board

gender diversity (Dalton and Dalton 2010; Harrigan 1981), but Bradshaw et al. (1996) found that women tend to be better represented on boards of small companies.

The fourth control variable is *firm age*, which is denoted as the studied year minus the year the firm was founded. Previous research indicating that firm age relates positively to board involvement (Judge and Zeithaml 1992) and negatively to firm growth, firm growth variability, and probability of organizational failure (Evans 1987) provides the impetus for including this construct in my analyses. Furthermore, firm age and strategy can have an interactional effect on several indicators of performance, although the exact interplay among these effects remains uncertain (Henderson 1999). In an examination of firm age's effects on company performance, Sorensen and Stuart (2000) found that organizational inertia increases with the passage of time; however, organizations also become more competent over time. It is as yet unclear whether a more seasoned firm's gains in expertise outweigh its inability to change in order to satisfy environmental demands.

Two (2) market- and accounting-based measures of firm performance – *return on assets* and *Tobin's Q* – are also included to control for the possibility that company performance has a main effect on relative board power and/or on strategic change. *Return on assets (ROA)*, a statistic that conveys the degree of success a firm has experienced in leveraging its assets to generate revenue, is derived by dividing income before extraordinary items by total assets (Keats and Hitt 1988). *Tobin's Q* compares a firm's market value to its book value and is calculated by dividing the sum of a firm's book value of its liabilities and market value of its equity by the book value of its assets (Hillman et al. 2007).

I attempt to control for industry effects by including *environmental munificence* and *environmental dynamism* in the analyses. Since these measures change dynamically over time, they serve, in this context, as a better indicator of an industry's environment than merely controlling for industry through SIC-coded dummy variables. Additionally, coding using industry dummy variables would sap away an unacceptable amount of variance, especially with the sample size being tested; employing environmental munificence and environmental dynamism controls circumvents this limitation and allows for a more dynamic measure. I assess munificence in accordance with Keats and Hitt's (1988) precedent. I first regress the natural logarithms of the annual sales data for each firm in the COMPUSTAT database, grouped by four-digit Standard Industrial Classification (SIC) code, on time (averaged over the time span sampled). I then find the antilogarithms of the regression slope coefficients, which will constitute my measures for the environmental munificence variable. In order to measure *environmental dynamism*, I employ the same proxy as do Keats and Hitt (1988), who affirm that instability can serve as a reliable indicator of *environmental dynamism*. By computing the standard error of each slope coefficient obtained in the munificence computations and then calculating its antilogarithm, I arrive at the figures necessary to assess environmental dynamism.

The control variables listed above are included in the analyses testing each of the hypotheses proposed. All of the control variables listed above are measured for the studied years (2006-2008) and, for robustness check purposes, for the years 2002 to 2005.

Analysis

I performed partial least squares (PLS) structural equation modeling using PLS-Graph version 3.10 to test the relationships under investigation. PLS-Graph is a statistical analysis computer program, developed by Drs. Wynne Chin and Timothy Frye, which allows for intuitive path modeling of latent variables through the use of partial least squares (PLS) analysis. PLS-Graph offers three types of resampling procedures for testing parameter estimate significance: blindfolding, jackknifing, and bootstrapping. Of the three options, bootstrapping was chosen for this study because time concerns were eschewed in favor of the greater efficiency and accuracy that bootstrapping provides. The bootstrapping command in PLS-Graph uses the Monte Carlo algorithm to sample with replacement, with each resample's size being equal to that of the original sample, until it reaches a specified number of resamples – in my case, 1000 (Chin 2001). For tests of moderation, the program works toward maximizing explained variance among the indicators and latent variables in a given model. Weights are assigned to each indicator through a series of ordinary least squares analyses, and the resultant weights are then used to estimate the relationships among the constructs (Chin, Marcolin, and Newsted 2003).

This method was selected based on several criteria. First, PLS does not require that observations be independent, nor must they follow any particular pattern of distribution (Chin 1998; Chin and Gopal 1995). Although I do not analyze my data using traditional panel analyses, it should be noted that my sample is in the form of a panel data set. Panel data, by definition, is not independently distributed, as each observation is linked to its temporal counterparts. The fact that PLS eschews the assumption of

independence factored greatly into my choosing this method over other competing analysis procedures. Second, PLS exhibits a clear advantage over other techniques, especially covariance based structural equation modeling (CBSEM), in the area of creating formative constructs. Initial confirmatory factor analysis (CFA) revealed that, while the four measures of relative board power may together form a complete picture of a board's relative power, the measures display a low degree of convergent validity. For this reason, it is necessary to conceptualize the relative board power variable as a formative, rather than reflective, construct. Creation of this second-order construct required a two-step process, wherein I (1) aggregated the three years of data for each of the four indicators of relative board power, in order to estimate a best average score for each indicator. and then (2) included these formative indicators in my model as a reflective construct. Whereas formative constructs typically prove troublesome when using CBSEM analysis software such as IBM's AMOS and *Mplus*, PLS-Graph excels in such situations (Chin and Gopal 1995). Finally, PLS offers greater power than CBSEM when testing small to medium sample sizes (Chin 1998; Chin and Gopal 1995). With 235 total firms in my sample set, this added benefit of PLS proved optimal for testing my theory.

In order to test for moderation using PLS-Graph, I standardized the two interacting independent variables (e.g. PWOB and PWOB's nominating committee) and then multiplied the resulting standardized variables. I then regressed the two independent variables (e.g. PWOB and PWOB's nominating committee) on the dependent variable (relative board power) in order to find the initial betas and R-square before including the interaction in the model. I subsequently re-ran the model with the moderator (e.g. PWOB

x PWOB's nominating committee) included. Testing for mediation using PLS-Graph necessitates drawing the appropriate paths among the constructs thought to be involved in the mediated relationship (e.g. PWOB, relative board power, and strategic variation). The resultant output provides a clear indication of whether mediating effects occur.

Chapter 5

RESULTS

Measurement Model

Table 1 presents the means and standard deviations of the variables studied and Table 2 reports the squared pairwise inter-construct correlations and reliability measures of the constructs created to enable accurate and efficient PLS modeling. The average variance extracted (AVE) statistic serves as a reliability indicator insofar as it implies the percentage of variance for which each of the constructs accounts relative to the percentage due to error (Fornell and Larcker 1981). In addition to loadings, both composite reliability and AVE, which are calculated using this standardized loadings generated by PLS-Graph, can be considered further assessments of convergent validity. AVE figures greater than .50 are optimal, but slightly lower percentages are acceptable (Chin 2010). Upon first inspection, the executive committee chair gender variable (AVE = 0.318) may appear to constitute cause for concern. In reality, though, this low AVE can be easily rationalized based on the fact that many boards no longer maintain standing executive committees; therefore, this variable contains more blank cells than do the others. Missing data, however, is not a concern in this instance when using PLS-Graph, because the software automatically replaces missing data at the construct level with the construct mean. The square roots of the AVE statistics (bolded along the diagonal of Table 2) can assist in determining the discriminant validity of the variables included in

this study. By comparing the square root of a variable's AVE with the correlations in its row and column, one can assess whether a construct relates better to its indicators than it does to other constructs (Chin 2010). Since none of the correlations in any given row or column exceeds the square roots of the AVE statistics, it appears that all of the constructs display an acceptable degree of discriminant validity from one another.

TABLE 1. Descriptive statistics for each variable

Construct	M	SD	Min.	Max.
% of women on board (PWOB)	0.16	0.08	0.00	0.55
CEO duality	0.73	0.45	0.00	1.00
Board tenure relative to CEO	3.28	5.94	0.00	95.27
Independent outside directors	0.43	0.34	0.00	6.00
Outsider stock ownership	0.01	0.03	0.00	0.45
Strategic variation	-1.14	1.96	-9.16	7.46
Strategic deviation	0.23	1.74	-6.71	7.46
PWOB's NC	0.19	0.17	0.00	0.80
PWOB's CC	0.15	0.16	0.00	1.00
PWOB's EC	0.07	0.11	0.00	0.60
PWOB's AC	0.17	0.16	0.00	0.75
NC chairperson gender	0.17	0.37	0.00	1.00
CC chairperson gender	0.09	0.29	0.00	1.00
EC chairperson gender	0.02	0.14	0.00	1.00
AC chairperson gender	0.07	0.26	0.00	1.00
Board size	11.41	2.19	5.00	23.00
Board age	60.70	2.74	46.92	70.00
Firm size	10.22	1.27	7.37	14.60
Firm age	70.73	49.24	-3.00	203.00
Return on assets	0.04	0.07	-0.60	0.90
Tobin's Q	1.63	0.77	0.63	5.71
Environmental munificence	1.10	0.10	0.40	1.71
Environmental dynamism	1.10	0.15	1.00	3.66

N = 235. NC = nominating committee; CC = compensation committee;
EC = executive committee; AC = audit committee.

TABLE 2. Inter-construct correlations and reliability measures

Composite Reliability	AVE	Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
0.945	0.713	1 % of women on board (PWOB)	.84																											
0.943	0.805	2 Relative board power	.01	.90																										
0.876	0.702	3 Strategic variation	.00	.01	.84																									
0.911	0.774	4 Strategic deviation	.00	.00	.30	.88																								
0.912	0.597	5 PWOB's NC	.28	.00	.00	.00	.77																							
0.914	0.604	6 PWOB's CC	.28	.01	.00	.00	.17	.78																						
0.902	0.570	7 PWOB's EC	.13	.00	.00	.00	.01	.00	.75																					
0.914	0.604	8 PWOB's AC	.25	.00	.00	.00	.02	.03	.02	.78																				
0.919	0.623	9 NC chair gender	.05	.00	.00	.00	.27	.06	.06	.00	.79																			
0.901	0.567	10 CC chair gender	.02	.00	.01	.00	.01	.16	.00	.02	.00	.75																		
0.693	0.318	11 EC chair gender	.03	.00	.00	.00	.00	.00	.18	.01	.00	.00	.56																	
0.923	0.638	12 AC chair gender	.07	.00	.00	.01	.00	.00	.04	.14	.01	.00	.02	.80																
0.840	0.432	13 PWOB x PWOB's NC	.01	.04	.00	.00	.01	.04	.00	.00	.01	.00	.01	.00	.66															
0.854	0.459	14 PWOB x PWOB's CC	.03	.01	.00	.00	.02	.05	.00	.01	.02	.01	.01	.00	.49	.68														
0.867	0.496	15 PWOB x PWOB's EC	.06	.03	.00	.01	.03	.05	.13	.04	.00	.01	.18	.00	.05	.00	.70													
0.882	0.522	16 PWOB x PWOB's AC	.03	.03	.00	.00	.00	.01	.00	.18	.00	.00	.00	.06	.20	.22	.00	.72												
0.899	0.568	17 PWOB x NC chair gender	.25	.00	.00	.00	.10	.14	.03	.04	.09	.03	.00	.02	.16	.12	.01	.03	.75											
0.939	0.692	18 PWOB x CC chair gender	.11	.00	.00	.00	.05	.09	.00	.02	.02	.12	.00	.01	.06	.21	.03	.03	.15	.83										
0.826	0.511	19 PWOB x EC chair gender	.02	.00	.00	.00	.00	.00	.09	.00	.00	.00	.42	.02	.00	.01	.15	.00	.00	.00	.71									
0.944	0.706	20 PWOB x AC chair gender	.14	.00	.00	.00	.02	.01	.07	.08	.00	.00	.02	.10	.03	.02	.00	.16	.15	.07	.02	.84								
0.940	0.691	21 Board size	.01	.01	.00	.02	.01	.00	.01	.00	.00	.00	.01	.01	.00	.00	.00	.04	.00	.00	.00	.00	.83							
0.953	0.743	22 Board age	.01	.00	.02	.00	.00	.00	.00	.02	.01	.01	.01	.04	.00	.00	.00	.02	.00	.00	.00	.00	.04	.86						
0.996	0.972	23 Firm size	.00	.01	.00	.01	.00	.00	.01	.00	.02	.00	.00	.00	.01	.02	.00	.04	.00	.01	.00	.00	.24	.04	.99					
0.995	0.963	24 Firm age	.03	.02	.00	.00	.01	.00	.01	.00	.01	.00	.00	.01	.00	.01	.01	.00	.00	.00	.00	.02	.02	.01	.07	.98				
0.899	0.565	25 Return on assets	.01	.03	.29	.12	.00	.01	.00	.00	.01	.02	.00	.00	.01	.01	.01	.00	.01	.00	.00	.00	.00	.01	.01	.00	.75			
0.976	0.852	26 Tobin's Q	.01	.01	.09	.04	.00	.01	.00	.01	.00	.02	.00	.00	.00	.01	.02	.00	.02	.00	.00	.00	.00	.00	.02	.00	.57	.92		
0.790	0.430	27 Environmental munificence	.01	.00	.04	.01	.00	.02	.01	.00	.00	.05	.00	.00	.00	.01	.00	.00	.05	.03	.00	.02	.00	.00	.01	.02	.05	.05	.66	
0.860	0.533	28 Environmental dynamism	.01	.00	.02	.00	.00	.01	.01	.02	.03	.00	.00	.00	.01	.01	.00	.00	.05	.00	.00	.00	.00	.00	.00	.00	.00	.01	.23	.73

N = 235. Square roots of the AVE statistics are presented in bold along the diagonal. NC = nominating committee; CC = compensation committee; EC = executive committee; AC = audit committee.

Tables 3 and 4 report the loadings and cross-loadings of the individual items included in the main effect analyses and the weights and loadings of each of these items, respectively. In order to test for relative board power's mediation of the relationship between PWOB and strategic change, it is necessary to test the two components of strategic change in separate models in order to avoid confounding effects. In an effort to ascertain whether one year constituted an appropriate temporal offset for the independent variables, all analyses were also conducted using a three-year lag. For each construct, I used three years of data as indicators and allowed PLS to assign each an optimal weight. In this way, I am able to obtain more accurate, smoother results than I would with only a single year's worth of data. Thus, the relative board power, strategic change, and strategic deviation constructs were each composed of measures at t , $t + 1$, and $t + 2$ (years 2006, 2007, and 2008). For one-year-lagged models, all other constructs are formed from measures corresponding to the years 2005, 2006, and 2007; for three-year-lagged models, all other constructs are formed from measures corresponding to the years 2003, 2004, and 2005. A fortunate consequence of lagging the independent variables is that it circumvents any endogeneity concerns regarding potential reverse causality between the PWOB and relative board power constructs. It should also be noted that relative board power is a formative construct that I created by first using PLS to create averages for each of the four indicators of board power across the three studied years and then setting these PLS-weighted averages as the indicators for my analyses. This is the reason that the relative board power measures do not have a year specified at the end of each of their variable names.

TABLE 3. Loadings and cross-loadings

Loadings and cross-loadings of test of main effects with strategic variation			
1 year lag			
	PWOB	Relative board power	Strategic Variation
% of women on board (PWOB) 2005	0.865	0.109	0.028
% of women on board (PWOB) 2006	0.953	0.132	0.011
% of women on board (PWOB) 2007	0.960	0.120	-0.088
Relative Board Power – CEO duality	0.041	0.821	-0.009
Relative Board Power – board tenure relative to CEO	0.060	0.956	-0.140
Relative Board Power – independent outside directors	0.122	0.958	-0.121
Relative Board Power – outsider stock ownership	-0.033	0.808	-0.090
Strategic Variation 2006	-0.089	-0.067	0.802
Strategic Variation 2007	-0.023	-0.185	0.860
Strategic Variation 2008	0.003	-0.134	0.873
3 year lag			
	PWOB	Relative board power	Strategic Variation
% of women on board (PWOB) 2003	0.867	0.070	-0.002
% of women on board (PWOB) 2004	0.955	0.107	0.006
% of women on board (PWOB) 2005	0.934	0.102	0.028
Relative Board Power – CEO duality	0.061	0.843	-0.009
Relative Board Power – board tenure relative to CEO	0.103	0.949	-0.140
Relative Board Power – independent outside directors	0.113	0.945	-0.120
Relative Board Power – outsider stock ownership	-0.011	0.831	-0.090
Strategic Variation 2006	-0.068	-0.063	0.800
Strategic Variation 2007	0.015	-0.181	0.855
Strategic Variation 2008	0.070	-0.132	0.878
Loadings and cross-loadings of test of main effects with strategic deviation			
1 year lag			
	PWOB	Relative board power	Strategic Deviation
% of women on board (PWOB) 2005	0.861	0.094	0.049
% of women on board (PWOB) 2006	0.966	0.113	-0.007
% of women on board (PWOB) 2007	0.952	0.106	-0.042
Relative Board Power – CEO duality	0.041	0.869	-0.094
Relative Board Power – board tenure relative to CEO	0.057	0.932	-0.029
Relative Board Power – independent outside directors	0.122	0.933	0.003
Relative Board Power – outsider stock ownership	-0.036	0.854	-0.124
Strategic Deviation 2006	-0.071	-0.011	0.896
Strategic Deviation 2007	-0.006	-0.106	0.906
Strategic Deviation 2008	0.043	-0.110	0.855
3 year lag			
	PWOB	Relative board power	Strategic Deviation
% of women on board (PWOB) 2003	0.859	0.064	-0.051
% of women on board (PWOB) 2004	0.953	0.100	-0.003
% of women on board (PWOB) 2005	0.939	0.095	0.050
Relative Board Power – CEO duality	0.061	0.859	-0.094

TABLE 3 (*continued*)

	PWOB	Relative board power	Strategic Deviation
Relative Board Power – board tenure relative to CEO	0.103	0.940	-0.030
Relative Board Power – independent outside directors	0.113	0.931	0.003
Relative Board Power – outsider stock ownership	-0.010	0.853	-0.125
Strategic Deviation 2006	-0.027	-0.011	0.893
Strategic Deviation 2007	0.007	-0.104	0.907
Strategic Deviation 2008	0.052	-0.111	0.857

N = 235.

TABLE 4. Weights and loadings

Weights and loadings of test of main effects with strategic variation				
	Weight	<i>t</i>	Loading	<i>t</i>
1 year lag				
% of women on board (PWOB) 2005	0.226	0.917	0.865	6.909
% of women on board (PWOB) 2006	0.311	1.712	0.953	8.248
% of women on board (PWOB) 2007	0.555	1.598	0.960	4.882
RBP – CEO duality	0.136	0.775	0.821	5.913
RBP – board tenure relative to CEO	0.413	3.609	0.956	19.370
RBP – independent outside directors	0.395	3.738	0.958	20.511
RBP – outsider stock ownership	0.143	0.996	0.808	4.235
Strategic Variation 2006	0.350	6.607	0.802	17.505
Strategic Variation 2007	0.381	9.018	0.860	29.781
Strategic Variation 2008	0.465	12.242	0.873	44.341
3 year lag				
% of women on board (PWOB) 2003	0.231	1.029	0.867	9.387
% of women on board (PWOB) 2004	0.417	3.531	0.955	17.639
% of women on board (PWOB) 2005	0.456	2.292	0.934	4.453
RBP – CEO duality	0.188	1.601	0.843	7.628
RBP – board tenure relative to CEO	0.408	4.191	0.949	18.384
RBP – independent outside directors	0.319	5.184	0.945	20.940
RBP – outsider stock ownership	0.183	1.927	0.831	5.501
Strategic Variation 2006	0.349	7.357	0.800	19.838
Strategic Variation 2007	0.367	9.800	0.855	27.808
Strategic Variation 2008	0.480	10.753	0.878	47.180
Weights and loadings of test of main effects with strategic deviation				
	Weight	<i>t</i>	Loading	<i>t</i>
1 year lag				
% of women on board (PWOB) 2005	0.174	0.550	0.861	6.717
% of women on board (PWOB) 2006	0.434	3.344	0.966	9.664
% of women on board (PWOB) 2007	0.478	1.819	0.952	4.264
RBP – CEO duality	0.249	1.307	0.869	5.677
RBP – board tenure relative to CEO	0.345	2.341	0.932	7.588
RBP – independent outside directors	0.286	1.314	0.933	7.755
RBP – outsider stock ownership	0.228	0.738	0.854	3.097
Strategic Deviation 2006	0.384	7.102	0.896	34.923
Strategic Deviation 2007	0.391	9.070	0.906	33.304
Strategic Deviation 2008	0.365	3.898	0.855	6.571
3 year lag				
% of women on board (PWOB) 2003	0.208	0.675	0.859	5.853
% of women on board (PWOB) 2004	0.417	3.002	0.953	9.388
% of women on board (PWOB) 2005	0.476	1.679	0.939	4.405
RBP – CEO duality	0.224	1.650	0.859	7.172
RBP – board tenure relative to CEO	0.396	3.285	0.940	11.796
RBP – independent outside directors	0.255	1.741	0.931	12.223
RBP – outsider stock ownership	0.231	1.076	0.853	3.580
Strategic Deviation 2006	0.374	7.693	0.893	37.863
Strategic Deviation 2007	0.397	12.119	0.907	42.780
Strategic Deviation 2008	0.369	6.911	0.857	13.911

N = 235. RBP = relative board power.

Hypotheses Testing

Hypothesis H1 posits that board gender diversity is associated with greater relative board power. Hypothesis H4 examines the relationship between board gender diversity and strategic variation; Hypothesis H5 examines the relationship between board gender diversity and strategic deviation. Hypothesis H6 tests the relationship between board gender diversity and the first form of strategic change, strategic variation, as mediated by relative board power, while Hypothesis H7 tests the relationship between board gender diversity and the second form of strategic change, strategic deviation, as mediated by relative board power. Figures 2 and 3 display the results of the two main effects models with the PWOB variable lagged by one year. Figure 2 tests Hypotheses 1, 4, and 6, while Figure 3 tests Hypotheses 1, 5, and 7. Both models were repeated using a three-year lag for the PWOB variable, and the results of each of these tests can be seen in Table B. The results reported in Table 5 were derived using a bootstrapping resampling procedure with 1000 subsamples. Support was found for hypothesis H1. This hypothesis was significant, in the expected direction, in the main effects models that included strategic variation for both one-year lag ($\beta = .074, p = .049$) and three-year lag ($\beta = .074, p = .042$). Hypothesis H1 was also marginally supported, in the expected direction, in the main effects model that included strategic deviation with a three-year lag ($\beta = .075, p = .092$). No support was found for hypotheses H4, H5, H6, or H7.

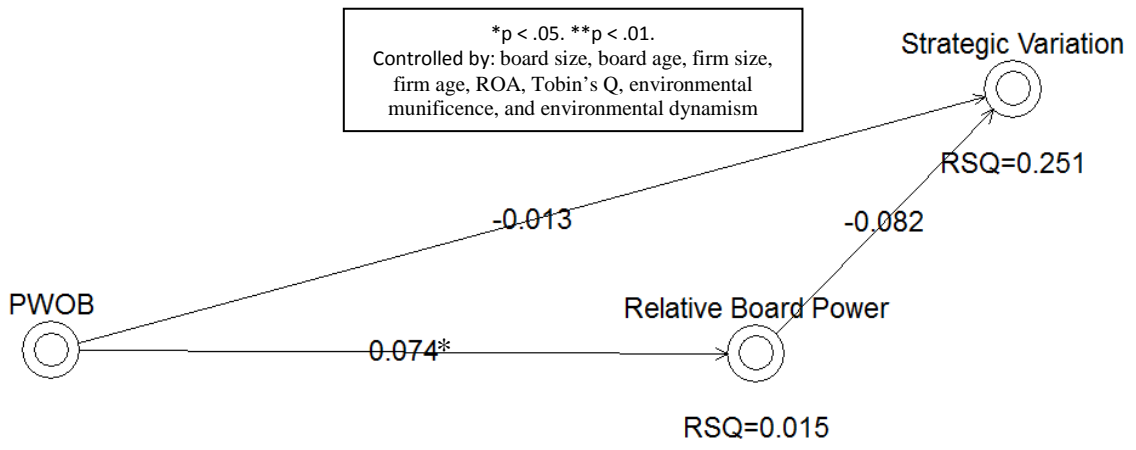


FIGURE 2. Test of main effects with strategic variation

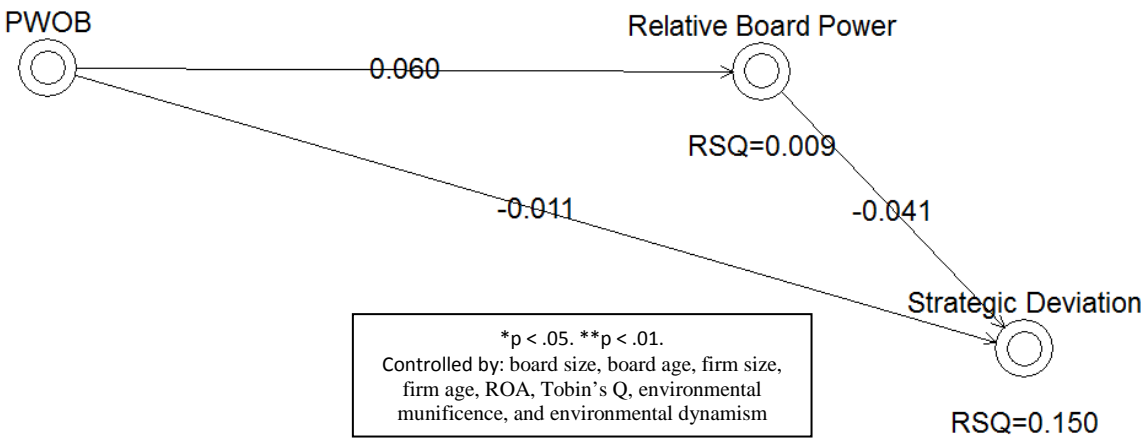


FIGURE 3. Test of main effects with strategic deviation

TABLE 5. Results of test of main effects

Variable	β	R^2
1 year lag with strategic variation		
PWOB →		
Relative board power	.074 ($p = .049$)	.015
PWOB →		
Strategic variation	-.013 ($p = .462$)	.251
Relative board power →		
Strategic variation	-.082 ($p = .202$)	.251
1 year lag with strategic deviation		
PWOB →		
Relative board power	.060 ($p = .119$)	.009
PWOB →		
Strategic deviation	-.011 ($p = .465$)	.150
Relative board power →		
Strategic deviation	-.041 ($p = .469$)	.150
3 year lag with strategic variation		
PWOB →		
Relative board power	.074 ($p = .042$)	.034
PWOB →		
Strategic variation	.057 ($p = .196$)	.223
Relative board power →		
Strategic variation	-.052 ($p = .318$)	.223
3 year lag with strategic deviation		
PWOB →		
Relative board power	.075 ($p = .092$) [†]	.020
PWOB →		
Strategic deviation	.033 ($p = .411$)	.168
Relative board power →		
Strategic deviation	-.022 ($p = .499$)	.168

N = 235. Values in bold are significant at the $p < .05$ level. [†] $p < .10$.

Hypotheses H2a through H2d test whether the gender diversity of each of the four major committees positively moderates the PWOB / relative board power relationship and hypotheses H3a through H3d seek to determine whether the gender of each committee's chairperson moderates the PWOB / relative board power relationship. The results of hypothesis H2a are shown in Figure 4. Similar models were created with each of the remaining three committee's percentage of women measurements and the four committee chairperson gender measurements taking the place of the PWOB's nominating committee measure. In all, eight (8) such models were created to test hypotheses H2a through H2d and hypotheses H3a through H3d. The results of the tests for hypotheses

H2a through H2d are shown in Tables 6a through 6d; the results of the tests for hypotheses H3a through H3d are shown in Tables 7a through 7d. When a one-year lag is employed, the moderating effects of the percentages of women on each of the board's major committees were highly significant, albeit not in the direction expected (PWOB's nominating committee: $\beta = -0.312$, $f^2 = .094$, $p = 0.003$; PWOB's compensation committee: $\beta = -0.248$, $f^2 = .055$, $p = 0.004$; PWOB's executive committee: $\beta = -0.327$, $f^2 = .068$, $p = 0.005$; PWOB's audit committee: $\beta = -0.247$, $f^2 = .050$, $p = 0.005$). When a three-year lag is employed, the moderating effects of the percentages of women on the compensation and executive committees are also significant; and, again, opposite the predicted direction (PWOB's compensation committee: $\beta = -0.157$, $f^2 = .022$, $p = 0.046$; PWOB's executive committee: $\beta = -0.156$, $f^2 = .020$, $p = 0.035$). Note also that the standardized path estimates indicate both the direction and magnitude of a moderator's effects on the relationship between the independent and dependent constructs and that these interaction effects indicate one standard deviation change in the main effects beta (Chin 2001; Chin et al. 2003). Thus, the inverse of hypotheses H2a through H2d appear to be supported, although the full implications of these results demand further discussion. Of the four hypotheses testing the moderating effects of committee chairperson gender on the PWOB / relative board power relationship (H3a through H3d), support was found only for hypothesis H3b when one-year lag was employed (compensation committee chairperson gender: $\beta = 0.050$, $f^2 = .002$, $p = 0.031$). The size of this effect, however, was extremely small. Since this moderator is categorical, the effect here refers to mean differences in the relative board power construct. Table 8 provides a summary of my findings.

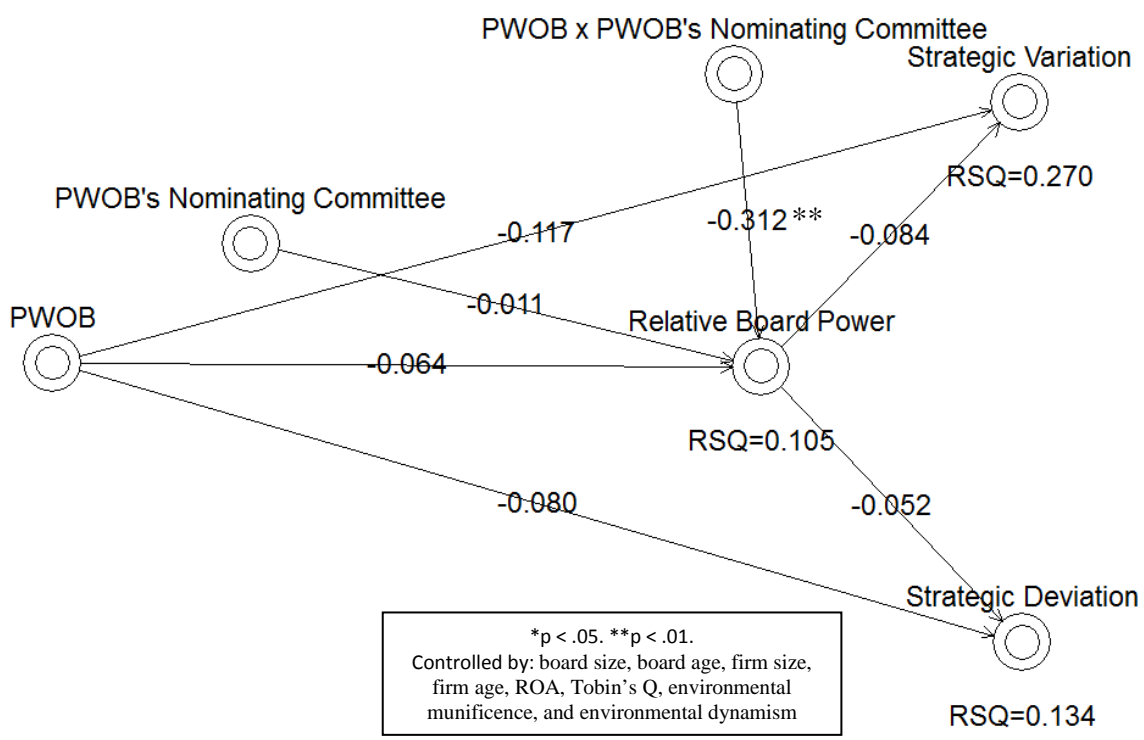


FIGURE 4. Test of moderation for PWOB's nominating committee

TABLE 6a. Results of test of moderation for PWOB's nominating committee

Variable	β	f^2
1 year lag		
PWOB's NC main effects – $R^2 = .012$		
PWOB →		
Relative board power	.076	
PWOB's NC →		
Relative board power	-.050	
PWOB's NC with interaction – $R^2 = .105$		
PWOB →		
Relative board power	-.064	
PWOB's NC →		
Relative board power	-.011	
PWOB x PWOB's NC →	-.312 ($p = .003$)	.094
Relative board power		
3 year lag		
PWOB's NC main effects – $R^2 = .025$		
PWOB →		
Relative board power	.052	
PWOB's NC →		
Relative board power	.050	
PWOB's NC with interaction – $R^2 = .035$		
PWOB →		
Relative board power	.056	
PWOB's NC →		
Relative board power	.059	
PWOB x PWOB's NC →	-.107 ($p = .112$)	.010
Relative board power		

$N = 235$. NC = nominating committee. Values in bold are significant at the $p < .05$ level.

TABLE 6b. Results of test of moderation for PWOB's compensation committee

Variable	β	f^2
1 year lag		
PWOB's CC main effects – $R^2 = .012$		
PWOB →		
Relative board power	.048	
PWOB's CC →		
Relative board power	.038	
PWOB's CC with interaction – $R^2 = .066$		
PWOB →		
Relative board power	-.045	
PWOB's CC →		
Relative board power	.110	
PWOB x PWOB's CC →	-.248 ($p = .004$)	.055
Relative board power		
3 year lag		
PWOB's CC main effects – $R^2 = .026$		
PWOB →		
Relative board power	.045	
PWOB's CC →		
Relative board power	.064	
PWOB's CC with interaction – $R^2 = .047$		
PWOB →		
Relative board power	.039	
PWOB's CC →		
Relative board power	.079	
PWOB x PWOB's CC →	-.157 ($p = .046$)	.022
Relative board power		

$N = 235$. CC = compensation committee. Values in bold are significant at the $p < .05$ level.

TABLE 6c. Results of test of moderation for PWOB's executive committee

Variable	β	f^2
1 year lag		
PWOB's EC main effects – $R^2 = .012$		
PWOB →		
Relative board power	.042	
PWOB's EC →		
Relative board power	.048	
PWOB's EC with interaction – $R^2 = .079$		
PWOB →		
Relative board power	-.087	
PWOB's EC →		
Relative board power	.251	
PWOB x PWOB's EC →	-.327 ($p = .005$)	.068
Relative board power		
3 year lag		
PWOB's EC main effects – $R^2 = .030$		
PWOB →		
Relative board power	.036	
PWOB's EC →		
Relative board power	.100	
PWOB's EC with interaction – $R^2 = .049$		
PWOB →		
Relative board power	-.022	
PWOB's EC →		
Relative board power	.175	
PWOB x PWOB's EC →	-.156 ($p = .035$)	.020
Relative board power		

$N = 235$. EC = executive committee. Values in bold are significant at the $p < .05$ level.

TABLE 6d. Results of test of moderation for PWOB's audit committee

Variable	β	f^2
1 year lag		
PWOB's AC main effects – $R^2 = .011$		
PWOB →		
Relative board power	.069	
PWOB's AC →		
Relative board power	-.017	
PWOB's AC with interaction – $R^2 = .060$		
PWOB →		
Relative board power	-.037	
PWOB's AC →		
Relative board power	.114	
PWOB x PWOB's AC →	-.247 ($p = .005$)	.050
Relative board power		
3 year lag		
PWOB's AC main effects – $R^2 = .023$		
PWOB →		
Relative board power	.075	
PWOB's AC →		
Relative board power	.002	
PWOB's AC with interaction – $R^2 = .034$		
PWOB →		
Relative board power	.073	
PWOB's AC →		
Relative board power	.046	
PWOB x PWOB's AC →	-.120 ($p = .087$)	.011
Relative board power		

$N = 235$. AC = audit committee. Values in bold are significant at the $p < .05$ level.

TABLE 7a. Results of test of moderation for nominating committee chairperson gender

Variable	β	f^2
1 year lag		
NC chairperson gender main effects – $R^2 = .014$		
PWOB →		
Relative board power	.059	
NC chairperson gender →		
Relative board power	.044	
NC chairperson gender with interaction – $R^2 = .015$		
PWOB →		
Relative board power	.049	
NC chairperson gender →		
Relative board power	.036	
PWOB x NC chairperson gender →	.032 ($p = .174$)	.001
Relative board power		
3 year lag		
NC chairperson gender main effects – $R^2 = .027$		
PWOB →		
Relative board power	.065	
NC chairperson gender →		
Relative board power	.066	
NC chairperson gender with interaction – $R^2 = .027$		
PWOB →		
Relative board power	.062	
NC chairperson gender →		
Relative board power	.064	
PWOB x NC chairperson gender →	.008 ($p = .339$)	.000
Relative board power		

$N = 235$. NC = nominating committee. Values in bold are significant at the $p < .05$ level.

TABLE 7b. Results of test of moderation for compensation committee chairperson gender

Variable	β	f^2
1 year lag		
CC chairperson gender main effects – $R^2 = .014$		
PWOB →		
Relative board power	.059	
CC chairperson gender →		
Relative board power	.044	
CC chairperson gender with interaction – $R^2 = .016$		
PWOB →		
Relative board power	.048	
CC chairperson gender →		
Relative board power	.040	
PWOB x CC chairperson gender →	.050 ($p = .031$)	.002
Relative board power		
3 year lag		
CC chairperson gender main effects – $R^2 = .024$		
PWOB →		
Relative board power	.074	
CC chairperson gender →		
Relative board power	.033	
CC chairperson gender with interaction – $R^2 = .025$		
PWOB →		
Relative board power	.068	
CC chairperson gender →		
Relative board power	.022	
PWOB x CC chairperson gender →	.035 ($p = .119$)	.001
Relative board power		

$N = 235$. CC = compensation committee. Values in bold are significant at the $p < .05$ level.

TABLE 7c. Results of test of moderation for executive committee chairperson gender

Variable	β	f^2
1 year lag		
EC chairperson gender main effects – $R^2 = .014$		
PWOB →		
Relative board power	.059	
EC chairperson gender →		
Relative board power	.044	
EC chairperson gender with interaction – $R^2 = .014$		
PWOB →		
Relative board power	.057	
EC chairperson gender →		
Relative board power	.044	
PWOB x EC chairperson gender →	.007 ($p = .535$)	.000
Relative board power		
3 year lag		
EC chairperson gender main effects – $R^2 = .023$		
PWOB →		
Relative board power	.078	
EC chairperson gender →		
Relative board power	.016	
EC chairperson gender with interaction – $R^2 = .023$		
PWOB →		
Relative board power	.075	
EC chairperson gender →		
Relative board power	.026	
PWOB x EC chairperson gender →	.019 ($p = .193$)	.000
Relative board power		

$N = 235$. EC = executive committee. Values in bold are significant at the $p < .05$ level.

TABLE 7d. Results of test of moderation for audit committee chairperson gender

Variable	β	f^2
1 year lag		
AC chairperson gender main effects – $R^2 = .014$		
PWOB →		
Relative board power	.059	
AC chairperson gender →		
Relative board power	.044	
AC chairperson gender with interaction – $R^2 = .014$		
PWOB →		
Relative board power	.076	
AC chairperson gender →		
Relative board power	.048	
PWOB x AC chairperson gender →	.046 ($p = .159$)	.000
Relative board power		
3 year lag		
AC chairperson gender main effects – $R^2 = .023$		
PWOB →		
Relative board power	.073	
AC chairperson gender →		
Relative board power	.026	
AC chairperson gender with interaction – $R^2 = .023$		
PWOB →		
Relative board power	.072	
AC chairperson gender →		
Relative board power	.025	
PWOB x AC chairperson gender →	.005 ($p = .678$)	.000
Relative board power		

$N = 235$. AC = audit committee. Values in bold are significant at the $p < .05$ level.

TABLE 8. Summary of findings

Hypothesis	Finding
H1 An increase in the percentage of women on a firm's board will predict an increase in the relative power of that board of directors.	supported
H2a The greater the percentage of women on a firm's nominating committee, the stronger the positive relationship between the percentage of women on a firm's board and relative board power.	not supported
H2b The greater the percentage of women on a firm's compensation committee, the stronger the positive relationship between the percentage of women on a firm's board and relative board power.	not supported
H2c The greater the percentage of women on a firm's executive committee, the stronger the positive relationship between the percentage of women on a firm's board and relative board power.	not supported
H2d The greater the percentage of women on a firm's audit committee, the stronger the positive relationship between the percentage of women on a firm's board and relative board power.	not supported
H3a A woman's serving as chair of a company's nominating committee will be associated with a stronger positive relationship between the percentage of women on a firm's board and relative board power .	not supported
H3b A woman's serving as chair of a company's compensation committee will be associated with a stronger positive relationship between the percentage of women on a firm's board and relative board power.	supported
H3c A woman's serving as chair of a company's executive committee will be associated with a stronger positive relationship between the percentage of women on a firm's board and relative board power.	not supported
H3d A woman's serving as chair of a company's audit committee will be associated with a stronger positive relationship between the percentage of women on a firm's board and relative board power.	not supported
H4 The percentage of women on a firm's board will be positively associated with a firm's strategic variation.	not supported
H5 The percentage of women on a firm's board will be positively associated with a firm's strategic deviation.	not supported
H6 Relative board power will mediate the positive relationship between the percentage of women on a firm's board and a firm's strategic variation.	not supported
H7 Relative board power will mediate the positive relationship between the percentage of women on a firm's board and a firm's strategic deviation.	not supported

Chapter 6

DISCUSSION

This research examines the relationship between the percentage of women on a company's board of directors and both the board's relative power, vis-à-vis the CEO, and firm strategic change. Since scant research investigates the link between the percentage of women on the board (PWOB) and relative board power, and since previous studies have not addressed the possibility of a direct relationship between relative board power and firm strategic change, my research works toward filling these gaps. My inclusion of all three of these constructs – PWOB, relative board power, and firm strategic change – within this one study enabled me to test for mediation in an effort to determine whether relative board power is an essential mediating factor in the relationship between PWOB and firm strategic change. In order to contribute further robustness to the model, I felt it important to also study the moderating variables of committee composition, particularly the percentage of women on each of the four major committees – nominating, compensation, executive, and audit – and especially chairperson gender, with the intention of providing a unique perspective on board of directors composition and function. In formulating my hypotheses, I targeted the concept of gender, board power, and strategic change because of the growing worldwide interest in, and legislation aimed at, increasing the presence of women on boards of directors. Upper echelons theory

provides an appropriate lens through which to examine gender issues at the board of directors level since this research stream focuses on the effects of individuals' characteristics within top levels of a company. The ongoing controversy within agency literature, regarding how best to address the agency problem that exists between shareholders and management, led to my investigating the construct of relative board power. The aversion of CEOs, in general, to change (Eisenhardt 1989; Hambrick and Fukutomi 1991; Henderson and Fredrickson 1996) meant that determining the incidence of firm strategic change could serve as a good litmus test of the board / CEO power dynamic, since companies exhibiting a balance of power more in favor of the organization's CEO would tend to be less likely to engage in strategic change.

As predicted, hypothesis H1, which states that "an increase in the percentage of women on a firm's board will predict an increase in the relative power of that board of directors," was supported. In addition, this relationship was found to be significant both when moderated by the percentage of women on each of a board's major committees and when moderated by compensation committee chairperson gender. The support found for this hypothesis suggests that board gender composition plays a significant role in shaping the principal/agent relationship. The support found for this hypothesis also demonstrates that demographic characteristics within a firm's upper echelons can have important ramifications for group processes.

The finding that the percentages of women on each of a board's major committees moderate the PWOB / relative board power relationship provides an interesting wrinkle to the evidence discovered in support of the hypothesis that the percentage of women on a firm's board of directors positively relates to the board's relative power. Although I had

initially predicted that the percentage of women on a board's major committees would positively moderate the relationship, the opposite was found to be true. At first, the finding that the percentage of women on each of a firm's major committees negatively moderates the relationship between PWOB and relative board power appeared to nullify the support found for hypothesis H1. Upon further reflection, however, one can understand how these seemingly contradictory findings might prove to be perfectly congruous. It is my postulation that the representation of female board members on a board of directors' major committees can partially compensate for female representation on the board at large. In other words, I infer from my findings that there exists a dampening effect wherein increasing the proportion of women on a board leads to diminishing returns, in terms of board power, as the percentage of female directors on the major committees increases. Of course, the fact that the members of a board's committees are also part of the whole board adds a degree of conflation to this theory, so future researchers may wish to reexamine this relationship by approaching it from a different perspective.

The support found for hypothesis H3b indicates that a trend may exist wherein designating a woman as chairperson of the compensation committee could further increase the relationship between PWOB and board power. No support was found for any of the other committee chairs' having a significant effect on the PWOB / relative board power relationship. Perhaps the adage of "the hand that holds the purse strings makes the rules" best explains these results. While the chair of the compensation committee may wield great power in shaping the board's relationship with the CEO, the chairs of the other three major committees appear to lack a commensurate degree of sway. I expected

to find a positive relationship between PWOB and firm strategic change, as mediated by relative board power. In studying the relationship between board capital breadth / depth and strategic change, Haynes and Hillman (2010) treated CEO power (the reciprocal counterpart of board power) as a moderating variable and found some support for their model; in contrast, I tested for relative board power's mediating the relationship between PWOB and strategic change. No significant support was found for PWOB's being either directly related to firm strategic change or related to firm strategic change through relative board power. Based on these results, therefore, I surmise that the percentage of women on a company's board of directors is not significantly related to the incidence of strategic change at the firm level.

Overall, the key findings of this study are that the percentage of women on a board is positively related to relative board power and that the percentage of women on each of a board's committees negatively moderates this relationship. A secondary finding is that the relationship between the percentage of women on a board and the board's relative power appears to be positively moderated by the gender of the board's compensation committee chairperson.

Limitations

Although I have made every effort to ensure the comprehensiveness of this study, no research can ever be all-encompassing. Since the *Fortune* 500 list ranks firms based on their annual gross revenue, my sampling method may introduce a large firm bias. Future research that attempts to replicate my study across a wider spectrum of companies could help assess the generalizability of the results found. The reliance on the *Fortune*

500 list creates another limitation to this study in that the firms sampled are all based in the United States. The results obtained, therefore, may not hold true across countries, especially for those that have enacted laws intended to increase board gender diversity. Another possible limitation of this study is my decision to investigate firm strategic change in terms of two discrete components – strategic variation and strategic deviation – a choice that may have resulted in a lack of findings for the hypotheses testing strategic change.

As with any study employing a sample of this size that analyzes companies across a wide spectrum of industries, missing data may result. The fact that many of the companies either did not maintain standard standing executive committees, rotated committee membership, and/or did not appoint a chairperson may account for the low AVE statistic associated with executive committee chairperson gender, as reported in Table 2. In collecting data for the strategic variation and strategic deviation variables, I encountered some of the same missing data problems as reported by Haynes and Hillman. Haynes and Hillman (2010) discovered that COMPUSTAT lacks some data, either because not all companies incur identical expenses or because no absolute mandated filing protocol exists, meaning that firms may report their financials under categories different from the prevailing or typical. Fortunately, analyses performed using PLS-Graph are not as susceptible to the effects of missing data as are those analyses computed using other software programs. The fact that PLS-Graph replaces missing data at the construct level with the construct mean allows for results that are statistically robust, despite the missing data.

Special attention must be paid to a final limitation of this study. As stated previously, regardless of the gender of a firm's CEO, a greater percentage of women on a board of directors should result in the board's holding a greater amount of relative power; however, this relationship may be moderated by the CEO's gender. Psychological and organizational behavior literature suggests that men feel a greater need for independence than for affiliation, while the reverse is typically true of women (Burke 1993). As a result, I predict that female CEOs will behave more collaboratively with the board, regardless of its demographic composition. The presence of women on the board should compound a female CEO's inherent desire for affiliation and further compel collaboration, especially since CEOs, customarily, prove more receptive to working with demographically similar boards and boards that match their points-of-view (Ward 1997; Westphal and Zajac 1995). I expect that the gender of a firm's CEO would have great bearing on the results found, but, presently, the extremely limited number of female CEOs restricts the sample size to such an extent that statistical analyses investigating CEO gender disparities would prove unfeasible. Future investigation into this phenomenon will likely prove quite challenging; but, I believe that this area holds much intriguing insight.

Implications for Theory

In testing the hypothesized relationships, several resultant findings provide important implications for both theory and practice. The theoretical implications of the results found in testing the model outlined in this manuscript are provided below.

Implications of this study most relevant to practitioners are discussed in the following section.

The finding that increasing the percentage of women on a firm's board predicts an increase in relative board power, and that this relationship is significantly affected by the percent of women on the board's nominating, compensation, executive, and audit committees and when moderated by compensation committee chairperson gender, constitutes an important contribution to the literature, in that it highlights the importance of promoting corporate gender diversity, especially at the board level. Corporate boards of directors serve as the primary mechanism for keeping CEO opportunism in check (Huse 2005; Olson and Adams 2004; Shen 2003); therefore, it is vital that boards maintain sufficient power to bolster their countervailing role. The results illustrate that an increased female presence on a board can help the board members to retain their balance of power. This finding proves very important theoretically, because agency theory centers on the principal-agent problem, and the corporate board of directors is one of the strongest internal governance controls for aligning the interests of the principals and agents. Thus, while strategic management research continues to attempt to determine what factors directly influence board power, my study identifies gender as an important demographic board composition dimension that does, indeed, appear to directly affect a board's power. The ramifications of this finding for the agency theory research stream are important because a board of director's relative power provides the board with the means by which it can perform its monitoring role – the board role at the very heart of agency theory. In addition, the support found for hypothesis H1 suggests that the characteristics

of individuals serving within a firm's upper echelons significantly affect board-level outcomes such as relative board power.

In attempting to interpret my results for the hypotheses investigating the percentage of women on the major committees, I would suggest that one views the relationship between the major board committees and the board as a whole in light of the theoretical arguments presented earlier. As stated previously, some researchers have suggested that board committees are directly responsible for policy creation and credit them with greater and more specialized potential for executing than is ascribed to the board in general (Bowen 2008; Braiotta and Sommer 1987; Brountas 2004). This would imply that the major committees' uniquely powerful roles remain distinct from those of the rest of the board.

Although my findings regarding the percent of women on a board's major committees proved to be in the opposite direction from that which was initially hypothesized, the results were significant at the $p < .05$ level. The strong support found for each of the studied committees' impact on the relationship between PWOB and relative board power contributes to governance literature by highlighting the importance of committees to board processes. My findings also contribute to agency theory by indicating that a board's nominating, compensation, executive, and audit committees may play a large part in how a firm copes with the agency problem. Finally, the results extend upper echelons literature by showing that individual characteristics of committee members do, indeed, seem to make an observable difference. Since the agenda of a firm is usually heavily influenced by the board/CEO power dynamic (Golden and Zajac 2001), the value of gender diversity to theory and practice, both on the board as a whole as well

as on its subcommittees, especially in terms of the role it plays in shaping the power dynamic, cannot be understated.

The fact that all of the tests of committee chairperson gender were in the predicted direction (as reported in Tables 7a through 7d) suggests that, unlike the percentage of women on a committee, a woman's serving as chair of one of the major committees can complement the total percentage of women on a firm's board. This implies, in agency theory terms, that shareholders seeking enhanced board oversight might wish to seriously consider the benefits of a woman's serving as chair of a board's compensation committee. Additionally, upper echelons researchers should note that chairperson characteristics may have an effect on the function of board committees but that this effect might differ from those stemming from the characteristics of all directors on a committee as a whole. Of course, the fact that the only committee chairperson gender hypothesis supported was the hypothesis concerning the compensation committee implies that other variables, such as the personality, experience level, or assertiveness of a committee's chairperson could better account for the magnification or attenuation of the PWOB / relative board power relationship. It may also be the case that committee chairperson characteristics simply do not influence the relationship.

My failure to discover a direct link between PWOB and firm strategic change or a relationship between the two, as mediated by relative board power, implies that neither the percentage of women on a board nor relative board power may actually play a direct role in firm strategy. Just as some researchers testing board characteristics' effects on firm-level outcomes have discovered that the link between these factors and organizational-level outcomes, such as firm financial performance, may be too distal to

have a meaningful relationship, so too might the relationships between the board-level variables examined in this study and firm strategic change (Dobbin and Jung 2011; Klein 1998; Shrader et al. 1997). My lack of findings may allude to the fact that the agency problem does not extend strongly to decisions regarding firm strategic change, and that the limits of upper echelons characteristics may reach only to board-level outcomes.

To summarize, the results of this study offer important implications for the agency theory, upper echelons theory, corporate governance, gender, and change research streams. My findings contribute to agency theory literature by suggesting that (1) PWOB can predict the degree of a board's relative power, (2) that gender seems to positively affect relative board power, (3) that the percent of women on each of the four major committees identified negatively moderates the PWOB / relative board power relationship, (4) that having a woman as chair of a board's compensation committee positively moderates the PWOB / relative board power relationship, and (5) that firm strategic change could lie outside the purview of the board. The implications for upper echelons theory include (1) the corroboration that individual director characteristics – both of directors who are members of, or chairs of, one or more of the major committees and of those serving in a non-committee capacity – such as gender, appear to determine board-level outcomes, (2) the finding that the individual characteristics of a committee chairperson may have a different effect from that of committee members' characteristics, and (3) the discovery that the demographic attributes of individuals within a company's upper echelons might not make a difference in firm-level phenomena. In terms of corporate governance literature, the conclusion that committees strongly help to shape board processes meaningfully contributes to this research stream. The finding that the

incidence of firm strategic change is not predicted by the percentage of female directors on a company's board, nor by the relative power of the organization's board, represents an important implication for strategic change literature.

The analyses conducted during the course of this project contribute methodologically to management literature in three important ways. First, assessing strategic change through an investigation of two discrete components, *strategic variation* – the difference between a company's past and present resource allocation configurations – and *strategic deviation* – the difference between a company's resource allocation configuration and those of the industry leaders – differs from the majority of management literature that does not measure these two aspects of change discretely. Together, these components offer a more precise measure of strategic change than do some traditionally employed operationalizations (Haynes and Hillman 2010). Second, testing my theory using PLS-Graph represents a departure from the norm, as the vast majority of management research chooses alternative software instead of this statistical package. PLS-Graph not only offers the benefits cited earlier in the paper, but also allows for my third contribution to methods. My final contribution to empirical testing, and perhaps the most important, is the testing of PWOB, relative board power, and firm strategic change within a single, unified model. To my knowledge, no other study has tested all of these constructs in one model, and the inclusion of all three allowed me to test for mediation in order to assist the field in determining whether relative board power serves as an essential mediating factor in the relationship between PWOB and firm strategic change.

Implications for Practice

The results obtained in this study have bearing on not only theory but also on practice. Practitioners can glean knowledge from my findings that can assist in the formulation of effective business policies and strategies. Firms open to the suggestions presented herein may be able to realize benefits not only for the company proper but also for the shareholders who are vital to keeping the entity viable.

In terms of practice, the evidence indicating the presence of a link between PWOB and relative board power suggests that organizations facing situations in which a powerful CEO is able to exert his or her will, possibly to the detriment of the firm and its stakeholders, may wish to consider avenues for increasing the number of female directors serving on the board. As the present study shows, increasing the percentage of women on the board may help increase a board's relative power, which can lead to stronger monitoring and more efficacious checks and balances (Pearce and Zahra 1991). Prudent firms would do well to maintain an acceptable degree of relative board power, because this would help protect the interests of the organization's owners, who provide the means for the company to survive (Pearce and Zahra 1991).

Managers may wish to take note of the power of board committees. My findings indicate strong support for the theory that the major committees of a board of directors play an integral part in board processes. My findings, contrary to my initial position, indicate that firms wishing to increase the board's power relative to the CEO through the appointment of female directors should anticipate diminishing returns when a number of female directors also serve on the board's main subcommittees. Conversely, it would

appear that firms seeking to accentuate the effects of PWOB on relative board power would be wise to consider appointing a woman as chair of the compensation committee.

Stakeholders of a company should also understand that strategic change may not be strongly related to either PWOB or relative board power. While the two constructs' association with the degree to which a firm enacts strategic change may vary from one company to another, no clear link was observed across the firms included in my sample set. Thus, shareholders, managers, and board members alike should temper their expectations of the impact of board-level factors on firm-level outcomes such as strategic change.

A final point of interest is the finding that the effects observed seem to decline with the passage of time, as evidenced most clearly by the lower significance values found for hypotheses H2a through H2d. This would imply that the effects of an increase in the percentage of women on one of the major committees are felt most in the period directly following this increase. The fading effects of the percentage of women on a firm's board or on its committees signals that practitioners must be careful to maintain, over time, a ratio most suitable for their needs, as the effects of fluctuations will most likely be felt relatively quickly.

Future Research

My hope is that this research invigorates the field's interest in gender governance research; in an attempt to continue the discussion, I offer additional suggestions for future research directions. One demographic characteristic of boards and top management teams

that upper echelons literature examines is gender. For this reason, future upper echelons studies might wish to investigate what factors predict female board composition. Having shown some of the positive consequences of gender diversity at the board level, a next logical step is to determine the conditions conducive to female director board appointments. While a number of researchers have attempted to answer this question (e.g. Adams and Ferreira 2004; Angert and Pathak 2010; Brammer et al. 2007; Carter et al. 2003; Hyland and Marcellino 2002; Lückerath-Rovers 2009; Terjesen et al. 2009), the identification of relevant factors remains incomplete, and much gender research requires revisiting, especially in the wake of shifting cultural perceptions and in light of additional legislation. Another possible avenue for future research could lie in applying the committee hypotheses described in the current study to the less prominent board committees, which often have a greater female presence.

Since agency theory focuses on the relationship between the board and the CEO, and upper echelons theory looks at how demographic characteristics predict group processes at the highest levels of an organization's hierarchy, I believe that both theories would benefit from further investigation into what other director characteristics besides gender – race, education, functional expertise, etc. – can affect a board's relative power. I also suggest that future studies explore other methods for increasing board power, consequences stemming from shifts in board power, and the various effects of the percentage of women on corporate boards of directors.

While I have not explicitly integrated tokenism into my model, I do not doubt that its inclusion could enrich the theoretical framework herein presented. By taking into account not only female director presence, but also by assessing female board member

contribution, research can begin to more fully understand how female directors help shape board processes. Tokenism may specifically account for one possible reason that the direction of the percentage of women on each of a board's major committees' relationships was opposite of that originally predicted. It is possible that women who serve as committee members, but not as committee chairs, may do so primarily as a concession to political correctness. Thus, appointing female directors to a board's subcommittees may prove a hollow gesture that actually decreases the power of these directors. This argument would be akin to a company's "promoting out" an employee to a higher position, simply to avoid having to deal with him or her. This practice provides the dual benefits of keeping employees removed from key decision making and maintaining an outward appearance of valuing said employee. Since my measures are limited to only accounting for the percentage of women on each of a board's committees, I cannot assess the validity of theories related to tokenism. However, future research that incorporates either numerical- or contribution-based measures of tokenism may be able to address this issue. It is also worth noting that a tokenism-based theory may prove consistent with my other finding that a woman as chair of a major committee might have a positive effect on the PWOB / relative board power relationship since a chair position carries with it the implication that that board member serves in more than a mere token capacity. Further research into the effects of tokenism on the board/CEO dynamic could assist agency theorists in more accurately determining the role of minorities in shaping board processes.

A lack of support for my hypotheses that address strategic change may be attributed to the measures that I employ, in an attempt to apply a more contemporary

operationalization to this construct. Many previous studies of strategic change do not break the construct down into separate variation and deviation components. Perhaps future investigations might attain greater success by adopting either more traditional operationalizations of strategic change or with the development of novel, forthcoming methods designed to test change. Discovery of more definitive findings regarding firm strategic change's relationship with the percentage of women on a firm's board, and with relative board power, could contribute to upper echelons theory and agency theory, respectively. Another suggestion for future research pertains to strategic deviation and the idea that institutional isomorphism and firm interdependence can cultivate complacency. The achievements of successful companies within an industry are often seen as a function of their strategic direction. CEOs may attempt to reduce uncertainty by simply emulating the strategies of the current industry leaders (Spender 1989). This mindset leads to CEOs' endeavoring to adopt what they believe to be "best practice." Whether adopting these supposed optimal processes actually leads to success provides a fascinating avenue for future research. Investigation may offer insight into whether an industry leader's accomplishments can be repeated successfully, if assiduously imitated, that may create a form of "follow the leader" that many times encourages CEOs to hold fast to the status quo. Finally, viewing firm strategic change through a population ecology lens may prove interesting. A population ecologist may adopt a vastly different approach from mine, since this research stream purports that change can prove disastrous and should, thus, be avoided whenever possible (e.g. Amburgey, Kelly, and Barnett 1993; Hannan and Freeman 1977, 1984; Schwarz 2010). Study of board characteristics, relative board

power, and strategic change provides avenues for future research that are rich with possibility and promise.

Conclusion

I undertook this study to ascertain the effects of the percentage of women on a company's board of directors on relative board power and to examine the relationship between relative board power and firm strategic change. My research fills a gap in the literature, because I include PWOB, relative board power, and firm strategic change within a single, holistic model. I found consistent support for the existence of a positive direct relationship between PWOB and relative board power. The findings obtained indicate, however, that a significant relationship may not exist between PWOB and strategic change. The results help to illuminate the relationship of PWOB with relative board power and the two components of strategic change – strategic variation and strategic deviation.

Since governance research suggests that board committees are a primary source of policy creation and that committees wield a great degree of specialized authority, I had anticipated finding that a greater percentage of women on each of the board's major committees would strengthen the PWOB / relative board power relationship. In contrast, my study revealed that the greater the percentage of women on the four major committees – nominating, compensation, executive, and audit – the weaker the relationship between PWOB and relative board power. Additionally, although the gender of the chairperson for the nominating, executive, and audit committees did not demonstrate a significant effect on the PWOB / relative board power relationship, a woman's serving as chair of a

board's compensation committee appears to strengthen the relationship between PWOB and a board's relative power.

Increased demand for gender diversity in business, especially within the upper echelons, makes this study particularly relevant and potentially influential in the field of strategic management governance theory and research. The results of this study contribute to the scholarly understanding of the dynamics among the percentage of women on a board of directors, relative board power, and firm strategic change.

LIST OF REFERENCES

- Adams, Renée B., and Daniel Ferreira. 2004. "Gender Diversity in the Boardroom." *European Corporate Governance Institute*, Finance Working Paper.
- . 2009. "Women in the Boardroom and Their Impact on Governance and Performance." *Journal of Financial Economics* 94: 291-309.
- Alderfer, Clayton P. 1986. "The Invisible Director on Corporate Boards." *Harvard Business Review*, November/December: 38-52.
- Allen, William T. 1995. "The Evolution of Corporate Boards." *Corporate Board*, 16 (93): 1-4.
- Amburgey, Terry L., Dawn Kelly, and William P. Barnett. 1993. "Resetting the Clock: The Dynamics of Organizational Change and Failure." *Administrative Science Quarterly* 38: 51-73.
- Anderson, Charles A., and Robert N. Anthony. 1986. *The New Corporate Directors: Insights for Board Members and Executives*. New York: John Wiley & Sons, Inc.
- Andrews, Kenneth Richmond 1971. *The Concept of Corporate Strategy*. New York: Dow Jones-Irwin.
- Angert, Cory J., and Seemantini Pathak. 2010. "The Effects of the Institutional Environment on Gender Tokenism." Paper presented at the annual meeting of the Academy of Management, Montreal.
- Appelbaum, Steven H., Lynda Audet, and Joanne C. Miller. 2003. "Gender and Leadership? Leadership and Gender? A Journey Through the Landscape of Theory." *Leadership and Organization Development Journal* 24: 43-51.
- Bain, Joe Staten. 1956. *Barriers to New Competition*. Cambridge, MA: Harvard University Press.
- Barnard, Jayne W. 2007. "More Women on Corporate Boards? Not So Fast." *William and Mary Journal of Women and the Law*, 13: 703-726.

- Bass, Bernard, Bruce Avolio, and Leanne Atwater. 1996. "The Transformational and Transactional Leadership of Men and Women." *Applied Psychology: An International Review* 45: 5-34.
- Beatty, Randolph P., and Edward J. Zajac. 1994. "Managerial Incentives, Monitoring, and Risk Bearing: A Study of Executive Compensation, Ownership, and Board Structure in Initial Public Offerings." *Administrative Science Quarterly* 39: 313-335.
- Bell, Suzanne T., Anton J. Villado, Marc A. Lukasik, Larisa Belau, and Andrea L. Briggs. 2011. "Getting Specific About Demographic Diversity Variable and Team Performance Relationships: A Meta-Analysis." *Journal of Management* 37: 709-743.
- Bhagat, Sanjai, and Bernard Black. 1999. "The Uncertain Relationship Between Board Composition and Firm Performance." *Business Lawyer* 54(3): 921-963.
- Bilimoria, Diana. 2000. "Building the Case for Women Corporate Directors." Pp. 25-40 in *Women on Corporate Boards: International Challenges and Opportunities*, edited by Ronald J. Burke and Mary C. Mattis. Norwell, MA: Kluwer Academic Publishers.
- Bilimoria, Diana, and Sandy K. Pederit. 1994. "Board Committee Membership: Effects of Sex Based Bias." *Academy of Management Journal* 37(6): 1453-77.
- Boeker, Warren. 1989. "Strategic Change: The Effects of Founding and History." *Academy of Management Journal*, 32(3): 489-515.
- Boeker, Warren. 1997. "Strategic Change: The Influence of Managerial Characteristics and Organizational Growth." *Academy of Management Journal* 40: 152-170.
- Boulton, William. R. 1978. "The Evolving Board: A Look at the Board's Changing Roles and Information Needs." *Academy of Management Review* 3: 827-835.
- Bowen, William. G. 2008. *The Board Book*. New York: W. W. Norton & Company, Inc.
- Boyd, Brian K. 1994. "Board Control and CEO Compensation." *Strategic Management Journal* 15(5): 335-344.
- Bradbury, Michael E. 1990. "The Incentives for Voluntary Audit Committee Formation." *Journal of Accounting and Public Policy* 9: 19-36.
- Bradshaw, Patricia, Vic Murray, and Jacob Wolpin. 1996. "Women on Boards of Nonprofits: What Difference Do They Make?" *Nonprofit Management & Leadership* 6(3) 241-254.

- Bradshaw, Patricia, and David Wicks. 2000. "The Experiences of White Women on Corporate Boards of Canada." Pp. 197-212 in *Women on Corporate Boards: International Challenges and Opportunities*, edited by Ronald J. Burke and Mary C. Mattis. Norwell, MA: Kluwer Academic Publishers.
- Braiotta, Louis Jr., and A. A. Sommer. 1987. *The Essential Guide to Effective Corporate Board Committees*. New York: Prentice Hall, Inc..
- Brammer, Stephen, Andrew Millington, Stephen Pavelin. 2007. "Gender and Ethnic Diversity Among UK Corporate Boards." *Corporate Governance* 15: 393-403.
- Branson, Douglas M. 2001. "The Very Uncertain Prospect of 'Global' Convergence in Corporate Governance." *Cornell International Law Journal* 34: 321-362.
- . 2007. *No Seat at the Table*. New York: New York University Press.
- . 2009. *The Last Male Bastion: Gender and the CEO Suite in America's Public Companies*. New York: Routledge.
- . 2010. "Women on Boards of Directors: A Global Snapshot." *Pittsburgh Legal Studies Research Paper* No. 2011-05. SSRN: <http://ssrn.com/abstract=1762615>.
- Brountas, Paul P. 2004. *Boardroom Excellence*. San Francisco: Jossey-Bass.
- Burgess, Zena M., and Phyllis Tharenou. 2002. "Women Board Directors: Characteristics of the Few." *Journal of Business Ethics* 37: 39-49.
- Burke, Ronald J. 1993. "Women on Corporate Boards of Directors." *Equal Opportunities International* 12 (6): 5-13.
- . 1994. "Women on Corporate Boards of Directors: Views of Canadian Chief Executive Officers." *Women in Management Review* 9 (5): 3-10.
- . 1997. "Women on Corporate Boards of Directors: A Needed Resource." *Journal of Business Ethics* 16 (9): 909-915.
- Campbell, Kevin, and Antonio Mínguez-Vera. 2008. "Gender Diversity in the Boardroom and Firm Financial Performance." *Journal of Business Ethics* 83: 435-451.
- Carey, Dennis C., and Dayton Ogden. 2000. *CEO succession*. New York: Oxford University Press.
- Carlsson, Gosta, and Katarina Karlsson. 1970. "Age, Cohorts, and the Generation of Generations." *American Sociological Review* 35 (6): 710-718.

- Carpenter, Mason A. 2000. "The Price of Change: The Role of CEO Compensation in Strategic Variation and Deviation from Industry Strategy Norms." *Journal of Management* 26: 1179–1198.
- Carpenter, Mason A., Marta A. Geletkanycz, and Wm. Gerard Sanders. 2004. "Upper Echelons Research Revisited: Antecedents, Elements, and Consequences of Top Management Team Composition." *Journal of Management* 30 (6): 749-778.
- Carpenter, Mason A., and James D. Westphal. 2001. "The Strategic Context of External Network Ties: Examining the Impact of Director Appointments on Board Involvement in Strategic Decision Making." *Academy of Management Journal* 4 (4): 639-660.
- Carter, Jessica Faye. 2007. *Double Outsiders*. Indianapolis: JIST Works.
- Carter, Colin B., and Jay W. Lorsch. 2004. *Back to the Drawing Board*. Boston: Harvard Business School Press.
- Carter, David A., Betty J. Simkins, and W. Gary Simpson. 2003. "Corporate Governance, Board Diversity, and Firm Value." *The Financial Review* 38: 33-53.
- Carver, John. 1990. *Boards that Make a Difference: A New Design for Leadership in Nonprofit and Public Organizations*. San Francisco: Jossey-Bass.
- . 2007. "The Promise of Governance Theory: Beyond Codes and Best Practices." *Corporate Governance* 15 (6): 1030-1037.
- Caves, Richard E., Michael Fortunato, and Pankaj Ghemawat. 1984. "The Decline of Dominant Firms, 1905–1929." *Quarterly Journal of Economics* 99 (3): 523–546.
- Charan, Ram. 1998. *Boards at Work*. San Francisco: Jossey-Bass.
- . 2005. *Boards That Deliver*. San Francisco: Jossey-Bass.
- Chhaochharia, Vidhi, and Yaniv Grinstein. 2007. "The Changing Structure of US Corporate Boards: 1997-2003." *Corporate Governance: An International Review* 15: 1215-1223.
- Chin, Wynne W. 1998. "The Partial Least Squares Approach for Structural Equation Modeling." Pp. 295-336 in *Modern Methods for Business Research*, edited by George A. Marcoulides. Mahwah, NJ: Lawrence Erlbaum Associates.
- Chin, Wynne W. 2001. *PLS-Graph User's Guide 3.0*. Houston: Soft Modeling Inc.

- Chin, Wynne W. 2010. "How to Write Up and Report PLS Analyses." Chap. 28 in *Handbook of Partial Least Squares*, edited by Vincenzo Esposito Vinzi, Wynne W. Chin, Jörg Henseler, and Huiwen Wang. Berlin Heidelberg: Springer Handbooks of Computational Statistics.
- Chin, Wynne W., and Abhijit Gopal. 1995. "Adoption Intention in GSS: Relative Importance of Beliefs." *The Data Base for Advances in Information Systems* 26 (2 and 3): 42-64.
- Chin, Wynne W., Barbara L. Marcolin, and Peter R. Newsted. 2003. "A Partial Least Squares Latent Variable Modeling Approach for Measuring Interaction Effects: Results from a Monte Carlo Simulation Study and an Electronic-Mail Emotion / Adoption Study." *Information Systems Research* 14 (2): 189-217.
- Cohen, Robin L., and Linda Kornfeld. 2006. "Women Leaders and the Bottom Line." *Bloomberg Corporate Law Journal* Winter Issue.
- Cohen, Wesley M., Richard C. Levin, and David C. Mowery. 1987. "Firm Size and R & D Intensity: A Re-examination." *Journal of Industrial Economics* 35: 543-565.
- Conger, Jay A., Edgar E. Lawler III, and David L. Finegold. 2001. *Corporate Boards: New Strategies for Adding Value at the Top*. San Francisco: Jossey-Bass.
- Conyon, Martin J., and Chris Mallin. 1997. "Women in the Boardroom: Evidence from Large UK Companies." *Corporate Governance* 5 (3): 112-117.
- Conyon, Martin J., and Simon I. Peck. 1998. "Board Control, Remuneration Committees, and Top Management Compensation." *Academy of Management Journal* 41 (2): 146-157.
- Cox, Taylor H., and Stacy Blake. 1991. "Managing Cultural Diversity: Implications for Organizational Competitiveness." *Academy of Management Executive* 5 (3): 45-56.
- Cox, James D., and Harry L. Munsinger. 1985. "Bias in the Boardroom: Psychological Foundations and Legal Implications of Corporate Cohesion." *Law and Contemporary Problems* 48 (3): 83-135.
- Crystal, Graef S. 1991. *In Search of Excess: The Overcompensation of American Executives*. New York: Norton.
- Dahya, Jay, and John J. McConnell. 2005. "Outside Directors and Corporate Board Decisions." *Journal of Corporate Finance* 11: 37-60.

- Daily, Catherine M., and Dalton, Dan R. 1994. "Bankruptcy and Corporate Governance: The Impact of Board Composition and Structure." *Academy of Management Journal* 37: 1603-1617.
- . 1995. "CEO and Director Turnover in Failing Firms: An Illusion of Change?" *Strategic Management Journal* 16: 393-400.
- . 2003. "Women in the Boardroom: A Business Imperative." *Journal of Business Strategy* 24: 8-9.
- Daily, Catherine M., Jonathan L. Johnson, Alan E. Ellstrand, and Dan. R. Dalton. 1998. "Compensation Committee Composition as a Determinant of CEO Compensation." *The Academy of Management Journal* 41 (2): 209-220.
- Daily, Catherine M., and Charles Schwenk. 1996. "Chief Executive Officers, Top Management Teams, and Boards of Directors: Congruent or Countervailing Forces?" *Journal of Management* 22 (2): 185-201.
- Dalton, Dan R., Catherine M. Daily, Alan E. Ellstrand, and Jonathan L. Johnson. 1998. "Meta-analytic Reviews of Board Composition, Leadership Structure, and Financial Performance." *Strategic Management Journal* 19: 269-290.
- Dalton, Dan R., and Catherine M. Dalton. 2006. "Executive Committees: The Stealth Board." *Directors & Boards*, First Quarter: 44-47.
- . 2010. "Women and Corporate Boards of Directors: The Promise of Increased, and Substantive, Participation in the Post Sarbanes-Oxley Era." *Business Horizons* 53: 257-268.
- Dalton, Dan R., and Idalene F. Kesner. 1983. "Inside/Outside Succession and Organizational Size: The Pragmatics of Executive Replacement." *Academy of Management Journal* 26: 736-742.
- Davidson, Marilyn J., and Ronald J. Burke. 2000. *Women in Management*. Thousand Oaks: Sage Publications.
- Davidson, Marilyn J., and Cary L. Cooper. 1992. *Shattering the Glass Ceiling: The Woman Manager*. London: Paul Chapman Publishing Ltd.
- Demb, Ada, and F. Friedrich Neubauer. 1992. *The Corporate Board: Confronting the Paradoxes*. New York: Oxford University Press.
- Dennis, Bryan, Robert S. D'Intino, Jeffrey D. Houghton, Christopher P. Neck, and Trish Boyles. 2008. "Corporate Social Performance: Creating Resources to Help Organizations Excel." *Global Business and Organizational Excellence* January/February: 26-41.

- Desai, Ashay, Mark Kroll, and Peter Wright. 2003. "CEO Duality, Board Monitoring, and Acquisition Performance: A Test of Competing Theories." *Journal of Business Strategies* 20 (2): 137-156.
- Dobbin, Frank, and Jiwook Jung. 2011. "Corporate Board Gender Diversity and Stock Performance: The Competence Gap or Institutional Investor Bias?" *North Carolina Law Review* 89: 809-838.
- Dobrev, Stansilav D., Tai-Young Kim, and Glenn R. Carroll. 2002. "The Evolution of Organizational Niches: U. S. Automobile Manufacturers, 1885-1981." *Administrative Science Quarterly* 47: 233-264.
- Duchin, Ran, John G. Matsusaka, and Oguzhan Ozbas. 2010. "When Are Outside Directors Effective?" *Journal of Financial Economics* 96: 195-214.
- Dutton, Jane E., and Robert B. Duncan. 1987. "The Creation of Momentum for Change Through the Process of Strategic Issue Diagnosis." *Strategic Management Journal* 8: 279-295.
- Eagly, Alice H., and Linda L. Carli. 2007. *Through the Labyrinth: The Truth About How Women Become Leaders*. Boston: Harvard Business School Press.
- Eagly, Alice H., and Blair T. Johnson. 1990. "Gender and Leadership Style: A Meta-analysis." *Psychological Bulletin* 108: 233-256.
- EDGAR 2010. Electronic Data Gathering, Analysis, and Retrieval system. *Securities and Exchange Commission*. <http://www.sec.gov/edgar/searchedgar/companysearch.html>.
- Eisenberg, Melvin Aron. 1975. "Legal Models of Management Structure in the Modern Corporation: Officers, Directors, and Accountants." *California Law Review* 63: 375-439.
- Eisenhardt, Kathleen M. 1989. "Agency theory: An Assessment and Review." *Academy of Management Review* 14: 57-74.
- Erhardt, Niclas L., James D. Werbel, and Charles B. Shrader. 2003. "Board of Director Diversity and Firm Financial Performance." *Corporate Governance: An International Review* 11: 102-111.
- Erma, Juhani, and Kare Hyvärinen. 2009, February 12. "Finland: New Corporate Governance Code in Finland." <http://www.mondaq.com/article.asp?articleid=74176>.

- Evans, David S. 1987. "The Relationship Between Firm Growth, Size, and Age: Estimates for 100 Manufacturing Industries." *Journal of Industrial Economics* 35 (4): 567-581.
- Fama, Eugene F., and Michael C. Jensen. 1983. "Separation of ownership and control." *Journal of Law and Economics* 26 (2): 301-325.
- Farrell, Kathleen A., and Philip L. Hersch. 2005. "Additions to Corporate Boards: The Effect of Gender." *Journal of Corporate Finance* 11: 85-106.
- Fernandez, John P. 1993. *The Diversity Advantage: How American Business Can Outperform Japanese and European Companies in the Global Marketplace*. New York: Lexington Books.
- Fields, M. Andrew, and Phyllis Y. Keys. 2003. The Emergence of Corporate Governance from Wall St. to Main St.: Outside Directors, Board Diversity, Earnings Management, and Managerial Incentives to Bear Risk. *The Financial Review* 38: 1-24.
- Filley, Alan C., Robert J. House, and Steven Kerr. 1976. *Managerial Process and Organizational Behavior*. Glenview, IL: Scott, Foresman.
- Finkelstein, Sydney. 1992. "Power in Top Management Teams: Dimensions, Measurement, and Validation." *Academy of Management Journal* 35: 505-538.
- Finkelstein, Sydney, and Donald C. Hambrick. 1989. Chief Executive Compensation: A Study of the Intersection of Markets and Political Processes. *Strategic Management Journal* 10: 121-134.
- Finkelstein, Sydney, and Donald C. Hambrick. 1990. "Top Management Team Tenure and Organizational Outcomes." *Administrative Science Quarterly* 35: 484-503.
- Finkelstein, Sydney, Donald C. Hambrick, and Albert A. Cannella, Jr. 2009. *Strategic Leadership: Theory and Research on Executives, Top Management Teams, and Boards*. New York: Oxford University Press.
- Fondas, Nanette. 2000. "Women on Boards of Directors: Gender Bias or Power Threat." Pp. 171-177 in *Women on Corporate Boards: International Challenges and Opportunities*, edited by Ronald J. Burke and Mary C. Mattis. Norwell, MA: Kluwer Academic Publishers.
- Fornell, Claes, and David F. Larcker. 1981. "Evaluating Structural Equation Models with Unobserved Variables and Measurement Error." *Journal of Marketing Research* 18: 39-50.

- Francoeur, Claude, Réal Labelle, and Bernard Sinclair-Desgagné. 2008. "Gender Diversity in Corporate Governance and Top Management." *Journal of Business Ethics* 81: 83-95.
- French, Ken. 2007. *Data Library*. <http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/datalibrary.html>.
- Galbreath, Jeremy. 2011. "Are There Gender-related Influences on Corporate Sustainability? A Study of Women on Boards of Directors." *Journal of Management and Organization* 17: 17-38.
- Geletkanycz, Marta A. 1997. "The Salience of 'Culture's Consequences': The Effects of Cultural Values on Top Executive Commitment to the *Status Quo*." *Strategic Management Journal* 18 (8): 615-634.
- Geletkanycz, Marta A., and Donald C. Hambrick. 1997. "The External Ties of Top Executives: Implications for Strategic Choice and Performance." *Administrative Science Quarterly* 42: 654-681.
- Ghemawat, Pankaj. 1991. *Commitment: The Dynamic of Strategy*. New York: Free Press.
- Gibson, Christina B. 1995. "An Investigation of Gender Differences in Leadership Across Four Countries." *Journal of International Business Studies* 26 (2): 255-279.
- Glynn, Mary Ann. 1996. "Innovative Genius: A Framework for Relating Individual and Organizational Intelligences to Innovation." *Academy of Management Review* 21: 1081-1111.
- Golden, Brian R. and Edward J. Zajac. 2001. "When Will Boards Influence Strategy? Inclination x Power = Strategic Change." *Strategic Management Journal* 22 (12): 1087-1111.
- Gooding, Richard A., and John A. Wagner III. 1985. "A Meta-analytic Review of the Relationship Between Size and Performance: The Productivity and Efficiency of Organizations and Their Subunits." *Administrative Science Quarterly* 30: 462-481.
- Goodstein, Jerry, Kanak Gautam, and Warren Boeker. 1994. "The Effects of Board Size and Diversity on Strategic Change." *Strategic Management Journal* 15: 241-250.
- Gordon, Jeffrey N. 2002. "What Enron Means for the Management and Control of the Modern Business Corporation: Some Initial Reflections." *The University of Chicago Law Review* 69 (3): 1233-1249.

- Grossman, Wayne, and Albert A. Cannella Jr. 2006. "The Impact of Strategic Persistence on Executive Compensation." *Journal of Management* 32: 257–278.
- Hambrick, Donald C. 2007. "Upper Echelons Theory: An Update." *Academy of Management Review* 32 (2): 334-343.
- Hambrick, Donald C., and Gregory D. S. Fukutomi. 1991. "The Seasons of a CEO's Tenure." *Academy of Management Review* 16: 719–742.
- Hambrick, Donald C., and Phyllis A. Mason. 1984. "Upper Echelons: The Organization as a Reflection of its Top Managers." *Academy of Management Review* 19 (2): 193-206.
- Hannan, Michael T., and John H. Freeman. 1977. "The Population Ecology View of Organizations." *American Journal of Sociology* 82: 929-964.
- . 1984. "Structural Inertia and Organizational Change." *American Sociological Review* 49: 149-164.
- Harrigan, Kathryn Rudie. 1981. "Numbers and Positions of Women Elected to Corporate Boards." *Academy of Management Review* 24 (3): 619-625.
- Harrison, J. Richard, David L. Torres, and Sal Kukalis. 1988. "The Changing of the Guard: Turnover and Structural Change in the Top-management Positions." *Administrative Science Quarterly* 33: 211-232.
- Haveman, Heather A. 1993. "Organizational Size and Change: Diversification in the Savings and Loan Industry After Deregulation." *Administrative Science Quarterly* 38: 20-50.
- Haynes, Katalin Takacs, and Amy Hillman. 2010. "The Effect of Board Capital and CEO Power on Strategic Change." *Strategic Management Journal* 31: 1145-1163.
- Hellriegel, Don, & John W. Slocum Jr. 2011. *Organizational Behavior*. Mason, OH: South-Western Cengage Learning.
- Henderson, Andrew D. 1999. "Firm Strategy and Age Dependence: A Contingent View of the Liabilities of Newness, Adolescence, and Obsolescence." *Administrative Science Quarterly* 44: 281-314.
- Henderson, Andrew D., and James W. Fredrickson. 1996. "Information Processing Demands as a Determinant of CEO Compensation." *Academy of Management Journal* 39: 575–606.

- Henderson, Andrew D., Danny Miller, and Donald C. Hambrick. 2006. "How Quickly Do CEOs Become Obsolete? Industry Dynamism, CEO Tenure, and Company Performance." *Strategic Management Journal* 27: 447-460.
- Herman, Edward S. 1981. *Corporate Control, Corporate Power*. New York: Cambridge University Press.
- Hill, Charles W. L., and Scott A. Snell. 1988. "External Control, Corporate Strategy, and Firm Performance in Research-intensive Industries." *Strategic Management Journal* 9 (6): 577-590.
- Hillman, Amy J., Albert A. Cannella, Jr., and Ira C. Harris. 2002. "Women and Racial Minorities in the Boardroom: How Do Directors Differ?" *Journal of Management* 28 (6): 747-63.
- Hillman, Amy J., Christine Shropshire, and Albert A. Cannella, Jr. 2007. "Organizational Predictors of Women on Corporate Boards." *Academy of Management Journal* 50 (4): 941-952.
- Horner, Stephen. 2010. "Board Power, CEO Appointments and CEO Duality." *Academy of Strategic Management Journal* 9 (2): 43-58.
- Huffman, Matt L., Philip N. Cohen, and Jessica Pearlman. 2010. "Engendering Change: Organizational Dynamics and Workplace Gender Desegregation, 1975-2005." *Administrative Science Quarterly* 55: 255-277.
- Huse, Morten. 2005. "Accountability and Creating Accountability: A Framework for Exploring Behavioural Perspectives of Corporate Governance." *Journal of Management* 18: S65-S79.
- Hyland, Maryanne M., and Patricia A. Marcellino. 2002. "Examining Gender on Corporate Boards: A Regional Study." *Corporate Governance* 2: 24 – 31.
- Izraeli, Dafna N. 2000. "The Paradox of Affirmative Action for Women Directors in Israel." Pp. 43-56 in *Women on Corporate Boards: International Challenges and Opportunities*, edited by Ronald J. Burke and Mary C. Mattis. Norwell, MA: Kluwer Academic Publishers.
- Jackling, Beverley, and Shireenjit Johl. 2009. "Board Structure and Firm Performance: Evidence from India's Top Companies." *Corporate Governance: An International Review* 17 (4): 492-509.
- Jehn, Karen A., Gregory B. Northcraft, and Margaret A. Neale. 1999. "Why Differences Make a Difference: A Field Study of Diversity, Conflict, and Performance in Workgroups." *Administrative Science Quarterly* 44: 741-763.

- Jensen, Michael C., William H. Meckling. 1976. "Theory of the Firm: Managerial Behavior, Agency Costs, and Ownership Structure." *Journal of Financial Economics* 3: 305-360.
- Johnson, Jonathan L., Catherine M. Daily, and Alan E. Ellstrand. 1996. "Boards of Directors: A Review and Research Agenda." *Journal of Management* 22 (3): 409-438.
- Joy, Lois. 2008. Women board directors in the United States: An eleven year retrospective. Pp. 15-23 in *Women on Corporate Boards of Directors: International Research and Practice*, edited by Susan Vinnicombe, Val Singh, Ronald J. Burke, Diana Bilimoria, and Morten Huse. Northampton, MA: Edward Elgar Publishing.
- Judge, William Q., Jr., and Carl P. Zeithaml. 1992. "Institutional and Strategic Choice Perspectives on Board Involvement in the Strategic Decision Process." *Academy of Management Journal* 35 (4): 766-794.
- Kanter, Rosabeth Moss. 1977. "Some Effects of Proportions on Group Life: Skewed Sex Ratios and Responses to Token Women." *The American Journal of Sociology* 82 (5): 965-990.
- Kanter, Rosabeth Moss. 1993. *Men and Women of the Corporation*. New York: Basic Books.
- Keats, Barbara W., and Michael A. Hitt. 1988. "A Causal Model of Linkages Among Environmental Dimensions, Macro Organizational Characteristics, and Performance." *The Academy of Management Journal* 31 (3): 570-598.
- Kenny, Roger M. 2004. "Executive Committee: A Vestigial Appendage." *Directors & Boards* 28 (4): 43-46.
- Kesner, Idalene F. 1988. "Directors' Characteristics and Committee Membership: An Investigation of Type, Occupation, Tenure, and Gender." *Academy of Management Journal* 31: 66-84.
- King, Nigel, and Neil Anderson. 1990. "Innovation in Working Groups." Pp. 81-100 in *Innovation and Creativity at Work*, edited by Michael A. West and James J. Farr. Chichester, England: Wiley.
- Klein, April. 1998. "Firm Performance and Board Committee Structure." *Journal of Law and Economics* 41: 275-303.
- Konek, Carol Wolfe. 1994. "Leadership or Empowerment? Reframing Our Questions." Pp. 206-233 in *Women and Careers*, edited by Carol Wolfe Konek and Sally L. Kitch. Thousand Oaks: Sage Publications.

- Konrad, Alison M., and Vicki W. Kramer. 2006. "How Many Women Do Boards Need?" *Harvard Business Review* 84 (12): 22.
- Konrad, Alison M., Vicki W. Kramer, and Sumru Erkut. 2008. "The Impact of Three or More Women on Corporate Boards." *Organizational Dynamics* 37 (2): 145-164.
- Kroll, Mark, Bruce A. Walters, and Peter Wright. 2008. "Board Vigilance, Director Experience, and Corporate Outcomes." *Strategic Management Journal* 29: 363-382.
- Lefort, Fernando, and Francisco Urzúa. 2008. "Board Independence, Firm Performance and Ownership Concentration: Evidence from Chile." *Journal of Business Research* 61: 615-622.
- Leighton, David S. R. 2000. "Making Boards Work: Recruiting for Balance, Competence, and Results." Pp. 253-261 in *Women on Corporate Boards: International Challenges and Opportunities*, edited by Ronald J. Burke and Mary C. Mattis. Norwell, MA: Kluwer Academic Publishers.
- Li, Carmen A., and Bob Wearing. 2004. "Between Glass Ceilings: Female Non-executive Directors in UK Quoted Companies." *International Journal of Disclosure and Governance* 1 (4): 355-369.
- Light, Mark. 2004. *Executive Committee*. Washington, D.C.: National Center for Non-Profit Boards / BoardSource.
- Loden, Marilyn, and Judith B. Rosener. 1991. *Workforce America!: Managing Employee Diversity as a Vital Resource*. Homewood: Business One Irwin.
- Lorsch, Jay W., and Elizabeth MacIver. 1989. *Pawns or Potentates: The Reality of America's Corporate Boards*. Boston: Harvard Business School Press.
- Luan, Chin-Jung, and Ming-Je Tang. 2007. "Where is Independent Director Efficacy?" *Corporate Governance* 15 (4): 636-643.
- Lükerath-Rovers, Mijntje. 2009. "Female Directors on Corporate Boards Provide Legitimacy to a Company: A Resource Dependency Perspective." *Management Online Review* June: 1-13.
- Luoma, Patrice, and Jerry Goodstein. 1999. "Stakeholders and Corporate Boards: Institutional Influences on Board Composition and Structure." *Academy of Management Journal* 42 (5): 553-563.
- MacAvoy, Paul W., and Ira M. Millstein, 2003. *The Recurrent Crisis in Corporate Governance*. New York: Palgrave Macmillan.

- Mason, Edward Sagendorph. 1957. *Economic Concentration and the Monopoly Problem*. Cambridge, MA: Harvard University Press.
- Mattis, Mary C. 1993. "Women Directors: Progress and Opportunities for the Future." *Business and the Contemporary World* Summer: 140-156.
- McClelland, Patrick L., Xin Liang, and Vincent L. Barker III. 2010. "CEO Commitment to the Status Quo: Replication and Extension Using Content Analysis." *Journal of Management* 36 (5): 1251-1277.
- Milliken, Frances J., and Luis L. Martins. 1996. "Searching for Common Threads: Understanding the Multiple Effects of Diversity in Organizational Groups." *Academy of Management Review* 21 (2): 402-433.
- Morrison, Ann M. 1992. *The New Leaders: Guidelines on Leadership in America*. San Francisco: Jossey-Bass.
- Morrison, Ann M., Randall P. White, Ellen Van Velsor, and The Center for Creative Leadership. 1992. *Breaking the Glass Ceiling: Can Women Reach the Top of America's Largest Corporations?* Reading, MA: Addison-Wesley.
- Murray, Alan S. 2007. *Revolt in the Boardroom*. New York: HarperCollins Publishers.
- Nadkarni, Sucheta, and Pamela S. Barr. 2008. Environmental Context, Managerial Cognition, and Strategic Action: An Integrated View. *Strategic Management Journal* 29 (13): 1395-1427.
- Nadler, David A., Beverly A. Behan, and Mark B. Nadler. 2006. *Building Better Boards*. San Francisco: Jossey-Bass.
- Nemeth, Charlan Jeanne. 1986. "Differential Contributions of Majority and Minority Influence." *Psychological Review* 93: 23-32.
- Nicholson, Garvin J., and Geoffrey C. Kiel. 2007. "Can Directors Impact Performance? A Case-Based Test of Three Theories of Corporate Governance." *Corporate Governance* 15 (4): 585-608.
- Nielsen, Sabina, and Morten Huse. 2010. "Women Directors' Contribution to Board Decision-making and Strategic Involvement: The Role of Equality Perception." *European Management Review* 7: 16-29.
- Oakley, Judith G. 2000. "Gender-based Barriers to Senior Management Positions: Understanding the Scarcity of Female CEOs." *Journal of Business Ethics* 27: 321-334.

- Olson, John F., and Michael T. Adams. 2004. "Composing a Balanced and Effective Board to Meet New Governance Mandates." *The Business Lawyer* 59: 421-451.
- Pearce, John A., and Shaker A. Zahra. 1991. "The Relative Power of CEO's and Boards of Directors: Associations with Corporate Performance." *Strategic Management Journal* 12: 135-53.
- . 1992. "Board Composition from a Strategic Contingency Perspective." *Journal of Management Studies* 29(4): 411- 438.
- Perry, Tod, and Anil Shivdasani. 2005. "Do Boards Affect Performance? Evidence from Corporate Restructuring." *Journal of Business* 78 (4):1403-1431.
- Peterson, Craig A., and James Philpot. 2007. "Women's Roles on U.S. Fortune 500 Boards: Director Expertise and Committee Membership." *Journal of Business Ethics* 72: 177-196.
- Peterson, Randall S., Pamela D. Owens, Philip E. Tetlock, Elliott T. Fan, and Paul Martorana. 1998. "Group Dynamics in Top Management Teams: Groupthink, Vigilance, and Alternative Models of Organizational Failure and Success." *Organizational Behavior and Human Decision Processes* 73: 272-305.
- Petra, Steven T. 2005. "Do Outside Independent Directors Strengthen Corporate Boards?" *Corporate Governance* 5: 55-64.
- Pfeffer, Jeffrey. 1972. "Size and Composition of Corporate Boards of Directors: The Organization and Its Environment." *Administrative Science Quarterly* 17: 218-228.
- . 1980. *Power of Organizations*. Boston: Pitman.
- Pombo, Carlos, and Luis H. Gutiérrez. 2011. "Outside Directors, Board Interlocks and Firm Performance: Empirical Evidence from Colombian Business Groups." *Journal of Economics and Business* 63: 251-277.
- Porter, Michael. 1985. *Competitive Advantage*. New York: Free Press.
- Rechner, Paula L., and Dan R. Dalton. 1991. "CEO Duality and Organizational Performance: A Longitudinal Analysis." *Strategic Management Journal* 12: 155-160.
- Rosenberg, Sheli Z. 2008. "Why Aren't There More Women on Boards?" *Directorship* April/May: 55-57.
- Rosenthal, Cindy Simon. 2000. "Gender Styles in State Legislative Committees: Raising Their Voices in Resolving Conflict." *Women & Politics* 21 (2): 21-45.

- Ruigrok, Winfried, Simon Peck, and Sabina Tacheva. 2007. "Nationality and Gender Diversity on Swiss Boards." *Corporate Governance* 15 (4): 546-557.
- Ruigrok, Winfried, Simon Peck, Sabina Tacheva, Peder Greve, and Yan Hu. 2006. "The Determinants and Effects of Board Nomination Committees." *Journal of Management Governance* 10: 119-148.
- Salancik, Gerald R., and Jeffrey Pfeffer. 1977. "What Gets Power – And How They Hold on to It: A Strategic Contingency Model of Power." *Organizational Dynamics* 5: 3-21.
- Salmon, Walter J. 2000. "Crisis Prevention: How to Gear Up Your Board." Pp. 1-23 in *Harvard Business Review on Corporate Governance*. Boston: Harvard Business Review Press.
- Schein, Edgar H. 1996. "Culture: The Missing Concept in Organization Studies." *Administrative Science Quarterly* 41: 229-240.
- Schellenger, Michael H., David D. Wood, and Ahmad Tashakori. 1989. "Board of Director Composition, Shareholder Wealth, and Dividend Policy." *Journal of Management* 15 (3): 457-467.
- Schnake, Mel E., Robert J. Williams, and William Fredenberger. 2006. "Women on Boards of Directors: Effects on Firm Social Performance in the Basic Materials and Financial Services Sectors." *Journal of Applied Business Research* 22: 31-40.
- Schwartz, Felice N. 1980. "'Invisible' Resource: Women for Boards." *Harvard Business Review* 58 (2): 6-18.
- . 1992. *Breaking With Tradition: Women and Work, the New Facts of Life*. New York: Warner Books.
- Schwarz, Gavin M. 2010. The Logic of Deliberate Structural Inertia. In press, *Journal of Management*.
- Sethi, S. Prakash, Carl L. Swanson, and Kathryn Rudie Harrigan. 1981. Women on corporate boards. Working paper, Centre for Research on Business and Social Policy, School of Management and Administration, The University of Texas at Dallas.
- Shaw, Marvin E. 1976. *Group Dynamics: The Psychology of Small Group Behavior*. New York: McGraw Hill.
- Shen, Wei. 2003. "The Dynamics of the CEO Relationship: An Evolutionary Perspective." *Academy of Management Review* 28 (3): 466-476.

- Shrader, Charles B., Virginia B. Blackburn, and Paul Iles. 1997. "Women in Management and Firm Financial Performance: An Exploratory Study." *Journal of Managerial Issues* 9 (3): 355-372.
- Simsek, Zeki. 2007. "CEO Tenure and Organizational Performance: An Intervening Model." *Strategic Management Journal* 28: 653-662.
- Singh, Harbir, and Farid Harianto. 1989. "Management Board Relationships, Takeover Risk, and the Adoption of Golden Parachutes." *Academy of Management Journal* 32: 7-24.
- Singh, Val, Siri Terjesen, and Susan Vinnicombe. 2008. "Newly Appointed Directors in the Boardroom: How Do Women and Men Differ?" *European Management Journal* 26: 48-58.
- Smith, Ken G., Ken A. Smith, Judy D. Sims, Henry P. Olian, Jr., Douglas P. O'Bannon, and Judith A. Scully. 1994. "Top Management Team Demography and Process: The Role of Social Integration and Communication." *Administrative Science Quarterly* 39: 412-438.
- Snyder, Nancy McCarthy. 1994. "Career Women in Perspective: The Wichita Sample." Pp. 1-18 in *Women and Careers*, edited by Carol Wolfe Konek and Sally L. Kitch. Thousand Oaks: Sage Publications.
- Sorensen, Jesper B., and Toby E. Stuart. 2000. "Aging, Obsolescence, and Organizational Innovation." *Administrative Science Quarterly* 45: 81-112.
- Spender, J-C. 1989. *Industry Recipes: Nature and Sources of Managerial Judgment*. Blackwell: Oxford, UK.
- Stanford, Jane H., Barbara R. Oates, and Delfina Flores. 1995. "Women's Leadership Styles: A Heuristic Analysis." *Women in Management Review* 10 (2): 9-16.
- Taylor, Ronald N. 1975. "Age and Experience as Determinants of Managerial Information Processing and Decision-making Performance." *Academy of Management Journal* 18: 74-81.
- Terjesen, Siri, Ruth Sealy, and Val Singh. 2009. "Women Directors on Corporate Boards: A Review and Research Agenda." *Corporate Governance: An International Review* 17 (3): 320-337.
- Thomas, R. Roosevelt, Jr. 2006. *Building on the Promise of Diversity*. New York: American Management Association.
- Thomson, Peninah, Jacey Graham, and Tom Lloyd. 2005. *A Woman's Place is in the Boardroom*. New York: Palgrave Macmillan.

- Thornburg, Thomas H. 1991. "Group Size and Member Diversity Influence on Creative Performance." *Journal of Creative Behavior* 25: 324-333.
- Tuggle, Christopher S., Karen Schnatterly, and Richard A. Johnson. 2010. "Attention Patterns in the Boardroom: How Board Composition and Processes Affect Discussion of Entrepreneurial Issues." *Academy of Management Journal* 53 (3): 550-571.
- Tushman, Michael L., and Elaine Romanelli. 1985. "Organizational Evolution: A Metamorphosis Model of Convergence and Reorientation. Pp. 171-222 in *Research in Organizational Behavior*, edited by Larry L. Cummings and Barry M. Staw. Greenwich, CT: JAI Press.
- U. S. Census Bureau. 2005. "Establishment and Firm Size: 2002." U. S. Department of Commerce, Economics and Statistics Administration: Washington, DC (Issued Nov. 2005).
- Vafeas, Nikos. 2003. "Length of Board Tenure and Outside Director Independence." *Journal of Business Finance & Accounting* 30 (7 and 8): 1043-1064.
- Vance, Stanley C. 1978. "Corporate Governance: Assessing Corporate Performance by Boardroom Attributes." *Journal of Business Research* 6: 203-220.
- Vance, Stanley C. 1983. *Corporate Leadership: Boards, Directors, and Strategy*. New York: McGraw-Hill Book Co.
- Vinnicombe, Susan, Val Singh, and Jane Sturges. 2000. "Making it to the Top in Britain. Pp. 57-73 in *Women on Corporate Boards: International Challenges and Opportunities*, edited by Ronald J. Burke and Mary C. Mattis. Norwell, MA: Kluwer Academic Publishers.
- Vroom, Victor H., and Bernd Pahl. 1971. "Relationship Between Age and Risk-taking Among Managers." *Journal of Applied Psychology* 55: 399-405.
- Wade, James B., Charles. A. O'Reilly III, and Ike Chandratat. 1990. "Golden Parachutes: CEOs and the Exercise of Social Influence." *Administrative Science Quarterly* 35: 587-603.
- Walt, Nicholas van der, and Coral Ingley. 2003. "Board Dynamics and the Influence of Professional Background, Gender and Ethnic Diversity of Directors." *Corporate Governance* 11: 218-234.
- Ward, Ralph D. 1997. *21st Century Corporate Board*. New York: John Wiley & Sons, Inc.
- . 2000. *Improving Corporate Boards*. New York: John Wiley & Sons, Inc.

- Watson, Warren E., Kamalesh Kumar, and Larry K. Michaelson. 1993. Cultural Diversity's Impact on Interaction Process and Performance: Comparing Homogeneous and Diverse Task Groups. *Academy of Management Journal* 36: 590-602.
- Westphal, James D., and James W. Fredrickson. 2001. "Who Directs Strategic Change? Director Experience, the Selection of New CEOs, and Change in Corporate Strategy." *Strategic Management Journal* 22 (12): 1113-1137.
- Westphal, James D., and Laurie P. Milton. 2000. "How Experience and Network Ties Affect the Influence of Demographic Minorities on Corporate Boards." *Administrative Science Quarterly* 45: 366-398.
- Westphal, James D., and Ithai Stern. 2006. "The Other Pathway to the Boardroom: Interpersonal Influence Behavior as a Substitute for Elite Credentials and Majority Status in Obtaining Board Appointments." *Administrative Science Quarterly* 51: 189-204.
- Westphal, James D., and Ithai Stern. 2007. "Flattery Will Get You Everywhere (Especially if You Are a Male Caucasian): How Ingratiation, Boardroom Behavior, and Demographic Minority Status Affect Additional Board Appointments at U.S. Companies." *Academy of Management Journal* 50 (2): 267-288.
- Westphal, James D., and Edward J. Zajac. 1995. "Who Shall Govern? CEO/Board Power Demographic Similarity, and New Director Selection." *Administrative Science Quarterly* 40: 60-83.
- Wiersema, Margarethe F., and Karen A. Bantel. 1992. Top Management Team Demography and Corporate Strategic Change. *Academy of Management Journal* 35: 91-121.
- Williams, Katherine Y., and Charles A. O'Reilly III. 1998. "Demography and Diversity in Organizations: A Review of 40 Years of Research in Research. Pp. 77-140 in *Research in Organizational Behavior*. Vol. 20 edited by Barry M. Staw & Robert I. Sutton. Greenwich, CT: JAI Press.
- Williamson, Oliver E. 1996. "Economic Organization: The Case for Candor." *Academy of Management Review* 21: 48-57.
- Wittenberg-Cox, Avivah, and Alison Maitland. 2008. *Why Women Mean Business*. San Francisco: Jossey-Bass.
- Woodman, Richard W., John. E. Sawyer, and Ricky W. Griffin. 1993. "Toward a Theory of Organizational Creativity." *Academy of Management Review* 18 (2): 293-321.

- Xie, Biao, Wallace N. Davidson, and Peter J. DaDalt. 2003. "Earnings Management and Corporate Governance: The Role of the Board and the Audit Committee." *Journal of Corporate Finance* 9: 295-316.
- Yoder, Janice D. 1991. "Rethinking Tokenism: Looking Beyond Numbers." *Gender & Society* 5:178-192.
- Zajac, Edward J., and James D. Westphal. 1994. "The Costs and Benefits of Managerial Incentives and Monitoring in Large US Corporations: When is More Not Better?" *Strategic Management Journal* 15: 121-142.
- . 1996. "Who Shall Succeed? How CEO/Board Preferences and Power Affect the Choice of New CEOs." *Academy of Management Journal* 39: 64-90.
- Zald, Mayer N. 1969. "The Power and Functions of Boards of Directors: A Theoretical Synthesis." *The American Journal of Sociology* 75 (1): 97-111.
- Zelechowski, Deborah Dahlen, and Diana Bilimoria. 2004. "Characteristics of Women and Men Corporate Inside Directors." *Corporate Governance – An International Review* 12 (3): 337-342.
- Zhang, Yan. 2008. "Information Asymmetry and the Dismissal of Newly Appointed CEOs: An Empirical Investigation." *Strategic Management Journal* 29: 859-872.

